

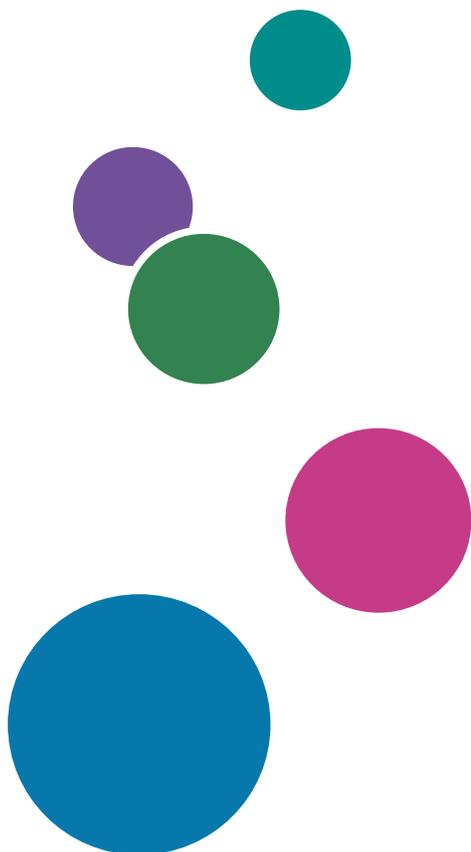


## Using RICOH ProcessDirector Plug-in for Adobe Acrobat

**Version 3.12.1**

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For information not in this manual, refer to the Help System in your product.





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### 4 Accessibility

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# Introduction

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## Important

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To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this product, losses of documents or data, or the use or non-use of this product and operation manuals provided with it.

Make sure that you always copy or have backups of important documents or data. Documents or data might be erased due to your operational errors or malfunctions of the software. Also, you are responsible for taking protective measures against computer viruses, worms, and other harmful software.

In no event will the manufacturer be responsible for any documents created by you using this product or any results from the data executed by you.

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## Cautions regarding this guide

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- Some illustrations or explanations in this guide could differ from your product due to improvement or change in the product.
- The contents of this document are subject to change without notice.
- No part of this document may be duplicated, replicated, reproduced in any form, modified, or quoted without prior consent of the supplier.
- Throughout this publication, references to directory paths indicate the default paths only. If you install RICOH ProcessDirector Plug-in for Adobe Acrobat in a different location, including a different drive, you must adjust the paths accordingly.  
For example, if you install RICOH ProcessDirector Plug-in for Adobe Acrobat on the D: drive of a computer running a Windows operating system, replace C: with D: in the directory paths.

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## Publications for this product

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The following publications are available for RICOH ProcessDirector Plug-in for Adobe Acrobat.

### Instruction manuals

These instruction manuals are included:

- *RICOH ProcessDirector: Integrating with Other Applications*  
This guide provides technical information about the ways that you can configure RICOH ProcessDirector to exchange data with other applications.
- *RICOH ProcessDirector for Linux or Windows: Planning and Installing*  
This guide explains planning and installation procedures for RICOH ProcessDirector on your operating system. The publications CD includes the version of this manual for your operating system: Linux or Windows.
- *RICOH ProcessDirector: Installing Document Processing Features*

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This guide explains how to install RICOH ProcessDirector features that control and track both jobs and the individual documents in jobs.

- *RICOH ProcessDirector: Using RICOH ProcessDirector Plug-in for Adobe Acrobat (this publication)*  
This guide explains how to use RICOH ProcessDirector Plug-in for Adobe Acrobat. You can use the Adobe Acrobat plug-in to define text, barcodes, images, and other enhancements in a PDF file. After you save your enhancements in a control file, RICOH ProcessDirector workflows can use the control file to make similar enhancements to PDF files.
- *Font Summary*  
This guide explains font concepts and the different types of fonts in the InfoPrint Font Collection. The *Font Summary* is available only in English.
- *White Paper—Using the Enhance AFP Function*  
This guide explains how to configure and use Enhance AFP control files. The guide is available only in English.
- The RICOH ProcessDirector readme file (`readme.html`)  
This file tells you how to access the other publications. The readme file is available only in English.
- The RICOH ProcessDirector release notes  
These release notes provide information about the RICOH ProcessDirector release, including new functions and updates; known limitations, problems, and workarounds; and code change requests. The release notes are available only in English.

You can download English publications in PDF format from the [RICOH Software Information Center](https://help.ricohsoftware.com/swinfocenter/) (<https://help.ricohsoftware.com/swinfocenter/>).

## **RICOH ProcessDirector Information Center**

The RICOH ProcessDirector Information Center contains topics that help administrators, supervisors, and operators learn about and use RICOH ProcessDirector document features. The Information Center is available from the RICOH ProcessDirector user interface and provides quick navigation and search features.

## **RICOH ProcessDirector Help**

Field help is available on many screens for RICOH ProcessDirector document processing features to provide information for specific tasks and settings.

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## **How to read the documentation**

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### **Before using RICOH ProcessDirector Plug-in for Adobe Acrobat**

This manual contains instructions and cautions for correct use of RICOH ProcessDirector Plug-in for Adobe Acrobat. Before using RICOH ProcessDirector Plug-in for Adobe Acrobat, read this manual thoroughly and completely. Keep this manual handy for future reference.

### **How to use the manuals**

Use the instruction manuals according to your needs.

### **To learn how to install RICOH ProcessDirector Plug-in for Adobe Acrobat:**

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See *RICOH ProcessDirector: Installing Document Processing Features*.

## To learn how to use the functions and operations of RICOH ProcessDirector Plug-in for Adobe Acrobat:

See *RICOH ProcessDirector: Using RICOH ProcessDirector Plug-in for Adobe Acrobat*. This information is also available in the plug-in help system and the RICOH ProcessDirector Information Center.

## Displaying the publications

*RICOH ProcessDirector: Installing Document Processing Features* is available when you run the installation program, so you can access the publication while you install the application.

*RICOH ProcessDirector: Installing Document Processing Features* and *RICOH ProcessDirector: Using RICOH ProcessDirector Plug-in for Adobe Acrobat* are also available from the RICOH ProcessDirector user interface.

On the top menu bar of the RICOH ProcessDirector user interface, click the  button and select one of the publications to download.

### Note

- A PDF viewer, such as Adobe Acrobat Reader, is required to view the publications.
- You must log in RICOH ProcessDirector user interface to view the publications.

## Displaying the help system

The RICOH ProcessDirector Plug-in for Adobe Acrobat help system is available from the application. Click **Help** on a dialog.

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## Related information

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For information about our products, see:

- [Ricoh web site](https://ricohsoftware.com) (https://ricohsoftware.com)
- [RICOH Software Information Center](https://help.ricohsoftware.com/swinfocenter/) (https://help.ricohsoftware.com/swinfocenter/)

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## Symbols

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The following symbols are used in this manual to help you to identify content quickly.

### Important

- This symbol indicates points to pay attention to when using the product. Be sure to read these explanations.

### Note

- This symbol indicates helpful supplementary information that is not essential to completing a task.

## **Bold**

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**Bold type** indicates the names of dialogs, menus, menu items, settings, field labels, buttons, and keys.

***Italic***

*Italic type* indicates the titles of manuals and variables that you must replace with your own information.

**Monospace**

Monospace type indicates computer input and output.

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## Abbreviations

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Abbreviations used in this publication.

**HTTP**

Hyper Text Transfer Protocol

**IP**

Internet Protocol

**OMR**

Optical Mark Recognition

**PDF**

Portable Document Format

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## Trademarks

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RICOH ProcessDirector™ is a trademark of Ricoh Company, Ltd. in the United States, other countries, or both.

Adobe, Reader, and PostScript are either registered trademarks or trademarks of Adobe Systems, Inc in the United States and/or other countries.

Microsoft, Windows, Windows Server, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

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Sentinel EMS  
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The proper names of the Windows operating systems are as follows:

- The product names of Windows 7 are as follows:
  - Microsoft Windows 7 Professional
  - Microsoft Windows 7 Ultimate
  - Microsoft Windows 7 Enterprise
- The product names of Windows 10 are as follows:
  - Microsoft Windows 10 Pro
  - Microsoft Windows 10 Enterprise
- The product name of Windows 11 is:
  - Microsoft Windows 11 Pro
- The product names of Windows Server 2016 are as follows:
  - Microsoft Windows Server 2016 Standard
- The product name of Windows Server 2019 is:
  - Microsoft Windows Server 2019 Standard
- The product name of Windows Server 2022 is:
  - Microsoft Windows Server 2022 Standard

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights to those marks.



# 1. Overview

- Page groups
- Document properties
- Conditional processing
- Markup
- Control files
- Sample PDF files

RICOH ProcessDirector Plug-in for Adobe Acrobat is an Adobe Acrobat Professional plug-in that you use to define and display enhancements in a PDF file that represents the PDF files that are processed by the steps in your workflows.

Enhancements include barcodes, OMR marks, images, hidden areas, and text. The enhancements you define in the PDF file are not saved in the PDF file; instead, they are saved in control files that you make available to a server used by RICOH ProcessDirector. RICOH ProcessDirector uses the control files to apply the same enhancements to production PDF files when it processes them for printing.

To extend markup capabilities, RICOH ProcessDirector Plug-in for Adobe Acrobat provides page groups, document properties, and conditional processing.

## Page groups

A page group is a set of pages that make up a single document, such as a mailpiece or customer statement, within a PDF file. In RICOH ProcessDirector Plug-in for Adobe Acrobat, a *document* is a page group. A single PDF file can contain many documents. If an entire PDF file is treated as a single page group, the PDF file represents one document.

You should define a page group before you add markup. After you define a page group, you can apply markup to specific pages in each document. For example, you can add a barcode to the first page of each document, an image to all front-facing pages of each document, or text to the first back-facing page of each document.

You can define a page group in these ways:

- As the entire PDF file.
- As a fixed number of pages.
- Based on text you select that is in the same location on the first page of each page group.

RICOH ProcessDirector Plug-in for Adobe Acrobat uses the repeated text to determine the first page of each page group. For example, you have 100,000 customer statements in one PDF file. Each statement has three or more pages. To define a page group, you select **Page 1 of**, which is in the same location on the first page of each statement.

### Note

If you are using a sample PDF file to define page groups, make sure that the content and location of the text you select are consistent among the production PDF files.

- Based on a specific key word or phrase that appears on the first page of a document within a region of text. The surrounding text might change, but the key word or phrase remains the same.
- Based on text you specify that is on the first page of each page group. When you type the text, you can include wildcard characters. RICOH ProcessDirector Plug-in for Adobe Acrobat interprets the wildcard characters as any character.

- Based on Java regular expressions that you define to specify text on the first page of each page group.  
For example, you define a Java regular expression so that RICOH ProcessDirector Plug-in for Adobe Acrobat starts a new page group each time it finds the English text **Page 1 of** or the Spanish text **Página 1 de**.
- When text in a selected area changes.  
For example, you draw a box around the account name on a statement in a PDF file. Whenever the text in the box changes, that page becomes the first page of a new page group. The location of the box on every page must encompass only the text to evaluate or white space (no text).

Use the Page Group Navigator to see a list of the pages in each page group. After you verify that the page groups are correct, save your control file, which contains your new page group definition. If you define document properties, save them in the same control file. You then add the name and location of the control file to a RICOH ProcessDirector step based on the IdentifyPDFDocuments step template.

## Document properties

A document property is data, such as a customer name or postal code, extracted from a specific location on a page within a document. Using document properties, you can add markup based on variable information. For example, you can add a different image to documents sent to different states or provinces.

RICOH ProcessDirector Plug-in for Adobe Acrobat has an advanced address block parsing tool to help you extract city, state or province, postal code, and other document properties from complex, variable line addresses. If you need to reprint documents in a job, you can use RICOH ProcessDirector to search for document property values to find the specific documents you need to reprint.

You can define your own document property or select a RICOH ProcessDirector document property from a drop-down list. You can use RICOH ProcessDirector document properties with functions provided by RICOH ProcessDirector document processing features.

### ↓ Note

When you use RICOH ProcessDirector Plug-in for Adobe Acrobat to define document properties, you select from a list of your RICOH ProcessDirector document properties. After you install RICOH ProcessDirector Plug-in for Adobe Acrobat or any time that you change RICOH ProcessDirector document properties, you need to load the document properties into RICOH ProcessDirector Plug-in for Adobe Acrobat. For more information, see *RICOH ProcessDirector: Installing Document Processing Features*.

Click **Ricoh** → **View Document Property Values** to verify that document property values are extracted correctly.

If you want to use document property values with an external program, you can save the values to a tab-delimited text file.

## Conditional processing

When you add markup to a PDF file using RICOH ProcessDirector Plug-in for Adobe Acrobat, you can create conditional processing rules to place the markup on specific pages. You also can use conditional processing rules to apply media and finishing options and to specify the pages from which RICOH ProcessDirector Plug-in for Adobe Acrobat and RICOH ProcessDirector extract document property values.

Rules can specify conditions based on pages within documents, such as All Front Pages, as well as on job properties, document properties, statistics, and conditional triggers (text that determines whether a condition is met).

For example, you want the word **Invoice** at the top of the first page of a statement to trigger the placement of a barcode. First, you select the word **Invoice** and define it as a conditional trigger. Then you define a rule that specifies the conditional trigger. When you add a barcode to a PDF file, you specify this rule to control placement of the barcode. The barcode only prints on the pages where the word **Invoice** appears in the location specified by the conditional trigger.

Your RICOH ProcessDirector workflows can contain steps that set job property values during RICOH ProcessDirector processing. If you use RICOH ProcessDirector Plug-in for Adobe Acrobat to define a rule with a job property, you can dynamically create and alter how the rule is applied by setting the job property value in RICOH ProcessDirector. For example, you could use the **Job.CustomerName** job property to print a barcode only when the value of that property is **BANK**. RICOH ProcessDirector also keeps track of job processing statistics, such as the current page in a document. If you want to apply a barcode to page three in every document in a PDF job, you can make **Stat.CurrentPageInDocument = 3** a condition for the application of a rule.

## Markup

RICOH ProcessDirector Plug-in for Adobe Acrobat supports five types of markup: barcodes, OMR marks, images, text, and hidden areas.

For each type of markup, you assign a name that identifies the markup contents. Then you assign values for location, placement, and other properties. You can define document properties and conditional processing for markup using data that varies by document within the PDF file.

When RICOH ProcessDirector Plug-in for Adobe Acrobat displays a PDF file, your markup appears as a set of boxes with names. The PDF file is not altered. The **Markup Navigator** lets you locate and edit markup that is hidden under other markup.

To view and verify the content and placement of your markup on specific pages, you preview the PDF file. See [Previewing markup, p. 20](#) for more information.

## Control files

A control file saves your page group definition, document properties, conditional triggers, and markup independently of a PDF source file. Control files are templates that RICOH ProcessDirector uses to apply the same markup rules to the PDF files it processes.

### Note

- Saving your PDF source file by clicking **File** → **Save** or **File** → **Save As** does not save your RICOH ProcessDirector Plug-in for Adobe Acrobat page groups, document properties, or markup.

To use the RICOH ProcessDirector **IdentifyPDFDocuments** step in a PDF workflow, you must add the RICOH ProcessDirector Plug-in for Adobe Acrobat control file that defines page groups or document properties for that step. Any markup definition must be saved to one or more control files that are used by the RICOH ProcessDirector **BuildPDFFromDocuments** step.

You do not need to create separate control files for the page group, document properties, and markup definitions: all definitions can be saved in one control file if that control file is added to both the **IdentifyPDFDocuments** and the **BuildPDFFromDocuments** steps. However, you might choose to

create multiple control files if you can apply one or more control files to different PDF workflows. For example each workflow might require its own document properties, but some workflows might require the same area to be hidden to cover OMR marks. For each workflow you would save a separate control file that defines document properties, but save only one control file to hide OMR marks. In each workflow, you would specify the workflow-specific control file that defines document properties. But in the step in each workflow that is based on the **BuildPDFFromDocuments** step template, you would specify the same control file that contains the hidden-area definition.

#### Note

- The **IdentifyPDFDocuments** step uses one control file to create page groups and extract document properties. The **BuildPDFFromDocuments** step optionally uses one or more control files to apply markup and restructure a PDF file. (**BuildPDFFromDocuments** does not require a control file.) In order to preview markup, you must define a page group and the document property definitions whose values you use in markup content. If you save a page group or property definition to a control file that you add to the **BuildPDFFromDocuments** step, RICOH ProcessDirector ignores those definitions. The **BuildPDFFromDocuments** step receives page grouping and document properties definitions from a workflow that includes the **IdentifyPDFDocuments** step.

See [Working with control files, p. 19](#) and [Previewing markup, p. 20](#) for tips on using multiple control files and best practices for verifying where markup prints.

## Sample PDF files

If your production PDF files are large (for example, over 1 000 pages in length), you should mark up a smaller sample PDF file that represents the PDF files you process in RICOH ProcessDirector.

You only need to mark up one sample PDF file, save all your changes to control files, and then use RICOH ProcessDirector to apply those changes to all of your production PDF files that match the sample PDF file. If you use RICOH ProcessDirector to process several PDF files that have different formats or different document properties, you need to mark up a sample PDF file for each type of file that you print using RICOH ProcessDirector. When working with RICOH ProcessDirector Plug-in for Adobe Acrobat, the goal is to mark up a PDF file that represents your production PDF files but that is smaller than your production files. If you mark up a PDF file in RICOH ProcessDirector Plug-in for Adobe Acrobat that is under 1,000 pages, you can work more quickly when adding markup and when using preview and viewing extracted document properties.

Both your sample PDF file and PDF files processed by RICOH ProcessDirector must contain all fonts and images in the PDF file itself. If you have PDF files with varying page sizes, markup may not appear as you expect. The placement reference for all markup, document properties, and page group definitions is the top left corner of each page.

## 2. Using RICOH ProcessDirector Plug-in for Adobe Acrobat

- Adding the plug-in icon to the Acrobat quick launch bar
- Preferences
- Units of measure
- User interface
- Working with control files
- Previewing markup
- Modifying markup definitions
- Defining a page group
- Working with document properties
- Working with rules
- Adding markup to a PDF file
- Working with page inserts
- Media and finishing

You use this software to enhance a PDF file by adding markup, such as barcodes, and by defining document properties using data in the PDF file.

In the RICOH ProcessDirector IdentifyPDFDocuments and BuildPDFFromDocuments steps, you specify the RICOH ProcessDirector Plug-in for Adobe Acrobat control files that contain the markup and document properties definitions, to apply the same enhancements in PDF files that you process on RICOH ProcessDirector.

### Adding the plug-in icon to the Acrobat quick launch bar

Before you can mark up a PDF file, you must make the plug-in the active tool in Adobe Acrobat. Clicking the plug-in icon is a convenient alternative to clicking **Ricoh** → **Select** in the menu bar. You can permanently place the RICOH ProcessDirector Plug-in for Adobe Acrobat icon on the Adobe Acrobat quick launch bar.

Follow these steps:

1. Open Adobe Acrobat Professional.
2. Click the **Tools** menu on the far right.
3. Click **Advanced Editing**.
4. Right-click the RICOH ProcessDirector Plug-in for Adobe Acrobat icon () and select **Add to Quick Tools**. The RICOH ProcessDirector Plug-in for Adobe Acrobat icon is permanently placed in the quick launch bar below the Acrobat main menu.

When the plug-in is the active tool, its icon will be highlighted.

### Preferences

You can set preferences for RICOH ProcessDirector Plug-in for Adobe Acrobat to customize it for the way that you process PDF files.

To change your preferences, click **Ricoh** → **Preferences**.

## Fonts tab

Use the **Fonts** tab to select the font and size. This font is applied to the name of the markup boxes you draw in a PDF file. You use this option to change the font of the characters in your preferred language.

### ↓ Note

- Selections for style, effects, color, and type of script are not applied to the name of the markup boxes.

## Preview tab

Use the **Preview** tab to set values for these properties:

### Pages to Process

This value determines the maximum number of pages to process when you preview markup, export and view document properties, and use the Page Group Navigator. The more pages you specify, the longer RICOH ProcessDirector Plug-in for Adobe Acrobat takes to preview markup and view document properties.

### Production Intent

This value defines how RICOH ProcessDirector Plug-in for Adobe Acrobat interprets PDF files. For example, when the **Production Intent** is **Simplex, Second Front Only** page placement puts markup on the second page of each page group. When the **Production Intent** is **Duplex, Second Front Only** page placement puts markup on the third page of each page group.

### Show electronic forms

This value determines whether Preview shows how sample files look when the data is combined with electronic forms defined for the media that the files use.

## Address tab

Use the **Address** tab to set a value for the **Default address block format** property. The default value is displayed when you use the **Define Address Block** function.

## Logging tab

RICOH ProcessDirector Plug-in for Adobe Acrobat provides a log file in text format that you can customize to provide different levels of historical information. Use the **Logging** tab to define these properties:

### Logging Level

The types of messages saved in the log file. **Trace** saves all six types. **Info** saves four types: informational, warning, error, and fatal messages. **Fatal** saves only fatal messages. **Off** turns off logging.

### Log Output Folder

The directory path for the plug-in and Java log files that the system creates. The directory path must exist when the system creates the first log file. If a file does not exist, the system creates it.

### Plug-in Log File

The file name for the plug-in log file that the system creates.

## Java Log File

The file name for the Java log file that the system creates.

## Maximum File Size

The upper size limit for the log. The minimum file size is 1 MB; the maximum file size is 10 GB. When the file reaches the upper limit, the system closes the file, renames it to include a number at the end of the name. The system keeps the file until the value in the **Number of Log Files to Retain** property is reached. For example, the log file name is Log.txt. Each renamed file is Log.n.txt, where *n* is a number from 1 to the value in the **Number of Log Files to Retain** property. The most recent log remains Log.txt.

## Number of Log Files to Retain

The number of log files that the system keeps in addition to the current log file. When this limit is reached, the system deletes the oldest log file after it creates a log file. For example, you select **3**. The system keeps the current log file plus the three most recent log files.

## Advanced tab

Use the **Advanced** tab to set values for these properties:

### Port

The internal port number for communication between RICOH ProcessDirector Plug-in for Adobe Acrobat and its background Java process. Restart Adobe Acrobat for this value to take effect. Edit this field if you have software that uses the default port.

### Heap Size (MB)

The number of megabytes for the desired minimum amount of memory in the Java Virtual Machine allocation pool. Restart Adobe Acrobat for this value to take effect. Experiment with this value to tune it to the size and complexity of the PDF files you mark up. When you experience delays while previewing, selecting text, using the Page Group Navigator, or extracting and exporting document properties, you might improve performance by increasing the number of megabytes. If you set the heap size to a value that is greater than the available memory, you might not be able to use RICOH ProcessDirector Plug-in for Adobe Acrobat. In that case, decrease the heap size value, restart Adobe Acrobat, and reactivate the plug-in.

### Other JVM Options

In addition to setting the minimum heap size, you can fine-tune other JVM memory settings. Edit this field only on the advice of your support representative.

## Units of measure

RICOH ProcessDirector Plug-in for Adobe Acrobat uses the units of measure from the **Pages & Ruler Units** you set in Adobe Acrobat preferences.

To see or change this setting, click **Edit** → **Preferences** → **Units & Guides**.

### Note

You define certain units of measure, such as those for the OMR marks, when you define the markup.

## User interface

The plug-in user interface consists of the **Ricoh** menu added to Adobe Acrobat, a right mouse button popup menu, a left mouse button popup menu, and windows that you use to perform RICOH ProcessDirector Plug-in for Adobe Acrobat functions.

### Ricoh menu and right mouse button popup menu

The Table [Ricoh and right click menu options, p. 16](#) describes the options you can select from the **Ricoh** menu that is added to the Adobe Acrobat Pro menu bar and when you right click in a PDF file.

### Ricoh and right click menu options

Menu Option	Description
<b>Select</b>	Makes RICOH ProcessDirector Plug-in for Adobe Acrobat the active Adobe Acrobat tool. After activating the plug-in, you can use the left mouse button to draw a box in an area of the PDF file where you want to select specific text or add markup.
<b>Add Markup</b>	Displays the options on the left-mouse button menu.
<b>View Markup Navigator</b>	Displays a list of the markup, document property, and page group definitions that have been added to the active PDF file. You can use this view to edit markup and to locate markup that is hidden under other markup. Mark the check box next to a name in the list to display the box for that markup. Remove the check to hide the markup box. If you deselect the check box in front of a markup type, you hide the boxes for all markup of that type.
<b>View Page Group Navigator</b>	Views the pages that belong to each page group. Click the + sign to expand the page groups and click the - sign to collapse the page groups. You can also use this view to navigate to specific pages in the PDF file. Click one of the pages in a page group to make that the active page in Adobe Acrobat.  If you do not see the page groups you were expecting based on your page group definition, you must edit the definition to obtain the correct page groups. If you do not see the correct page groups in this view, you cannot obtain correct print results in RICOH ProcessDirector.
<b>Preview</b>	Verifies that files are going to print as you expect when your markup, media, and finishing are applied to a job. After you have examined the preview rendering of the PDF file, click <b>X</b> in the upper right corner of the PDF file to close the rendered PDF file and to return to your original PDF file.
<b>Preview Preferences</b>	Sets or changes preview preferences. You can define: the maximum number of pages to process, the rendering intent, and other settings.
<b>View Document Property Values</b>	Views the values of the document properties that are defined in the loaded control file. You can save the values to a tab-delimited text file.
<b>Manage Rules</b>	Displays your conditional processing rules. You can define new rules, and you can edit or delete existing rules.

Menu Option	Description
<b>Manage Inserts</b>	Inserts pages from other PDF files before each document that matches the placement conditions, after each document that matches the placement conditions, or both. The inserted pages increase the number of pages in each document, and you can apply markup to them.
<b>Media and Finishing</b>	Defines media and finishing options for a range of a pages or for the documents within your PDF file.
<b>Load Control File</b>	Loads an existing control file. RICOH ProcessDirector Plug-in for Adobe Acrobat saves all page group, document property, and markup definitions into one or more control files. If you load a control file, you load all definitions in that control file. You can only have one control file loaded at a time.
<b>Save Control File</b>	Stores any markup, document property, and page group definitions to a control file. The Save Control File window displays the name and location of the control file you are saving. You can enter a new name for the control file, or keep the existing name to overwrite the control file you previously loaded or saved. Whenever you save a control file used by RICOH ProcessDirector, you must copy the control file to the location you define in the control file properties in the RICOH ProcessDirector BuildPDFFromDocuments or IdentifyPDFDocuments step.
<b>Clear Markup</b>	Removes all markup, document property, and page group definitions from the active PDF file. You use this option when you want to start over or create a new control file that does not contain any of the markup from the prior control file. If, after using this option, you add markup or other definitions to the PDF file, you use the <b>Save Control File</b> option and save the definitions with a new control file name.
<b>Preferences</b>	Sets or changes preferences, such as the default font used for the labels for the markup you add to a PDF file; the maximum number of pages to process; the rendering intent; logging options; and the maximum amount of memory (heap space) to reserve for RICOH ProcessDirector Plug-in for Adobe Acrobat.
<b>Help</b>	Opens the publication <i>RICOH ProcessDirector: Using RICOH ProcessDirector Plug-in for Adobe Acrobat</i> .
<b>About</b>	Displays the version information for your RICOH ProcessDirector Plug-in for Adobe Acrobat installation.

### Left-mouse button menu

The Table [RICOH ProcessDirector Plug-in for Adobe Acrobat left mouse menu, p. 18](#) describes the options you can select from the RICOH ProcessDirector Plug-in for Adobe Acrobat menu that you see when you use the left mouse button to draw a box in the PDF file. To use the left mouse button, you must first make RICOH ProcessDirector Plug-in for Adobe Acrobat the active tool in Adobe Acrobat by either clicking the plug-in icon or by clicking **Ricoh** → **Select**. You draw a box in a PDF when you want to select text or define an area to place markup. To draw a box, click the left mouse button, and without letting go of the mouse button, drag the cursor down and to the right until you have either selected the text you want or have drawn a box the size that you want. When you release the mouse button, a menu pops up with the following options.

**RICOH ProcessDirector Plug-in for Adobe Acrobat left mouse menu**

Menu Option	Description
<b>Define Page Group</b>	Defines a page group to break a PDF file into mailpieces, such as statements or invoices. You must define the page group before you add markup or define document properties.
<b>Define Conditional Trigger</b>	Defines a conditional trigger from text in the PDF. You use a conditional trigger in a conditional placement rule that defines the pages on which markup is printed or document properties are extracted. For example, you want to add a QR barcode only on the page where the word <b>Invoice</b> occurs near the top left of either the first or second page of a statement. You first define the word <b>Invoice</b> as a conditional trigger. Then, when you are defining the QR barcode, you select that trigger as a conditional placement rule on the QR barcode so it only prints on the pages where the word <b>Invoice</b> occurs in the location you selected.
<b>Define Document Property</b>	Defines existing data in your sample PDF file as a document property so RICOH ProcessDirector can use that data in different steps (such as adding barcodes). After you define document properties, you can later search for them in the RICOH ProcessDirector viewer for reprint and other actions.  You can also define a document property on any text or DataMatrix barcode that you want to extract from the PDF file. In that case, you do not select a standard RICOH ProcessDirector document property; instead, you provide your own name for the property.
<b>Define Multiple Properties</b>	Defines document properties from a block or multiline section of text.
<b>Define Address Block</b>	Defines document properties for an address block.
<b>Hide Area</b>	Creates a cover block to hide content in a PDF file. Hidden content does not print and is not viewable in RICOH ProcessDirector Plug-in for Adobe Acrobat preview or in the PDF viewer in RICOH ProcessDirector. You can hide an area and then place other markup over the hidden area.
<b>Add Barcode</b>	Adds and configures a barcode. First you select the area where you want to place the barcode. Then, you select a barcode type and add content. When adding a barcode for downstream processing of mailpieces, you must understand the precise optical marks required by your machinery and have configuration specifications from your supplier.
<b>Add OMR</b>	Adds and configures optical markings to help manage downstream processing of mailpieces in the PDF file. When adding an OMR, you must have an understanding of the precise optical marks required by your machinery and have configuration specifications from your supplier.
<b>Add Image</b>	Adds an RGB JPEG-formatted image to create new content or to cover existing content.
<b>Add Text</b>	Adds text to any location in a PDF file. You designate the area where you want the text to print and select content from a combination of options, including typing text.

## Working with control files

As you use RICOH ProcessDirector Plug-in for Adobe Acrobat to mark up a PDF file, instead of saving markup in the PDF file itself, you save markup to one or more control files. RICOH ProcessDirector Plug-in for Adobe Acrobat uses a control file to extract data, and RICOH ProcessDirector uses control files in the different stages of preparing a PDF file for printing.

You use the **Ricoh** menu options **Load Control File** and **Save Control File** to manage control files. You can only have one control file loaded at a time. When you finish marking up a PDF file, you save the control file to a directory accessed by RICOH ProcessDirector. You configure RICOH ProcessDirector workflows with one or more step templates that use RICOH ProcessDirector Plug-in for Adobe Acrobat control files.

### ★ Important

- Do not manually edit RICOH ProcessDirector Plug-in for Adobe Acrobat control files without advice from a Ricoh support representative.
- RICOH ProcessDirector Plug-in for Adobe Acrobat Version 3.6 includes an improved PDF processing library. For most PDF files, the new library improves performance, reduces processing time, and uses less memory.

When you open a control file created in a previous release, RICOH ProcessDirector Plug-in for Adobe Acrobat prompts: Do you want to update your control file to use an improved PDF processing library?

If you click **No**, the message appears the next time that you open the control file.

If you click **Yes**, RICOH ProcessDirector Plug-in for Adobe Acrobat updates the control file, and the message never appears again.

When you update a control file, make sure that it produces the same results. Slight differences between libraries could result in slightly different text selection boxes. A smaller box could exclude text that you want to select, and a larger box could include text that you do not want. Using the improved library also could change the position of markup slightly.

No other changes are required on the RICOH ProcessDirector server to use the improved PDF library.

- To use a control file built for a PDF 1.7 file with a PDF 2.0 file, you must update the control file to use the new library.

You must save any page group definitions and document properties to a single control file. You can add markup, media, and finishing definitions to that single control file, or you can separate the definitions into different control files. You specify the control file that defines page groups and document properties in a step based on the **IdentifyPDFDocuments** step template. The control files that define markup, media, and finishing must be specified in a step based on the **BuildPDFFromDocuments** step. When you decide whether to create one or more control files, take your print environment into account: the complexity of your changes, how you want to differentiate your markup, and what PDF file enhancements change most often.

In a repetitive print environment where your PDF workflow does not change often, you could choose to create only one control file. When you preview a PDF file to verify where markup is going to print and which pages have media and finishing options, you can view all markup, media, and finishing in one view. You move the single control file to a directory accessed by RICOH ProcessDirector. You define the control file name and location in both the **IdentifyPDFDocuments** and the **BuildPDFFromDocuments** steps.

You could also use one control file when you want to preview the PDF file to make sure that all markup, media, and finishing are applied correctly. When you preview a file, RICOH ProcessDirector Plug-in for Adobe Acrobat renders markup and applies media and finishing options that are defined in the active PDF file. You cannot use preview to verify markup, media, and finishing definitions in a control file that is not loaded.

You could choose to use more than one control file in an environment that changes frequently or unexpectedly. By using different types of control files, you can mitigate the risk of change or adapt to it quickly. For example:

- The page group definition is less likely to change than other definitions in your PDF files. You can put the page group and document property definitions in the control file that you add to the **IdentifyPDFDocuments** step.
- You have installed the Inserter feature, and you switch between inserters. You do not have to edit your workflow each time you switch. Instead, you save the barcode markup for each inserter in a separate control file with a name that identifies the inserter. In the **BuildPDFFromDocuments** step, you specify the name and location of one control file, using symbol notation that matches the value of a job property. During print processing, you set the value of that job property to the name of the control file that matches the inserter you want to use for the job.

Symbolic notation also lets you use the same workflow for input files that need different RICOH ProcessDirector Plug-in for Adobe Acrobat control files. For example, you have two input files, `File1.pdf` and `File2.pdf`, with corresponding control files, `File1.ct1` and `File2.ct1`. You want to use the same workflow for both files. You can use `${Job.InputFile}.ct1` as the control file name that you specify in the **BuildPDFFromDocuments** step. `${Job.InputFile}.ct1` causes RICOH ProcessDirector to set the value of the RICOH ProcessDirector Plug-in for Adobe Acrobat control file property to the name of the input file plus the `.ct1` extension.

## Previewing markup

After you add markup to a sample PDF file, you can preview markup placement. Previewing lets you verify that PDF files are going to print as expected when RICOH ProcessDirector applies the markup that you saved to a control file. Preview also lets you verify that media and finishing options are going to be applied to the intended pages.

### Using preview with more than one control file

If you save more than one control file for markup, media, and finishing definitions, preview renders only the definitions contained in the loaded control file. For example, you save a barcode definition in a control file called `barcodes.ct1` and an image definition in `images.ct1`. You can have either `barcodes.ct1` or `images.ct1` loaded in RICOH ProcessDirector Plug-in for Adobe Acrobat. If you have `barcodes.ct1` loaded, you preview the placement and content of the barcode, but you cannot preview the image because you do not have `images.ct1` loaded.

You can include page group and document property definitions in any control file. If a page group is defined in a control file that is not loaded, you cannot preview markup, media, and finishing with conditional placement rules based on page groups. If document properties are defined in a control file that is not loaded, you cannot select those document properties as content for markup. If you want to preview as much markup as possible while using multiple control files, first save page groups and document properties to a control file, for example, `pagegrouping.ct1`. When you are ready to define markup, load `pagegrouping.ct1`, add the markup, and save the result to a new control file (for example, `barcodes.ct1`). To define more markup and save it to a separate control file, first load `pagegrouping.ct1`. Add the markup (for example, `images`), and save the result to a new control file

(for example, `images.ct1`). By starting your markup definitions from a control file that contains page groups and document properties, you can preview markup, media, and finishing that use conditional placement rules and document properties.

If you save all your enhancements in one control file, you can preview all markup, media, and finishing at once.

#### ↓ Note

- You cannot edit, print, or save a preview file.
- You must define a page group before you can preview markup. For more information, see [Defining a page group, p. 23](#).
- The **Pages to Process** preference specifies the maximum number of pages that **Preview** processes. The greater the **Pages to Process** value, the longer RICOH ProcessDirector Plug-in for Adobe Acrobat takes to preview markup added to a PDF file. For more information, see [Preferences, p. 13](#).
- The **Production Intent** preference determines how RICOH ProcessDirector Plug-in for Adobe Acrobat interprets PDF files. For more information, see [Preferences, p. 13](#).
- The **Show electronic forms** preference determines whether Preview shows how sample files look when the data is combined with electronic forms defined for the media that the files use.
- When you define markup in a PDF file, you can use the values of job and document properties as content for markup and in conditional placement rules. Preview uses values that are extracted from the PDF file. If you have markup that uses job or document properties that are not defined in the file, RICOH ProcessDirector Plug-in for Adobe Acrobat uses a unique static numeric value for each job or document property. If conditional placement rules use properties that are not defined in the file, usually Preview always applies or never applies markup based on those rules.
- If your markup uses an image that the plug-in cannot find (for example, an image that is not on your local machine), preview does not render the image. Instead, preview places a message that specifies the name of the missing image in the location specified for the image.
- You cannot preview markup that is placed using a RICOH ProcessDirector Plug-in for Adobe Acrobat rule that evaluates `Stat.CurrentMedia`.

To preview markup:

1. Click **Ricoh** → **Preview**.

RICOH ProcessDirector Plug-in for Adobe Acrobat generates and displays a new, temporary PDF file. Your sample PDF file remains open.

The temporary PDF file opens to the first page regardless of the page you are editing in the sample PDF file.

2. When a page has media and finishing options, you see an annotation labeled **Print Operations** in the upper right corner. To see the media name and finishing option, hover the mouse pointer over **Print Operations**.

As an alternative, click **Comment** on the Adobe Acrobat toolbar. In the **Comments** pane, you see a comment for each page with media and finishing options.

3. If electronic forms are defined for media used by sample files, you can see how the files look when the data is combined with the forms.

To see the electronic forms:

- Make sure that you exported the RICOH ProcessDirector media.zip file and loaded it to the correct directory on the system where you installed RICOH ProcessDirector Plug-in for Adobe Acrobat. For more information about loading media objects to the plug-in, see the help system or *Ricoh ProcessDirector: Installing Document Processing Features*.
  - For pages in your sample PDF file, select media that defines electronic forms. As an alternative, load a control file that you saved after selecting media that defines electronic forms.
  - Make sure that the **Show electronic forms** preference is set to **Yes**.  
Although Preview lets you see how files look when the data is combined with the forms, the data and forms remain separate. RICOH ProcessDirector combines the forms with the data in production PDF files when the **CombinePDFWithForm** step processes the files.
4. When you have finished previewing the PDF file, you can close this temporary PDF file or leave it open.
- You can update the temporary PDF file by clicking **Ricoh** → **Preview**.

## Modifying markup definitions

After you add markup to a PDF file, you might need to delete the markup, move it to a new location, or modify its properties. RICOH ProcessDirector Plug-in for Adobe Acrobat provides several ways to edit and delete markup, document properties, and a page group definition.

The most common methods to edit markup are to double-click the box you drew to display the markup definition window or to click a box and move it to a new location. But you may have layered markup under other markup, such as having several barcodes in the same area because you want to print only one based on RICOH ProcessDirector conditional processing. You could also place a hidden area over an image and place a smaller image over the hidden area. To edit markup layered under other markup, you can use the Markup Navigator to select the markup you need to edit.

**Tip:** Keep in mind that changes you make to markup in the active PDF file must be saved to the control file to which you previously saved the markup definition. For example, if you added a barcode to a PDF file and saved that definition to a control file, and you delete the barcode from the active PDF file, you must save that change to the existing control file. After you save markup changes to a control file, you must make the new version of the control file accessible to a RICOH ProcessDirector server for those changes to be applied to your production PDF files.

You can use any of the following methods to edit markup.

### Methods to modify markup

Method	Description
Double-click a markup box	Displays the property definition window for the markup box.
Right-click a markup box	Displays a popup menu with options to edit the definition of the markup box or to delete it.
Click and drag to resize or move a box	Click any box for markup, document properties, or a page group definition. Resizing handles appear on the corners of the box. Click and drag a corner to change the size of the box. Click and drag the middle of a box to move it to a new location.

Method	Description
	<p> <b>Note</b></p> <ul style="list-style-type: none"> <li>• If the markup is layered underneath other markup, click <b>Ricoh</b> → <b>View Markup Navigator</b> to isolate the markup you want to resize. Remove the checkmark from the boxes in front of markup that blocks your access to the markup you want to edit.</li> <li>• You can use the horizontal and vertical coordinates, width, and height in the markup definition window to change the location and size of the markup box.</li> <li>• If you click, resize, or move either a page group definition or a conditional trigger, make sure it is on the page that contains the data you are looking for. These three actions resample the data for a page group definition or a conditional trigger. If you do one of the actions on the wrong page, RICOH ProcessDirector Plug-in for Adobe Acrobat asks whether it should accept your change. If you click <b>OK</b>, the data changes to an incorrect value.</li> </ul>
Left-click in the Markup Navigator	<p>To highlight a markup box:</p> <ol style="list-style-type: none"> <li>1. Click <b>Ricoh</b> → <b>View Markup Navigator</b>.</li> <li>2. Click the markup you want to highlight.</li> </ol> <p><b>Tip:</b> You can keep the Markup Navigator window open as you add, modify, and delete markup. The window automatically updates with your changes.</p>
Double-click in the Markup Navigator	<p>To edit markup, document properties, or a page group definition:</p> <ol style="list-style-type: none"> <li>1. Click <b>Ricoh</b> → <b>View Markup Navigator</b>.</li> <li>2. Double click the markup you want to edit.</li> </ol>
Hide markup using the Markup Navigator	<p>To hide markup, document properties, or a page group definition so you can access other markup:</p> <ol style="list-style-type: none"> <li>1. Click <b>Ricoh</b> → <b>View Markup Navigator</b>.</li> <li>2. Toggle the check box on and off to show and hide: <ul style="list-style-type: none"> <li>• A box that you drew for markup, document properties, or a page group definition.</li> <li>• A group of markup. For example, remove the check from the <b>Image</b> check box to hide all image markup boxes.</li> </ul> </li> </ol> <p> <b>Note</b></p> <p>When you use the Markup Navigator to hide markup, you are only hiding it from your view of the active PDF file. If you have a control file that contains hidden markup and you save a control file, the hidden markup is saved to the control file, and any definitions in it are processed by RICOH ProcessDirector.</p>

## Defining a page group

A page group defines the pages ranges for each document in your PDF file. You save one page group definition to the control file that you specify in a RICOH ProcessDirector IdentifyPDFDocuments step. We recommend that you define a page group before you add markup.

 **Note**

You can define more than one control file per PDF file, but only the control file you identify in the **Identify PDF control file** property of the step based on the IdentifyPDFDocuments step template creates page groups. If you want to use RICOH ProcessDirector Plug-in for Adobe Acrobat preview mode to verify the correct placement of other markup, you might need to define a page group in the control files you use to generate such markup. You can, for example, add a control file that contains page group definitions to a BuildPDFFromDocuments step. However, because a BuildPDFFromDocuments step receives page grouping information from the previous IdentifyPDFDocuments step, a BuildPDFFromDocuments step ignores any page group definitions in its control files. See [Previewing markup, p. 20](#) for more information about best practices.

To define a page group:

1. Open a PDF file in Adobe Acrobat Professional and click **Ricoh** → **Select** to make the plug-in the active tool.
2. To define a text-based page group, draw a box around the target text. Otherwise, draw a box anywhere on the page.
3. Click **Define Page Group**.
4. Either accept or change the default page group name. We recommend that you use the default name, so that anyone working on the PDF file can easily see where the page group boundary is defined. If you do change the name, do not use spaces or special characters (such @, #, \$, and %). You can use periods and underscores.
5. For text-based page groups, you can alter the location and size of the enclosing box by entering values for **Horizontal** and **Vertical** coordinates, **Width**, and **Height**. The position and size of the box are adjusted after you click **OK**.
6. From the **Page Groups** list, select one of these options:
  - **Treat entire PDF as a single page group:** Creates a single page group that includes all processed pages.
  - **Create fixed-length page groups:** Creates page groups of specific lengths based on the value of the **Page Group Length** property. Page grouping starts on page 1 of the PDF file. For example, select **5** to create page groups for pages 1–5, 6–10, 11–15, and 16–18 in an 18–page PDF file.
  - **Begin page group when the selected text is found:** Creates page groups based on text that you select. Any page with the selected text inside the box you drew becomes the first page of a new page group.  
For example, select **Page 1 of** to create a new page group each time that RICOH ProcessDirector Plug-in for Adobe Acrobat finds the text **Page 1 of** inside the box you drew.

 **Note**

Characters in a PDF file have white space enclosing them. Make sure that the **Selected Text** field does not include characters — such as white-space characters — that you do not want. If it does, cancel the page group definition and redraw the box around the text.

- **Begin page group when the specified text is found:** Creates page groups based on text that you specify. Any page with the specified text inside the box you drew becomes the first page of a new page group. The text does not need to be on the same page as the box you drew.

From the **Match method** list, select one of these options:

- **Match text exactly:** Matches the exact text that you specify.
- **Match text containing:** Matches the text that you specify to a portion of the text in the box you drew. The text that you specify does not need to be in the same location on each page.

For example, use this option to create a new page group each time that RICOH ProcessDirector Plug-in for Adobe Acrobat finds the text **Page 1 of** anywhere inside the box you drew. The box can contain other text. **Page 1 of 4** and **This is Page 1 of 4** found in the box both match the specified text **Page 1 of**.

- **Match text using wildcards [\* or ?]:** Matches the text that you specify, which includes wildcard characters, by interpreting the wildcard characters as any characters. The asterisk (\*) matches zero or more characters. The question mark (?) matches a single character.

For example, the first page of each mail piece has an account number that starts with **A** followed by seven digits. The position of the account number varies on each statement. You draw a box large enough to include the account number on all the statements and type **A???????** as the value of the **Specify text to match** property. RICOH ProcessDirector Plug-in for Adobe Acrobat starts a new page group on each page with an account number like **A1265581** or **A6428229**.

**Note**

If you typed **A??????\*** as the value of the **Specify text to match** property, RICOH ProcessDirector Plug-in for Adobe Acrobat would start a new page group when it finds account numbers with six or more digits.

- **Match text using a Java regular expression:** Matches the Java regular expression that you specify.

For example, each mail piece is in one of two languages: English or Spanish. You type **(Page 1 of) .\* |(Página 1 de) .\*** as the value of the **Specify text to match** property. RICOH ProcessDirector Plug-in for Adobe Acrobat starts a new page group when the text found is **Page 1 of** followed by any number of characters or **Página 1 de** followed by any number of characters. Examples: **Page 1 of**, **Page 1 of 6**, **Página 1 de 2**, or **Página 1 de 10**.

**Note**

For more information, see the Java documentation for the `java.util.regex.Pattern` class.

- **Begin page group when text in selected area changes:** Creates page groups when text inside the box you drew changes. The page with the changed text becomes the first page of a new page group.

For example, you draw a box around an account name. RICOH ProcessDirector Plug-in for Adobe Acrobat creates a page group each time a new account name appears in the box you drew.

**Important**

When you draw the box for this type of page group, make sure that the location of the box on every page encompasses only the text to evaluate or white space (no text). If other text appears in the box, unwanted page groups are identified. Pages that contain white space, in the location of the box, do not start a new page group.

- **Begin page group when text or drawn objects are detected:** Creates page groups when either a graphic object or text is enclosed in the box you drew. If the box you drew does not contain the text or entire graphic, then the page is not the start of a new page group.

 **Note**

Not all marks are graphics. Some marks are image data.

7. Click **OK**.
8. Click **Ricoh** → **View Page Group Navigator** and verify that the page groups begin on the correct pages.

If text-based page groups do not begin on the correct pages, the box you drew might not be the correct size for the text you selected or specified. Inspect the page groups to see if you can find the problem. Then redraw the box, change the text, or both.

9. Edit the page group definition by double-clicking the box representing the page group, or by clicking **Ricoh** → **View Page Group Navigator** and then double-clicking the page group name.
10. When you are ready to save all your enhancements to the PDF file, including the new page group definition, click **Ricoh** → **Save Control File**.

## Working with document properties

You can define document properties from data in your PDF file that you want to use for later print processing. When RICOH ProcessDirector processes PDF files with document property definitions, it extracts, or mines, values from each page group in a PDF file. For example, you can create document properties to extract data in each page group in a PDF file and define that data as the content of a barcode that prints on a page in the same page group.

When you define a document property, you specify data in the PDF file. You can apply conditional processing rules to tell RICOH ProcessDirector Plug-in for Adobe Acrobat and RICOH ProcessDirector where to extract the data from and when to extract it. For example, you want to apply conditional processing rules that extract an account number from the first page of every page group when an account is overdue. First you create a conditional trigger on text that indicates the account is overdue. Then you define a rule with two conditions. One condition specifies that the “overdue” text is present. The other condition specifies the pre-defined rule **First Front Only**. You choose to apply the new rule when all of its conditions are met. Finally you define the account number as a document property and select the new rule in the Placement Conditions section. RICOH ProcessDirector Plug-in for Adobe Acrobat and RICOH ProcessDirector extract the account number from the first front page of each page group when the “overdue” text is present.

When you define a document property in RICOH ProcessDirector Plug-in for Adobe Acrobat, you select a RICOH ProcessDirector document property from a list or define your own document property name. If you define your own document property name instead of selecting a RICOH ProcessDirector document property, that document property cannot be integrated into RICOH ProcessDirector functions that save the properties to the database. You cannot use that document property for functions in RICOH ProcessDirector document processing features, or for markup content in barcodes or text. You should choose to create your own document property in RICOH ProcessDirector Plug-in for Adobe Acrobat only if you are going to extract your document properties to a file or if you know the document property will exist in RICOH ProcessDirector when your PDF files are processed. If you need to use a document property with RICOH ProcessDirector, create it in RICOH ProcessDirector and then select the document property from the list in RICOH ProcessDirector Plug-in for Adobe Acrobat.

### ↓ Note

- You see the database or system names for document properties in the lists in RICOH ProcessDirector Plug-in for Adobe Acrobat and the document properties list in the RICOH ProcessDirector viewer. In those lists you do not see custom or translated document property names.

## Viewing document property values

After you define one or more document properties, you click **Ricoh** → **View Document Property Values** to see the values of the document properties in the active PDF file. You can verify that the conditional processing rules and the text selected for each document property are correct. Use the document property view to verify that none of the document property values are longer than the text selection box you drew. RICOH ProcessDirector Plug-in for Adobe Acrobat truncates any text that extends beyond the text selection box.

### ↓ Note

- The Document Property window is a useful tool for you to keep open as you define document properties. After you create your first document property and view its values, you can click the **Update Table** button in the Document Property window at any time to update the table with changes that you made to the document properties.

## Saving document property values

If you need to use document property values outside the product, click **Save** while viewing document property values. RICOH ProcessDirector Plug-in for Adobe Acrobat saves the values to a tab-delimited text file.

## Using document properties in RICOH ProcessDirector

You define how document properties are used in different RICOH ProcessDirector print processing steps. For example, you define how RICOH ProcessDirector uses document properties in its barcode creation function. You can also use document property values to search for a specific customer account from a PDF print job if you need to reprint a mailpiece of that one customer.

## Creating new document properties in RICOH ProcessDirector

After you install your document processing feature, you define all of the custom document properties you need in the `docCustomDefinitions.xml` file. When you run the **docCustom** utility to update configuration files, those properties are added to the database. If you need to create additional custom document properties, you edit the `docCustomDefinitions.xml` file and rerun the **docCustom** utility.

### ↓ Note

- If you use custom document properties, starting with Version 3.11.2, you can create them on the **Administration** tab, using **Objects** → **Custom Properties**.  
You can choose the database name and the label that displays in property notebooks and column headings. You can also choose what kind of data to store in the property, and the default access that the different user groups have for the property, without adding them to the `docCustomDefinitions.xml` file.
- If you already have custom document properties defined in a `docCustomDefinitions.xml` file, you can continue to use them. Do not re-create them from the **Administration** tab. Only use that tab to create new job or document properties.

After you load the new document properties values, they are available to you in the plug-in wherever you define document properties. For more information about editing the `docCustomDefinitions.xml` file and running the **docCustom** utility, see *RICOH ProcessDirector: Installing Document Processing Features*.

#### ↓ Note

- When you define document properties you can define a document property as a limited document property. Limited document properties do not need database table space; however, they occupy space for each document in each document properties file that contains the property.

## Defining a document property

RICOH ProcessDirector features can store document property values in the RICOH ProcessDirector database. The features rely upon document properties for later downstream processing of PDF files in RICOH ProcessDirector.

#### ↓ Note

- Read the document property overview section to ensure you understand how document properties are used in RICOH ProcessDirector so you can take full advantage of your RICOH ProcessDirector feature.

To define a document property:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group definition or define a page group.
2. Left-click just above the top left corner of the data that you want to capture. Drag the mouse to draw a box around the data.

You can later view the extracted values to verify your selection.

#### ↓ Note

- The data to capture can be text or DataMatrix barcodes encoded as images.
  - Make the box big enough to capture the longest occurrence of the data in your PDF files. Some characters in a PDF file have a larger white space buffer than other characters. For example, the left edge of a large capital letter might have up to a tenth of an inch of white space buffer that you might need to select in order to capture that letter.
3. Select **Define Document Property** from the popup menu.
  4. Select a RICOH ProcessDirector document property from the list or type a document property name into the field. Do not use any special characters (such as @, #, \$, %, or - (dash)) or spaces. The RICOH ProcessDirector **IdentifyPDFDocuments** step might fail. You can use periods and underscores.

↓ **Note**

- When you define document properties, you can define a document property more than once. For example, text in your PDF file might be variable, and you might need to mine the zip code from two different locations. You can define your zip code document property twice - as long as you define different conditional placement rules that specify the pages from which the property is extracted. If you define the same document property in two different ways in the document, and each of their conditions are met, then only the value extracted last is used.

5. Define which type of data to extract values from.

- If you selected an area that only contains text, select **Text** under **Select from**.
- If you selected an area that only contains barcodes, select **Barcode image** under **Select from**.
- If you selected an area that contains both text and barcodes, select both **Text** and **Barcode image**.  
The text data is placed before the barcode data in the extracted string without an indicator of where the text data ends and the barcode data begins.

↓ **Note**

- We recommend using black barcodes. Using colored barcodes might have unpredictable results.

6. Specify the page in each document from which document property data will be extracted. Do either of these:

- Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **First Front Only**. You can also:
  - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
  - Click the  icon to go to the Rules Manager.

★ **Important**

- The **Last Back**, **Last Front**, and **Last Page** rules do not work with the extraction of document property data.
- Select **Specific pages** and type the page in each document that you want.  
If you specify multiple pages, RICOH ProcessDirector Plug-in for Adobe Acrobat extracts the document property data from the last specified page in each document. Examples:
  - You specify pages 2-4. If a document has four or more pages, the document property data is extracted from page 4. If a document has three pages, the document property data is extracted from page 3. If a document has two pages, the document property data is extracted from page 2.
  - You specify pages 2, 4. If a document has four or more pages, the document property data is extracted from page 4. If a document has 2-3 pages, the document property data is extracted from page 2.
  - You specify pages 2-n. Because n represents the last page, the document property data is extracted from the last page if the document has two or more pages.

**★ Important**

- ◆ If you specify only page n, RICOH ProcessDirector Plug-in for Adobe Acrobat does not extract the document property data from any page in a document.
7. **Optional:** Select the edit icon () to display a Modify Text window where you define one or more modifier extraction rules to extract the exact document property you need.
1. Choose one of the following modifiers:

### Content modifiers

Modifier	Action
<b>Remove Character</b>	<p>Type one character or a blank character (use the space bar to type a blank character) that you want to remove from the value. The character is case-sensitive. Then select one of these buttons:</p> <ul style="list-style-type: none"> <li>• <b>Remove all instances of the character</b> The specified character is removed from all positions in the value. For example, an account number is: 324-1443255-11. You can type a - to remove all - characters from the value, producing 324144325511.</li> <li>• <b>Remove leading characters</b> The specified character is removed from the beginning of the value. For example, if you type a blank character, all blank characters are removed from the beginning of the value.</li> <li>• <b>Remove trailing characters</b> The specified character is removed from the end of the value. For example, if you type a blank character, all blank characters are removed from the end of the value.</li> <li>• <b>Remove leading and trailing characters</b> The specified character is removed from the beginning and end of the value. For example, if you type a blank character, all blank characters are removed from the beginning and end of the value.</li> </ul>
<b>Substring by Position</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> list. Select a number for <b>First Position</b> to indicate the location of the first character in the text value. Select a number for <b>Number to Retain</b> to indicate how many characters are retained.</p>

Modifier	Action
<b>Substring by Delimiter</b>	<p>Type a character or a blank character in the <b>Delimiter</b> field to indicate where the text value is split into separate string segments. The character and the text string are case-sensitive.</p> <p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> drop-down menu.</p> <p>Select a number for <b>First Position</b> to define the position of the delimiter in the text string.</p> <p>Select a number for <b>Number to Retain</b> to define the number of text string segments to retain.</p> <p>These examples show how to select text string segments by specifying a delimiter:</p> <ul style="list-style-type: none"> <li>• For the account number 324-1443255-11, you can use - as the delimiter to split the value into these three text strings: 324, 1443255, and 11. Select <b>Beginning of Line</b>. To select the second and third text strings (1443255 and 11), select <b>2</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>• For the mailing address Eldorado Springs CO 80025, you can use a blank character as the delimiter to split the value into these four text strings: Eldorado, Springs, CO, and 80025. Select <b>End of Line</b>. <ul style="list-style-type: none"> <li>– To select the zip code, select <b>1</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>– To select the state, select <b>2</b> for <b>First Position</b> and <b>1</b> for <b>Number to Retain</b>.</li> <li>– To select the city, select <b>3</b> for <b>First Position</b> and <b>10</b> for <b>Number to Retain</b>. By specifying <b>10</b> for <b>Number to Retain</b>, you can select city names with up to ten words.</li> </ul> </li> </ul>
<b>Pad with Character</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Padding Location</b> list. Enter a character or a blank character as the padding character into the <b>Character to Pad with</b> field.</p> <p>Enter a number in the <b>Minimum Padded Text Length</b> field to define the minimum length of the text string. If the number of characters in the text string is less than this minimum length, padding characters are added until the text string equals the minimum length.</p>

When you use a modifier to define a text extraction rule, the **Text to Modify** field at the top of the Modify Text window contains the selected line plus any edits you make to the line. The **Modified Value** field to the right of a modifier displays the text that results when that modifier is applied to the text it received from either the modifier above it or the **Text to Modify** field (if you are defining the first modifier).

2. Continue to apply modifiers until you extract the value you want from the selected line. Click the  icon to add a new modifier. The **Final Text** field below the list of modifiers displays the final modified value, after all modifier extraction rules are applied.

For the selected modifier, the **Modifier Initial Text** field at the bottom of the window displays the value before the modifier is applied. The **Modified Text** field displays the value after the modifier is applied.

3. Use the modifier management icons near the top of the window to delete and reorder the modifier extraction rules. Use the  icon to delete the selected modifier extraction rules. Use the up and down arrow icons to reorder the rules. The rules are applied to the line in order from top to bottom.
4. Click the **OK** button to save the line extraction rule.
8. Click **OK** to create the document property.
9. Click **Ricoh** → **View Document Property Values** and scroll through several documents in your PDF file to verify that RICOH ProcessDirector Plug-in for Adobe Acrobat is extracting the correct document property values for each document.
10. When you are ready to save all your enhancements to the PDF file, including the new document property definition, click **Ricoh** → **Save Control File**.
11. In the RICOH ProcessDirector **IdentifyPDFDocuments** step, specify the name and location of the control file that contains the document property definition.

## Defining multiple document properties

You can define multiple document properties in a block of data in a PDF file. A block of data can be text, DataMatrix barcodes encoded as images, or both.

### ↓ Note

- Read the document property overview section to ensure you understand how document properties are used in RICOH ProcessDirector so you can take full advantage of your RICOH ProcessDirector feature.

To define multiple document properties:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group definition or define a page group.
2. Left-click just above the top left corner of the block of data that you want to capture. Drag the mouse to draw a box around the block of data. You can later view the extracted values to verify your selection.

### ↓ Note

- Make the box you draw big enough to capture the longest occurrence with the most lines of data in your PDF files. Some characters in a PDF file have a larger white space buffer than other characters. For example, the left edge of a large capital letter might have up to a tenth of an inch of white space buffer that you might need to select in order to capture that letter or line.

3. Select **Define Multiple Properties** from the popup menu.
4. Type a **Name** for the block of multiple document properties. Do not use spaces or special characters (such as @, #, \$, %, or - (dash)) in the name. You can use periods and underscores.
5. Define which type of data to extract values from.
  - If you selected an area that only contains text, select **Text** under **Select from**.
  - If you selected an area that only contains barcodes, select **Barcode image** under **Select from**.
  - If you selected an area that contains both text and barcodes, select both **Text** and **Barcode image**.  
The text data is placed before the barcode data in the extracted string without an indicator of where the text data ends and the barcode data begins.
6. Specify the page in each document from which document property data will be extracted. Do either of these steps:
  - Select **Pages based on a rule**, and then select a rule from the list. The default rule is **First Front Only**. You can also:
    - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
    - Click the  icon to go to the Rules Manager.

**★ Important**

  - The **Last Back**, **Last Front**, and **Last Page** rules do not work with the extraction of document property data.- Select **Specific pages** and type the page in each document that you want.  
If you specify multiple pages, RICOH ProcessDirector Plug-in for Adobe Acrobat extracts the document property data from the last specified page in each document. Examples:
  - You specify pages 2-4. If a document has four or more pages, the document property data is extracted from page 4. If a document has three pages, the document property data is extracted from page 3. If a document has two pages, the document property data is extracted from page 2.
  - You specify pages 2, 4. If a document has four or more pages, the document property data is extracted from page 4. If a document has 2-3 pages, the document property data is extracted from page 2.
  - You specify pages 2-n. Because n represents the last page, the document property data is extracted from the last page if the document has two or more pages.

**★ Important**

  - ◆ If you specify only page n, RICOH ProcessDirector Plug-in for Adobe Acrobat does not extract the document property data from any page in a document.
7. Use the Document Properties section of the definition window to select a document property and define the property extraction rule. This section contains the full text of the first line of the text data you selected. If you choose to edit an existing text block, this section contains all of the document properties you have defined for the text block. Follow these steps to define a new document property and the modifier extraction rule for it.

1. Click the add icon () to add a new document property definition row.
2. Select a RICOH ProcessDirector document property from the **Property** list. You can define your own document property by typing in a document property name; however, you cannot use that document property in RICOH ProcessDirector. You should only define your own document properties when you are only using RICOH ProcessDirector Plug-in for Adobe Acrobat to export document property values to a text file.
3. Select the **Line** of the text block from which you want to extract the selected document property. You can select the line using a top-down or a bottom-up reference. To select a line using a top-down reference, select **1** through **n** (where **n** is a positive whole number). To select a bottom-up reference, select **Last** or select **Last - x** (where **x** is the number of rows up from the last row). Instead of selecting the row value from the list, you can enter the row number directly into the **Line** field.
4. Select the edit icon () to display a **Modify Text** window where you define one or more modifier extraction rules to extract the exact document property you need.
5. Choose one of the following modifiers:

### Content modifiers

Modifier	Action
<b>Remove Character</b>	<p>Type one character or a blank character (use the space bar to type a blank character) that you want to remove from the value. The character is case-sensitive. Then select one of these buttons:</p> <ul style="list-style-type: none"> <li>• <b>Remove all instances of the character</b> The specified character is removed from all positions in the value.  For example, an account number is: 324-1443255-11. You can type a - to remove all - characters from the value, producing 324144325511.</li> <li>• <b>Remove leading characters</b> The specified character is removed from the beginning of the value. For example, if you type a blank character, all blank characters are removed from the beginning of the value.</li> <li>• <b>Remove trailing characters</b> The specified character is removed from the end of the value. For example, if you type a blank character, all blank characters are removed from the end of the value.</li> <li>• <b>Remove leading and trailing characters</b> The specified character is removed from the beginning and end of the value. For example, if you type a blank character, all blank characters are removed from the beginning and end of the value.</li> </ul>
<b>Substring by Position</b>	Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> list. Select a number for <b>First Position</b> to indicate the location of the first character in the text value. Select a number

Modifier	Action
	for <b>Number to Retain</b> to indicate how many characters are retained.
<b>Substring by Delimiter</b>	<p>Type a character or a blank character in the <b>Delimiter</b> field to indicate where the text value is split into separate string segments. The character and the text string are case-sensitive.</p> <p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> drop-down menu.</p> <p>Select a number for <b>First Position</b> to define the position of the delimiter in the text string.</p> <p>Select a number for <b>Number to Retain</b> to define the number of text string segments to retain.</p> <p>These examples show how to select text string segments by specifying a delimiter:</p> <ul style="list-style-type: none"> <li>• For the account number 324-1443255-11, you can use - as the delimiter to split the value into these three text strings: 324, 1443255, and 11. Select <b>Beginning of Line</b>. To select the second and third text strings (1443255 and 11), select <b>2</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>• For the mailing address Eldorado Springs CO 80025, you can use a blank character as the delimiter to split the value into these four text strings: Eldorado, Springs, CO, and 80025. Select <b>End of Line</b>. <ul style="list-style-type: none"> <li>– To select the zip code, select <b>1</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>– To select the state, select <b>2</b> for <b>First Position</b> and <b>1</b> for <b>Number to Retain</b>.</li> <li>– To select the city, select <b>3</b> for <b>First Position</b> and <b>10</b> for <b>Number to Retain</b>. By specifying <b>10</b> for <b>Number to Retain</b>, you can select city names with up to ten words.</li> </ul> </li> </ul>
<b>Pad with Character</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Padding Location</b> list. Enter a character or a blank character as the padding character into the <b>Character to Pad with</b> field.</p> <p>Enter a number in the <b>Minimum Padded Text Length</b> field to define the minimum length of the text string. If the number of characters in the text string is less than this minimum length, padding characters are added until the text string equals the minimum length.</p>

When you use a modifier to define a text extraction rule, the **Text to Modify** field at the top of the Modify Text window contains the selected line plus any edits you make to the line. The **Modified Value** field to the right of a modifier displays the text that results when that modifier is applied to the text it received from either the modifier above it or the **Text to Modify** field (if you are defining the first modifier).

6. Continue to apply modifiers until you extract the value you want from the selected line. Click the  icon to add a new modifier. The **Final Text** field below the list of modifiers displays the final modified value, after all modifier extraction rules are applied.  
For the selected modifier, the **Modifier Initial Text** field at the bottom of the window displays the value before the modifier is applied. The **Modified Text** field displays the value after the modifier is applied.
7. Use the modifier management icons near the top of the window to delete and reorder the modifier extraction rules. Use the  icon to delete the selected modifier extraction rules. Use the up and down arrow icons to reorder the rules. The rules are applied to the line in order from top to bottom.
8. Click the **OK** button to save the line extraction rule.
8. Continue to define the other document properties you need to extract from a line in the block. You can select the same line that you used in another document property. If you need to delete a document property or want to rearrange their order, place a check mark in the box in front of a document property, and use the  icon and the up down arrow icons.
9. When you have finished defining document properties, click **OK**.
10. Click **Ricoh** → **View Document Property Values** to verify that the properties have the content you want.
11. **Optional:** You can edit the text block definition by double-clicking its box or by right-clicking the box and selecting **Edit**.
12. When you are ready to save all your enhancements to the PDF file, including the new document properties definition, click **Ricoh** → **Save Control File**.
13. Move the control file to a directory location used by a RICOH ProcessDirector server and include its name and location in a RICOH ProcessDirector **IdentifyPDFDocuments** step. This control file must also contain the page group definition that defines the documents in the PDF files processed by that step.

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## Defining an address block

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You can define document properties in an address block in each document in a PDF file. After you define the document properties, you can extract and view them or save them in a text file.

### Note

Use the **Define Multiple Properties** function to define document properties for addresses if:

- The address components are not in block form.
- You want to give the document properties your own names.
- The **Define Address Block** function assigns one or more components of the address text to the wrong document property.

To define an address block:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group definition or define a page group.

**Tip:** Before you select an address block, scan your sample PDF file for the most complicated and longest example of addresses in the PDF files that you are going to process. For example, if the first document in your PDF file contains an address of only three rows, and page 80 contains a five-row address, draw the box around the five-row address so you can work with the most complicated address. When you view document property values, you can verify that each document property in shorter address blocks has the proper value.

2. Left-click just above the top left corner of an address area and drag the mouse to capture all rows of the address.
3. Select **Define Address Block** from the popup menu.
4. Examine the **Selected Address** section of the Define Address Block window. If you have not captured all the lines in the address block, click **Cancel** and draw the box around the address again. Repeat this step until the address you want is displayed in the rows of the **Selected Address** table.
5. Type a **Name** for the address block.
6. Use the **Extraction Conditions** section to specify the page in each document from which address block data will be extracted. Do either of these:
  - Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **First Front Only**. You can also:
    - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
    - Click the  icon to go to the Rules Manager.

**★ Important**

The **Last Back**, **Last Front**, and **Last Page** rules do not work with address block extraction.

- Select **Specific pages** and type the page in each document that you want. If you specify multiple pages, RICOH ProcessDirector Plug-in for Adobe Acrobat extracts the address block from the last specified page in each document. Examples:
  - You specify pages 2-4. If a document has four or more pages, the address block is extracted from page 4. If a document has three pages, the address block is extracted from page 3. If a document has two pages, the address block is extracted from page 2.
  - You specify pages 2, 4. If a document has four or more pages, the address block is extracted from page 4. If a document has 2-3 pages, the address block is extracted from page 2.
  - You specify pages 2-n. Because n represents the last page, the address block is extracted from the last page if the document has two or more pages.

**★ Important**

If you specify only page n, RICOH ProcessDirector Plug-in for Adobe Acrobat does not extract the address block from any page in a document.

7. Select an address type:
  - **Address lines 1-7**  
This option defines seven document properties (**Doc.Address.1** through **Doc.Address.7**) based on the first seven lines in the address block. Subsequent lines are ignored.

- **U.S. addresses**

This option defines eight document properties:

- **Doc.Address.FullName**
- **Doc.Address.Primary**
- **Doc.Address.Secondary**
- **Doc.Address.Other**
- **Doc.Address.City**
- **Doc.Address.State**
- **Doc.Address.ZipCode**
- **Doc.Address.CityStateZip**

Each component of address text in the **Selected Address** becomes a value for a document property in the **Address Document Properties** area.

8. Check to make sure that each document property has the proper value.
9. Click **OK** to create the document properties for the address block.
10. Click **Ricoh** → **View Document Property Values** to verify the properties have the content you want.
11. Optional: You can edit the address block definition by double-clicking its box or by right-clicking the box and selecting **Edit**.
12. When you are ready to save all your enhancements to the PDF file, including the new document properties for the address block, click **Ricoh** → **Save Control File**.
13. Make the control file accessible by your RICOH ProcessDirector server and include its name and location in an IdentifyPDFDocuments step. This control file must also contain the page group definition that defines the documents in the PDF files processed by that step.

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## Viewing document property values

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After you create a document property in a sample PDF file, you can view the data values for that property. You view document property values to verify that you have selected the right location for the property and defined the correct conditional extraction rules. You can click a document property value to go to the first page of the page group that contains the value.

Follow these steps to view a table of extracted document property values.

1. Open a PDF file in Adobe Acrobat Professional and load the control file that has the document properties you want to view.
2. Click **Ricoh** → **View Document Property Values**.  
In the Document Property View window, you see document property values for the number of pages that you defined in the **Pages to Process** preferences setting.
3. To view fewer or more document property values, change the **Number of pages to process** and click **Update table**.

The more pages you specify, the longer RICOH ProcessDirector Plug-in for Adobe Acrobat takes to view document property values.

- Optional: Click any row in the document property table to go to the first page in the page group that contains the document property value.

**Tip:** Keep this window open as you define document properties, so you can update the values in the table to verify you have correctly selected the property.

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## Saving document property values

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After you create document properties in a sample PDF file, you can save the data values for those properties. For example, you can save the account numbers in a PDF file that you plan on printing for an audit or printed in the past for an audit.

To save document property values:

- While viewing document property values, click **Save**.
- Select a location for the file and type a name, or use the name and location of the PDF file with a .txt extension.
- Click **Save**.  
RICOH ProcessDirector Plug-in for Adobe Acrobat generates a tab-delimited text file containing the values.

## Working with rules

A rule is a set of one or more conditions. You can apply the conditions specified by a rule to place markup, extract data, or specify media and finishing options. You can also include a rule as a condition within another rule.

For example, you can use a rule to:

- Place a barcode on the first page of each document in your PDF file
- Extract a customer's name when the city in the mailing address is New York
- Specify gold media for the first page of each document for a Gold Club member

Each condition in a rule compares two values. The first value can be a **Predefined Rule** (a rule defined by RICOH ProcessDirector Plug-in for Adobe Acrobat that specifies pages within documents), a **Custom Rule** (a rule that you have defined), a conditional trigger, a job property, a document property, or a statistic. The choices for the second value depend on the first value.

When you create a rule with multiple conditions, you can specify whether the rule requires all conditions to be met or any condition to be met.

Rules can evaluate static and dynamic values. For example, a rule can evaluate whether the total number of documents in a job is greater than 10. A rule can also evaluate whether the value of the **Doc.Begin.Balance** document property is equal to the value of the **Doc.End.Balance** document property.

The Figure below shows a rule with five different types of conditions.

## Rule with multiple conditions

The screenshot shows the 'Rule Builder' dialog box. At the top, there is a 'Rule Name' field containing 'Example rule' and a 'Rule Description' field containing 'Shows five example rule conditions'. Below this is a 'Rule Conditions' section with a dropdown menu set to 'Apply when all of the following conditions are met.'. There are five conditions listed, each with a label, a dropdown menu, an operator, a value, and a 'Match' dropdown menu. The conditions are:

- When**: First Front Only (Predefined Rule) = True (Match)
- And**: Gold Club member (Custom Rule) = False (Match)
- And**: Account\_trigger (Trigger) = Account Number (Text)
- And**: Doc.Address.City (Document Property) = New York (Text)
- And**: Stat.TotalDocumentsInJob (Statistic) > 10 (Text)

At the bottom of the dialog box are buttons for 'Help', 'OK', and 'Cancel'.

## Pre-defined rules

RICOH ProcessDirector Plug-in for Adobe Acrobat has 11 pre-defined rules that apply markup to, set media and finishing options for, or extract data from specific pages within each document in a PDF file. For example, you can use a pre-defined rule to place an image on all front pages in each document.

The table below describes each pre-defined rule.

### Pre-defined rules

Rule	Definition
All Front Pages	All front-facing pages in each page group. If the rule is used to define a document property, the value extracted is from the last front page in a page group.
All Back Pages	All back-facing pages in each page group. This rule does not apply to a simplex job. If the rule is used to define a document property in a duplex job, the value extracted is from the last back page in a page group.
All Pages	Markup prints on all pages in each page group. Document properties values are extracted from the last page (either front or back) in a page group. If a rule

Rule	Definition
	does not have a condition with a pre-defined rule, RICOH ProcessDirector Plug-in for Adobe Acrobat applies the rule to All Pages.
First Front Only	First page in each page group.
First Back Only	First back page in each page group. This rule does not apply to simplex jobs.
Second Front Only	Second front-facing page in each page group.
Second Back Only	Second back-facing page in each page group. This rule does not apply to simplex jobs or to jobs that do not have a second back page.
Last Front Only	Last front-facing page in each page group.
Last Back Only	Last back of each page group. This rule does not apply to simplex jobs.
Last Page Only	Last page of each page group (front or back is not a factor).
No Pages	No pages. To keep a rule from being applied, you can add a condition with <b>No Pages = True</b> .

## Conditional triggers

A conditional trigger is text that determines whether a condition is met.

If you want to place a barcode on a page whenever the word **Invoice** appears at the top of the page, you can define a conditional trigger for the word **Invoice**, define a rule with the trigger as a condition, and use the rule to apply the barcode.

If you want to use special media when the word **Overdue** appears at the bottom of the page, you can define a conditional trigger for the word **Overdue**, define a rule with the trigger as a condition, and use the rule to set the media.

If you want to extract the value of a document property whenever the words **Account Summary** appear on the right side of the page, you can define a conditional trigger for the words **Account Summary**, define a rule with the trigger as a condition, and use the rule when you define the document property.

**Tip:** If you know that the word you want to define as a conditional trigger occurs on a specific page in every page group, you can use the **Stat.CurrentPageInDocument** statistic instead of a conditional trigger.

## Using job properties or document properties in rules

You can compare a job property or document property to a static value, such as a number or word, or to a dynamic value, such as job property, document property or statistic.

For example, you have two inserters, and you want to choose the inserter for different jobs. You can use the SetDocPropsFromConditions step in your workflow to set a value of a specific job property such as

**Doc.Insert.InserterID.** In RICOH ProcessDirector Plug-in for Adobe Acrobat, you can use the **Doc.Insert.InserterID** job property in a rule. RICOH ProcessDirector can apply a specific barcode or image based on the control file (which contains the rules you defined in RICOH ProcessDirector Plug-in for Adobe Acrobat) that you add to a BuildPDFFromDocuments step.

#### ↓ Note

When using a document or job property value in a rule, define your value so it matches the value of the property when RICOH ProcessDirector processes the page groups in the PDF file. For example, the values of the **Doc.Insert.InserterID** job property in RICOH ProcessDirector are **01** and **02**. Use those values when you define a rule with the **Doc.Insert.InserterID** job property as a condition. Do not use **One** and **Two**.

## Using statistics in rules

You can compare a statistic to a static value, such as a number or word, or to a dynamic value, such as a job property, document property, or statistic.

For example, you want to create a barcode on the third page of every document. You select the **Stat.CurrentPageInDocument** statistic, select **=** as the mathematical symbol, and type **3** in the **Text** field. The fifth condition in the Figure [Rule with multiple conditions, p. 40](#) specifies a statistic.

The table below describes the available statistics.

### Statistics options for rules

Keyword	Level	Definition
Stat.TotalDocumentsInJob	Print job	The total number of documents in the current print job.
Stat.TotalSheetsInJob	Print job	The total number of sheets in the current print job.
Stat.TotalPagesInDocument	Document	The total count of pages in the current document.
Stat.TotalSheetsInDocument	Document	The total count of sheets in the current document.
Stat.CurrentDocumentInJob	Document	The number of the current document in its print job, starting at 1. For example, the value of Stat.CurrentDocumentInJob for the third document is 3.
Stat.CurrentPageInDocument	Page	The number of the current page in its document, starting at 1. For example, the value of Stat.CurrentPageInDocument for the second page in a document is 2.
Stat.CurrentSheetInDocument	Page	The number of the current sheet in its document, starting at 1.
Stat.CurrentPageInJob	Page	The number of the current page in its print file, starting at 1 and always from the Start page of the job. For example, the value of Stat.

Keyword	Level	Definition
		CurrentPageInJob for the tenth page in the print file is 10.
Stat.CurrentSheetInJob	Page	The number of the current sheet in its print file, starting at 1 and always from the Start page of the job.
Stat.CurrentMedia	Page	<p>The media specified for the current page in a print job when the IdentifyPDFDocuments step was run. If no media is specified for the page, Stat.CurrentMedia provides the media specified for the job. If no media is specified for the page or the job, Stat.CurrentMedia does not provide a value. For example, the value of Stat.CurrentMedia for the first page of a document is Letterhead.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Stat_CurrentMedia does not provide media specified using RICOH ProcessDirector Plug-in for Adobe Acrobat.</li> <li>You cannot preview markup that is placed using a RICOH ProcessDirector Plug-in for Adobe Acrobat rule that evaluates Stat.CurrentMedia.</li> </ul>

**Note**

Although some statistics describe job-level values, RICOH ProcessDirector evaluates each page in a document when determining whether or not to apply markup or extract the value of a document property.

## Defining a rule

You can define rules that specify conditions for markup. You can also define rules to set media and finishing options, or to extract data.

Before you define a rule, make sure you have defined each custom rule, document property, and conditional trigger that you want to use as conditions in the rule.

To define a rule:

1. Click **Ricoh** → **Manage Rules**.
2. Click the  icon.

Rules are shown alphabetically by name.

**Tip:** In a markup dialog, you can define a rule by clicking the  icon and edit a rule by clicking the  icon.

3. Type a **Name** for the rule. You can use alphanumeric characters, periods, underscores, spaces, and special characters (such as @, #, \$, or %).
4. Optional: Type a **Description**.
5. Specify whether RICOH ProcessDirector Plug-in for Adobe Acrobat should apply the rule when any or all of its conditions are met.
6. Specify the first condition.

1. Click the down arrow for the **Not set** drop-down list.
2. Click the **+** icon next to **Predefined Rule**, **Custom Rule**, **Trigger**, **Job Property**, **Document Property**, or **Statistic** and select the item you want for the first part of the condition.

If a choice (such as custom rules, conditional triggers, or document properties) does not have any items, the choice is grayed out.

#### **Note**

To display all items with a word in their names, type the word and press the down arrow key on your keyboard. You can also type the word and click the down arrow for the drop-down list.

3. Select a mathematical symbol, such as = (equals) or ≠ (does not equal), to compare the two parts of the condition.
4. Specify the second part of the condition:
  - For a rule, select **True** or **False**.
  - For a conditional trigger, verify that the condition has the value you want. If not, select a new conditional trigger.
  - For a job property, document property, or statistic, type a value. You can also select any job property, document property, or statistic.
7. For a rule with multiple conditions, click the  icon and specify the next condition.  
Repeat this step until you have defined all the conditions in the rule.
8. Click **OK** to create the rule and add it to the **Rules Manager**.

## Examples

### Rule with one condition: a pre-defined rule

To place markup on the first front page of each document, define a rule with a pre-defined rule as its only condition: `First Front Only = True`

### Three rules that each have one condition: a document property

A job contains sales statements for members at three different levels based on sales performance: Bronze, Silver, and Gold. You want to identify each membership level.

- In RICOH ProcessDirector, define a document property: **doc.member.level**.
- In RICOH ProcessDirector Plug-in for Adobe Acrobat, define three rules:
  - **Gold Level**  
`doc.member.level = GOLD`
  - **Silver Level**

```
doc.member.level = SILVER
```

– **Bronze Level**

```
doc.member.level = BRONZE
```

### Rule with multiple conditions

A job contains sales statements for members at three different levels based on sales performance: Bronze, Silver, and Gold. You want to print a reward coupon on the first page of each statement for Gold and Silver members. This example uses three rules defined in the previous examples:

- **First Front Only**
- **Gold Level**
- **Silver Level**

First, define a **Top Sales** rule with two conditions, which you apply when any condition is met:

- Gold Level = True
- Silver Level = True

Next, define a **Top Sales — First Front** rule with two conditions, which you apply when all conditions are met.

- First Front Only = True
- Top Sales = True

Finally, select the **Add Image** option. Apply settings by clicking **Pages/documents based on conditions** and selecting the **Top Sales — First Front** rule. Specify the path to the image.

### Rule with one condition: a job property

To print **VOID: DO NOT MAIL** on each page of a test job:

- Define a **Test Job** rule with a job property as its only condition: `Job.TestJob = Yes`
- Select the **Add Text** option. Apply settings by clicking **Pages/documents based on conditions** and selecting the **Test Job** rule. Select **Text** as the **Content Type** and type **VOID: DO NOT MAIL** for the value.

### Rule with a condition that uses dynamic data

When a statement has different addresses for billing and shipping, you want to print **Order sent to shipping address** on the statement:

- Define two document properties: `doc.shipping.address` and `doc.billing.address`.
- Define a **Sent to Shipping Address** rule with this condition: `doc.shipping.address ≠ doc.billing.address`
- Select the **Add Text** option. Apply settings by clicking **Pages/documents based on conditions** and selecting the **Sent to Shipping Address** rule. Select **Text** as the **Content Type** and type **Order shipped to shipping address** for the value.

## Defining a conditional trigger

You can define text in a PDF file as a trigger to control whether markup is applied to a page when RICOH ProcessDirector processes a PDF file. The text can also control whether media and finishing options are applied to a page and whether document properties are extracted from a page.

### Note

If you are experimenting to determine which text to use as a conditional trigger, you do not have to save the conditional trigger in a control file before you use preview mode. For preview mode, RICOH ProcessDirector Plug-in for Adobe Acrobat generates a temporary control file.

To define a conditional trigger:

1. Open a PDF file in Adobe Acrobat Professional and load a control file that contains the page group definition.
2. Left-click slightly above and to the left of the text that you want to use as a conditional trigger. Drag the mouse to draw a box around the text.

### Note

- If you draw a box around an area with no text, the conditional trigger determines that its condition is met whenever the area has no text. The condition is also met when the area has an image or other markup but no text.

3. Select **Define Conditional Trigger**.
4. Verify that the **Trigger** box has the text that you selected. If not, click **Cancel** and select the text again.
5. Type a **Name** for the trigger. Do not use spaces or special characters (such as @, #, \$, or %) in the name. You can use periods and underscores.
6. Click **OK** to create the trigger.

The conditional trigger is now available on the drop-down list for specifying conditions when defining rules.

### Example

You want to extract a customer account number for every page group. Each invoice in your PDF file contains the word **Account** near the upper left of the first or second page of every document. Each customer account number is printed to the right of that word. The longer invoices also have the customer account number on the third page. You draw a box around the first occurrence of the word **Account** in the PDF file you are enhancing, and you name the trigger `acct_trg`.

Next, you create a rule with a condition that specifies the trigger: `acct_trg = Account`.

Finally, you define a document property that applies the rule.

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## Managing rules

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The **Rules Manager** dialog shows information about your rules. You can define new rules, and edit or delete existing rules.

For each rule, the dialog shows the rule name and description. Rules appear on the list in alphabetical order by name.

To define a new rule, click the  icon.

To work with a rule, select it. Click the  icon to modify the rule or the  icon to delete it.

## Adding markup to a PDF file

You use RICOH ProcessDirector Plug-in for Adobe Acrobat to add markup to a PDF file that represents your production PDF files. You mark up a PDF file by drawing a box around existing content or by drawing a box to add new markup. You can preview the PDF file as you add markup to verify its content and placement on specific pages. When you are done enhancing the sample PDF file, you save your changes to one or more control files and make them accessible by a RICOH ProcessDirector server so it can apply the control files to production PDF files.

Before you add markup to a PDF file, you must define the page grouping for the documents in the PDF file. See [Defining a page group, p. 23](#) for more information. When previewing the page placement of markup, you may not be able to view the placement or content that RICOH ProcessDirector applies to markup when processing your RICOH ProcessDirector workflows. RICOH ProcessDirector Plug-in for Adobe Acrobat may not have access to all of the properties that you use to define both page placement rules and markup content (such as in text and barcodes). See [Previewing markup, p. 20](#) for more information.

When RICOH ProcessDirector applies markup defined in the control files that you specified in a BuildPDFFromDocuments step, RICOH ProcessDirector applies the markup in this order:

- Hidden areas
- Images
- Text
- OMR marks
- Barcodes

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## Adding a barcode to a PDF file

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To add a barcode to a PDF file, select the area where you want to place the barcode, specify a barcode type, and add content. You can limit the placement of a barcode to specific pages in each page group by specifying a rule or typing page numbers.

RICOH ProcessDirector Plug-in for Adobe Acrobat supports the following barcode types:

- 2of5 (Interleaved 2 of 5)

- Code128
- Code39
- Datamatrix
- IMB (Intelligent Mail Barcode)
- QR code (Quick Response Code)
- RM4SCC (Royal Mail 4-State Customer Code)
- RMM (Royal Mail Mailmark)

**Note**

- If you are creating child jobs, make sure that the barcode type supports periods. Child jobs have a period in the job number (for example, 10000001.1). Automated Verification workflows create child jobs for open-loop reprints. The Postal Enablement **GroupDocsForPostalProcess** workflow creates a child job when the documents in the job qualify for more postal processing.

You can create a barcode from content within the PDF file. For example, if your processing extracts the customer account number for every mailpiece you print, you can create a barcode from the account number. You first create a document property for the account number. You can then select that document property when defining the barcode content.

If you want to use text in the PDF file to trigger placement of a barcode on a specific page in a page group, you first create a conditional trigger on that text and define a rule with the trigger as a condition. You can then select that rule when defining the barcode.

To add a barcode:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group definition or define a page group.
2. Use the left mouse button to draw a box where you want the barcode to print. You do not need to draw the box to the exact size of the barcode.  
The barcode is not resized to fit within the box. If you draw a box to the approximate size of the barcode, you can see its position relative to all the markup you add to the PDF file.
3. Click **Add Barcode**.
4. Type a **Name** for the barcode. Do not use spaces or special characters (such as @, #, \$, or %) in the name. You can use periods and underscores.
5. **Optional:** Use the Location section of the definition window to change the placement of the barcode by entering new **Horizontal** and **Vertical** coordinates. These coordinates specify the distance between the top left corner of the page and the top left corner of the barcode, before any rotation. If your manufacturing equipment has a specification for the location of the barcode, use these coordinates to set a precise location.

**Note**

- **Width** and **Height** change the size of the markup box but do not affect the location or size of the barcode.
6. Select the clockwise **Rotation (degrees)**. The reference point for rotating a barcode is its top left corner.

7. Use the Placement Conditions section to specify the pages to place the barcode on. Do either of these steps:
  - Select **Pages based on a rule**, and then select a rule from the list. The default rule is **All Pages**. You can also:
    - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
    - Click the  icon to go to the Rules Manager.
  - Select **Specify pages** and type the pages in each page group that you want. You can:
    - Use a hyphen to separate the first and last pages in a page range.
    - Use a comma to separate page selections.
    - Type n to specify the last page.  
 Example: a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3-n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.
8. Use the Barcode Configuration section to define the mechanical attributes and type of the barcode.
  1. Use the **Barcode Type** list to select one of the following barcodes: **2of5**, **Code128**, **Code39**, **Datamatrix**, **IMB**, **QR code**, **RM4SCC**, or **RMM**.
  2. **Optional:** Click the **Settings** button to set the mechanical attributes of the barcode. The Table [Barcode mechanical attributes, p. 49](#) describes the settings for each barcode type.

### Barcode mechanical attributes

Barcode type	Attribute and description
2of5 and Code39	The unit of measure for the numeric attributes for these barcode types is millimeters.
	<b>barHeight</b> This attribute determines the vertical height of each bar.
	<b>checksumMode</b> This attribute determines the behavior of checksums. <ul style="list-style-type: none"> <li>• To add the checksum to the message, enter: <b>add</b></li> <li>• To check the checksum when rendering the barcode, enter: <b>check</b></li> <li>• To disable checksum processing, enter: <b>ignore</b></li> <li>• To enable the default barcode behavior, enter: <b>auto</b></li> </ul>
	<b>moduleWidth</b> This attribute is the width of the narrow element.
	<b>widthFactor</b> This attribute is the multiplier for the wide element or how many times wider it is than the narrow element.
Code128	The unit of measure for the numeric attributes for this barcode type is millimeters.
	<b>barHeight</b> This attribute determines the vertical height of each bar.
	<b>checksumMode</b> This attribute determines the behavior of checksums. <ul style="list-style-type: none"> <li>• To add the checksum to the message, enter: <b>add</b></li> </ul>

Barcode type	Attribute and description
	<ul style="list-style-type: none"> <li>To check the checksum when rendering the barcode, enter: <b>check</b></li> <li>To disable checksum processing, enter: <b>ignore</b></li> <li>To enable the default barcode behavior, enter: <b>auto</b></li> </ul> <p><b>moduleWidth</b> This attribute is the width of the narrow element.</p>
Datamatrix	<p>The unit of measure for the numeric attributes of this barcode type is millimeters.</p> <p><b>maxSize</b> This attribute determines the maximum number of modules in both X and Y directions.</p> <p><b>minSize</b> This attribute determines the minimum number of modules in both X and Y directions.</p> <p><b>moduleWidth</b> This attribute determines the size of each pixel element.</p> <p><b>shape</b> The <b>FORCE_SQUARE</b> value forces the use of square symbols. No other values are supported.</p>
IMB and RM4SCC	<p>The unit of measure for the numeric attributes for these barcode types is millimeters.</p> <p><b>ascenderHeight</b> This attribute defines the height of both the ascender and descender sections of long bars.</p> <p><b>intercharGapWidth</b> This attribute defines the width of each gap. The value you enter must be from 0.38 through 0.63 and must be the same as the <b>moduleWidth</b> value.</p> <p><b>moduleWidth</b> This attribute defines the width of each bar and must be from 0.38 through 0.63.</p> <p><b>trackHeight</b> This attribute defines the height each short track or center bar and must be a value from 1.02 through 1.52.</p>
QR code	<p>The unit of measure for the numeric attribute of this barcode type (<b>moduleWidth</b>) is inches.</p> <p><b>encoding</b> This attribute defines the encoding type of the QR barcode.</p> <p>To specify UTF-8 encoding, enter: <b>Auto</b></p> <p>To specify that the Unicode data is output in that format, enter: <b>Shift_JIS</b> or another supported type of Shift JIS code points, such as <b>sjis</b> or <b>x-sjis</b>.</p> <p> <b>Note</b></p> <ul style="list-style-type: none"> <li>The input data for the barcode must always be Unicode character points. Do not use <b>Shift_JIS</b> or any other non-Unicode input data.</li> </ul> <p><b>errorcorrection</b> This attribute defines the capability to restore the data in a damaged QR barcode.</p> <p>To specify that 7% of the code can be restored, enter: <b>L</b></p> <p>To specify that 15% of the code can be restored, enter: <b>M</b></p> <p>To specify that 25% of the code can be restored, enter: <b>Q</b></p>

	To specify that 30% of the code can be restored, enter: <b>H</b>
	<b>moduleWidth</b> This attribute determines the size of each pixel element.
	<b>version</b> Do not change this attribute; it is reserved for future use.
RMM	<p><b>shape</b> This attribute determines the type of barcode.</p> <ul style="list-style-type: none"> <li>To specify a 2D Type 9 barcode, enter: <b>square</b></li> <li>To specify a 2D Type 29 barcode, enter: <b>rectangle</b></li> </ul> <p>The values for the attribute are not case-sensitive.</p>

9. Select one of the following from the **Content Type** list.

**Note**

- Because RICOH ProcessDirector generates barcode content as it prepares a PDF file for printing, RICOH ProcessDirector Plug-in for Adobe Acrobat cannot always determine valid content for a barcode. For example, some barcodes cannot accept text or line breaks. If you include invalid barcode content, the PDF file job might fail in the RICOH ProcessDirector **BuildPDFFromDocuments** step.

Job Property	Select a job property whose value you want to include in the barcode.
Document Property	Select a document property whose value you want to include in the barcode.
Statistic	Select a statistic whose value you want to include in the barcode.
Text	Enter text that you want to include in the barcode.
Line Break	Select this content type when you want to force a line break. The break occurs after the last character of the prior barcode content.
Script	Only select this option on the advice of your software support representative.

- Optional:** If you selected a document property, job property, or statistic **Content Type**, you can apply text modifier rules to the value of the property or statistic. Click the  icon to display a Modify Text window for defining one or more modifier extraction rules to extract the exact value you need.
- Enter text into the **Text to Modify** field. RICOH ProcessDirector generates or extracts statistics and properties as it processes each page group in production PDF files. Because these values are not available to RICOH ProcessDirector Plug-in for Adobe Acrobat, you must enter a text value that represents the values that RICOH ProcessDirector processes. The modifier rule is a template that is applied to all values of the content type that you selected. For example, you want to print only the last eight digits of customer account number, and you have stored the entire number into a document property. You select **Document Property** as the **Content Type**, and select the account document property as the **Content Value**. You define two **Remove Character** text modifier rules to strip dashes and spaces from the number to make them all uniform. Then you define a **Substring by Position** rule to retain only the last eight

digits. You do not need to know any single value of a document property to create modifier rules. You need to know only the possible formats that could occur in your PDF files.

3. Choose one of these modifiers:

### Content modifiers

Modifier	Action
<b>Remove Character</b>	<p>Type one character or a blank character (use the space bar to type a blank character) that you want to remove from the value. The character is case-sensitive. Then select one of these buttons:</p> <ul style="list-style-type: none"> <li> <b>Remove all instances of the character</b>            The specified character is removed from all positions in the value.             For example, an account number is: 324-1443255-11. You can type a - to remove all - characters from the value, producing 324144325511.         </li> <li> <b>Remove leading characters</b>            The specified character is removed from the beginning of the value. For example, if you type a blank character, all blank characters are removed from the beginning of the value.         </li> <li> <b>Remove trailing characters</b>            The specified character is removed from the end of the value. For example, if you type a blank character, all blank characters are removed from the end of the value.         </li> <li> <b>Remove leading and trailing characters</b>            The specified character is removed from the beginning and end of the value. For example, if you type a blank character, all blank characters are removed from the beginning and end of the value.         </li> </ul>
<b>Substring by Position</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> list. Select a number for <b>First Position</b> to indicate the location of the first character in the text value. Select a number for <b>Number to Retain</b> to indicate how many characters are retained.</p>

Modifier	Action
<b>Substring by Delimiter</b>	<p>Type a character or a blank character in the <b>Delimiter</b> field to indicate where the text value is split into separate string segments. The character and the text string are case-sensitive.</p> <p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> drop-down menu.</p> <p>Select a number for <b>First Position</b> to define the position of the delimiter in the text string.</p> <p>Select a number for <b>Number to Retain</b> to define the number of text string segments to retain.</p> <p>These examples show how to select text string segments by specifying a delimiter:</p> <ul style="list-style-type: none"> <li>• For the account number 324-1443255-11, you can use - as the delimiter to split the value into these three text strings: 324, 1443255, and 11. Select <b>Beginning of Line</b>. To select the second and third text strings (1443255 and 11), select <b>2</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>• For the mailing address Eldorado Springs CO 80025, you can use a blank character as the delimiter to split the value into these four text strings: Eldorado, Springs, CO, and 80025. Select <b>End of Line</b>. <ul style="list-style-type: none"> <li>– To select the zip code, select <b>1</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>– To select the state, select <b>2</b> for <b>First Position</b> and <b>1</b> for <b>Number to Retain</b>.</li> <li>– To select the city, select <b>3</b> for <b>First Position</b> and <b>10</b> for <b>Number to Retain</b>. By specifying <b>10</b> for <b>Number to Retain</b>, you can select city names with up to ten words.</li> </ul> </li> </ul>
<b>Pad with Character</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Padding Location</b> list. Enter a character or a blank character as the padding character into the <b>Character to Pad with</b> field.</p> <p>Enter a number in the <b>Minimum Padded Text Length</b> field to define the minimum length of the text string. If the number of characters in the text string is less than this minimum length, padding characters are added until the text string equals the minimum length.</p>

10. To add a new content definition row, click the  icon. After you have added all content types and modifier rules to the barcode, you can place a check mark in the box next to a content type and use the up and down arrows to reorder the content. Use the  icon to delete selected content.
11. If you defined multiple lines of text and you want RICOH ProcessDirector Plug-in for Adobe Acrobat to remove lines that only contain white space, click the **Remove blank lines** check box to select it.

12. To create your barcode configuration, click **OK**.
13. To verify that the barcode has the content and page placement you intended, click **Ricoh** → **Preview**.
14. **Optional:** You can edit the barcode definition by double-clicking the barcode box or by right-clicking the box and clicking **Edit**.
15. When you are ready to save all your enhancements to the PDF file, including the new barcode definition, click **Ricoh** → **Save Control File**.
16. In the RICOH ProcessDirector **BuildPDFFromDocuments** step, specify the name and location of the control file that contains the barcode definition.

## Adding OMR marks to a PDF file

You can add a variety of OMR marks of different height, width, and pitch to a PDF file. You can limit the placement of OMR marks to specific pages in each page group by specifying a rule or typing page numbers.

### Note

- If your brand of inserters or other machinery requires specific OMR marks, you must use the specifications from your supplier.

To add OMR marks:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group definition or define a page group.
2. Use the left mouse button to draw a box where you want the OMR marks to print. You do not need to draw the box to the exact size of the OMR marks.  
The OMR marks are not resized to fit within the box. If you draw a box to the approximate size of the OMR marks, you can see their position relative to all the markup you add to the PDF file.
3. Select **Add OMR**.
4. Type a **Name** for the OMR marks. Do not use spaces or special characters (such as @, #, \$, or %). You can use periods and underscores.
5. **Optional:** Use the Location section of the definition window to change the placement of the OMR marks by entering new **Horizontal** and **Vertical** coordinates. These coordinates specify the distance between the top left corner of the page and the top left corner of the OMR marks. If your manufacturing equipment has a specification for the location of the OMR marks, use these coordinates to set a precise location.

### Note

**Width** and **Height** change the size of the markup box but do not affect the location or size of the OMR mark.

6. Use the Placement Conditions section to specify the pages to place the OMR marks on. Do either of these:
  - Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **All Pages**. You can also:

- Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
- Click the  icon to go to the Rules Manager.
- Select **Specify pages** and type the pages in each page group that you want. You can:
  - Use a hyphen to separate the first and last pages in a page range.
  - Use a comma to separate page selections.
  - Type n to specify the last page.
 Example: a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3–n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.

7. Use the Physical Configuration section to define the OMR content and form. If the **OMR Content** drop-down list has the name of the configuration you need, select it from the list. OMR configuration files have a .omr extension and are saved by default in the RICOH ProcessDirector Plug-in for Adobe Acrobat application data directory. If you need a different configuration than the one that is selected, click the **Manage Content** button.

**Tip:**

- You can view the application data directory location for the current user by typing %**appdata%** in Windows **Run** command line and clicking **OK**.
1. If you do not want to modify the selected OMR configuration file, click **New** or **Copy**.
  2. Use the **Add** and **Remove** buttons to manage the OMR content in the **Chosen Marks** box. Use the **Move Up**, **Move Down**, and **Reverse** buttons to specify the order in which the marks are printed.

The Table [Available OMR marks, p. 55](#) describes the marks you can add to your OMR definition.

**Available OMR marks**

OMR mark name	Description
Blank	Leaves a space equal to the OMR pitch value plus the OMR height value.
Collate	Indicates that the current group of pages need to be enveloped. This mark normally appears only on the first or last sheet of a page group.
Feeder	Defines the location for a feeder station mark. There can be multiple occurrences of this mark.
Gate	Sometimes used to mark the start of an OMR set. If requested, this mark is always present.
Parity	Used to bring the total number of bars up to the required parity, either even or odd.
Safety	Sometimes used to mark the end of an OMR set. If requested, this mark is always present.

OMR mark name	Description
Sequence	Displays a sequence using from one to three bars or from one to four bars.
Void	Leaves a space equal to the OMR Pitch value.

3. In the OMR Configuration section of the Add OMR window, first select your **Units** of measure. Enter numeric values into the **Height** and **Length** fields to define the height and width of each OMR mark. Enter a numeric value into the **Pitch** field to define the distance between each OMR mark.
4. In the Parity section, select whether your inserter uses **Odd** or **Even** parity checking.
5. Select **First Page** or **Last Page** collation.
6. If you select a sequence bar type, use the Sequence Range section to specify **1 through 7** for three bars or **1 through 15** for four bars.
7. If you select a sequence bar type, use the Sequence section to define the bit order of the sequence bars. Select **Up** to print the bars in a 1, 2, 4 order (three bars) or in 1, 2, 4, 8 order (four bars). Select **Down** to print the bars in 4, 2, 1 order or in 8, 4, 2, 1 order.  
 If the sequence is **Up**, a bar in the first position represents 1, a bar in the second position represents 2, bars in the first and second positions represent three, a bar in the fourth position represents 4, bars in the first and fourth positions represent 5, and so on.
8. After you have defined the OMR content and structure definition click **Save** and then click **Cancel** to return to the main OMR configuration window.
8. Use the **Inserts** field to select a fixed set of inserts for an entire job. You enter either a **0** or a **1** to tell the inserter which inserts to pull for every document in a job. For example, on a six station inserter with stations numbered from one to six, if you want to add the inserts from stations two and four, you enter the value **010100** into the **Inserts** field.
9. Click **Ricoh** → **Preview** to verify the OMR has the structure and page placement you intended.
10. Optional: You can edit the OMR definition by double clicking the OMR box or by right-clicking the box and selecting **Edit**.
11. When you are ready to save all your enhancements to the PDF file, including the new OMR marks definition, click **Ricoh** → **Save Control File**.  
**Tip:**
  - When you save an OMR configuration, the OMR definition is saved to an OMR configuration file in the InfoPrint directory in your application data directory. When you mark up a PDF file, add OMR marks, and save a control file, the OMR configuration is also saved into the control file. You specify that control file in a BuildPDFFromDocuments step. You do not need to move the OMR configuration file to a directory accessible by RICOH ProcessDirector, but you can move the OMR configuration file to another computer used by RICOH ProcessDirector Plug-in for Adobe Acrobat if you want to share the configuration with someone else.
12. In the RICOH ProcessDirector BuildPDFFromDocuments step, specify the name and location of the control file that contains the OMR marks definition.

## Adding an image to a PDF file

You can add JPEG images, such as a logo or an advertisement, to the PDF file. You can limit the placement of an image to specific pages in each page group by specifying a rule or typing page numbers. RICOH ProcessDirector Plug-in for Adobe Acrobat can process only JPEG files that are in RGB format; the CMYK format is not supported.

To add an image:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group or define a page group.
2. Use the left mouse button to draw a box where you want the image to print. You can also place an image over a hidden area markup box.

### ↓ Note

The image is not resized to match the size of the box. If you draw a box to the approximate size of the image, you can see its position relative to all the markup you add to the PDF file.

3. Click **Add Image**.
4. Use the Location section of the definition window to change the placement of the image by entering new **Horizontal** and **Vertical** coordinates. These coordinates specify the distance between the top left corner of the page and the top left corner of the image.

### ↓ Note

**Width** and **Height** change the size of the markup box but do not affect the location or size of the image.

5. Type a **Name** for the image. Do not use spaces or special characters (such as @, #, \$, or %). You can use periods and underscores.
6. Use the Placement Conditions section to specify the pages to place the image on. Do either of these:
  - Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **All Pages**. You can also:
    - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
    - Click the  icon to go to the Rules Manager.
  - Select **Specify pages** and type the pages in each page group that you want. You can:
    - Use a hyphen to separate the first and last pages in a page range.
    - Use a comma to separate page selections.
    - Type n to specify the last page.

Example: a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3–n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.

7. If the image you are defining exists in a file path that you can access, select **Browse**, click the JPEG image file you want to add to the PDF file, and click **Open**. When you save this image definition to a control file, the image file is embedded in the control file. You do not need to copy the image to a directory accessible to a RICOH ProcessDirector server.

Instead of embedding the image file in a control file, you can enter an image file name and location that RICOH ProcessDirector can access when a **BuildPDFFromDocuments** step processes PDF files. If you specify an image file name and location that RICOH ProcessDirector Plug-in for Adobe Acrobat cannot find, a message informs you that the image was not found. If you want to use the image file name and path for the RICOH ProcessDirector server, select **Yes**. Otherwise, select **No**.

To specify a directory location accessible to RICOH ProcessDirector, type the full directory path and file name (for example, **/aiw/aiw1/images/myimage.jpg**). If RICOH ProcessDirector cannot find the image file when it processes a PDF file, the job fails in the **BuildPDFFromDocuments** step.

8. Click **OK** to create the image configuration.
9. Optional: Click **Ricoh** → **Preview** to verify that the image has the page placement you intended.
10. Optional: You can edit the image definition by double-clicking the image box or by right-clicking the box and selecting **Edit**.
11. When you are ready to save all your enhancements to the PDF file, including the new image definition, click **Ricoh** → **Save Control File**.
12. In the RICOH ProcessDirector **BuildPDFFromDocuments** step, specify the name and location of the control file that contains the image definition.

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## Hiding an area in a PDF file

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You can hide an area of a PDF file by defining a cover block to keep an area on a page from being shown or printed when you process a production PDF file in RICOH ProcessDirector. You can limit the placement of a hidden area to specific pages in each page group by specifying a rule or typing page numbers.

Typically you hide areas of a PDF file that contain images, text, barcodes, or other types of optical marks that are no longer needed. For example, if you want to replace an existing optical mark with a smaller Datamatrix barcode, you draw a box over the area that contains the old marks to hide them. You then place a new Datamatrix barcode on top of the hidden area. When RICOH ProcessDirector processes a PDF file with a hidden area, it blocks that area from having any ink applied, so the hidden area is the same color as the print media. When RICOH ProcessDirector applies markup to a PDF file, the **BuildPDFFromDocuments** step applies all hidden areas before applying other markup.

To hide an area:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group or define a page group.
2. Use the left mouse button to draw a box around the area of the PDF file that you want to hide.
3. Click **Hide Area**.
4. Optional: Use the **Location** section of the definition window to change the placement and size of the hidden area. The **Horizontal** and **Vertical** coordinates specify the distance between the top

left corner of the page and the top left corner of the hidden area. The **Width** and **Height** specify the size of the hidden area.

5. Type a **Name** for the hidden area. Do not use spaces or special characters (such as @, #, \$, or %). You can use periods and underscores.
6. Use the Placement Conditions section to specify the pages to place the hidden area on. Do either of these:
  - Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **All Pages**. You can also:
    - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
    - Click the  icon to go to the Rules Manager.
  - Select **Specify pages** and type the pages in each page group that you want. You can:
    - Use a hyphen to separate the first and last pages in a page range.
    - Use a comma to separate page selections.
    - Type n to specify the last page.  
Example: a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3-n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.
7. Click **OK** to create the hidden area definition.
8. Click **Ricoh** → **Preview** to verify the hidden area has the page placement you intended.
9. Optional: You can edit the hidden area definition by double-clicking the hidden area box or by right-clicking the box and selecting **Edit**.
10. When you are ready to save all your enhancements to the PDF file, including the new hidden area definition, click **Ricoh** → **Save Control File**.
11. In the RICOH ProcessDirector BuildPDFFromDocuments step, specify the name and location of the control file that contains the hidden area definition.

## Adding text to a PDF file

You can add fixed text or variable text to a PDF file. You also can combine fixed and variable text in one text box. Fixed text is text that you type. Variable text is data from document properties, job properties, or statistics.

To add text:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains a page group or define a page group.
2. Use the left mouse button to draw a box in the area where you want to add text.

RICOH ProcessDirector Plug-in for Adobe Acrobat uses the upper left corner of the text box to position the text. All the text you specify is printed at the size you specify, even if the text does not fit inside the box.

3. Click **Add Text**.
4. Optional: Use the Location section of the definition window to change the placement of the text by entering new **Horizontal** and **Vertical** coordinates. These coordinates specify the distance between the top left corner of the page and the top left corner of the text box.

 **Note**

**Width** and **Height** change the size of the markup box but do not affect the location or size of the text.

5. Type a **Name** for the text box. Do not use spaces or special characters (such as @, #, \$, or %) in the name. You can use periods and underscores.
6. Select a value from the **Align with enclosed text** drop-down list:
  - If you want to align the text that you are adding with the first occurrence of existing text enclosed by the box you drew, select **First occurrence**. RICOH ProcessDirector Plug-in for Adobe Acrobat maintains that position each time that it adds the text.
  - If you want to align the text that you are adding with each occurrence of existing text enclosed by the box you drew, select **Each occurrence**.
  - If you do not want the text aligned, use the default value **Disabled**.

Aligning new text with enclosed text is the most precise way to replace existing text.

 **Note**

- The **Align with enclosed text** function works best when the new text and the existing text are in the same font. If the fonts are different, RICOH ProcessDirector Plug-in for Adobe Acrobat aligns the baselines of the fonts.
  - RICOH ProcessDirector Plug-in for Adobe Acrobat always aligns the first line of the new text with the first line of the existing text.
  - If the enclosed text is not left-justified, RICOH ProcessDirector Plug-in for Adobe Acrobat aligns the new text with the left-most line of the existing text.
7. Select the clockwise **Rotation (degrees)**. The reference point for rotating a text box is its top left corner.
  8. Use the Placement Conditions section to specify the pages to place the text on. Do either of these:
    - Select **Pages based on a rule**, and then select a rule from the drop-down list. The default rule is **All Pages**. You can also:
      - Click the  icon to define a new rule. See [Defining a rule, p. 43](#) for more information.
      - Click the  icon to go to the Rules Manager.
    - Select **Specify pages** and type the pages in each page group that you want. You can:
      - Use a hyphen to separate the first and last pages in a page range.
      - Use a comma to separate page selections.
      - Type n to specify the last page.

Example: a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3-n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.

9. Use the Font section to select the font, size, and color.

The font drop-down list includes all fonts available to Adobe Acrobat except for fonts that do not permit embedding in a PDF file.

**Note**

- To make a font available to RICOH ProcessDirector Plug-in for Adobe Acrobat, install it in the Windows **Fonts** folder.
- RICOH ProcessDirector Plug-in for Adobe Acrobat does not support alternate letter forms, including ligatures, swashes, and letter forms that vary according to where they appear in a word. Right-to-left languages, such as Hebrew and Arabic, are rendered incorrectly. However, the font drop-down list shows all fonts installed in the Windows **Fonts** folder, including fonts for right-to-left languages and fonts with unsupported alternate letter forms.
- When a font is added to a control file, it is the user's responsibility to make sure that the font is licensed on all machines that use the control file to process a PDF document.

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10. Define the content of the text you are adding:

1. Select the first **Content Type** from the drop-down list. You can select as many of the following types as you need to define the text content:

#### Text markup content types

Content Type	Description
Text	Type text that you want to print.
Document Property	Select a document property whose value you want to print.
Job Property	Select a job property whose value you want to print.
Line Break	Select this content type to force a line break. The break occurs after the last character of any prior text content.
Statistic	Select a statistic whose value you want to print.
Script	Only select this option on the advice of your software support representative.

2. Select the **Content Value**. The drop-down list has the available values for the selected **Content Type**.
3. Optional: You can apply text modifier rules to the value of a document property, job property, or job statistic **Content Type**. Click the  icon to define one or more text modifier rules to extract the exact value you need.
4. Type text in the **Text to Modify** field. RICOH ProcessDirector generates or extracts statistics and properties as it processes each page group in the production PDF files. Because these values are not available to RICOH ProcessDirector Plug-in for Adobe Acrobat, you must enter a text value that is representative of the values that RICOH ProcessDirector processes. The modifier rule is a template that is applied to all values of the content type that you selected.

For example, you might need to print only the last four digits of a credit card number, and you have stored the entire number in a document property. You select **Document Property** as the **Content Type**, and select the credit card document property as the **Content Value**. You define two **Remove Character** text modifier rules to strip dashes and spaces from the number to make them all uniform, and then you define a **Substring by Position** rule to retain only the last four digits. You do not need to know any single value of a document property to create modifier rules, you need to know only the possible formats that could occur in your PDF files.

5. Choose one of the following modifiers:

### Content modifiers

Modifier	Action
<b>Remove Character</b>	<p>Type one character or a blank character (use the space bar to type a blank character) that you want to remove from the value. The character is case-sensitive. Then select one of these buttons:</p> <ul style="list-style-type: none"> <li>• <b>Remove all instances of the character</b> The specified character is removed from all positions in the value.  For example, an account number is: 324-1443255-11. You can type a - to remove all - characters from the value, producing 324144325511.</li> <li>• <b>Remove leading characters</b> The specified character is removed from the beginning of the value. For example, if you type a blank character, all blank characters are removed from the beginning of the value.</li> <li>• <b>Remove trailing characters</b> The specified character is removed from the end of the value. For example, if you type a blank character, all blank characters are removed from the end of the value.</li> <li>• <b>Remove leading and trailing characters</b> The specified character is removed from the beginning and end of the value. For example, if you type a blank character, all blank characters are removed from the beginning and end of the value.</li> </ul>
<b>Substring by Position</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> list. Select a number for <b>First Position</b> to indicate the location of the first character in the text value. Select a number for <b>Number to Retain</b> to indicate how many characters are retained.</p>

Modifier	Action
<b>Substring by Delimiter</b>	<p>Type a character or a blank character in the <b>Delimiter</b> field to indicate where the text value is split into separate string segments. The character and the text string are case-sensitive.</p> <p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Starting From</b> drop-down menu.</p> <p>Select a number for <b>First Position</b> to define the position of the delimiter in the text string.</p> <p>Select a number for <b>Number to Retain</b> to define the number of text string segments to retain.</p> <p>These examples show how to select text string segments by specifying a delimiter:</p> <ul style="list-style-type: none"> <li>• For the account number 324-1443255-11, you can use - as the delimiter to split the value into these three text strings: 324, 1443255, and 11. Select <b>Beginning of Line</b>. To select the second and third text strings (1443255 and 11), select <b>2</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>• For the mailing address Eldorado Springs CO 80025, you can use a blank character as the delimiter to split the value into these four text strings: Eldorado, Springs, CO, and 80025. Select <b>End of Line</b>. <ul style="list-style-type: none"> <li>– To select the zip code, select <b>1</b> for both <b>First Position</b> and <b>Number to Retain</b>.</li> <li>– To select the state, select <b>2</b> for <b>First Position</b> and <b>1</b> for <b>Number to Retain</b>.</li> <li>– To select the city, select <b>3</b> for <b>First Position</b> and <b>10</b> for <b>Number to Retain</b>. By specifying <b>10</b> for <b>Number to Retain</b>, you can select city names with up to ten words.</li> </ul> </li> </ul>
<b>Pad with Character</b>	<p>Select <b>Beginning of Line</b> or <b>End of Line</b> from the <b>Padding Location</b> list. Enter a character or a blank character as the padding character into the <b>Character to Pad with</b> field.</p> <p>Enter a number in the <b>Minimum Padded Text Length</b> field to define the minimum length of the text string. If the number of characters in the text string is less than this minimum length, padding characters are added until the text string equals the minimum length.</p>

11. Click  to add a new content definition row. After you have added all content types and modifier rules to the text you are adding to the PDF file, you can place a check mark in the box next to a content type and use the up and down icons to reorder the content. Use the  icon to delete selected content.
12. If you defined multiple lines of text and you want RICOH ProcessDirector Plug-in for Adobe Acrobat to remove lines that only contain white space, click the **Remove blank lines** check box to select it.

13. Click **OK** to create the text configuration.
14. Click **Ricoh** → **Preview** to verify the text has the content and page placement you intended.
15. Optional: You can edit the text definition by double-clicking its box or by right-clicking the box and clicking **Edit**.
16. When you are ready to save all your enhancements to the PDF file, including the new text definition, click **Ricoh** → **Save Control File**.
17. Move the control file to a directory location that RICOH ProcessDirector can access.
18. In the RICOH ProcessDirector BuildPDFFromDocuments step, specify the name and location of the control file that contains the text definition.

## Working with page inserts

The **Inserts Manager** dialog shows information about page inserts from other PDF files. You can add, edit, and delete page inserts. You also can set the order in which RICOH ProcessDirector adds the inserts to the documents in a job when the **BuildPDFFromDocuments** step runs.

The **Inserts Manager** dialog provides this information for each page insert:

- The **PDF file** column shows the directory path to the PDF file on the RICOH ProcessDirector primary server.
- The **Insert location** column shows whether the pages are inserted before or after the pages in the documents.
- The **Pages** column shows which pages in each PDF file are inserted.
- The **Rule** column shows the name of the rule that RICOH ProcessDirector uses to determine which documents in a job receive the inserts when the **BuildPDFFromDocuments** step runs.
- The **Sides** column shows whether the insert is one-sided, two-sided, tumbled, or that the setting is inherited from the job.

To add a page insert, click the  icon.

To work with a page insert, select it. Click the  icon to modify the page insert or the  icon to delete it.

RICOH ProcessDirector adds the inserts to the documents in a job in the order that they appear on the **Inserts Manager** list, from top to bottom.

To revise the order in which inserts are added to the documents, select an insert. Click the  icon or the  icon to move the insert up or down the list.

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## Inserting pages from other PDF files

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In a PDF file, you can insert pages from other PDF files before each document that matches the placement conditions, after each document that matches the placement conditions, or both. The inserted pages increase the number of pages in each document, and you can apply markup to them.

To insert pages from other PDF files:

1. Open a PDF file in Adobe Acrobat Professional and either load a control file that contains page groups or define page groups.
2. Click **Ricoh** → **Manage Inserts**.
3. Click the  icon.
4. Specify the first PDF file with pages that you want to insert:
  - If you can access the file, click **Browse** in the **File to Insert** section. Navigate to the file. Select it, and click **Open**.
  - If you cannot access the file, type the full directory path to the file on the RICOH ProcessDirector primary server.  
For example, type `/aiw/aiw1/insertpages/insert1.pdf` on a Unix-based system or `C:\aiw\aiw1\insertpages\insert1.pdf` on Windows.  
Make sure that RICOH ProcessDirector can access the file when the **BuildPDFFromDocuments** step runs.
5. To insert all pages in the file, click the **All pages** radio button.  
To specify the pages for insertion, click the **Specific pages** radio button, and type the page selection.
  - Use a hyphen to separate the first and last pages in a page range.
  - Use a comma to separate page selections.
  - Type n to specify the last page.  
For example, type `8-n, 5, 2` to insert the pages from 8 to the end of the insert file, followed by pages 5 and 2.
6. In the **Insert Location** section, choose whether to insert the pages before or after the pages in the documents that match the specified placement conditions.
7. In the **Placement Conditions** section, specify the documents that receive inserted pages:
  - To insert pages before or after each document in the open PDF file, click the **All documents** radio button.
  - To insert pages before or after some documents but not others, click the **Documents based on a rule** radio button.  
From the list, choose the rule that defines the placement conditions.  
You also can do these actions:
    - To define a new rule, click the  icon. See [Defining a rule, p. 43](#) for more information.
    - To go to the Rules Manager, click the  icon.

### ★ Important

- Custom rules for page inserts can include conditions based on the values of job properties, document properties, and document statistics (such as **Stat.TotalPagesInDocument** and **Stat.TotalSheetsInDocument**).
  - Conditions based on the values of conditional triggers or page statistics (such as **Stat.CurrentPageInJob** and **Stat.CurrentSheetInJob**) do not work with custom rules for page inserts. RICOH ProcessDirector evaluates whether a rule for page insertions applies to a document before evaluating the information on the individual pages in a document.
  - Pre-defined rules, such as **All Front Pages** or **Last Back Only**, add page inserts to all documents or no documents. Because those rules do not restrict page inserts to specific documents, do not use them for page inserts.
8. In the **Sides** section, specify whether you want to print the insert one-sided or two-sided.

#### Simplex

The insert prints on a single side of the paper.

#### Duplex

The insert prints on both sides of the paper, with the long side of the paper as the bound edge.

#### Tumble

The insert prints on both sides of the paper, with the short edge of the paper as the bound edge. The bottom of the front side of the sheet is the top of the back side of the sheet.

#### From print job

The insert prints on the sides specified in the print job.

9. Click **OK**.
10. To select another PDF file and specify how to insert pages, click the  icon. Repeat the steps for the first PDF file.

RICOH ProcessDirector inserts the pages from the PDF files in the order that the files appear on the **Inserts Manager** list, from top to bottom.

For example, an **Inserts Manager** list has 4 rows. The PDF files provide the following inserts:

- Page 1 in the first PDF file is inserted before each document in the open PDF file.
- Pages 4–6 in the second PDF file are inserted before each document.
- Pages 2–4 in the third PDF file are inserted after each document.
- Page 3 in the fourth PDF file is inserted after each document.

The first document in the open PDF file has 6 pages. After RICOH ProcessDirector adds the inserts, the first document has 14 pages, in this order:

- Page 1 from the first PDF file
- Pages 4–6 from the second PDF file
- Pages 1–6 from the original document
- Pages 2–4 from the third PDF file

- Page 3 from the fourth PDF file
11. To change the order that RICOH ProcessDirector uses to insert pages into documents, select a row on the **Inserts Manager** list. To move the row up or down the list, click the  icon or the  icon.
  12. When you finish adding PDF files to the list, click **OK**.
  13. Optional: To verify that the pages have been inserted as you intended, click **Ricoh** → **Preview**.

When you preview a PDF file with inserts, RICOH ProcessDirector Plug-in for Adobe Acrobat checks whether the PDF files are at the directory paths you specified on the **Inserts Manager** list.

- If they are, the pages are inserted from the PDF files at those directory paths.
- If they are not, the pages are inserted from the PDF files that are embedded in the control file.

If RICOH ProcessDirector Plug-in for Adobe Acrobat cannot find an embedded PDF file, the preview function displays a warning message and continues without inserting the pages.

14. When you are ready to save all your enhancements to the open PDF file, including the new inserts, click **Ricoh** → **Save Control File**.

In the control file, RICOH ProcessDirector Plug-in for Adobe Acrobat embeds the PDF files that it can access.

If the PDF files are embedded, you need not copy them to a directory accessible to a RICOH ProcessDirector server.

Whenever you save the control file, RICOH ProcessDirector Plug-in for Adobe Acrobat tries to replace each embedded PDF file with the file at the directory path shown on the **Inserts Manager** list.

15. In the RICOH ProcessDirector **BuildPDFFromDocuments** step, specify the name and location of the control file that contains the pages to insert.

When a job with inserts from other PDF files enters the **BuildPDFFromDocuments** step, RICOH ProcessDirector checks whether the PDF files are at the specified directory paths.

- If they are, the pages are inserted from the PDF files at those directory paths.
- If they are not, the pages are inserted from the PDF files that are embedded in the control file.

If RICOH ProcessDirector cannot find an embedded PDF file, the job moves to error state. The job cannot complete the **BuildPDFFromDocuments** step until RICOH ProcessDirector can access all the PDF files that provide inserts or until you remove the page insertion instructions from the control file.

### Example

Each document in a PDF file has from 1 to 3 pages. You want to insert page A at the end of documents with 2 pages. You want to insert page A and page B at the end of documents with 1 page.

1. Define a rule named `TotalPagesLessThan3` with 1 condition:  
`Stat.TotalPagesInDocument < 3`
2. Define a page insert for page A and another page insert for page B.
3. For each page insert:

- Click the **After documents** radio button.
- Click the **Documents based on a rule** radio button and select TotalPagesLessThan3.

4. Make sure that the insert for page A is above the insert for page B on the **Inserts Manager** list.

If a document has 1 or 2 pages, RICOH ProcessDirector adds page A. If the document now has 2 pages, RICOH ProcessDirector adds page B after page A.

## 2

## Media and finishing

You can specify media and finishing options for your sample PDF file and apply them as page exceptions to the job-level media and finishing options specified for RICOH ProcessDirector jobs.

You can apply media and finishing options to a range of pages or to the documents (page groups) within a PDF file. When applying media and finishing options to documents, you can use pre-defined rules or custom rules. For example, you can use a pre-defined rule to print the first page of each document on blue paper. You can define a custom rule so that each page with the words **Premier Member** in the upper right corner prints on gold paper.

Media and finishing options that you specify with RICOH ProcessDirector Plug-in for Adobe Acrobat override the options that RICOH ProcessDirector specifies for jobs.

### Note

- RICOH ProcessDirector Plug-in for Adobe Acrobat supports RICOH ProcessDirector media with electronic forms. The **Show electronic forms** preference determines whether Preview shows how sample files look when the data is combined with electronic forms defined for the media that the files use.

You can preview the PDF file as you add media and finishing options to verify that they have been applied to the intended pages.

Your media and finishing definitions are saved in the RICOH ProcessDirector Plug-in for Adobe Acrobat control file. RICOH ProcessDirector uses the control file to apply the definitions to print jobs automatically.

## Managing media and finishing options

The **Media and Finishing** dialog shows information about your media and finishing options for a PDF file. You can edit and delete options, select new media and finishing options, and set the order in which RICOH ProcessDirector applies the options to a PDF file.

For each page-level media or finishing option, the **Range** column shows the page selection or the name of the rule that RICOH ProcessDirector Plug-in for Adobe Acrobat uses to apply the option to documents in the PDF file. The **Paper substitution** column shows media options, and the **Subset finishing** column shows finishing options.

To specify a new page-level media or finishing option, click the  icon.

To work with a page-level media or finishing option, select it. Click the  icon to modify the option or the  icon to delete it.

To revise the order in which page-level media and finishing options are applied to the PDF file, select an option. Then click the up or down arrow to move it.

RICOH ProcessDirector Plug-in for Adobe Acrobat applies the page-level options to the PDF file in the order that they appear on the list, from top to bottom. If two page-level options specify conflicting selections for the same page (for example, two different types of media), RICOH ProcessDirector Plug-in for Adobe Acrobat applies the option that is lower on the list.

For example, the first option specifies Letter Blue media for the first page of each document in the PDF file. The second option specifies Letter Gold media for the first page of each document for a Gold Club member. When the PDF file is printed, the first page of every document for a Gold Club member prints on Letter Gold media. The first page of every other document prints on Letter Blue media. If the option for Letter Blue media is below the option for Letter Gold media, the first page of every document prints on Letter Blue media. No first pages print on Letter Gold media.

#### ↓ Note

The order of media options does not affect how RICOH ProcessDirector Plug-in for Adobe Acrobat applies finishing options, and vice versa.

## Selecting media and finishing options

You can select media and finishing options for specific pages in each page group by specifying a rule or typing page numbers. For example, you can specify that pages 1–4 of each page group are stapled. You can also specify that the first page of each page group prints on gold paper.

To select media and finishing options:

1. Click **Ricoh** → **Media and Finishing** and then click the  icon.
2. Select a media option on the **Paper substitution** list or a stapling option on the **Subset finishing** list.

#### ↓ Note

- The media options are the names of RICOH ProcessDirector media objects specified in the `media.zip` file (or the `media.xml` file from an older version of RICOH ProcessDirector). For more information, see the topic about loading media objects in the help system or *RICOH ProcessDirector: Installing Document Processing Features*.
3. Use the Placement Conditions section to specify the pages for the media or finishing option. Do either of these steps:
    - Select **Pages based on a rule**, and then select a rule from the list. The default rule is **All Pages**. You can also:
      - Define a new rule by clicking the  icon. See [Defining a rule, p. 43](#) for more information.
      - Go to the Rules Manager by clicking the  icon.
    - Select **Specify pages** and type the pages that you want. Media and finishing options are applied to these pages in each page group. You can:
      - Use a hyphen to separate the first and last pages in a page range.

- Use a comma to separate page selections.
- Type n to specify the last page in each page group.  
For example, a PDF file has two page groups. The first has four pages, and the second has seven pages. Specifying pages 3–n places markup on pages 3–4 in the first page group, and pages 3–7 in the second.

4. Click **OK**.

The option that you specified appears on the media and finishing list.

## 5. If you have multiple options for paper substitution or subset finishing, select the new option. Use the up and down arrows to move it into the proper position in the ordered list of options.

RICOH ProcessDirector Plug-in for Adobe Acrobat applies the page-level options to the PDF file in the order that they appear on the list, from top to bottom. If two page-level options specify conflicting selections for the same page (for example, two different types of media), RICOH ProcessDirector Plug-in for Adobe Acrobat applies the option that is lower on the list.

## 6. To verify that RICOH ProcessDirector Plug-in for Adobe Acrobat has applied media and finishing options to the intended pages:

1. Click **Ricoh** → **Preview**.

If a page has media and finishing options, you see an annotation labeled **Print Operations** in the upper right corner.

2. To see the media name and finishing option, hover the mouse pointer over **Print Operations**.

For example:

Media = Blue LetterStapling = Top left (#1)

(#1) indicates the sequence of the page in the finishing option. If you specify stapling for pages 5–8, page 5 is #1 and page 8 is #4.

As an alternative, click **Comment** on the Adobe Acrobat toolbar. In the **Comments** pane, you see a comment for each page with media and finishing options.

 **Note**

- The **Show electronic forms** preference determines whether Preview shows how sample files look when the data is combined with electronic forms defined for the media that the files use. Set the preference to **Yes** to see the data combined with the forms.

7. When you are ready to save all your enhancements to the PDF file, including the new media and finishing options, click **Ricoh** → **Save Control File**.

## 8. In the RICOH ProcessDirector BuildPDFFromDocuments step, specify the name and location of the control file that contains the media and finishing definitions.

## 3. Troubleshooting

- Determining the plug-in version
- Page groups do not display correctly
- You do not see markup on the correct pages in Preview
- Text selections show small boxes instead of text
- Fonts, images, or other resources are missing
- Fields in the RICOH ProcessDirector Plug-in for Adobe Acrobat cut off values
- Document properties are missing
- Media options are missing
- A font is not on the list when you add text to a PDF file
- Fonts with alternate letter forms do not display correctly
- QR barcode does not print Japanese data
- Error message tells you to check memory settings

If you encounter problems while you are working with RICOH ProcessDirector Plug-in for Adobe Acrobat, you might be able to use these topics to help solve them.

### Determining the plug-in version

**About** information includes the version number of RICOH ProcessDirector Plug-in for Adobe Acrobat that you currently have installed.

To determine the version:

1. Open Adobe Acrobat Professional and click **Ricoh** → **About**.
2. After viewing the information, click **Close**.

### Page groups do not display correctly

When page groups based on repeated text do not display as you expected in the Page Group Navigator, you have not correctly selected or specified the text for the page group.

You might need to adjust the width of the box that you drew or change the text that you specified.

If you selected the **Begin page group when the selected text is found** option, some characters in the PDF file might include white space that you need to enclose in the box you drew.

### You do not see markup on the correct pages in Preview

Preview shows markup based on the **Production Intent** property value in **Preview Preferences**.

For example, when the **Production Intent** property value is **Simplex** and the page placement is **Second Front Only**, Preview shows markup on the second page of each page group. When the **Production Intent** property value is **Duplex** and the page placement is **Second Front Only**, Preview shows markup on the third page of each page group.

If you do not see markup on the correct pages in Preview:

1. Click **Ricoh** → **Preview Preferences**.
2. Check the setting of the **Production Intent** property value.

## Text selections show small boxes instead of text

If you select text in a PDF file (for example, if you select text for a page group or document property) and the text you selected is represented by small boxes, your PDF file might be malformed. You cannot enhance a malformed PDF file using RICOH ProcessDirector Plug-in for Adobe Acrobat.

Two ways to determine if your PDF file is malformed are:

- Use the Acrobat search tool to locate text that you see in the PDF file. For example, you see the words "Account Number" on the first page of the PDF file. Type those words into the Acrobat search tool and run the search. If Acrobat cannot locate the words, the PDF file could be malformed.
- Copy text from the PDF file and paste the text into the Acrobat search field. If the text you pasted in the search field is different than the text you copied, your PDF file could be malformed.

## Fonts, images, or other resources are missing

Your PDF files, for both RICOH ProcessDirector Plug-in for Adobe Acrobat and RICOH ProcessDirector, must embed all their resources, including fonts and images.

## Fields in the RICOH ProcessDirector Plug-in for Adobe Acrobat cut off values

Monitors with a very high resolution and certain display settings can cause problems in the way information is displayed.

To change the way entry fields are displayed in the RICOH ProcessDirector Plug-in for Adobe Acrobat:

1. Right-click the Desktop and select **Display settings**.
2. Under **Scale and layout**, change the **Change the size of text, apps, and other items** value to **100%**.
3. Restart the computer for the change to take effect.

### Note

- If this change makes the fields too small to use, try changing the **Resolution** value.

## Document properties are missing

If you do not see the **Document Property** option in the **Go to** list in the RICOH ProcessDirector viewer, check to ensure you have a step based on the IdentifyPDFDocuments step template in your workflow. That step extracts document properties from a PDF file using the control file you generated from RICOH ProcessDirector Plug-in for Adobe Acrobat.

If you do not see a specific document property, use RICOH ProcessDirector Plug-in for Adobe Acrobat, load the control file you specified in the IdentifyPDFDocuments step, and verify that you defined the specific document property. You also might not have the current RICOH ProcessDirector document properties loaded.

If you do not see any document properties in the drop-down document property lists in RICOH ProcessDirector Plug-in for Adobe Acrobat, you need to load them. Follow the steps in the help topic on loading the RICOH ProcessDirector document property list.

For more information, see *RICOH ProcessDirector: Installing Document Processing Features*.

## Media options are missing

If you do not see RICOH ProcessDirector media objects on the **Paper substitution** list when you are defining media options, RICOH ProcessDirector Plug-in for Adobe Acrobat does not have a current list of RICOH ProcessDirector media objects.

RICOH ProcessDirector Plug-in for Adobe Acrobat gets media objects from a `media.zip` file (or a `media.xml` file generated by an older version of RICOH ProcessDirector). When you install RICOH ProcessDirector Plug-in for Adobe Acrobat and whenever you update media objects in RICOH ProcessDirector, load media objects to RICOH ProcessDirector Plug-in for Adobe Acrobat. For more information, see *RICOH ProcessDirector: Installing Document Processing Features*.

## A font is not on the list when you add text to a PDF file

When you add text to a PDF file, the font list should include all fonts available to Adobe Acrobat except for fonts that do not permit embedding in PDF files.

If the font list does not include a font that should be available:

1. Make sure that the font is installed in the Windows **Fonts** folder or the `Resource\Font` folder of your Adobe installation.
2. If the font is installed, set the logging level to warning messages:
  1. Click **Ricoh** → **Preferences**.
  2. On the **Logging** tab, click **Warn** in the **Logging Level** section.

If certain installed fonts are not included in the fonts list when you add text to a PDF file, RICOH ProcessDirector Plug-in for Adobe Acrobat issues a warning message with the reason. The message is saved to the log file.

## Fonts with alternate letter forms do not display correctly

This version of RICOH ProcessDirector Plug-in for Adobe Acrobat does not support alternate letter forms, including ligatures, swashes, and letter forms that vary according to where they appear in a word. Right-to-left languages, such as Hebrew and Arabic, are rendered incorrectly.

When you add text to a PDF file, the drop-down list of fonts shows all fonts in the Windows **Fonts** folder. The list might include fonts for right-to-left languages and fonts with unsupported alternate letter forms.

## QR barcode does not print Japanese data

If the data within the QR barcode should be encoded in Shift JIS (SJIS):

1. Double-click the box you drew that defines the QR barcode.
2. Click **Settings** and enter **Shift\_JIS** in the **encoding** field.

The input data is always Unicode; however, this setting translates the Unicode characters into the Shift JIS encoding for the content of the QR barcode.

Setting the encoding field to `Shift_JIS` or `SJIS` produces UTF-8 that is encoded in Shift JIS. This encoding is not interpreted correctly on DoCoMo Imode phones (common in Japan). DoCoMo Imode phones are compatible with encoding settings of: `sjis`, `x-sjis`, `windows-31J`, `MS_Kanji`, `csShiftJIS`, `csWindows31J`,

windows-932, cp943c, ibm-943. These encodings might produce different QR barcodes because they have conflicting code points.

## **Error message tells you to check memory settings**

If you are working with a large PDF source file and an error message tells you to check memory settings, you might need to increase the RICOH ProcessDirector Plug-in for Adobe Acrobat memory allocation.

To increase the memory allocation:

1. Click **Ricoh** → **Preferences** → **Advanced**.
2. Increase the **Heap Size (MB)**.
3. Restart Adobe Acrobat.

## 4. Accessibility

Ricoh strives to provide products with usable access for everyone, regardless of age or ability.

For more information about the commitment that we have made to accessibility, refer to the [Accessibility page](#) on the Ricoh web site.

### Accessibility features

Accessibility features help users who have disabilities, such as restricted mobility or limited vision, use information technology products successfully.

The major accessibility features in this product let you:

- Use screen readers, screen magnifiers, and other assistive technologies.
- Use a keyboard instead of a mouse.
- Change attributes such as volume, color, contrast, and font size.
- Distinguish keys by touch without activating them.
- Attach alternative input and output devices such as special pointing devices and Braille displays.

In addition, the information center and the publications for the product are in an accessible format.

### RICOH ProcessDirector Plug-in for Adobe Acrobat Markup Navigator shortcut keys

When a markup object that you defined has focus in the Markup Navigator, you can use these shortcut keys:

#### Markup Navigator shortcut keys

Description	Key
Opens the <b>Edit</b> dialog	Enter
Deletes a markup object	Delete

### Keyboard navigation

This product uses standard Microsoft Windows navigation keys.





