



GA-1310

## Workflow Examples



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## INTRODUCTION

This document provides examples of complex printing scenarios and an overview of GA-1310 features used in the examples. The example workflows illustrate how you can combine features to create jobs. Each workflow includes cross-references to help you locate more information about performing each task.

### Terminology and conventions

This document uses the following terminology and conventions.

| Term or convention  | Refers to   |
|---|---|
| Aero  | GA-1310 (in illustrations and examples)   |
| Copier<br>(multifunctional peripheral)  | The copier attached to the GA-1310  |
| GA-1310   | GA-1310   |
| Mac OS  | Apple Mac OS X  |
| Titles in <i>italics</i>  | Other documents in this set   |
| Windows   | Microsoft Windows 2000, Windows XP, Windows Server 2003, Windows Vista                |
|  | Topics for which additional information is available by starting Help in the software |
|  | Tips and information  |
|  | Important information   |
|  | Important information about issues that can result in physical harm to you or others  |

## About this document

This document covers the following topics:

- Mixed Media and how it is used in an example workflow
- Imposition and how it is used in an example workflow using Impose
- Variable Data Printing (VDP) with FreeForm and how it is used in an example workflow using FreeForm
- Printing to a Hot Folder on the network and an example workflow using Hot Folders
- Definitions for popular applications and printing terms used within this document

## MIXED MEDIA

This chapter provides an overview of Mixed Media and an example workflow that includes Mixed Media.

### What is Mixed Media?

The Mixed Media feature allows you to print ranges of pages on different types of media. For example, you can use Mixed Media to specify a heavy stock for the cover, add blank pages, insert colored media on designated pages, and specify duplex pages within a single print job. Specify Mixed Media settings when you print a job from an application with the printer driver. Define and modify the Mixed Media settings of jobs already sent to the GA-1310 from Command WorkStation or define Mixed Media settings in the Hot Folders application.

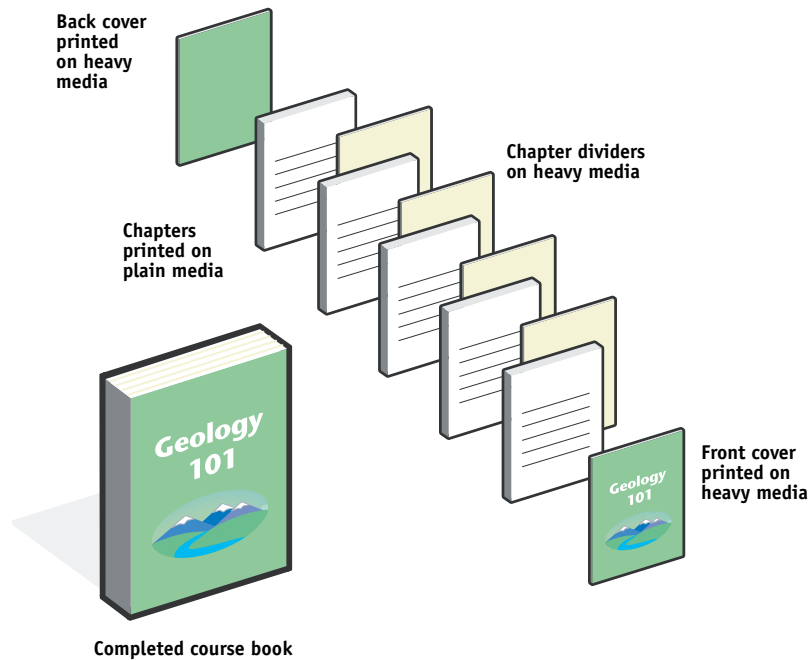
For more information about Mixed Media, see [Utilities](#).

### Example: Workflow with Mixed Media

A geology professor at Ocean Crest University wants to print her new course book for the fall semester. The new course book consists of eight chapters. She wants her students to be able to find the information they want easily and quickly. To ensure this, each chapter divider in the book is printed on heavy media. The chapter text is printed on plain media and the front and back covers are printed on heavy media.

The professor sends her request, along with the book file in PDF format (Geology101.pdf), to the university's in-house production department.

The following diagram illustrates the components of the course book.



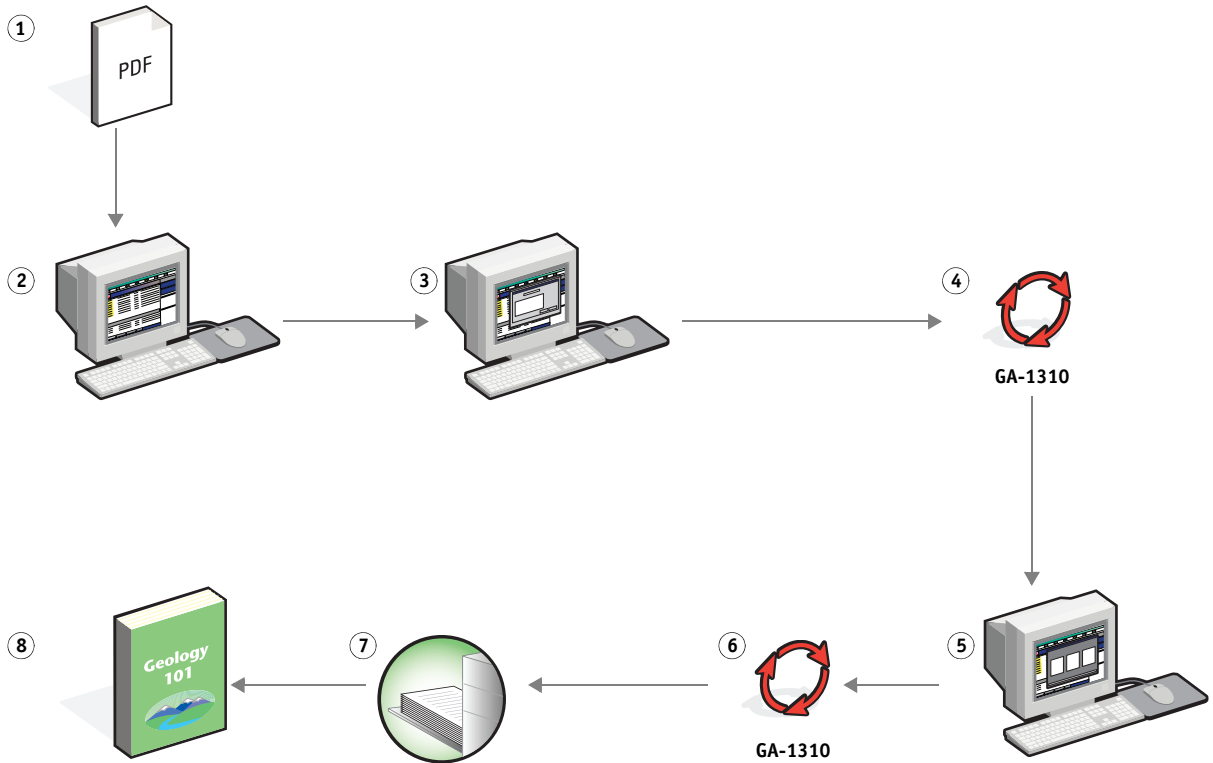
### Items required for this example


- Geology101.pdf
- GA-1310
- Command WorkStation with Mixed Media
- Heavy media for the front and back covers
- Heavy media for chapter dividers
- Plain media for the chapter text




For information about supported media types, see [Print Options](#).

**NOTE:** The GA-1310 supports PDF versions 1.2 through 1.7.

Mixed Media workflow



| Step | Task   | For more information   |
|------|--|--|
| 1    | The professor creates the PDF and sends the file to the university's in-house production department. |  |
| 2    | The operator in the production department downloads the file to Command WorkStation.                 |  <a href="#">Command WorkStation Help</a> |

| Step | Task   | For more information   |
|------|--|--|
| 3    | <p>The operator selects the job in Command WorkStation and chooses Properties from the Actions menu.</p> <p>a) The operator clicks the Media icon in the Job Properties toolbar and scrolls down to Mixed Media. From New Page Range, the operator types 2, 32, 64, 98, 124 for the page range (the pages that divide the chapters), specifies heavy media, indicates which tray contains the heavy media, and clicks Close.</p> <p>b) While still in Mixed Media, the operator clicks New Insert and specifies inserting a blank page after the last page to distinguish the end of the print job, clicks Insert, and then clicks Close.</p> <p>c) The operator click Define Cover, specifies front and back covers that print on front only, cover stock, the tray to pull media from, and clicks OK.</p> <p>d) The operator clicks the Layout icon, specifies duplex, clicks OK, and then saves the file.</p> | <i>Utilities</i>   |
| 4    | The operator processes and holds the job.  |  Command WorkStation Help |
| 5    | The operator previews the job.   |  Command WorkStation Help |
| 6    | <p>The operator prints the job.</p> <p><b>NOTE:</b> The operator can also print one set as a proof before printing multiple copies.</p>  |  Command WorkStation Help |
| 7    | The operator retrieves the job from the copier.  |  |
| 8    | The job is printed with a front and back cover and dividers for each chapter.  |  |



To use Mixed Media in Command WorkStation, your downloaded file must be a non-raster file. To remove raster information from a file in Command WorkStation, right-click the file and select Remove Raster Data.

You can duplicate this workflow with a PostScript file instead of a PDF.

## IMPOSITION

This chapter provides an overview of imposition and an example workflow using imposition.

### What is imposition?

Imposition is the process of arranging individual pages of a book, booklet, or brochure on a large sheet. The pages are laid out such that when the sheet is printed, folded, and cut, the pages are in the correct orientation and order.

The GA-1310 supports Impose. Impose is a server-based imposition application that allows you to edit and assemble entire documents on the GA-1310 before you process the files.



For more information about imposition, see Command WorkStation Help.

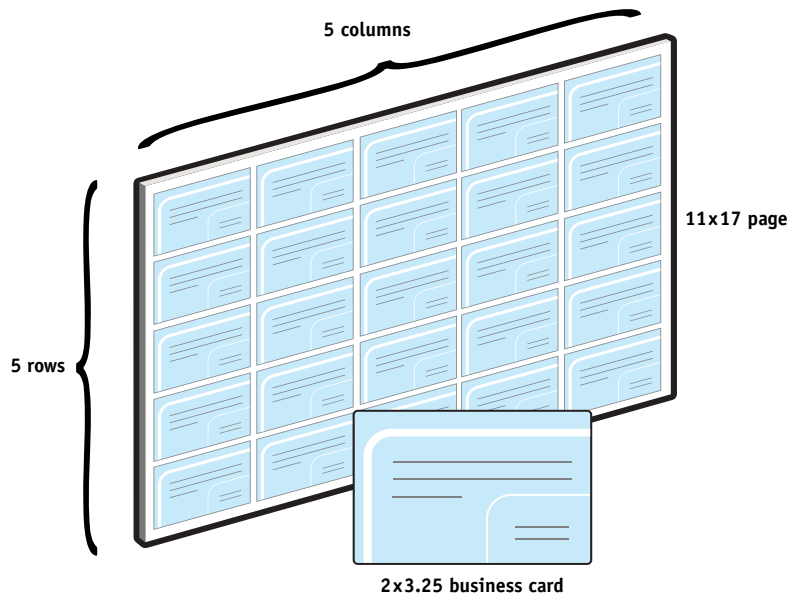
### Example: Workflow with imposition

The manager of Company ABC wants to make sure that she has enough business cards to distribute when she manages her company's booth at the Consumer Electronics Show.

She has sent out a request to a local print shop to print 600 cards.

The print shop imposes her business cards on an 11x17 page. Since the card design incorporates text on the back, the job must be duplexed. Company ABC's standard business card size is 2 x 3.25. The print shop calculates that they can impose 25 cards on one 11x17 page.

The following graphic illustrates how the business cards are imposed.

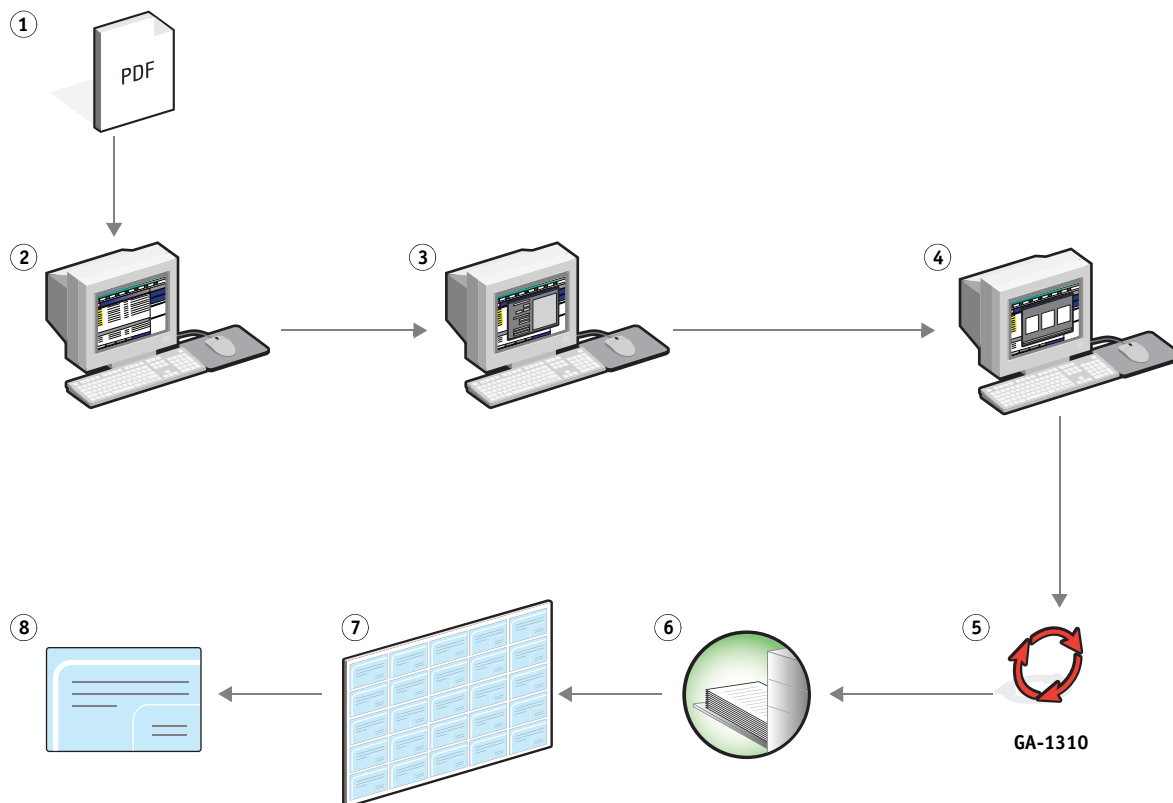



### Items required for this example



- Card.pdf
- GA-1310
- Command WorkStation with Impose (requires a dongle)
- 11x17 heavy media, such as card stock  
For information about supported media types, see [Print Options](#).
- A paper cutter

**NOTE:** The GA-1310 supports PDF versions 1.2 through 1.7.

Imposition workflow



| Step | Task   | For more information   |
|------|--|--|
| 1    | Company ABC creates the 2x3.25 business card, saves it as Card.pdf, and then sends the file to the print shop. | <a href="#">Printing from Windows</a><br><a href="#">Printing from Mac OS</a>                                |
| 2    | The operator at the print shop downloads the file to Command WorkStation.                                      |  Command WorkStation Help |

| Step | Task  | For more information   |
|------|---|--|
| 3    | <p>The operator selects the job in Command WorkStation, chooses Impose from the Actions menu, and then applies the following settings.</p> <ul style="list-style-type: none"> <li>a) From the Sheet bar, the operator specifies 11 x 17, landscape, and duplex.</li> <li>b) From the Layout bar, the operator specifies five rows and five columns, turns on printer's marks, and then defines both the offset horizontal and vertical printer's marks to 0.125 pt.</li> <li>c) From the Finishing bar, the operator specifies gang up repeat.</li> <li>d) From the Scale bar, the operator specifies the scale at 100% and saves the job.</li> </ul> | <i>Utilities</i>   |
| 4    | The operator selects Card.pdf.dbp in Command WorkStation and selects Preview.   |  Command WorkStation Help |
| 5    | The operator prints the job.  |  Command WorkStation Help |
| 6    | The operator retrieves the job from the copier.   |  |
| 7    | The cards are printed on an 11 x 17 page.   |  |
| 8    | The operator follows the printer's marks and cuts the business cards.   |  |



When you use Impose, your downloaded file must be a non-raster file. To remove raster information from a file with Command WorkStation, right-click the file and select Remove Raster Data.

## VARIABLE DATA PRINTING WITH FREEFORM

This chapter provides an overview of variable data printing, and an example workflow that uses FreeForm to create a variable data job.

### What is variable data printing?

Variable data printing links a copier to databases that contain the content for printed documents. Content can consist of text and images (including graphics and photographs) in electronic form. Variable data printing is used for direct-mail advertising or other targeted mailings. It typically combines a set of master elements that are common across copies of a document with a set of variable elements that change from copy to copy. An example is a brochure that greets customers by name and may include other personal information about the customer obtained from a marketing database. Background elements, illustrations, and text blocks that do not change across copies of the brochure are the master elements. The customer name and other customer-specific information are the variable elements.

For more information, see [Variable Data Printing](#).

### Variable data printing languages

The GA-1310 is compatible with the following variable data printing languages:

- FreeForm and FreeForm 2

For more information about how to send variable data printing to the GA-1310, see [Variable Data Printing](#).

### What is FreeForm and how is it used with variable data print jobs?

FreeForm allows you to use print options to define and store master-element documents, called FreeForm masters, on the GA-1310. You can send a variable-element job to the GA-1310 with instructions to combine the job with a particular FreeForm master.

For more information, see [Variable Data Printing](#).

## Example: Variable data workflow using FreeForm

Ocean Crest University wants to promote their three schools through a mailing to prospective students. The students will be able to request information about the different campuses and programs. Students can reply via a postage-paid business reply card integrated into the mailer. The document is personalized with the prospective student's name, address, and a personal web link. The design is graphic-intensive to attract the attention of the reader. It is printed on 11x17 paper and folded three times, in order to qualify for the standard "letter" mail rate at the post office.

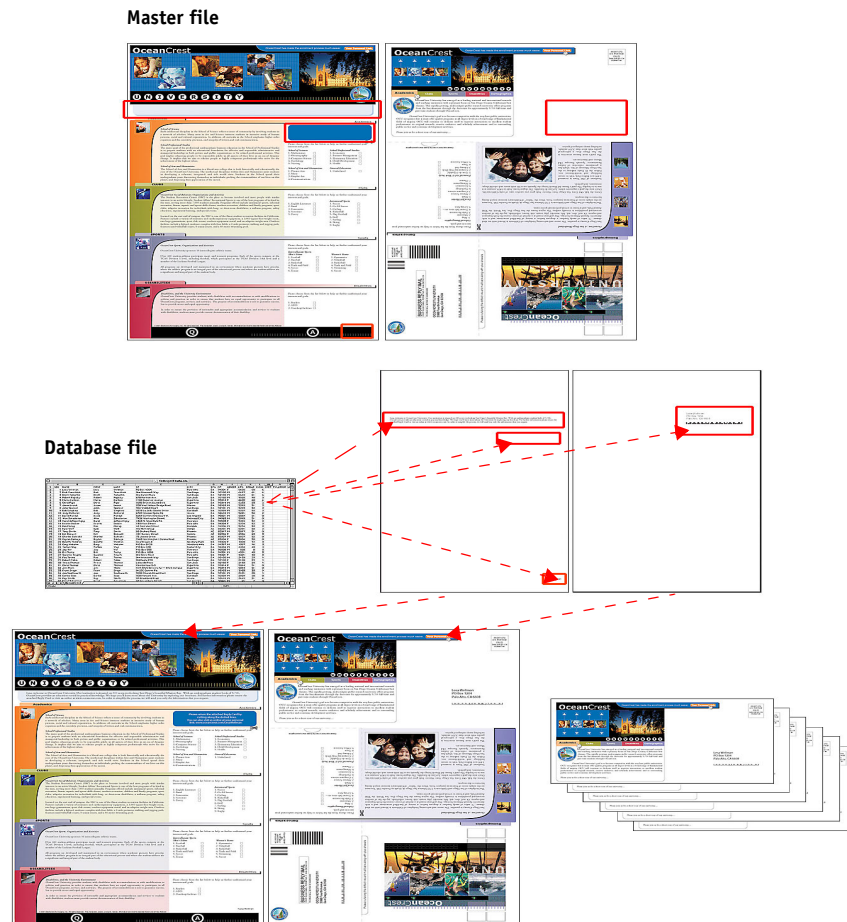
To create this mail piece, the in-house production department decides to use the caching capabilities of FreeForm. FreeForm allows them to store a rasterized version of the graphic intensive layout in memory, since these elements are common to all pages (send and process once). The variable text (address, name, and web link) is printed separately and merged with the layout at the GA-1310.

The production department creates the master document with all the common elements and saves the file as a PDF (College\_Master.pdf). Next, they create the variable document in Microsoft Word (College\_Variable.doc) and link the variable information to their database file (College\_data.xls).

**NOTE:** No specialized variable printing software is used to build this job. You can use any page layout application to create the FreeForm master and any mail merge function, such as Microsoft Word Mail Merge, to build and print the variable data.

For more information about how to use the Mail Merge feature in Microsoft Word, see the documentation that accompanies Microsoft Word.

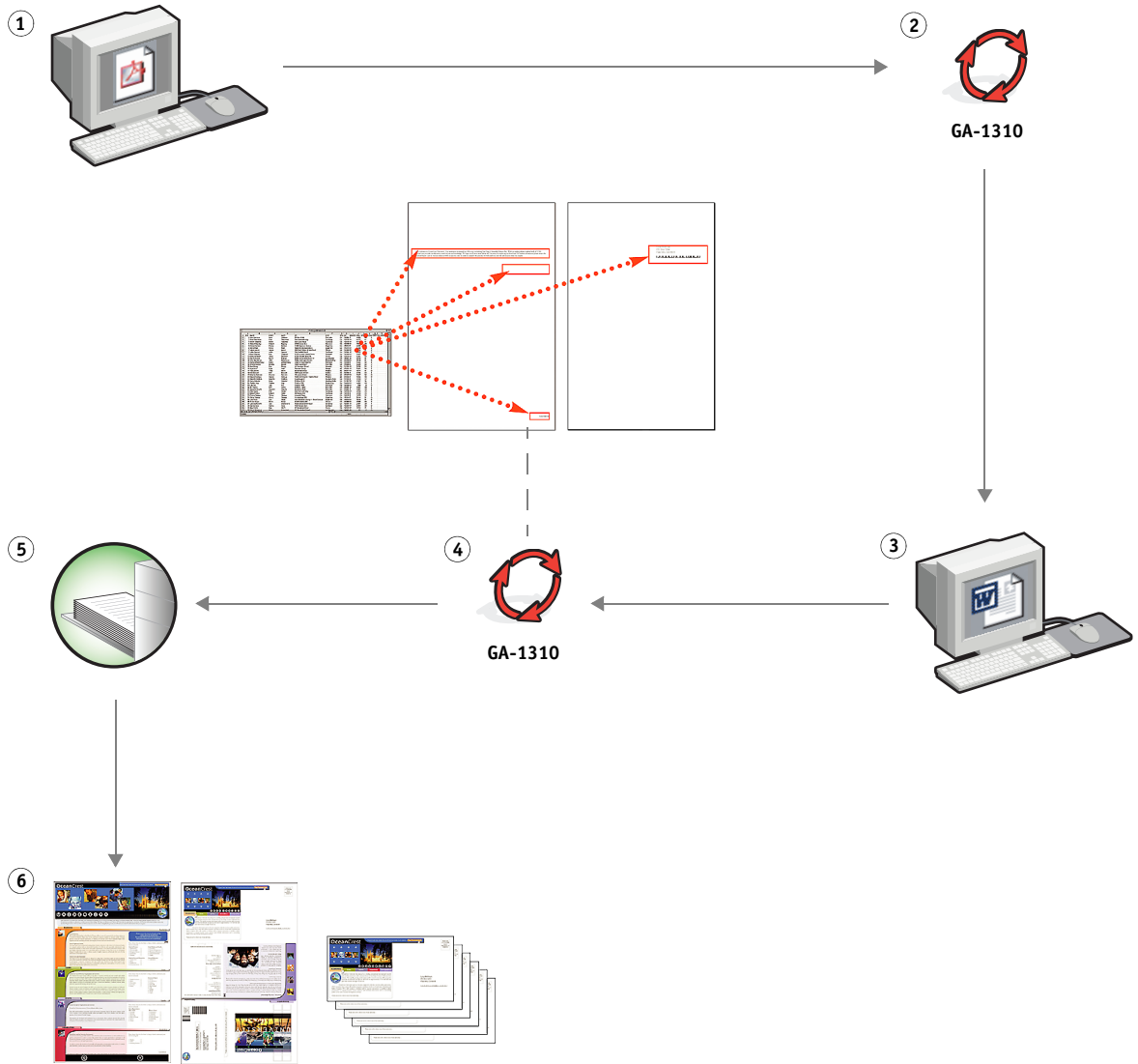
The following diagram illustrates the components of the mailer.



### Items required for this example

- College\_Master.pdf
- College\_Variable.doc
- College\_data.xls
- GA-1310
- GA-1310 printer driver with FreeForm
- A computer with Adobe Acrobat, Microsoft Word, and Microsoft Excel installed

Variable data printing workflow using FreeForm



| Step | Task  | For more information  |
|------|---|---|
| 1    | The operator in the production department opens College_Master.pdf in Acrobat.  |   |
| 2    | The operator prints the file to the GA-1310, specifying 11x17 and duplex, and choosing 1 for Create Master in the printer driver. | <a href="#">Printing from Windows</a><br><a href="#">Printing from Mac OS</a> |

| Step | Task  | For more information   |
|------|---|--|
| 3    | <p>The operator opens the College_Variable.doc in Microsoft Word.</p> <p>The variable document also opens the College_data.xls file, since the two documents are linked. If the documents are not linked, Word prompts the operator for the location of the Data Source File.</p> <p>The operator selects Data Merge in Word.</p> | Microsoft Word documentation   |
| 4    | <p>The operator prints the file to the GA-1310, specifying 11x17 and duplex, and choosing 1 for Use Master in the printer driver.</p> <p>The master file and variable file are combined on the GA-1310.</p>   | <p><i>Printing from Windows</i></p> <p><i>Printing from Mac OS</i></p> |
| 5    | The operator retrieves the job from the copier.   |  |
| 6    | The mailer includes the combined master and variable data.  |  |



Certain elements of the master and variable information must match. For example, the page size and orientation must match. For a complete list, see [Variable Data Printing](#).

You cannot send FreeForm jobs to the Direct connection.

If Two-Way Communication is enabled in the printer driver, the printer driver can detect what masters already reside on the GA-1310. Use stored FreeForm masters as often as needed with multiple sets of variable elements. For more information about Two-Way Communication, see [Printing from Windows](#).

If the administrator clears the GA-1310, all FreeForm masters are deleted. For more information about administrator functions, see [Configuration and Setup](#).

## HOT FOLDERS

This chapter provides an overview of Hot Folders and an example workflow using Hot Folders.

### What is a Hot Folder?

Hot Folders is a software application that streamlines network printing tasks. A Hot Folder is a folder to which you can assign a group of print options, along with a GA-1310 print queue.

To print a document, drag and drop the file onto the Hot Folder. You can create multiple Hot Folders, each with different settings and different GA-1310 connections. Depending on the configuration of the Hot Folder, jobs are routed to a GA-1310 with settings that you have configured.

Hot Folder software runs as a background utility, continuously monitoring Hot Folders for new jobs.



For more information about Hot Folders, see [Utilities](#) and Hot Folders Help.

### Example: Workflow with Hot Folders

Greg works for Company ABC and wants to print 25 copies of his new business cards.

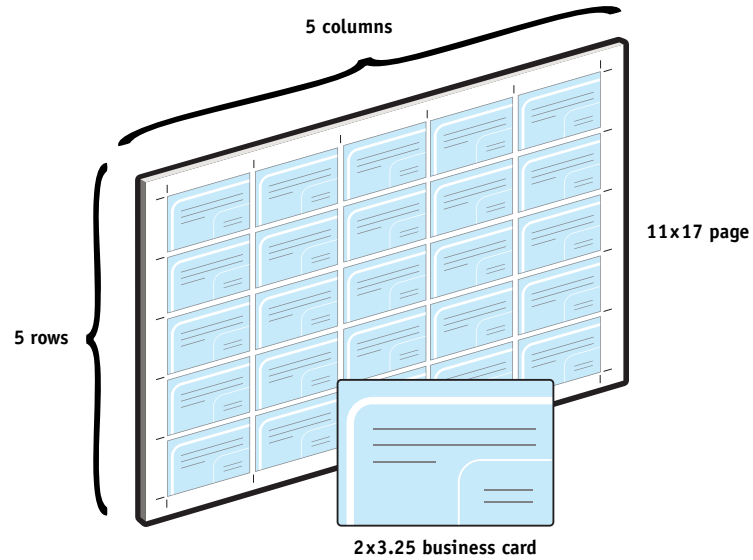
Company ABC has configured a network Hot Folder called “BusinessCards,” so that their employees can drop their business card .pdf file directly onto the Hot Folder for printing.

Greg creates his business cards using the required company business card template, and saves the file as GregCard.pdf. The business card template ensures that the cards are printed optimally, using the imposition settings specified in the BusinessCards Hot Folder.

After the cards are printed, an operator in the company print shop cuts the cards and places them in interoffice mail for the employee.

Company ABC business cards are 2x3.25 inches in size.

The following graphic illustrates how the business cards are imposed.

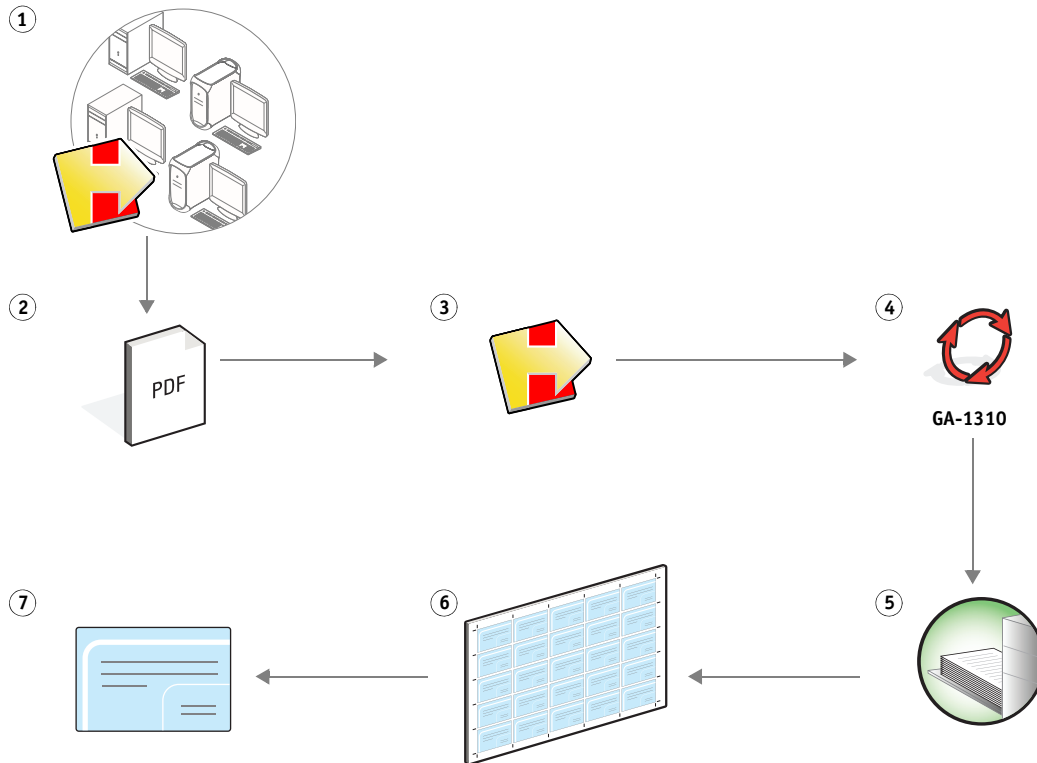



### Items required for this example


- GregCard.pdf
- GA-1310
- Hot Folder configured on the network
- 11x17 heavy media, such as card stock  
For information about supported media types, see [Print Options](#).
- A paper cutter

**NOTE:** The GA-1310 supports PDF versions 1.2 through 1.7.

## Hot Folders workflow



| Step | Task  | For more information   |
|------|---|--|
| 1    | <p>The operator at Company ABC creates a Hot Folder on the network, names it “BusinessCards,” and applies the following Hot Folder settings.</p> <p>a) From Job Settings, the operator specifies 25 copies.</p> <p>b) From the Sheet tab in Imposition Settings, the operator specifies 11x17 for Sheet Size, Landscape for Orientation, and Off for Duplex.</p> <p>c) From the Layout tab in Imposition Settings, the operator specifies 5 Rows and 5 columns, and selects Printer’s Marks.</p> <p>d) From the Scale tab in Imposition Settings, the operator specifies scale at 100%.</p> <p>e) From the Finishing tab in Imposition Settings, the operator selects Gang Up and chooses Repeat.</p> | <p><a href="#">Utilities</a></p> <p> Hot Folders Help</p> |
| 2    | Greg locates his file, GregCard.pdf, on his computer.   |  |

| Step | Task  | For more information   |
|------|---|--|
| 3    | Greg drops the file GregCard.pdf on the BusinessCards Hot Folder.     |  Hot Folders Help |
| 4    | The job prints.   |  |
| 5    | The operator retrieves the job from the copier.                       |  |
| 6    | The cards are printed on an 11x17 page.                               |  |
| 7    | The operator follows the printer's marks and cuts the business cards. |  |



Hot Folders does not apply any constraints between Job Settings and Imposition Settings. For a list of settings that should not be modified in Hot Folder Job Settings when Imposition Settings are used, see [Utilities](#).



## TERMS

### **Authoring tool**

A software application used to create text or images, or to define layouts for documents.

### **Component**

In variable data printing, an element such as text, a graphic, or a photograph that is printed on a page.

### **Encapsulated PostScript (EPS)**

A PostScript file format designed to be embedded in another PostScript stream.

### **FreeForm**

A variable data printing technology that works with variable-data printing solutions. It allows data that is used many times in a variable-data printing job to be processed just once, enabling a copier to run at or near rated speed.

### **FreeForm 2**

FreeForm 2 expands FreeForm technology by allowing you to determine page conditions and rules for printing a job containing multiple master pages. Unlike FreeForm, FreeForm 2 requires a variable data printing application that specifically supports FreeForm 2.

### **Imposition**

Grouping and arranging pages for efficient printing on larger sheets of paper, taking into account the need to cut and bind the pages after printing.

### **Master elements**

Used in variable data printing with variable elements. Reusable data that is common across copies of a document.

### **Mixed Media**

A feature that allows you to print ranges of pages on different types of media.

### **PDF (Portable Document Format)**

An open file format specification that describes text and graphics in documents.

### **PostScript**

A device-independent page description language that is used to print and display pictures and text. PostScript 3 includes many enhancements to older versions of PostScript, including improved image quality.

**Raster image**

Electronic representation of a page or image using a grid of points called pixels.

**Rasterization**

The process of converting code that describes text and graphics into the format that is understood by a printer's "print engine" to print them on a page.

**Variable Data Printing (VDP)**

Digital technology that links print engines to databases that contain the content for printed documents in order to print pages that vary in content.

**Variable elements**

Used in variable data printing with master elements. Data that changes across copies of a document.

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