

Using XMerge and FormMerge

***Xerox Document  
Services Platform  
Series***

701P30863



THE DOCUMENT COMPANY  
XEROX



# ***Xerox Document Services Platform Series***

***Using XMerge and FormMerge***

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THE DOCUMENT COMPANY  
XEROX

Prepared by:  
Xerox Corporation  
Multinational Customer and Service Education  
800 Phillips Road  
Building 845-17S  
Webster, New York 14580-9791

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# Introduction

The *Xerox Document Services Platform Series Using XMerge and FormMerge* contains the information needed to submit saved files using the Decomposition Service for the DocuSP software and a supported Xerox printer.

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## About this guide

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This guide is intended for the person creating, submitting and editing saved files. Before you perform any procedures in this guide, you should be familiar with its contents and conventions.

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## Contents

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The following list describes the contents of this guide:

- Chapter 1 is an overview of the Decomposition Service. It explains the work process involved in submitting and editing saved files. It also explains the roles and responsibilities of maintaining this service.
- Chapter 2 describes how to install the XMerge and FormMerge applications on the client workstations.
- Chapter 3 describes how to use the XMerge application.
- Chapter 4 describes how to use the FormMerge application.
- Chapter 5 lists some messages that can be received at the workstation while using the XMerge and FormMerge applications.
- Appendix A discusses the composition of files saved through the Decomposition Service.

## Conventions

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This guide uses the following conventions:

- All caps and angle brackets—Within procedures, the names of keys are shown in all caps within angle brackets (for example, press <RETURN>).
- Angle brackets—Variable information, or the position of a specified argument in the command syntax, appears in angle brackets (for example, List Fonts <Pattern>).
- Bold—Within procedures, text and numbers that you enter are shown in bold (for example, enter **boot**).
- Enter—Within procedures, the two-step process of keying in data and pressing <RETURN> (for example, enter **y**).
- Italics—Document and library names are shown in italics (for example, the *Xerox Document Services Platform Series Glossary*).
- Square brackets—Names of options you select are shown in square brackets (for example, Select [Exit]).
- Quotes—Keywords you can enter as arguments appear in quotes (for example, “USLetter”).
- Vertical bars—Alternatives to specified arguments are separated by vertical bars (for example, -pdl <ps | hppcl | ascii | tiff>).



Notes contain important supplemental information pertaining to the task that you should read.



**CAUTION:** Cautions alert you to an action that could damage hardware, software, or your data.



**WARNING:** Warnings alert you to conditions that may affect the safety of people.



The pointer denotes hints or tips that may help you perform a task.



The check mark denotes other sources you may want to use for additional information.



The step-by-step icon identifies the start of a procedure.



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## **Related Xerox Documentation**

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### **The Xerox Document Services Platform Series**

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*DocuTech 6100/6135 Installation Planning Guide*

*DocuTech 6180 Installation Planning Guide*

*DocuTech 6100/6135/6180 Operator Guide*

*DocuTech 65/DocuPrint 65 Installation, Planning, and Operator Guide*

*Getting Ready for the DocuSP Installation*

*Getting Started*

*Print Services Operator Guide*

*System Administration Guide*

*Problem Solving Guide*

*Using the Xerox Client Software for Solaris*

*Using the lpr Utilities for DOS and UNIX*

*Using the lp Utilities for Solaris*

*Using Xerox Document Submission for UNIX*

*Using XMerge and FormMerge*

*Glossary*

### **Additional client documentation**

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*Xerox Production Print Services Guide to Job Submission for Windows*

*Xerox Production Print Services Guide to Job Submission for Macintosh*



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# 1. Overview

This chapter describes the tools and processes used in the Decomposition Service. This chapter also identifies the roles and responsibilities for setting up and maintaining this service.

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## Decomposition service

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The Decomposition Service is a process within the DocuSP Print Service software that allows you, through the use of various applications and options, to save files on the DocuSP controller or other storage device as TIFF image files (CCITT group 4 compressed bitmaps.) These saved files can then be printed or combined with variable data for printing.



Refer to Appendix A in this guide for additional information on the TIFF files.

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## Work process

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The following steps give you the generic process of how this service functions.

1. Create a form source file using a desktop publishing application.
2. Submit the form to the DocuSP software using the [Save] destination option.



When printing merged files on the DocuTech 65/DocuPrint 65 printer, the form that is called by the FormMerge or XMerge application must have been created by a 600 x 600 dpi Decomposition Service queue. If, by mistake, you saved the form to the Decomposition Service using a 1200 x 600 dpi queue, the merged output will print with orientation errors.



Refer to the appropriate platform document submission guides available with your system.

3. Create a variable data file and save as a PostScript file.
4. Using the XMerge or FormMerge application, create a PostScript file that contains the printing instructions to combine the form source file with the variable data file.



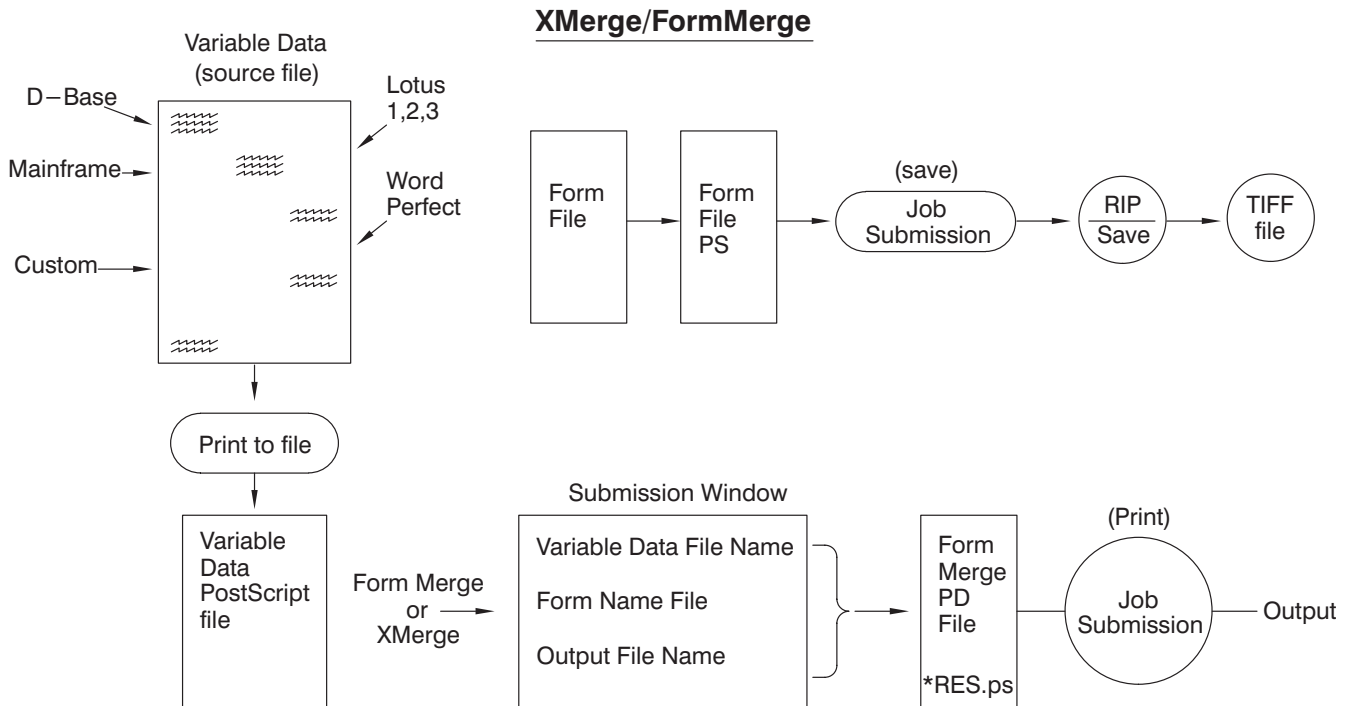
Refer to the XMerge or FormMerge chapters in this guide.

5. Using any of the DocuSP document submission tools, submit the job to the printer for printing.



Refer to the appropriate platform document submission guides available with your system.

Below is an illustration of how the Decompositon Service functions.



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## Roles and responsibilities

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It is important for you to understand and follow the policy of how this service is implemented at your site. The following guidelines will help you understand where to find this information.

- **System Administrator**  
The System Administrator is the person that should determine how the Decomposition Service is to be implemented at your site. They need to establish directory structures and permissions for the location of the saved image files and communicate that information to the Print Service Operator and client users.
- **Print Service Operator**  
The Print Service Operator implements the strategy by setting up save locations and queues on the DocuSP controller.
- **Client**  
As the creator of documents, you will be creating the forms and variable data files, as well as executing the XMerge and FormMerge applications. It is important that you know the naming conventions and locations of your saved files.



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## 2. Installation

This chapter contains the procedures for installing XMerge and FormMerge on Windows 3.1, Windows 95, Windows NT 4.0, Macintosh, Sun OS 4.1.3, or Solaris 2.x platforms.

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### Installation for Windows 3.1/95/NT 4.0

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1 2 3...

To install the XMerge and FormMerge applications, perform the following:

1. Insert the disk labeled “DocuSP Applications for Windows 3.1/95, Disk 1 of 1” into the floppy drive of the Windows workstation.
2. For Windows 3.1, use the File Manager to locate the floppy drive. Copy the files xmerge.exe and formmrg.exe to an appropriate location on the hard drive of the Windows platform.
3. For Windows 95 or NT, open the floppy disk icon. Copy the files xmerge.exe and formmrg.exe to an appropriate location on the hard drive.

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### Installation for Macintosh

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1 2 3...

To install the XMerge application, perform the following:

1. Insert the disk labeled “DocuSP Applications for Macintosh, Disk 1 of 1” into the floppy drive of the Macintosh workstation.
2. Select the xmerge and formmerge icons and drag the icons to an appropriate location on the Macintosh desktop.

## Installation for Sun OS or Solaris



1 2 3...

Refer to the on-line man pages for additional information about the UNIX commands used in the following procedure.

The software is installed using ftp over the TCP/IP link as follows:

1. Log in to the client workstation as a normal user. Change to the directory to hold the software:

```
cd /usr/xerox/dps/client/bin
```

2. Log in as root at the client workstation.
3. Verify that the root user has write access to the current directory.
4. Verify connectivity to the DocuSP controller by entering the following command:

```
ping printsrv
```

If your workstation can see the DocuSP controller from the net you should see:

```
printsrv is alive
```

5. Connect to the DocuSP controller using ftp. Login as **ftp** and use **ftp** as the password.

```
ftp printsrv
```

```
Connected to printsrv
```

```
220 printsrv FTP server (UNIX(r) System V Release 4.0) ready.
```

```
Name (printsrv:cdoc): ftp
```

```
331 Guest login ok, send ident as password.
```

```
Password: ftp
```

```
230 Guest login ok, access restrictions apply.
```

6. Change to the appropriate directory for your client workstation using the table below.

Operating System	Script directory	File names
Solaris 2.3 or higher	GUI_SUN5	xmerge form
SunOS 4.1.3	GUI_SUN4	xmerge form

7. Retrieve the XMerge and FormMerge applications.

```
get xmerge
```

```
get form
```



8. Enter the `quit` command to close the ftp connection to the DocuSP controller.
9. Change the execution permissions. For example:  

```
chmod 755 xmerge  
chmod 755 form
```

sets the permission to read/write/execute for the owner, and gives read/execute permission to everyone.
10. Change directory to `/usr/bin` and set up links to the Xmerge and FormMerge applications. For example:  

```
ln -s /usr/xerox/dps/client/bin/xmerge xmerge  
ln -s /usr/xerox/dps/client/bin/form form
```
11. Log off as root.
12. Type `./xmerge` or `./form` in a command tool window to run the applications.

## User access

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For users to access the Xerox software, they should:

1. Have `/usr/bin` or `/usr/xerox/dps/client/bin` in their path list so that there is not a conflict with programs with the same names in directories further down in the search path.
2. Have the `MANPATH` environmental variable set to include the `/usr/xerox/dps/client/man` directory if the Xerox man pages have not been moved to a directory already in the man pages search path.



For more information about setting environment variables, refer to the appropriate on-line man page for the shell that is in use on the client workstation.



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## 3. XMerge

The purpose of this chapter is to give you an overview of the XMerge application and how it is used.

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### Overview

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XMerge is an application used to merge multiple pages of a form with variable data. A good example of this would be a booklet or policy where different pieces of variable data go on different pages of the form. XMerge needs to know how many sets of variable data you have.



XMerge prints the variable data file on top of the saved form file.

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### Using XMerge

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This section describes the steps involved in using the XMerge application on the Windows, Macintosh and UNIX platforms.

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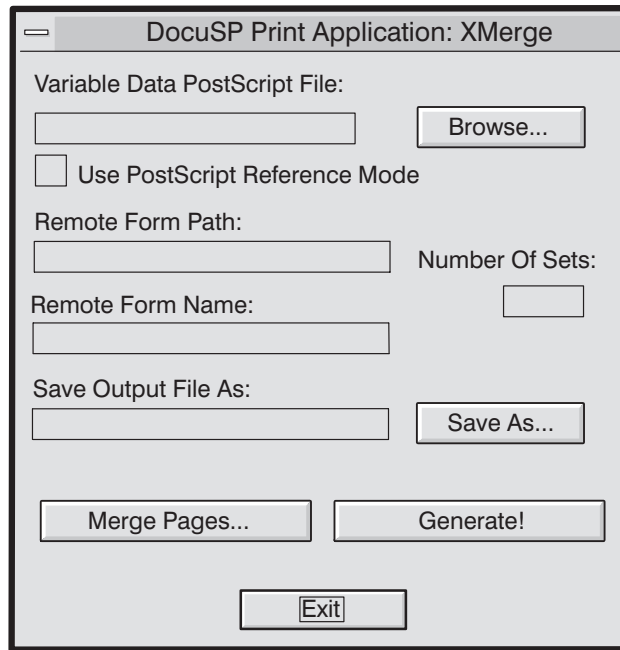
#### Using XMerge on Windows

---

1 2 3...

To execute the XMerge application, perform the following:

1. Select the XMerge icon on your desktop. The DocuSP Print Application: XMerge window appears.



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2. Fill in the information for the following fields:

**Variable Data Postscript File:** Enter the name of the variable data file. The [Browse...] button can be used to search a local or mounted file system.



In this software release, the first page of variable data is ignored by the XMerge application. Therefore, when creating the variable data file, it is important to insert a blank page or a page with information that can be ignored for the first page.

**Use PostScript Reference Mode:** Check this box if referencing a path to the variable data PostScript file on the DocuSP controller or on a mounted remote path.



The resulting PostScript file will not have the variable data in it if you have checked this box.

**Remote Form Path:** Enter the Save location path (i.e., /var/spool)

**Remote Form Name:** Enter the name of the saved form.



For Windows clients, check a saved job to determine the naming convention. Different network gateway software might change the case to upper or lower case.

**Number of Sets:** You will need to designate how many iterations of variable data you have.

**Save Output File As:** This will be the name of the resulting PostScript file. The [Save As...] button can be used as a browser to choose a local or mounted file system.

**Merge Pages:** Select this button to bring up the Merge Pages window. Enter the page numbers of the form where the variable data is to be merged.

3. Select [Generate!] This generates a new PostScript file.
4. Select [Exit] to exit the XMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.

## Using XMerge on Macintosh

1 2 3...

To execute the XMerge application, perform the following:

1. Select the XMerge icon on your desktop. The XMerge window appears.

Form Name on Server:

Path of Form on Server:

Document To Overlay With Form:

Use Reference Mode

Merged File Name:

Merge Pages:

Please enter page numbers, separated by spaces, that you wish variable data to appear: e.g. 1 4 55...

Number of Sets:

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2. Fill in the information for the following fields:

**Form Name on Server:** Enter the name of the saved form.

**Path of Form on Server:** Enter the Save location path (i.e., /var/spool).

**Document To Overlay With Form:** Enter the name of the variable data file. The [Select File...] button can be used to search a local or mounted file system.



In this software release, the first page of variable data is ignored by the XMerge application. Therefore, when creating the variable data file, it is important to insert a blank page or a page with information that can be ignored for the first page.

**Use Reference Mode:** Check this box if referencing a path to the variable data PostScript file on the DocuSP controller or on a mounted remote path.



The resulting PostScript file will not have the variable data in it if you have checked this box.

**Merged File Name:** This will be the name of the resulting PostScript file. The [Select File...] button can be used as a browser to choose a local or mounted file system.

**Merge Pages:** Select this button to bring up the Merge Pages window. Enter the page numbers of the form where the variable data is to be merged.

**Number of Sets:** You will need to designate how many iterations of variable data you have.

3. Select [Generate] This generates a new PostScript file.
4. Select [Quit] to exit the XMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.

## Using XMerge on UNIX

---



To execute the XMerge application, perform the following:

1. Select the XMerge icon. The DocuSP Print Application: XMerge window appears.

The screenshot shows the XMERGE software interface with the following elements:

- Buttons:** "Change directory", "QUIT", "Clear All Fields", "Generate PS".
- Current Directory:** /usr/xerox/dps/client/bin
- Filename:** (empty field)
- Files:** A list of files including "dsp", "dspinst", "form", "listjob", "listp", "listq", and "print".
- Form Path:** (empty field with an arrow icon)
- Form Name:** (empty field)
- Postscript File:** (empty field with an arrow icon)
- Use Remote File Name:** (checkbox, currently unchecked)
- Save As:** (empty field with an arrow icon)
- Number of Sets:** 99999 (with up/down arrow buttons)
- Merge Pages:** A list containing the number "2".
- Page Number:** 3 (with up/down arrow buttons)
- Buttons:** "Add Page Number", "Delete Page Number", "Delete All Page Numbers".
- Checkboxes:** "Clear All Fields After Generate", "Clear All Fields After Print".

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2. Fill in the information for the following fields:



For the Form Path, Form Name, Postscript File, and Save As names, you can type the information in or use the arrow keys which will automatically fill in the currently selected directory and/or filename.

**Form Path:** Enter the Save location path (i.e., /var/spool).

**Form Name:** Enter the name of the saved form.

**Postscript File:** Enter the name of the variable data file.



In this software release, the first page of variable data is ignored by the XMerge application. Therefore, when creating the variable data file, it is important to insert a blank page or a page with information that can be ignored for the first page.

**Use Remote File Name:** You can check this box if you are referencing a path to the variable data PostScript file on the DocuSP controller or on a mounted remote path.



The resulting PostScript file will not have the variable data in it if you have checked this box.

**Save As:** This will be the name of the resulting PostScript file.

**Number of Sets:** You will need to designate how many iterations of variable data you have.

**Merge Pages:** Enter the page numbers of the form where the variable data is to be merged.

3. Select [Generate PS] This generates a new PostScript file.
4. Select [Quit] to exit the XMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.



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## 4. FormMerge

The purpose of this chapter is to give you an overview of the FormMerge application and how it is used.

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### Overview

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FormMerge is an application used to merge one page of form with one page of variable data. A good example of this would be a form letter which is to be personalized or the placement of a logo or letterhead on each page of a document. FormMerge will keep cycling through a form until there is no more variable data left.



FormMerge prints the saved form file on top of the variable data file.

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### Using FormMerge

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This section describes the steps involved in using the FormMerge application on the Windows, Macintosh and UNIX platforms.

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#### Using FormMerge on Windows

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1 2 3...

To execute the FormMerge application, perform the following:

1. Select the FormMrg icon from the Xerox Applications window. The DocuSP Print Application: FormMerge window appears.

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2. Fill in the information for the following fields:

**Remote Form Name:** Enter the name of the saved form.



For Windows clients, you will need to check a saved job (at the DocuSP controller) to determine the naming convention. Some network gateway software may change the case to upper or lower case.

**Remote Form Path:** Enter the Save location path (i.e., /var/spool).

**Variable Data PostScript File:** Enter the name of the variable data file. The [Browse...] button can be used to search a local or mounted file system.

**Use PostScript Reference Mode:** You can check this box if you are referencing a path to the variable data PostScript file on the DocuSP controller or on a mounted remote path.



The resulting PostScript file will not have the variable data in it if you have checked this box.

**Save Output File As:** This will be the name of the resulting PostScript file. The [Save As...] button can be used as a browser to choose a local or mounted file system.

**Use PC Naming Convention on Server:** This will need to match the Preferences selection set up on the DocuSP controller. Refer to your Print Service Operator or System Administrator for this information.

3. Select [Generate!]. This generates a new PostScript file.
4. Select [Exit] to exit the FormMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.

## Using FormMerge on Macintosh

1 2 3...

To execute the FormMerge application, perform the following:

1. Select the FMerge icon on your desktop. The FormMerge window appears.

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2. Fill in the information for the following fields:

**Form Name on Server:** Enter the name of the saved form.

**Path of Form on Server:** Enter the Save location path (i.e., /var/spool).

**PostScript File:** Enter the name of the variable data file. The [Select File...] button can be used to search a local or mounted file system.

**Merged File Name:** This will be the name of the resulting PostScript file. The [Save As...] button can be used as a browser to choose a local or mounted file system.

3. Select [Generate]. This generates a new PostScript file.
4. Select [Quit] to exit the FormMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.

## Using FormMerge on UNIX

1 2 3...

To execute the FormMerge application, perform the following:

1. Select the FormMerge icon. The DocuSP Print Application: FormMerge window appears.

300243B

2. Fill in the information for the following fields:



For the Form Path, Form Name, Postscript File, and Save As names, you can type the information in or use the arrow keys which will automatically fill in the currently selected directory and/or filename.

**Form Path:** Enter the Save location path (i.e., /var/spool).

**Form Name:** Enter the name of the saved form.

**Postscript File:** Enter the name of the variable data file.

**Use Remote File Name:** Check this box to reference a path to the variable data PostScript file on the DocuSP controller or on a mounted remote path.



The resulting PostScript file will not have the variable data in it if you have checked this box.

**Save As:** This will be the name of the resulting PostScript file. The [Save As...] button can be used as a browser to choose a local or mounted file system.

3. Select [Generate PS]. This generates a new PostScript file.
4. Select [Quit] to exit the FormMerge application.
5. Submit the resulting PostScript file using any of the document submission tools.



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## 5. Messages

The chapter lists some of the messages you may receive on your workstation while using XMerge or FormMerge.

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### Overview

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Listed below, by client, are the messages that you may receive while using the XMerge or FormMerge applications. The numbered steps are actions for recovery. If you still have a problem after following all of the steps, contact your System Administrator.

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### Windows messages

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Listed below, in alphabetical order, are the Windows client messages that may appear while using the XMerge or FormMerge application.

**Message:** File Error: The file specification in the “Save As” field is bad. Please choose an existing path which you have write access to.

**Action:** Either choose another location to save your resulting file or ask your System Administrator to give you write access to the location you have selected.

**Message:** File Error: The file specified as the Variable PostScript file does not exist.

**Actions:**

1. Determine the naming convention of saved file. Different network gateway software may be changing the case of the name.
2. Determine from your System Administrator or Print Service Operator if you are designating a valid save path.

**Message:** Generate: The PostScript file has been generated.

**Action:** None. This message is informational only.

### Macintosh messages

---

Listed below, is a message that may appear on the Macintosh client while using the XMerge or FormMerge application.

**Message:** File name is not defined.

**Action:** Determine if the entry for the “Form Name on Server” field or the “PostScript File” name entry is correct.

### UNIX messages

---

Listed below, in alphabetical order, are the UNIX client messages that may appear while using the XMerge or FormMerge application.

**Message:** That page has already been inserted into the list.

**Action:** When using XMerge, you can only select a page once in the Merge Pages list.

**Message:** The file has been generated.

**Action:** None. This message is informational only.

**Message:** The file specification for the output is invalid. The file specification should consist of a valid directory and filename.

**Action:** Check with your System Administrator to determine if the entry for the “Save As” field is a valid save location.

**Message:** The file specified does not exist.

**Action:** Determine if the entry for the “PostScript File” name is correct.

**Message:** The number of copies must be between 1 and 99999.

**Action:** Change the entry for the “Number of Sets” field to a valid number.



**Message:** The output file name must be different than the input (postscript) file name.

**Action:** Select a different name for your output file. XMerge and FormMerge reference the input filename, so the output filename must be different.

**Message:** The specified output file already exists. Do you want to overwrite it?

**Action:** You may want to select a different name for your file to avoid overwriting another valid file. Check with your System Administrator to determine the naming convention for saved files.

**Message:** You don't have permissions to overwrite that file.

**Action:** Either save the file using a different name or contact your System Administrator to give you permissions to the existing file.

**Message:** You don't have write permissions to the output directory.

**Action:** Either save the file using a different directory or contact your System Administrator to give you permissions to the designated directory.

**Message:** You must enter the pages that should be merged.

**Action:** If using the XMerge application, you must designate the pages of the form file where the variable data is to be merged.

**Message:** You must specify a file into which to save the output.

**Action:** An entry for the "Save As" file must be designated.

**Message:** You must specify a form name.

**Action:** An entry for the "Form Name" field must be designated.

**Message:** You must specify a PostScript filename.

**Action:** An entry for the "PostScript File" field must be designated.



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## A. About the generated TIFF files

This appendix discusses the composition of the TIFF files generated by the Decomposition Service. When using saved files with the XMerge or FormMerge applications, it may be useful to understand the composition of these TIFF files.

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### Overview

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The files generated by the Decomposition Service are CCITT group 4 compressed bitmaps. The bitmaps are always 300 or 600 spi (dependent on the resolution set at the queue); 1 bit per pixel. The files are saved as one bitmap per page; one page per TIFF file.

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### TIFF file tags

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Below is a listing of the tags in the TIFF files:

**New Subfile Type:** Always 1

**Image Width and Image Length:** Dependent on the bitmap in the TIFF

**Bits Per Sample:** Always 1

**Compression Tag:** Always CCITT Group 4

**Photometric Interpretation:** Always 0

**Strip Offsets Tag:** Varies with TIFF

**Orientation Tag:** 8, if the paper has been fed long edge first when printing; otherwise 1.

**Samples Per Pixel:** Always 1

**Rows Per Strip:** Dependent on the bitmap in the TIFF

**Strip Byte Counts:** Dependent on the bitmap in the TIFF

**X Resolution:** 300 or 600 (dependent on resolution set at queue)

**Y Resolution:** 300 or 600 (dependent on resolution set at queue)

**Group 4 Options Tag:** Always 0

**Resolution Unit Tag:** Always 2

