FreeFlow® Web Services
Integration Guide
Book Assembly Supplement
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Introduction

This guide describes how to integrate FreeFlow® Web Services with the Book Assembly optional module. Web Services Book Assembly allows customers to take multiple files and file types, perform a soft-proof and dynamically create bound books or other finishing options from virtually any location.

- The actual routing of the job is normally assigned as part of the pricing setup of a template or job type. The JDF information is sent via JMF messages to the next module in the workflow.
- A FreeFlow Web Services Output Device is created to route the jobs to the appropriate FreeFlow module.

For more information on all Web Services printing workflows, and integrations with other FreeFlow applications, refer to the FreeFlow Web Services Integration Guide.
Navigating this Document

Additional References for Book Assembly

- *FreeFlow Web Services Print Buyer Guide*
- *FreeFlow Web Services Print Service Provider Guide*
- *FreeFlow JMF Service User Guide*
- *FreeFlow Print Server on-line help*
- *FreeFlow Web Services Integration Guide*

Reference materials may be obtained from the Xerox Analyst or by visiting the Support and Drivers section on xerox.com.
Documentation conventions

This document uses the following text and graphic conventions to help you recognize information:

- **Square brackets** - Names of menu commands, buttons and options you select in windows and dialog boxes, and multiple options selected in a given sequence are enclosed in square brackets (for example, “Select [Start: Programs: Accessories: Paint] from the Windows taskbar.”).

- **Angle brackets** - Names of keys you press are enclosed within angle brackets (for example, “Press <Enter>.”). If you need to press more than one key at a time, the keys are enclosed within angle brackets and separated by a plus sign (for example, “Press <Ctrl>+<Alt>+<Del> to reboot.”).

- **Bold** - Text or commands you need to type are shown in bold (for example, “Type a:\setup.exe in the Run text box.”)

- **Italicized angle brackets** - Variable information that requires customer- or site-specific information is presented in italics between angle brackets (for example, “Enter <cd_drive>:\setup.exe to install the program.”).

- **Italics** - Names of documents and libraries are displayed in italics (for example, “Refer to the Xerox Web Services Integration Guide for more information.”).

- **‘Single quotation marks’** - Long screen names and display items which are either not easily discerned or which are better designated in a generic fashion are displayed in single quotes (for example, “the ‘Installation Wizard’ displays.”)

- **“Entering” values** - When instructed to “enter” something in a command line interface, such as on a print server, it is assumed that you will type in the value or command and press <Enter> or <Return>. For example, “Enter su root” would require you to type “su root” and press <Enter> or <Return>.

**WARNING**

A warning indicates that you might cause serious injury or death if you are not careful when performing the practice, procedure, condition, or statement.

**CAUTION**

A caution indicates that you might lose data or damage equipment if you are not careful when performing the practice, procedure, condition, or statement.

**Note:** A note indicates some important or special information you should know when performing a step or procedure.
Book Assembly Setup

1. FreeFlow Print Server
   - Configure the FreeFlow Print Server Stock Library
   - Create a FreeFlow Print Server printer queue for the Book Assembly print workflow
   - Load and validate applicable stocks in Xerox printer trays

2. Select a Web Services Book Assembly Print Workflow
   - **Workflow 1:** FreeFlow JMF Service Print Workflow
     - Install FreeFlow JMF Service co-resident on the Web Services server and configure JMF Service
   - **Workflow 2:** FreeFlow Output Manager Print Workflow
     - Configure print queue on FreeFlow Output Manager

In both printing workflows, the JDF ticket with the job properties associated with the Book Assembly job is routed to the FreeFlow Print Server (DFE). JMF messaging is used to communicate the status of the job through the printing workflow back to the Web Services Production Queue.

3. FreeFlow Web Services
   - Check Stock Library with Print Server Stock Library
   - Define a FreeFlow Output Device for the Book Assembly print workflow
   - Create a Book Assembly Template

Book Assembly Printing Workflows and JDF Job Tickets

FreeFlow Web Services achieves automation in production printing by implementing JDF/JMF Printing Workflows in combination with Xerox production printers.

For more information on all Web Services printing workflows, and integrations with other FreeFlow applications, refer to the FreeFlow Web Services Integration Guide.

Select a Print Workflow and follow the instructions to setup and configure each FreeFlow component for Book Assembly. FreeFlow Web Services Book Assembly can only be used with the following JDF/JMF printing workflows:

1. **FreeFlow JMF Service:** installed on the same server as FreeFlow Web Services
   - Workflow 1: FreeFlow JMF Service Print Workflow

2. **FreeFlow Output Manager:** a specific queue is selected in FreeFlow Output Manager
   - Workflow 2: FreeFlow Output Manager Print Workflow

Both workflows use JDF digital printing Process for Book Assembly jobs. The job ticket parameters supported in the JDF ticket are outlined in Supported JDF Job Ticket Parameters on the next page.

A Web Services Output Device is created to route the job to the appropriate FreeFlow component in the printing workflow.
Note
The FreeFlow Process Manager workflow cannot be used with Web Services Book Assembly. Web Services supports submission of standard jobs (i.e., no page exceptions) to Process Manager via JDF Intent, which does not carry the necessary JDF parameters required to process a Book Assembly job. Refer to the Web Services Integration Guide for more information on supported printing workflows for Process Manager.

Supported JDF Job Ticket Parameters
Since JDF is an emerging standard, not all possible job ticket attributes from FreeFlow Web Services are currently supported by the JDF printing path. When following one of the two printing workflows (JMF Service or Output Manager), the job parameters below can be transferred via JDF process:

- Number of Copies
- Media (weight, size, color, type)
- Sides imaged (one side, two sides, head-to-toe)

Finishing
- Saddle Stitch (fold and stitch)
- Folding

Covers (for Book Assembly)
- Add Front Cover (media, print on front, print on back)
- Add Back Cover (media, print on front, print on back)

Insert Tabs (for Book Assembly)
- Insert after page number
- Media (weight, size, color, type, sequence number)
- Tab Text

Exceptions Pages (for Book Assembly)
- Media (weight, size, color, type)
- Sides imaged (one side, two sides, head-to-toe)
FreeFlow Print Server Stock Library / Printer Setup

FreeFlow Print Server requires the following setup:

- Configure the FreeFlow Print Server Stock Library
- Create a FreeFlow Print Server printer queue for Book Assembly print workflow
- Load and validate applicable stocks in Xerox printer trays

**Note**
You must configure the Web Services Stock Library with the required stocks before creating a Book Assembly template and assigning the stock to the template.

**Configure the FreeFlow Print Server Stock Library**

Create the stock in the FreeFlow Print Server Stock Library that will be used in the FreeFlow Web Services Book Assembly workflow for all supported segments of the Book Assembly.

- To set up FreeFlow Print Server Stock Library parameters, refer to FreeFlow Print Server online help: Adding a new stock

**Important Note**

The FreeFlow Print Server Stock Library must match both the Web Services Stock Library and the stock assigned to the Book Assembly template. See figures below, and refer to Section 2: FreeFlow JMF Service Print Workflow; Create a Book Assembly Job Type for more information.

**FreeFlow Print Server Stock Library**
Web Services Stock Library

Note
To determine the JDF ticket properties supported on the Web Service JDF Ticket for the FreeFlow Print Server, refer to: *Introduction, Supported JDF Ticket Parameters*

FreeFlow Print Server / Web Services Stock Library Fields

FreeFlow Print Server Stock Library
Note
The Web Services Stock Library provides several Paper Stock Coating options to choose from, and not all options map to a corresponding coating attribute on the FreeFlow Print Server. The option(s) defined for each stock in the Web Services Stock Library should match the attribute selected for the stock on the FreeFlow Print Server exactly. In addition, the options defined for each side of the stock (front/back) should be identical.
Create a FreeFlow Print Server Print Queue

Create a Printer Queue on the FreeFlow Print Server for Book Assembly Jobs.

- To set up a FreeFlow Print Server Print Queue parameters, refer to *FreeFlow Print Server online help: How do I create a queue?*

Ensure that all the stocks used in the Web Services Book Assembly workflow have been defined in both the FreeFlow Web Services Stock Library and the FreeFlow Print Server Stock Library. Refer to *FreeFlow Print Server Stock Library / Printer Setup; Configure the FreeFlow Print Server Stock Library* for more information.

The stock selected in the window [Adding a Print Queue] is the default stock used for jobs that are submitted that have no stock specified. This stock is also used when ‘Print Queue Override’ is selected.

In some cases, the default stock corresponds to the stock required to run the job at the printer, which represents the main body of the job; all other pages are treated as *Exception Pages*. If, for example, the Book Assembly job requires “Letter 90 gsm” and “Tab (9x11)” stock, and one of the paper trays on the FreeFlow Print Server is “unspecified” – when the job is processed, the Print Server may request a third stock even though it is not used in the job.

Load and Validate Xerox Printer Trays
FreeFlow Print Server Exception Pages
All the jobs that are received from a Web Services Book Assembly workflow will appear in the FreeFlow Print Server designated Printer Queue as Exception Pages.

For more information regarding the JDF ticket properties supported on the Web Service JDF Ticket for the FreeFlow Print Server, see figures below, and refer to Introduction; Supported JDF Ticket Parameters.

FreeFlow Print Server Stock Library / Printer Setup is now complete. To continue, select a Print Workflow in the sections that follow to setup and configure each FreeFlow component for Book Assembly.
Workflow 1: FreeFlow JMF Service Print Workflow

FreeFlow JMF Service

FreeFlow Web Services Book Assembly workflow is supported through FreeFlow JMF Service, which is available independent of the Web Services software. Customers may acquire the JMF Service software by contacting their Xerox Analyst or by downloading it from the Support and Drivers section on xerox.com.

Note
The JMF Service software must be installed co-resident on the Web Services server.

The JDF ticket with the job properties associated with the Book Assembly job are routed to the FreeFlow Print Server (DFE). JMF messaging is used to communicate the status of the job through the printing workflow back to the Web Services Production Queue.

Summary of Steps
1. Install FreeFlow JMF Service co-resident on the Web Services server
2. Perform a System Check
3. Create Users & Groups
4. Run Printer Registration
5. Execute key CLI (Command Line Interface) commands

Reference Materials
- FreeFlow JMF Service User Guide

The FreeFlow JMF Service User Guide contains install instructions, and a complete list of syntax for the CLI (Command Line Interface).
Installing JMF Service on the Web Service Server

`FreeFlow JMF Service` is intended to run on a single host and cannot reside on the same server with any other FreeFlow applications except Web Services.

The logged on user must have administrator rights to install programs on a Windows platform. The installation will ask for the following information:

- **Installation root directory.** The default is `C:\Program Files\Xerox\FreeFlow JMF Service`

Perform the steps below to install the JMF Service application. If the install program does not start automatically, double-click the `install.exe` file.

1. Select a language from the pull-down menu. Click `<OK>`.
2. Click `<Next>` in the Introduction screen.
3. In the ‘Software License Agreement’ screen, select [I accept...] to accept the End User License Agreement. Click `<Next>`.
4. In the [Choose Install Set] screen, select both [FreeFlow JMF Service] and [Printer Registration]. Click `<Next>`.
5. In the [Choose Install Folder] screen, accept the default install directory or enter an alternate install location. Click `<Next>`.
6. In the [Choose Shortcut Folder] screen, select a Shortcut Folder option. Click `<Next>`.
7. Review the install options at the ‘Pre-Installation Summary’ screen. Click `<Install>`.
8. Select [Done] to complete the software installation and reboot the system.

After you reboot the system, under [Start: Xerox FreeFlow Software: FreeFlow JMF Service], the following shortcuts are available:

- **Services** – this shortcut is used when stopping and starting the FreeFlow JMF Service
- **Command Line** – this shortcut is used to invoke the FreeFlow JMF Service CLI commands

System Check

At the ‘Installed Products’ dialog, ensure that the [FreeFlow JMF Service] checkbox is selected. Click `<OK>`.

Create Users & Groups

FreeFlow JMF Service relies on the underlying Operating System security mechanism for authentication. All authenticated users must have an account on the host on which JMF Service is running. Authorization is enforced through the Command Line Interface (CLI), which must reside on the same host on which JMF Service is running.

The CLI uses the credentials associated with the logged in user for authorization purposes. Only a single access level is supported: ‘Xerox FreeFlow JMF Service Administrators.’

Prior to executing any CLI commands, this group must be created and the user must be associated with it.

Perform the following to configure the user group:

1. Right-click [My Computer] and select [Manage].
2. Open the Local Users and Groups folder and open the Groups folder.
3. Select the [Xerox FreeFlow JMF Service Administrators] Group
4. Add users to the group. If necessary, first create any specific users whom you want to have access to the application.
Note
It is important to add the user who set up and administers the Web Services server to this group.

5. Close the [Computer Management] window and login as one of the users added to the ‘Xerox FreeFlow JMF Service Administrators’ group.

JMF Service Printer Registration

Only those users who are members of the ‘Xerox FreeFlow JMF Service Administrators’ group can add or edit a Xerox printer in the Printer Registration application.

Close the [Computer Management] window and login as one of the users added to the group:

2. Select [Add] to add the Xerox Printer.
3. The ‘Add Printer Wizard’ displays.
4. Enter the IP address or Printer Name and click <Identify configuration>. The application will automatically identify the printer model and controller type.

5. Select the queue, enter the Queue name and click <Finish>.


**CLI Command Line Interface**

FreeFlow JMF Service does not maintain its own list of configured production printers. You must use the **FreeFlow Printer Registration** application to add and configure printers.

Once you have added the necessary production printers, you will need to bring up a Command Prompt and use the following JMF Service CLI commands to register the printers into the FreeFlow JMF Service:
1. Invoke the “xomupddev” command to retrieve the list of updated printers from the Printer Registration application. For information on how to use the FreeFlow Printer Registration application, refer to online help for that application.

   ![Command Line](image)

2. Invoke the “xmlisdev” command. This command displays the printers updated in the JMF Service.

   ![Command Line](image)

### FreeFlow Web Services Server

The FreeFlow Web Services server requires the following:

- Check Stock Library with Print Server Stock Library
- Define a FreeFlow Output Device for the Book Assembly print workflow
- Create a Book Assembly Template

### Check Stock Library

Check the Web Services Stock Library with the Print Server Stock Library.

**Note**

You must configure the Web Services Stock Library with the required stocks before creating a Book Assembly template and assigning the stock to the template. Refer to Section 1: FreeFlow Print Server Stock Library / Printer Setup for more information.

### Define a JMF Output Device for Book Assembly

To create a FreeFlow Output Device for FreeFlow JMF Service:

1. Select [Settings: Output Devices].
2. Click `<Add>`; the [Add Device] dialog box appears.
3. In the Device Name field, type a `<name>`.
4. In the Device Group dropdown list, select [Digital].
5. In the Machine Type dropdown list, select [FreeFlow JMF Service].
6. Click `<OK>`.
7. In the Press Sheet Sizes sub-panel, select the sizes.
Note
The Device Description name can be changed

Output Channels Setup
To setup the path for the job files and Job Tickets to be transferred to the JMF Service after approval of a job:

1. Select the [Output Channels] tab.
2. Select the [JMF over HTTP] option button.
4. In the Port field, type <7781>.

Note
Port 7781 is the FreeFlow JMF Service server’s default port

5. In the IP Address field, type the <IP address> or the server <host name> where JMF Service is installed (i.e., FreeFlow Web Services IP address).

Note
Do not use localhost in place of the IP address as it will cause job transmission problems or failures. Input the IP address only

6. To enable this submission path in FreeFlow Web Services, select [Proc_DigitalPrinting_1.2_General.jdf].

7. Click <Save>.
Create a Book Assembly Job Type

1. Duplicate the binding style:
   i. In the Main menu, select [Print Settings: Job Types: Book Assembly]. The [Book Assembly] window is displayed.
   
   ![Book Assembly Window](image)

   ii. In the Binding Styles area, click and review the sample binding styles; select the style that most resembles the one you need to create, and click the icon.

   iii. In the dialog box that opens, assign a name to the binder style you have created (e.g., "My Example Binder"). After the binder style is successfully duplicated, close the displayed success message.

   iv. In the Binding Styles area, select the style that you just created.

   v. In the [General] tab in the Binding Style definition area, specify any internal notes / notes for the customer, and select the default component (Color or B/W pages). If the binding has a spine, enter the spine details.

   In the remaining tabs of the Binding Style definition area (Page Size, Materials, Splitting and Pricing), you will define the characteristics of the Book Assembly job. For Saddle Stitch jobs, you should set the spine to <Fixed> and width to <0>.

2. Define the page sizes:
   i. Select the [Page Size] tab, and then select the required page size checkboxes (e.g., A4 and A5).

   ![Page Size Tab](image)

   **Note**
   When selecting page sizes, you can use the [Add Preview (or Edit Preview) link to define the dimensions of the binder and the position of the pages within the binder. For instructions on completing this information, refer to the FreeFlow Web Services Print Service Provider Guide.

3. Select and price the materials. The materials are used for pricing and preview purposes. The preview added in this tab is used as the top layer in the Print Buyer’s preview:
   i. Select the [Materials] tab.

   ![Materials Tab](image)

   ii. Define the binding material types and prices. To add a material:
       a) Click <Add Material>.
       b) In the row of blank fields that opens at the end of the Available Materials area, fill in material name and price.
Note
When defining binding materials, you can use the Properties link to define the properties of the binder. For instructions on completing this information, refer to the FreeFlow Web Services Print Service Provider Guide

4. Define component impositions
   - You can define a general imposition and then define exception impositions for parts of the book. For example, you might want the black and white pages of a booklet to be printed on one printer, the color pages on another and the cover on yet another

Note
You can split off color pages and black and white pages at different levels. See below for more information

- You can split off (define a different imposition for) the Color Page and the B&W page components (split color pages, split B&W pages) as indicated in step iv below
- You can split off (define a different imposition for) color pages from all components for which you specify Color Channels in the component definition as indicated in step v below
  - If you split off color pages for all components for which Color channels are defined, you can additionally split off pages that the Print Buyer identifies as color pages when uploading the file

i. Select the [Splitting] tab.

ii. Click the <All> (Device and Imposition) button.

iii. Modify the imposition details as needed, and click <OK>.

iv. For each component that you want to split off and define a different imposition for:
   a) In the Binder area, select the checkbox for splitting the component (e.g., to define a separate imposition for the Color Pages component, select the [Split Color Pages] checkbox in the Binder area).
   b) Select the [Component's] button.
   c) Define the imposition for the component and click <OK>.

v. To split color pages for all components for which color pages are defined in the Color Channels tab (refer to step 6).
   a) In the Binding area, select [Split Colors] (by definition of the Print Provider according to the Color Channels).
   b) Select the [Process Colors] button; fill in the imposition, and click <OK>.
   c) To additionally split the color pages according to the content as defined by the Print Buyer, in the Binding area, select [Split Colors (By Content ...)], click the <Process Colors> (Black & White Content) button, fill in the imposition and click <OK>.
5. Define pricing.

- With no component selected in the Component area (if a component is selected, click the Binding Style again in the Binding area and the component will no longer be selected), select the [Pricing] tab.
- Fill in the pricing information and click <OK>. You should set the base price and price per unit depending on page size, and discounts depending on the number of copies ordered.

6. For each component in the Binding style, define the details as follows:
   - In the Component area:
     a) Ensure the checkbox for the component is selected.
     b) Select the component by clicking its name (e.g., Color Pages).
   - For each tab (General, Paper Selection, Color Channels, Finishing, and Pricing) in the definition area for the component:
     a) Select the tab.
     b) Fill in the details, noting the following points:
        - When filling in the [General] tab for the Color or B/W pages components, you can select two sided printing. If you do not, printing will be one-sided
        - In the [Paper Selection] tab, you can select [Add Paper] to add a Paper Category and a Paper Type from stock
        - In the [Color Channels] tab, select either [Process] or [Black & White]
        - In the [Finishing] tab, select the [Lamination], [Texture], and number of print side
        - In the [Pricing] tab, define the prices for the particular components (and discounts) that will be added to the base cost, depending on the options selected
     c) To add the price of the stock defined in the stock library to the price that you define here, select the [Add Paper Price] checkbox at the bottom of the Price per Page area.
   - Click <OK>.

7. To add a Component to the Binding style:
   - In the Binding Styles area, select the Binding Style.
   - Click <Add Component>.
   - In the [New Component] dialog box, specify the Component name, and select the Component type. For example, to insert a transparent overlay page, call it “Overlay page” and select [Pages].
   - For the Component you added, perform the sub-steps under Step 6 above.
Validate the Book Assembly Job Type

1. Log in as a Print Buyer User administrator.
2. In the Order Jobs page, under ‘Order a Book Assembly,’ click <Start Ordering>.
4. In the [Upload Files] window, browse to the file(s) you want to upload: click <Open:
Upload>. When you have uploaded all the files, click <Continue>.
5. In the [Define Binding Style] window, select the [binding style], and then set the page size
(and spine width, when present) in the displayed fields. Click <Continue>.
6. In the [Define Components] window:
   i. Use the [Move Up], [Move Down], [Add] Tabs, [Add Blanks] and [Duplicate ] button
to arrange the book content.
   ii. Define the page type and paper for each component (file).
   iii. Preview and check the PDF.
   iv. Click <Add to Cart> and <Checkout>.
7. In the [Shopping Cart] window:
   i. Specify the quantity to print.
   ii. Click <Get Quote>. Ensure that the quote is correct according to the Book Assembly definition.
   iii. Click <Proceed to Checkout>.
8. Complete the order.
9. Log back into the Print Service Provider account.
10. Select [Tasks: Production] and check that the job was associated with the correct output
device and correct run size, and that the job was added to the queue.
11. Verify that the job contains the correct imposition and verify the job ticket details.
12. Click <Approve> to move the job to the Printing Queue, and check that the file was sent to
the correct Output Devices.
Workflow 2: FreeFlow Output Manager Print Workflow

FreeFlow Output Manager

In addition to FreeFlow JMF Service (see Section 2: FreeFlow JMF Service Print Workflow), FreeFlow Web Services Book Assembly workflow is supported through FreeFlow Output Manager. In both printing workflows, the JDF ticket with the job properties associated with Book Assembly is routed to the FreeFlow Print Server (DFE). JMF messaging is used to communicate the status of the job through the printing workflow back to the Web Services Production Queue.

To configure a Print Queue on FreeFlow Output Manager for a Book Assembly workflow:

1. Click <Queue Manager>.

2. In the next window, enter a <name> in the Queue Name field.
3. Click <b>Next</b> and select the required printer for Associated Printers. Click <b>Next</b>.

![Image of the FreeFlow Output Manager interface]

4. Click <b>Create Queue</b>.

5. Click <b>Edit Queue Properties</b>.


7. Select the [Xompdlana.bat] checkbox, and select the [Preprocessing Program] option under ‘Job Processing Options.’

8. Select the [Supported] checkbox, and in the ‘Keep Completed Jobs’ fields for [Minimum], [Maximum] and [Default] options, respectively, select [3 days].

13. Click <OK> to save the changes.

FreeFlow Web Services Server

The FreeFlow Web Services server requires the following:

- Check Stock Library with Print Server Stock Library
- Define a FreeFlow Output Device for Book Assembly print workflow
- Create a Book Assembly Template

Check Stock Library

Check the Web Services Stock Library with the Print Server Stock Library.

Note

You must configure the Web Services Stock Library with the required stocks before creating a Book Assembly template and assigning the stock to the template. Refer to Section 1: FreeFlow Print Server Stock Library / Printer Setup for more information.

Define Output Device for Book Assembly

To set up the Output Device on the Web Services server:

1. Log in as the Print Provider.
   i. Navigate to [Print Settings: Production: Output Devices].
2. Create an Output Manager Output Device:
   i. Click <Add> under [Output Devices]
   ii. Enter values in the following fields:
      a) Device Name: <Any Custom Name>
      b) Device Group: <Digital>
      c) Machine Type: <FreeFlow Output Manager>
3. Click <OK> and navigate to [Output Channels].
4. Select [JMF over HTTP].
5. Enter the <IP address> of the system on which FreeFlow Output Manager is installed.
6. In the port field, enter <7781>.
8. Click the <Device support multi queue system> link.
9. Select [Available Queues], and select the queue created above.

Create a Book Assembly Template

1. Create the template.
   i. In the Main menu, select [Accounts: Store Setup: Templates]
   ii. In the Accounts area, select the Print Buyer account for which you are creating the template.
   iii. In the Template List area, click the <Create a New Book Assembly Template> link. The [Upload Files] window is displayed.
2. Upload the files.
   i. In the [Upload Files] window, click <Browse...>; choose a file that will be in the book, and click <Open>.
   ii. Click <Upload> to add the file to the book. The file will be listed in the Uploaded Files list on the right.
   iii. Repeat this process to add other files (e.g., cover file, other book files).
   iv. Click <Continue>. The [Define Binding Style] window is displayed.
3. Define the binding style.
   i. In the [Define Binding Style] window, select the required Binding style (e.g., Binder), and as applicable, Material (e.g., 1.5 inch D-Ring), Book Assembly Size (e.g., A4), and the Spine Width (e.g., 0.050).
   ii. Click <Continue>. The [Define Components] window is displayed. This window lists and displays a graphic of the first page of the file you uploaded.

4. Define the Components. For any Component (uploaded file) you select in the left side of the window, the default values for the page Type and Paper are displayed in the [Changer Properties] for selected pages area on the right side of the window.
   i. To alter page Type and Paper values for the Component, select the component and select the page Type and Paper values. If one of the Components is a cover, select the component, and select [Cover] as the page Type.
   ii. To alter the page Type and Paper values for specific pages in the file:
      a) Select the component.
      b) In the [Select Pages] text box, enter the <page numbers> for which you want to define a common page and paper Type.
      c) Click <Select>.
      d) Select the page Type and paper type for those pages (e.g., B/W pages with Standard Quality) in the [Changer Properties] for selected pages area.
      e) Click <Apply>. The component is listed on the left side of the screen.
      f) Repeat step ii above for all sets of pages for which you want to define separate page and paper Types.
   iii. Perform adjustments to the Components (sets of file pages) in the book, as needed:
      a) To duplicate a Component, select the component, and click [Duplicate].
      b) To change the location of a Component in the book, select the component and select the [Move Up] or [Move Down] buttons as needed.
      c) To add tabs to a Component, select the component, click <Add Tabs>, define the tab specifications in the [Add Tabs] dialog box and click <OK>.
      d) To add blank pages to a Component, select the component, click <Add Blanks>; define the blank page specifications in the [Add Blank Pages] dialog box, and click <OK>.
   iv. Click <Continue>. The [Save as Template] window is displayed.

5. Complete the template definition.
   i. In the [Save as Template] window, specify a <template name> (title), and fill in the other template details.
   ii. Specify the folder in which the template should be created.
   iii. Click <Finish>.

Book Assembly template creation is complete.

Validate the Book Assembly Template

1. Log in as a Print Buyer user.
2. Select the template and add the order to your shopping cart.
3. In the [Shopping Cart] window.
   i. Specify the print quantity.
   ii. Click <Get Quote>. Ensure that the quote is correct according to the Book Assembly definition.
   iii. Click <Proceed to Checkout>.
4. Complete the order.
5. Log back into the Print Service Provider account.
6. Select [Tasks: Production] and check that the job was added to the queue.
7. Verify that the job contains the correct imposition and verify the job ticket details.
8. Click <Approve> to move the job to the Printing Queue, and check that the job was sent to the correct Output Devices.
There are many ways to setup and use the Book Assembly module in FreeFlow Web Services. This section includes the setup instructions for 1 common scenario:

- Saddle Stitched Booklet

To take full advantage of the job ticketing features, we will use either FreeFlow JMF Service or FreeFlow Output Manager to pass a JDF job ticket to the FreeFlow Print Server. There are sections later in this chapter that cover the specific setup procedures for JMF Service and Output Manager.

### Saddle Stitched Booklet

It is quite common for customers to upload 8.5x11 documents to be imposed onto 11x17 sheets, which are then stitched and folded to a final size of 8.5x11. In the following example, we will upload 2 or more documents, specify the page for the front cover file, and submit the job. Imposition is done in Web Services before transferring the job to either JMF Service or Output Manager.

1. Log into FreeFlow Web Services as a Print Service Provider.
2. Navigate to [Print Settings: Production: Paper Sizes].
3. Make sure that 11x17 paper size is listed. If not, select [New Size]; enter a name: 11x17, Width: 11, Height: 17, and click <Save>.
4. Navigate to [Print Settings: Production: Stock Library]. Configure the required stocks on both the printer and the Web Services Stock Library. Create two stocks as indicated in the table below:

#### Note

The names must match exactly the names defined in your printer’s Stock Library:

<table>
<thead>
<tr>
<th>Saddle Stitched Cover</th>
<th>Saddle Stitched Book Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Cover ! 11x17</td>
<td>Name: Standard ! 11x17</td>
</tr>
<tr>
<td>Size: 11x17</td>
<td>Size: 11x17</td>
</tr>
<tr>
<td>Color: White</td>
<td>Color: White</td>
</tr>
<tr>
<td>Type: Plain</td>
<td>Type: Plain</td>
</tr>
<tr>
<td>Weight: 220 GSM</td>
<td>Weight: 90 GSM</td>
</tr>
</tbody>
</table>


7. Select the [Splitting] tab and deselect the [Split] options (see below).

Note
You only need to split these sections if the Printer (output device) does not support the different stocks that will be defined for Saddle Stitched booklets in the upcoming steps. When splitting, the sections of the booklet are printed separately.

8. Select the [Edit Imposition] icon under Summary.

9. Select a previously defined Output Device (e.g., DC700_JMF_SS) that uses “JDF Process: Proc_DigitalPrinting_1.2_General.” This output device should have the 11x17 page size enabled.
10. Program the imposition as follows:
   i. [Press Sheet Size]: 11x17, [Orientation]: Landscape, [Imposition Method]: Multiple-Up, [Work Style]: Work and Back (Top-Top 2 plates), [Page Order]: Saddle-Stitched.

11. Click <OK>.
13. Make sure the [8.5x11] and [11x17] checkboxes are selected.

   **Note**
   The Page sizes defined above are what will show up as options to the Print Buyer during Book Assembly.

14. Under [Components], select [Color Pages 2 sides].

   **Note**
   The Components that are defined can be used for all Book Assembly jobs. As such, it is suggested to create individual components for each Book Assembly type. This will reduce confusion for the Print Buyer as it will prevent them from selecting options that do not apply to the Book Assembly job type.

15. Make sure the checkbox for [Two Sides] is selected to allow duplex printing on this stock.
**Note**
There are 3 kinds of Components: *Pages*, *Tabs*, and *Cover*. When you use different Component Types in one job it has significant impact on the workflow. Each component type will get imposed separately. In the case of a Saddle Stitched booklet, if you use a Component Type: [Cover], those pages will be imposed first and then the next component type (i.e.: Pages) will be imposed. This can explain why you may not get the final expected imposed results.


17. Create a [Paper Category] for the customer to choose from (you can have several). The name of this category appears in the [Paper Selection] drop down menu for the Print Buyer. Examples of categories that might appear: *Uncoated*, *Glossy*, *Standard*, *High Quality*, etc.

18. Click the <Add Paper> button under the Paper List. Select a stock from the Web Services Stock Library. Make sure it is the 11x17 size. This will link a stock to a specific Paper Category.

19. Select the [Color Channels] tab. Click <Process> to allow Color.


21. Click <Save>.

22. Under [Components], with the [Color Pages 2 sides] highlighted, click the <Duplicate> icon.

23. Name the new Component: *Saddle Stitch Cover*.

**Note**
By duplicating the [Color Pages 2 sides] component, we are creating a Component Type of Pages, which we are only naming as a cover. This allows us to impose the entire job together (same Component Types) while allowing page exceptions for a heavy weight stock. If you create a new Component Type of *Cover*, then it will break apart the job during imposition.
24. Select the new Saddle Stitch Cover component, and then the [Paper Selection] tab.
25. Rename the [Paper Category] to <Standard Cover>. Remember, this is what the Print Buyer will see in the drop down menu so make it meaningful to the Print Buyer.

27. Click <Add Paper> and choose a heavy weight 11x17 cover stock from the Stock Library.
28. Click <Save>.
29. Log in to Web Services as a Print Buyer to a site that has Book Assembly ordering – like the test account, for example.
30. Select [Order a Book Assembly] job and click <Start Printing>.
31. Select [Browse], choose a cover file, and click <Upload>.
32. Select [Browse], choose a file for the main book file and click <Upload>.
33. Click <Continue>.
34. Select the [Saddle Stitch] radio button and [8.5x11] or [Letter] for the Book Assembly size.

35. Click <Continue>.
36. Select the page for the front cover.

37. Under [Change Properties for Selected Pages], select the [Saddle Stitch Cover] type and click <Apply>.
38. All the other pages should default to: [Color Pages 2 sides].
39. (Optional) Click <PDF Preview>.
40. Click <Add to Cart and Checkout>. Complete the checkout process.
41. Log in to Web Services as the Print Provider.
42. Select [Tasks: Production] to show all jobs in the production queue.

43. Notice the Output Device above highlighted in red.

44. Select the [Device and Imposition] button to check and update the settings. For the purposes of this scenario, change the Output Device to <DC700_JMF_SS> and reset the imposition as defined earlier in step 6.

45. Click <OK>.

**Note**
After changing the Device and Imposition settings, the job will disappear from the Production Queue. You need to manually refresh the window by selecting [Show All] or the [Refresh] icon.

46. Select [Approve]. The job will be submitted to the specified Output Device via JMF.

47. Select [Tasks: Printing]. This will show jobs submitted to print and their status. The status icons appear below:

48. If you see the icon with the Arrow and Red exclamation, there has been an internal error. You may need to recheck your JMF setup, or there is a communications error.

**Note**
Due to the JMF Service being a command line application, it can be difficult to troubleshoot files not arriving at the Output Device. It is usually easier to rebuild and re-sync the JMF printers than to troubleshoot the problem. The re-sync process “xomupdev” does not take effect for printers that have active jobs in them through JMF submission. Refer to the FreeFlow JMF Service User Guide for more information.

49. If you are submitting the job through Output Manager, log into Output Manager.

50. Select the [Job Manager] tab. Select the new job and click <View Job Properties>. You should see the job ticketing under the [Output] and [Special Pages] areas.

51. Check the FreeFlow Print Server for the job. The following information should have made it to the printer: Job Name and #, Quantity, Saddle Stitched, Special Pages. The size of the job should be “11x17.” You can check this by right clicking on the job and selecting [Properties] and then the [Special Pages] tab. The Saddle Stitched imposition should appear under the [Stapling / Finishing] area and will probably read “Bi-Fold Stapled Multiple Sheets”. If your printer does not support Saddle Stitch, then this information will be lost / ignored.
Additional Setup Procedures

The following sections describe the setup procedures for FreeFlow JMF Service and FreeFlow Output Manager.

FreeFlow JMF Service Setup

Note
The JMF Service can accept either JDF Intent or JDF Process jobs from Web Services. Book Assembly jobs should only use JDF Process, which appears in Web Services as: “Proc_DigitalPrinting_1.2_General”

Set up printers in Printer Registration on the Web Services server:

Note
Printer Registration should be run on the Web Services server and not set to pull the Registered Printers from a remote system. The synchronize step below may not work with a remote system.
2. A list of products will appear. At a minimum, select the options listed below and click <OK>.

3. Click <Add>.
4. Enter the <IP address> of the printer and click <Identify Configuration>.

Note
The printer information should update automatically. If it is not a FreeFlow Print Server then you might need to input the printer model and controller type manually.
5. Click <Next> and <Next> again. Do not select the checkbox to ‘Automatically register all queues at printer.’

6. Click <Retrieve Queue List>. The default queue set as the FreeFlow Print Server will appear.

7. From the drop down menu, select the appropriate queue.

8. Enter a <Custom Name> for the printer. This name will only appear in printer registration and in the queue selection later in the Web Services Output Device selection.

9. Click <Next>.

10. From the drop down menu, select [FreeFlow Output Manager].

**Note**
While not actually connecting to FreeFlow Output Manager, this is really simply intended to serve as a production print path.
11. Click <b>Finish</b>. The printer is now ready for use in Printer Registration.

12. From a command line (DOS Prompt) type: <b>&lt;xomupddev&gt; Enter</b> to synchronize printers with JMF Service.

**Note**

A message will only be displayed if there is an error

13. To see the active JMF Printers, from a command line type <b>&lt;xomlisdev&gt; Enter</b>.

14. JMF Printers are now ready for use in Web Services.

15. Select [Print Settings; Output Devices: Add].

16. Enter the <b>&lt;Device Name&gt;</b>, select [Digital] in the Device Group field, and select [FreeFlow JMF Service]. Click <b>OK</b>.

**Note**

Use a descriptive name for your printer. Include information like the 'Printer_SubmissionMethod_Asst.' For example, when setting up a printer for Book Assembly jobs use a name like “DC700_JMF_BA” where “BA” designates Book Assembly and will use JDF Process.
17. Update the Device Description to match the name of the Output Device.

18. Select the Paper sizes available for printing. You should have at least 8.5x11 and 11x17 defined.


20. Select [JMF over HTTP], and input the <IP Address> of the Web Services Server.

Note
Do not use localhost for the IP Address. This will cause some jobs to fail to pass through the JMF Service and yield unpredictable results.


22. Select the [Device supports multi-queue system] checkbox.


24. Select only the checkbox for the desired Printer and click <OK>.

25. Click <Save> and <Save> again.

26. Select the [Imposition] tab. Set the Page size and Imposition settings based on the application or scenario.

27. The Output Device is now ready for use with Book Assembly jobs.
FreeFlow Output Manager Setup

Note
The JMF Service can accept either JDF Intent or JDF Process jobs from Web Services. Book Assembly jobs should only use JDF Process, which appears in Web Services as: “Proc_DigitalPrinting_1.2_General”

Set up printers in Printer Registration:
1. Select [Start: Programs: Xerox FreeFlow Software: Print Administration: Printer Registration] on the system being used for Printer Registration. If this step is not performed on the Output Manager server, set the ‘Registered Printer List Locator’ with the IP of the system being used.
2. A list of products should appear. If not, select [Options: Installed Products]. At a minimum, select [Output Manager] and click <OK>.
3. Click <Add>.
4. Enter the <IP address> of the printer and click <Identify Configuration>.

Note
The printer information should update automatically. If it is not a FreeFlow Print Server then you might need to input the printer model and controller type manually.
5. Click <Next> and <Next> again. Do not select the checkbox to ‘Automatically register all queues at printer.’
6. Click <Retrieve Queue List>. The default queue set as the FreeFlow Print Server will appear.
7. From the drop down menu, select the appropriate queue.
8. Enter a <Custom Name> for the printer.
9. Click <Next>.
10. From the drop down menu, select [FreeFlow Output Manager].

10. Click <Finish>. The printer is now ready for use in Printer Registration.
11. Launch Output Manager and log in as an administrator.
12. Select the [Printer Manager] tab.

13. Click the <Change Printer List> button and select the required printer. Click on <Next> and <Done>.
15. Click the <New Queue> button. In the window that appears, enter a <custom name> for Queue Name field.

16. Click <Next>. Click <Next> again to skip Job Splitting at this time.
17. Select the required printer for [Associated Printers]. Click <Next>.
18. Click <Create Queue>.
19. In the next window, click the <Edit Queue Properties> button.
20. Select the [Yes] radio button for the Accepting Jobs and Release jobs fields under ‘Basic Properties.’

21. Under Preprocessing Program, select the radio button and the [xompdlana.bat] checkbox
22. Select the checkbox for [Keep Completed Jobs] and select [3] days for Minimum, Maximum and Default options (you can set these times as desired).

23. Under [Paper Stock], enter <1-254> instead of 0-254 for the Order field. If you forget, an error message will appear when saving the queue settings.
24. Click <OK> to save the changes.
25. Login to Web Services as a Print Provider.
27. Click the <Add> button under Output Devices.
28. Enter the <Device Name>, select [Digital] in the Device Group field, and select [FreeFlow Output Manager]. Click <OK>.

**Note**

Use a descriptive name for your printer. Include information like the 'Printer_SubmissionMethod_Asst.' For example, when setting up a printer for Book Assembly jobs use a name like “DC700_JMF_BA” where “BA” designates Book Assembly and will use JDF Process.

29. Click <OK> and navigate to the Impose tab.
30. Ensure that [Impose all jobs} is selected for ‘Imposition Preferences’ and click <Save>.
31. Select the [Output Channels] tab.
32. Select [JMF over HTTP], and input the <IP Address> of the Web Services Server.

34. Select the [Device supports multi-queue system] checkbox.
35. In the current window, click <Available Queues> and select the queue created earlier in Output Manager. After selecting the checkbox, click <OK>, and then click <Save>.
36. The Output Device is now ready for use with Book Assembly jobs.