

Getting started

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Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

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1. Overview

Your Document Services Platform (DocuSP) product has just been installed or upgraded. This document will familiarize you with the new features and functions available with this system.

This document is applicable to the following DocuSP-based products:

- ◆ DocuTech/DocuPrint 75/90
- ◆ DocuPrint 75 MX
- ◆ DocuColor 6060
- ◆ DocuColor 2045/2060
- ◆ DocuColor 5252
- ◆ DocuTech 6100, 6115, 6135, 6155, and 6180
- ◆ DocuPrint 100, 115, 135, 155, and 180 EPS

User documentation

The user documentation for your DocuSP-based products consists of the following:

- ◆ *Getting Started*: The Getting Started is this document, which is delivered as part of the user guide kit. This document details the new features and feature changes in the DocuSP software for existing DocuSP customers, notes and caveats for working with the DocuSP software, and directions on how to access and print the user guides.
- ◆ *User documentation on CD ROM*: The user guides CD ROM contains the following:
 - The Adobe Acrobat Reader executable for Windows, Macintosh, and Solaris platforms. By loading the Acrobat Reader, you can access and view the user guides which are delivered in Adobe Acrobat pdf format. Instructions for loading the Acrobat Reader software are in section 4 of this document. Procedures for printing the user guides off the CD ROM are located in the next section.
 - A folder containing the DocuSP 3.7 user guides. These guides are designed to be used with the DocuSP controller regardless of the attached printer. The DocuSP controller user guides consist of:

- o *System Guide* (system37.pdf): Contains system level information covering security, accounting, backup and restore procedures, etc.
- o *Color Management Guide* (colormgt.pdf): Contains information for the DocuSP user to reference on the DocuSP controller's color workflow. This guide is only applicable for the DocuColor 2045/2060/5252/6060.
- o *Getting Ready for the DocuSP Installation* (getready.pdf): Contains installation worksheets to be filled in by the customer working with a Xerox representative in preparation for the DocuSP software installation. The pdf provided on the CD is to allow the DocuSP user to print additional copies of this document as necessary.
- o *Using the lp utilities for Solaris* (usinglp.pdf): Contains the syntax and commands for using the Unix lp print command to submit jobs to the DocuSP controller.
- o *Using the lpr utilities for DOS and UNIX* (usinglpr.pdf): Contains the syntax and commands for using the command line lpr from either UNIX or DOS to submit jobs to the DocuSP controller.

NOTE: Unless your workflow requires the use of the lp or lpr command line clients, it is recommended that you use the Xerox Production Print Services software and drivers for job submission from a Windows, Macintosh, or Solaris client workstation.

- Product specific folder(s): One or more product specific folders are available on the user guides CD ROM containing user guides specific to the printer. Access the folder that matches the printer type you are using. The folders contain documents such as the printer Operator Guide covering operator procedures on the printer such as changing paper and toner, Installation Planning Guides for electrical and space requirements, plus additional documents as necessary for the smooth operation of your printer.
- Additional folders with documentation are provided for products that support MICR and LCDS.
- ◆ DocuSP On-line Help: The DocuSP software contains an on-line help system which is accessed from the various help buttons or pull-down menus on the DocuSP interface. In addition, a pdf of the content of the on-line help is available on the DocuSP by accessing the Help pull-down menu on the DocuSP UI. To print the on-line:
 1. On the DocuSP UI, select the Help pull-down menu and select Print Help Documentation.

2. Select a queue from the pull-down menu, and select OK.

Send the documentation to a hold queue in order to program the job properties, or send the job to a queue with the following job properties set as overrides:

- o Sides imaged = 2-sided
- o Finishing = none
- o Paper stock = 8 1/2 x 11 or A4; drilled if the document is to be placed in a binder.

NOTE: The Help documentation is over 200 pages.

3. In Job Manager, locate the job and program the job properties. Then release the job to print.

Printing the user guides

Use the procedure below to print the user guides located on the User Guides CD ROM.

1. Ensure that Adobe Acrobat Reader, version 4 or later, is loaded on the personal computer. It is also strongly recommended that the Xerox custom print driver for your printer is installed on the personal computer. Refer to section 4 of this document for instructions on loading the Adobe Acrobat Reader from the User Guides CD ROM.
2. Place the User Guides CD ROM in the CD ROM driver of the computer.
3. Open the CD ROM and any required folders. Locate the document you wish to print.
4. Using the Adobe Acrobat Reader, you can view the document, print the entire document, or print selected pages of the document.
5. Select File, Print and select the printer to which the document is to be sent for printing. Either program the job properties at the personal computer or at the DocuSP controller.

You may also use the XDS Plus or the DocuSP web interface application on your computer to submit the pdf directly to the printer without first viewing the contents. Refer to the *Xerox Production Print Services Guide to printing using Xerox Production Print Services* for more information.

2. DocuSP 3.74.xx new features

The following is a list of the features and functions now available in the DocuSP version 3.74.xx software.

For customers upgrading from DocuSP 3.70 or 3.73, this list details the enhancements available to you in this version of the software.

For customers upgrading from DocuSP 3.6x, refer to the next section for the features and enhancements available to you in addition to the enhancements listed below.

For detailed information on each of these new features, refer to the DocuSP Help system or contact your Xerox customer trainer.

All DocuSP-based products

Moving completed jobs

- ◆ Completed jobs may now be moved to another queue for printing.
 - While the Move option has been available for completed jobs, in prior releases of the DocuSP software the job would fault if a Move was attempted.
 - In order to move a completed job, the System Preferences must be set to Retain the last 50 PDLs.

NOTE: A utility is now available to modify the number of PDLs that can be retained on the system within a range of 1 to 100. Refer to Section 5, Tools and utilities, for more information.

Layout (imposition)

- ◆ The Layout feature now enables crop marks for all templates. Previously, crop marks were only available for the multiple-up template. Crop marks can be enabled or disabled on the DocuSP for each job.
- ◆ The Layout feature now provides the ability to automatically scale the images for all of the templates.

NOTE: When creating a PostScript or PDF file, ensure that the page size selected in the driver as part of the PDL is the size of the image to be imposed. When specifying the layout, the Original Size must be set to the size of the image to be imposed.

DocuTech/DocuPrint 75/90

DocuPrint 75MX

- ◆ DocuSP 3.74 provides support for the new DocuPrint 75 MX printer, which provides MICR printing capability.

MICR (Magnetic Ink Character Recognition) is a process by which documents are printed using magnetic ink and special fonts to create machine readable information for quick document processing.

Although traditionally MICR has been used to print accounting and routing information on bank checks and other negotiable documents, the magnetic encoding lends itself to any form of document processing.

Refer to the documents available on the *User Guides CDROM* for further information on MICR and the DocuPrint 75 MX product.

Tab tray insert

- ◆ The tab tray insert is now installed in the paper trays and is no longer being delivered as a separate kit. The function of the tab tray insert and the process to print tabs on the DocuTech/DocuPrint 75/90 has not changed.

DocuTech 61xx and DocuPrint 1xx EPS changes

- ◆ This release introduces several new halftone screens to enhance the image quality of prints on the DocuTech 61xx and DocuPrint 1xx EPS printers. The halftones can be applied to PostScript and PDF jobs.
- ◆ The new halftones available are:
 - 85+ lpi
 - 106+ lpi
 - 120 lpi
 - 141 lpi
- ◆ The Sample collection in Reprint Manager contains a sample PostScript job that demonstrates the 7 halftone options available, including the 4 new options.
- ◆ The 4 new halftone options are only available for PostScript and PDF document formats at a 600 dpi resolution. Access the halftone options by selecting Printer Manager, Image Quality, PostScript/PDF.
- ◆ The new halftone options are optimized for a printer darkness setting of 7 or 7.8, depending upon the printer configuration.

DocuColor printer specific changes

Dynamic composite object assembly and caching

- ◆ DocuSP 3.74 contains a new feature to improve the performance of variable data jobs containing cached objects. As in previous releases, the system caches individual objects explicitly identified with a VIPP job through the use of the CACHE and PRECACHE commands.
- ◆ In this release, the system now looks for patterns of objects that are frequently used together and dynamically combines those objects into a new composite object that is cached for reuse.
- ◆ For this dynamic composite object assembly to function, note the following:
 - The objects or images must appear in the exact same context relative to one another on the page. If the individual objects are moved, resized, rescaled, cropped differently, or use different color transformations on subsequent pages of the job, the system is unable to build a reusable composite object.
 - A substantial performance improvement is only seen when groups of objects are used together more than twice.
 - DocuSP continues to support both standard PostScript execform caching and DocuSP optimized caching. However, the only method for accessing the DocuSP optimized caching is through the use of the VIPP CACHE and PRECACHE commands.
 - The dynamic composite object assembly feature is automatically enabled for VIPP cache users when VIPP caching is enabled on the DocuSP Queue Properties PostScript/PDF tab. VIPP caching is only available with the DocuSP color printers.

Pantone® certification for DocuColor 6060

- ◆ A new color version table, version 2.5, is now available for the DocuColor 6060 only. This color version contains Pantone® certified color tables for printing Pantone® colors on coated paper.
- ◆ All other color tables are the same as those already available in version 2.0. The only change is for the Pantone® coated color.
- ◆ Refer to the color management letter and attached color samples if the customer is upgrading from color version 1.x.

Page Parallel RIP

- ◆ This feature applies to DocuColor iGen3 only at this time.
- ◆ Page Parallel RIP allows the DocuSP to decompose (RIP) multiple jobs or multiple segments of a single job simultaneously, resulting in a large boost in RIP speed. The number of parallel RIPs available is dependent upon the number of CPUs and additional memory available in the DocuSP controller.
- ◆ This feature is supported for PostScript, PDF, VIPP, and ASCII formats only, and the license must be enabled and activated.

NOTE: Jobs should be Adobe Document Structuring Convention, DSC, compliant and Page Independent. Jobs that do not meet these requirements fault with a "Parallel RIP failed" message and must be submitted to a non-parallel RIP queue.

- ◆ A typical site should have at least two queues: one queue set up for Page and Job Parallel workflows, and one queue set for serial processing of jobs that cannot be divided into chunks for parallel processing and for VIPP jobs that contain embedded CACHE and PRECACHE commands.
- ◆ The following are some limitations on the Parallel RIP feature:
 - A queue set for Parallel RIP should also be set to Protected on the PostScript/PDF tab.
 - The use of 1-N or N-1 is dependent upon the job suite and user preference
 - Jobs using the DocuSP Layout (Imposition) feature cannot be processed using a parallel RIP queue.
 - The DocuSP Job Preview option uses the serial processing method.
 - DocuSP Job and RIP status is available but may not accurately reflect the status due to the multiple parallel RIPs.
 - VIPP jobs using CACHE and PRECACHE must be processed using the serial queue; non-CACHE jobs may be processed using either queue.
 - Parallel RIP does not support jobs with subset finishing or page dependent setpagedevice commands.
 - No mechanism is available to validate that a job is DSC compliant and page independent. If you are unsure, submit a proof to a queue set to Parallel RIP to see if it prints properly.
 - Very large standard PDF files, greater than 2 Gbytes for example, print on a parallel RIP queue that is protected,

and fault when printed on a serial queue that is unprotected.

- The queue property tab may contain a selection for “Read/Write for Protected Queues”. This option can be ignored.
- Ensure that the number of RIPs is equal to the recommended value.
- A series of concatenated files are generally not DSC compliant and may not be Page Independent.

The Page Parallel RIP feature can be found in System Preferences on the Job Processing tab. For assistance in using the feature, refer to the recommendations shown in the preferences window.

Color rendering changes for iGen3

- ◆ The DocuSP software uses twice as many color swatches for digital front end color content improving the overall color accuracy for many functions, including Pantone® color matching.
- ◆ Improvements in the calibration to allow for more accurate color version options. In this release, the calibration aim is now set as the iGen3 native neutral point. The result is less variability in calibrations and improvements in neutral outcomes for iGen3. In addition, fewer profiles are needed.
- ◆ The default copy count for the number of targets to be printed during a calibration is now 40. Note that the DocuSP help still indicates the copy count default is 20.
- ◆ A custom User TRC is added to contain the curves required to adjust the DocuSP 3.74 color response to match earlier DocuSP 3.7 color responses.
- ◆ Gray component replacement is now applied based on the rendering intent for CMYK workflows by introducing light, medium, and heavy GCR.
 - Heavy GCR provides an excellent rich black for CMYK emulation workflows and a smoother high GCR.
 - Medium GCR is now a separate function. In the previous release, the default and medium GCR were the same.
 - A low GCR is now available for images which require a smooth rendering, such as for skin tones. This GCR offers limited K in the CMYK 4-to-4 emulation.
- ◆ Improvements in the RGB workflow:
 - A standard GCR, versus a maximum gamut GCR used in previous releases. The standard GCR provides improved contone images.

- Improved rendering of shades from 0% to 70% allowing highlight text to be visible.
- Modified hue angles better match recent adjustments to the iGen3 print engine.

Spectrophotometer Software Reset Tool

This release now contains a UNIX script that will perform a Software Reset on the DTP 41 Spectrophotometer by Xrite. This script allows direct resetting of the spectrophotometer at the DocuSP controller. Previously, the spectrophotometer had to be disconnected from the DocuSP controller and connected to a PC in order to run the reset software. Refer to Section 5 for details on using the reset tool.

Sun Blade 2500

A new DocuSP controller platform, the Sun Blade 2500, is being provided with the following new printer installations:

- DocuTech 61xx
- DocuPrint 1xx EPS
- DocuColor 2045/2060/5252/6060

For specific platform configuration information, refer to your product documentation or see your Xerox representative.

3. DocuSP 3.70/3.73 new features

The following is a list of the features and functions available in the DocuSP Version 3.70 and 3.73 software. For customers upgrading from an earlier version, this list details the enhancements available to you in this version of the software.

For detailed information on each of these new features, refer to the DocuSP Help system or contact your Xerox customer trainer.

All DocuSP-based products

Security

- ◆ With DocuSP 3.7, the System Administrator can adjust the system security in the Security Setup window. Previously a Xerox representative performed this change. Default setup upon installation is a security setting of High. Refer to the *System Guide* for details on the security settings and what each means.

A change in the security setting requires a complete Shutdown and reboot of the DocuSP controller.

A security setting of High disables connectivity to the DocuSP controller using ftp and telnet. Some client applications, such as DigiPath, may not be able to communicate with the DocuSP controller with a security setting of High. Set the Security setting to Medium to allow DigiPath and other client applications to communicate correctly with the DocuSP controller.

The scripts for enabling or disabling portions of the security are still available. Refer to the *System Guide* for details on the scripts.

- ◆ The HTTP gateway is loaded and running by default. The HTTP gateway allows users with Internet access to the controller to submit jobs by opening a standard web browser and entering the IP address of the DocuSP controller. Setting the security to high does not restrict this client. Disabling the license does not prevent this service from running. Customers who do not wish to allow this kind of access should remove the `XRXhttp` package by following the steps below.
 1. Open a terminal window and login as root user.
 2. Type `pkgrm XRXhttp` and press <Enter>.
 3. Answer y to the prompts.
 4. Shutdown and reboot the DocuSP controller.

NOTE: Once a script is run, the setting is permanent until the disabling script is run or the Security setting in the DocuSP UI is toggled from Medium to High. For example, the security is set to High, but the enable-ftp script is run. FTP is not enabled until the disable-ftp script is run, or until the security setting is toggled to medium and then back to high. The DocuSP controller needs to be rebooted after the toggle from high to medium to high is complete.

Job Forwarding

- ◆ The Job Forwarding feature now allows the ability to include or exclude the Xerox Job Ticket when the job is forwarded to another printer. The benefit of this option is to allow control over which job attributes are maintained between the originating printer and the destination printer. This option was part of the DocuSP 3.61.19 release.
 - Examples of when to include the job ticket would be when forwarding to a DocuSP-based printer at software level 3.x or higher and the job has been programmed with a Xerox Job Ticket or the job has been programmed with special programming instructions such as exception pages or color attributes.
 - Examples of when to exclude the job ticket would be:
 - when forwarding to a non-DocuSP based printer that does not comprehend the XPIF job ticket format.
 - the job contains PDL programming information such as through setpagedevice commands within PostScript or tray calls within PCL.
 - when jobs include subset finishing.
 - when forwarding a job to a printer with a DocuSP version of 2.x or earlier that does not comprehend the XPIF job ticket format.
- ◆ The Job Forwarding interface now includes an accelerator pull-down for a list of destination printers. This accelerator allows the operator to add multiple printers to the interface for quicker job forwarding.
- ◆ Jobs with a status of Completed can now be forwarded. In order for completed jobs to be forwarded, the System Preference for Retain PDL must be set to retain the last 50 jobs.
- ◆ The operator can now select a range of jobs to be forwarded, rather than having to select each job separately.
- ◆ A detailed status is provided on the Job Forwarding screen for jobs that have been forwarded. The status is retained in the screen until a DocuSP restart.

- ◆ Jobs may be forwarded to non-DocuSP based printers as long as the non-DocuSP printer can be accessed from the DocuSP and entered into the Job Forwarding window.

Layout (Imposition)

- ◆ Overall layout and functionality of the Layout feature has been improved. The most common multiple up options have been added as standard templates with automatic scaling, and do not require manual entry of a scaling percentage.
- ◆ The imposition templates have been simplified. Customers should proof imposition jobs with the new layouts prior to production.
- ◆ A new imposition template is available that streamlines multiple up postcard printing. The template provides easier printing of a single sheet, 2-sided postcard layout. This template was introduced in DocuSP 3.61.16 as the custom template.
- ◆ The Layout feature now has the ability to turn the crop or cut marks on or off. The default setting is for the crop marks to be off.
- ◆ The Layout feature now has the ability to make small image shifts that account for the paper thickness in Signature booklets. The Signature Shift feature provides a small creep outward as the paper stack expands. The Signature Shift is a checkbox and is either on or off. The default setting is for Signature Shift to be off.

Job Preview (PostScript and PDF jobs)

- ◆ The ability to preview any PostScript or PDF job is available with this release as a licensable feature. The operator may select a job and preview a 72 dpi image of a job or page.
- ◆ Preview is available in Job Manager on PostScript and PDF jobs with nearly every status, provided the job is fully spooled on the DocuSP controller. Completed jobs may also be previewed as long as the system is set to Retain the last 50 jobs.
- ◆ Operators can also preview saved PostScript and PDF jobs using Reprint Manager and using the DocuSP Remote Workflow software. However, jobs previewed using Remote Workflow are displayed very slowly due to image transfer and processing. For best results, preview jobs that contain all elements of the job, such as images and forms, within the PDL.
- ◆ The page size is displayed in the lower left corner and can be used to assist in job setup.

- ◆ The size can be scaled to 10 percent and moved to a place outside the main DocuSP UI for easy job identification but limited screen coverage.
- ◆ DigiPath, VIPP, and OPI jobs cannot be previewed in this release. Jobs with PostScript errors also cannot be previewed. If a PostScript job is not viewable, print the job and refer to the PostScript error page to determine the problem with the job.

Reprint Manager CD ROM Access

- ◆ Reprint Manager now has a pull-down menu to allow the operator to view the CD ROM drive. Previously, accessing the CD ROM required manually entering the path.

Stock Management

- ◆ All predefined stocks are on the Hidden stock list as a default on installation of the DocuSP software. The System Administrator has access to the Hidden stock list and may select any of the predefined stocks to be placed on the viewable list for the Walk Up and Trusted User access levels.
- ◆ Previously, when performing stock programming in Queue Manager or Job Manager and the paper tray that contains the desired stock is selected, only the Stock Name would be identified as an Override. The system now assigns all of the stock attributes as Overrides.
- ◆ Xerox Qualified Media is now in the Stock Catalog. In order to make the Xerox Qualified Media available in the Stock Library, add the stock using the Add Stock to Library selection.

PCL6 and PCLXL

- ◆ PCL6 is the next generation of the Hewlett-Packard LaserJet PCL language. PCL XL is a new page description language by Hewlett-Packard that is part of PCL6. PCL XL is designed to optimally match the graphics printing requirements for GUI-based applications, reducing the number of commands required to describe a graphics page.
- ◆ The output from an enhanced PCL XL driver may not be the same as the output from a standard PCL6 driver. If the output is not as expected, the recommended solution is to print using a PCL5e driver instead.
- ◆ DocuSP 3.7 supports printing PCL XL class 2.1 for color and PCL XL class 2.0 for the black and white printing products.
- ◆ XPPS 3.7 does not provide a PCL XL (PCL6) Xerox custom printer driver. In order to take advantage of the PCL XL features, a native HP PCL XL driver will have to be used. Ensure the driver chosen supports the same class of PCL as the DocuSP.
- ◆ Even with an HP PCL XL driver that supports the same class of PCL as the DocuSP, some minor compatibility issues may be seen due to commands within the PCL that are not supported on the DocuSP controller. Contact your Xerox customer support representative for assistance if necessary.
- ◆ Native HP PCL drivers do not support all of the features of the DocuSP-based printer. Any printer specific features can be programmed at the DocuSP controller after the job has been submitted.
- ◆ DocuSP 3.7 still supports printing PCL 5e and the Xerox custom PCL 5e drivers are still available for use.

Note: At this time, there are known problems with PCL XL on the DocuSP controller. Xerox encourages you to evaluate job printing and integrity using PCL XL. Any and all feedback is welcome and appreciated.

PCL Features and Additions

- ◆ Operators may now save PCL resources on a job-by-job basis, allowing for more routine saves. Previously, the save resource function only occurred when the DocuSP controller was shutdown.
- ◆ Operators may define the custom stock size for PCL custom jobs in the job properties. This option introduces the ability to define any size image for decomposition.
- ◆ A new check box allows the operator the ability to automatically center custom sized stock in a manner similar to the HP product line. When this feature is disabled, the image is oriented to the side of the paper. This feature provides HP 8100 bypass tray compatibility.
- ◆ The default line termination settings for PCL jobs can now be set on the DocuSP UI. Previously, the line termination settings had to be changed using a UNIX script.
 - Line termination settings should not be used in a mixed PCL and ASCII environment, because PCL data streams can include other line termination escape sequences which could change the line termination sequence without the operator's knowledge.
- ◆ DocuSP 3.7 now supports HP's PjL. Key features are enabled for PjL data streams and include:
 - PjL Set Duplex = Off, On
 - PjL Set Paper = Executive, Letter, A4, Legal, A3, Ledger, Monarch, DL, C5, COM10, A5, Eurolegal, 14x17, B5, JISB4, JISB5, Hagaki, Ohagaki, ISOB4, and Custom
 - PjL Enter Language = PCL and PCL XL
 - PjL Set Binding = Longedge, Shortedge
- ◆ The operator may set the system to ignore PjL commands. This emulates the behavior of prior releases.

Auto Center TIFF for printing

- ◆ Operators now have a new System Preference to automatically center a native TIFF file on a page. The default setting is uncentered.
- ◆ This feature does not impact TIFF images wrapped in PostScript such as DigiPath, GetTiff, or TIFF images fully embedded in PostScript files.

Printing On-Line Help

- ◆ Operators may now print the entire On-Line Help file from the Help pull-down menu on the DocuSP UI. The Help file is in addition to traditional documentation and training. Refer to section 1 of this document for detailed instructions on how to print the on-line help.

Stock Export Change

- ◆ Upon export, the operator will always export both pre-installed and user defined entries.
- ◆ The only option the operator needs to select is the directory for the export file.

Default Router Preference Setting

- ◆ The system administrator may now change the default router setting. Previously, this was done at the OS installation level.

License Automatically Enabled and Activated

- ◆ When the Xerox service representative loads the license file, all of the licenses are now automatically enabled and activated. In previous releases, the Xerox Service Representative would need to access each licensable feature in the License Manager, and select Activate and Enable.

DocuColor 2045/2060, DocuColor 6060, and DocuColor iGen3 specific changes

DocuSP Color Versions

- ◆ Three versions for color rendering are now available. At installation, the customer has the option to add version 1.0, 1.1, or 2.0. Each of these options includes the full content of the previous version.
- ◆ Refer to the supplied kits for your version number for details on the color differences between each version. See your Xerox representative to determine which color version meets your color needs.

Note that the DocuColor iGen3 only supports version 1.0 and 2.0.

Tone Reproduction Curve Improvements

- ◆ The Tone Reproduction Curve (TRC) operability is now similar to traditional image edit programs, such as Adobe Photoshop®.
- ◆ New convenience features include more control points and print TRC functions.
- ◆ Operators can now choose Percent in addition to Digital Count.
- ◆ There are now type-in fields for curve control.
- ◆ Control points can be manually added in the type-in field, edited, or deleted.
- ◆ Revert buttons are now available. Operators may also print out the TRC representation for future use. The print function allows the operator to print one or all of the separations to any available queue. The printed output shows a graph and all specific control points for C, M, Y, and K.
- ◆ Operators may now copy a channel C, M, Y, K to a second channel or to copy all channels.

Spot Color Editor

- ◆ The DocuSP 3.7 software release introduces a Spot Color Editor. Operators may now add a custom spot color, edit a current spot color, edit the C, M, Y, and K values independently, and find a spot color.
- ◆ When adjusting color values, operators may proof print samples of the original and new spot colors.
- ◆ The DocuSP system contains a full Pantone® spot color table within Reprint Manager that can be printed for reference.

- ◆ Operators may also print the Spot Color Table in Color Manager on the Spot Color Editor tab.

RGB Profile Changes

- ◆ The Source Color list for RGB color spaces now includes Adobe RGB instead of SMPTE-240M RGB color space and can be found in Version 2.0 Color for the DocuSP 3.7 software release.

Calibration Additions

- ◆ The user has the ability to print multiple copies of the calibration target.
- ◆ The calibration targets have been widened for better accuracy and now print on two pages.

Halftone Calibration

- ◆ In order to achieve better halftone results, profiles for a color group now have associated halftone and do not require operator intervention.

Load Destination Profiles as Source Profiles

- ◆ Operators may now load an output profile as a source profile.

Image Quality

- ◆ DocuSP now allows operators to trap text objects that overlay vector graphics and bitmaps.

212 Dot Outline (iGen3 only)

- ◆ For text items and the 212 dot, outlining is added by the Contone Rendering Module (CRM), resulting in sharper text for 212 dot imaging.

External finishing (DFA) support added for iGen3

- ◆ When this feature is enabled, the Finishing tab in Printer Manager makes the external finisher available for selection.
- ◆ The Output Location attribute in Job Manager and Queue Manager contains a selection for an available Bypass Transport to allow finishing jobs using the external finisher.

LCDS

User Control of Resources

- ◆ In this release, LCDS resources are not displayed until the operator selects the Display button.
- ◆ Previously, selecting the LCDS Resource Manager tab in Administration caused all LCDS resources to display. This was time consuming, especially for customers with tens of thousands of resources.

JDL staple support for DocuPrint 75/90

- ◆ The LCDS STAPLE command is now available for use with the DP 75/90. The system does not require override settings to be set in the Queue properties for stapling to work.
- ◆ The STAPLE command must be invoked before the start of the job or on the first record of data in the job. Otherwise, the DP 75/90 will ignore the STAPLE switch if a JDE/JDL switch is made in the middle of the job.
- ◆ Jobs can be offset and stapled simultaneously.
- ◆ Jobs requiring N to 1 or Face Up and STAPLE=YES are forced to print 1 to N and Face Down due to a restriction on the stapling feature on the DP 75/90.
- ◆ Jobs that contain over 50 pages will not be stapled, and the default setting is to fault the job. To change the setting to print the job unfinished in the System Preferences Job Policy tab:
 - Select Print Job Unfinished under the Overlimit Finishing section.
 - Select Check Set-Size Before Printing under the Overlimit Finishing section.

Copy Sensitive CME support

- ◆ Copy sensitive CMEs will be honored. The LCDS PDL allows individual copies of a report to contain changes from the original report by the use of copy sensitive form, RTEXT, and CMEs. Copy sensitive CMEs allow certain parts of the report to be modified on selected copies with new or replacement static text or with the specification of font or ink changes within the variable data.
 - On the LPS printers, this was accomplished by performing multiple passes over the data. Therefore, only offline tape jobs could contain copy sensitive CME's.
 - On EPS printers, copy sensitive CMEs are supported with spooling queues only. The job may originate from Online, Tape, or the Socket gateway. However, if the job is extremely large, the spool may become full. The spool is limited by the available hard disk space. The entire job must be spooled to disk before the decomposer can begin ripping.

Auto End changes and moves

- ◆ In previous versions, the operator needed to press "Start" to start an online job and press "End" to finish the job. The operator needed to be present to press "End" so that network jobs could be scheduled and printed.
- ◆ The AutoEnd feature allows:
 - Online jobs to automatically end and start based on a timer set in the Online Gateway configuration.
 - Online jobs automatically end and start based on the receipt of the channel command 0x6b (raise cover) in the datastream.
- ◆ Now the AutoEnd feature invokes the "End" for the current job and starts a new job without operator intervention.
- ◆ The System Administrator enables AutoEnd. By default, the AutoEnd feature is disabled.
- ◆ AutoEnd is supported in both streaming and spooling modes.
- ◆ AutoEnd and AutoDrain with a timer cannot be set at the same time.

Save Job Setup upon exit

- ◆ A popup message prompting the operator to save the current job setup will no longer display when an operator exits online manager.
- ◆ To save a job setup to a file, the operator will have to select the Save or Save As button in the online manager window.

Image Shift support

- ◆ Image shift is supported for LCDS jobs on the DocuPrint 75/90 and on DP 1XX EPS printers.
- ◆ Image shift changes must be applied before the job is sent. Any changes made while a job is printing are not honored until the next job.
- ◆ If the operator shifts the image too far in a negative direction, the image may be cropped.

Stock management

- ◆ The Aux, Main, and Auto stock definitions are available in the Stock Library and cannot be deleted from the system.

4. DocuSP 3.74 software release information

The following information supports the DocuSP 3.74 software. Please read the information thoroughly before using the system.

Notes and caveats

The following sections cover known issues with the DocuSP 3.74 software and supporting applications.

DocuSP Controller

The following table details the notes and caveats for the DocuSP 3.74 software and indicates which printer products, or all, to which the caveat is applicable.

These caveats are planned to be fixed in a future release of the DocuSP software. If you encounter one of these caveats that impacts your print production, contact your Xerox support representative.

Caveat	Applicable printer product
Using a streaming queue is not recommended. Jobs hang with a status of "Waiting for RIP".	DocuColor 2045/2060/6060
SWOP source selection renders SWOP neutrals between 1% and 8% to Cyan.	DocuColor 2045/2060/6060
PCL5c jobs using trapping, black overprint, or anti-aliasing fault with a C03-308 if the job is held in Job manager.	DocuColor 2045/2060/606 DocuColor iGen3
Ensure VI job resource names are unique when using a workflow where cached variable objects are allowed to persist beyond the current job.	DocuColor 2045/2060/606 DocuColor iGen3
When Retain Cached Objects is selected, ensure that the attribute override is also selected.	DocuColor 2045/2060/606 DocuColor iGen3
Individual TIFF images of a saved job print with less color saturation than the full job. Source color is saved as part of the job ticket and may not be referenced when individual TIFF images are printed. Set the Source Color for CMYK Images to the device CMYK in order to print the images with the correct color saturation.	DocuColor 2045/2060/606 DocuColor iGen3

Caveat	Applicable printer product
Anti-aliasing may cause width changes and color shifts for certain lines.	DocuColor 2045/2060/606 DocuColor iGen3
A saved FRF job with saved DRI that is edited in Reprint Manager faults with the following error message: "Processing error – This job cannot be printed because the Job Data File or the Pathname does not exist". Do not edit an FRF job with DRI.	DocuColor 2045/2060/6060 DocuColor iGen3
An FRF saved job displays incorrectly in the viewer, but prints correctly.	DocuColor 2045/2060/6060 DocuColor iGen3
Trapping settings do not stay changed when the changes are applied on a queue.	DocuColor 2045/2060/6060 DocuColor iGen3
The SWOP emulation output options are not working for selected output emulations. For example, incoming data created as SWOP CMYK prints correctly but native CMYK cannot be output as SWOP CMYK.	DocuColor 2045/2060/6060 DocuColor iGen3
After completing a calibration, the calibration must be applied to a stock group.	DocuColor 2045/2060/6060 DocuColor iGen3
Do not add an ICC profile while a large job is printing.	DocuColor 2045/2060/6060 DocuColor iGen3
When a TRC is deleted, any queues using the TRC are set to a TRC of None and Override is set. If a TRC is deleted, ensure that the queues using the TRC are set to a new TRC and the jobs using the queue print correctly.	DocuColor 2045/2060/6060 DocuColor iGen3
The LCDS Sizing feature is not honored correctly on the DocuSP.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
A paper jam message is not cleared when the jam is cleared from the printer and the DocuSP is restarted. After clearing the jam, open and close both paper trays 1 and 2. This should cause the jam message to reset.	DocuTech 61xx DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
When using the Socket Gateway to submit LCDS jobs, the jobs may contain missing pages or data, extra pages or data, the job may abort, or a C03-308 error may occur.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
If a custom paper size is programmed in the Queue Manager to be Short Edge feed, LCDS jobs raise a message "Edge marking values are out of range". If necessary, program the custom paper size as a Long Edge Feed.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
The Reposition Output display only shows the end of the job and does not show the end of the set.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS

Caveat	Applicable printer product
If the RIP is paused while jobs are being ripped and the Job Properties window is closed, the Pages Ripped and Bytes Ripped values are cleared from the display. Restarting the RIP causes the Pages and Bytes Ripped display to resume correctly.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
A "Write Error" message is displayed if Eject/Unload is selected in Peripheral Manager for a tape device that does not contain a tape.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
Reposition output does not work for uncollated jobs.	DocuTech/DocuPrint 75/90 DocuPrint 1xx EPS
A large number (e.g. 100+) of jobs submitted with the printer paused causes the printer to cycle down intermittently after the printer resumes printing. Single page printing performance is very slow. Do not submit a large number of single page jobs while the printer is paused.	DocuTech/DocuPrint 90
When setting the attributes for stocks on the DP 75/90 for an LCDS job, only one unique attribute should be set per stock. For instance, if a stock requires Legal size paper, do not change the TYPE, DRILLED, WEIGHT, or COLOR attribute for this stock from the default values. This may cause the DP 75/90 print engine to not print the job because the stock attributes do not match.	DocuPrint 75/90
The XJDC compiler displays messages that conflict with the operation of the printer when the STAPLE=YES command is given for a job. On a DP 75/90, STAPLE=YES only allows 1 to N and Face down (NTO1=NO, FACEUP=NO) printing.	DocuTech/DocuPrint 75/90
A job requiring an unsupported paper size completes with errors but does not report the reason for the errors.	DocuTech/DocuPrint 75/90
Do not attempt to program a paper tray that contains ordered stock and is currently being used by a printing job.	DocuTech/DocuPrint 75/90
After a restart of the DocuSP software, the Queue Manager, Printer Manager, Administration, Job Manager, and Reprint Manager windows may take up to 5 minutes to come up. As a workaround, exit power saver mode before restarting the system, or power on power off the printer during the restart.	DocuTech/DocuPrint 75/90

Caveat	Applicable printer product
The system may display an unclearable Reset message. The system prints normally.	DocuTech/DocuPrint 75/90
When Offset stacking is enabled, stitched jobs do not offset.	DocuTech 61xx
During a Print Now or Proof, a message to "Remove Sheets from the Top Tray" may be displayed when there is no need to remove sheets. Always clear the message before performing any other operation.	DocuTech 61xx
When a job is printing to the top tray and is interrupted by a print now or proof job, the interrupted job stops (as it should) and an error message reads, "remove sheets from top tray". Whether the sheets are removed or not, the message stays until "reset" is selected in the fault frame.	DocuTech 61xx
External finishing cannot be selected at the client using the IPP or HTTP gateways. Submit the job to the printer without any finishing, and select the external finisher at the DocuSP.	DocuPrint 1xx EPS DocuTech 61xx
The DocuSP software cannot read any LPS formatted floppy disk on the Sun Blade 2500 external USB floppy drive. Use a QIC tape or DOS formatted floppy to import LCDS resources to the system.	DocuPrint 1xx EPS
A large job that requires partitioning on a system set for user intervention hangs when the user responds to the intervention message to print 1 copy.	DocuPrint 1xx EPS
For multi-copy jobs, if an OTEXT command is specified on a copy pass for a page that doesn't print (no data on the page), then the OTEXT message will not be displayed and the WAIT parameter will be ignored.	DocuPrint 1xx EPS
The system is unable to resume printing when late binding attributes and page spacing options are used. As a work around, restart the DocuSP or Select Sample Current job from the Printer drop down menu to activate the resume and sample button on the repositioning output dialog box and the Resume button on the DocuSP main window.	DocuPrint 1xx EPS
The list of supported MIBs documented in the <i>Document Services Platform Common Controller System Guide</i> are incorrect. Refer to the section on SNMP at the end of this chapter for more information.	All

Caveat	Applicable printer product
<p>During an upgrade from DocuSP 3.6 to 3.7, note the following issues:</p> <ul style="list-style-type: none"> ◆ Jobs held in Active/Completed status are deleted. Save any important jobs as Reprint jobs prior to the upgrade. This also guarantees the color settings on the jobs are locked at the 3.6 settings. User defined ICC profiles are deleted. Manually save any user defined ICC profiles to a location other than the DocuSP controller. Some queue settings may change. After the upgrade, review the queue settings to ensure that they are correct. For example, check the Save settings, default stock settings, default color settings, and layout. ◆ Layout templates are different. In some cases, the layout templates do not match exactly. Verify any queues with layout templates selected as part of the queue attributes. 	All
<p>Jobs submitted from DigiPath using the Production Print submission path generate a PostScript error when forwarded to another DocuSP. Use the Quick Print submission path.</p>	All
<p>If the Job Notes fields Recipient Name, Account, and Job Start Message sent from a client workstations are more than 30 characters long, the values are either truncated or are empty when the job is received at the DocuSP controller.</p>	All
<p>Do not override the paper size for VIPP jobs.</p>	All
<p>A job with landscape orientation saved in multi-page TIFF format does not reprint with the desired image orientation. Jobs with a landscape orientation should be saved as single-page TIFFs.</p>	All
<p>If an alignment of over 275mm is made and Apply Properties Now selected, the job will be aborted with a C16-350 error.</p>	All

Caveat	Applicable printer product
<p>Jobs with extreme Alignment shifts will fault. For example:</p> <ul style="list-style-type: none"> - Dots with extreme positive values - Scan lines with extreme positive or negative values <p>As a work around, use a shift magnitude slightly less (>0.01 inches) than the extreme value. NOTE: Dots with extreme negative values will not fault.</p>	All
<p>A job submitted through the lpr gateway with image shifts on exception pages uses values from the job level image shift instead. Program the image shift values for the exception pages in Job Properties.</p>	All
<p>Processing performance on a 600x600 dpi queue is considerably less than performance on a 300x300 dpi queue. Not selecting the "fit to page" selection in the driver increases the performance.</p>	All
<p>If multiple users are submitting requests to the IPP Gateway, the requests are managed one at time at the DocuSP controller. If a user is sending a large job through XDS Plus then all other users who try to connect, use, or submit a job will not be able to do anything until that job is submitted, and XDS Plus will appear to hang.</p>	All
<p>Total pages saved in the Job Properties for a saved job does not reflect the total number of saved pages.</p>	All
<p>If an active window is minimized or hidden behind the DocuSP Print Services window, the mouse is inoperable and an alert tone will sound. Minimize the DocuSP Print Services window to find the hidden active window.</p>	All
<p>Solaris 8 does not allow ftp, file transfer process, to be used with root user access. Any processes that use ftp that have typically used root access need to be modified to use another user. For example, DigiPath NetAgent and Production Print features, VIPP resources, or font transfer.</p>	All
<p>The Walk Up user can print any files on the DocuSP controller using the Reprint Manager tab in Job Manager, including any files set for read only access by root or any sample jobs.</p>	All

Caveat	Applicable printer product
Do not use the Apply Properties Now button in Queue Manager to change job attributes to using ordered stock. The job will fault.	All
PCL fonts cannot be loaded from a directory that contains multiple subdirectories. In order to load PCL fonts from a directory, create a Font directory and store the fonts in that directory. Do NOT use the /font directory, located in root on all DocuSP systems, to store uninstalled fonts. Avoid using long directory structures for font installation.	All
At this time, setting up the HTTP, and SNMP gateways cannot be accomplished through the graphical user interface. The gateways and the common settings must be set using the gwConfig utility through a UNIX Terminal window. The instructions for performing the gwConfig utility are included in the <i>Document Services Platform System Guide</i> .	All
<p>The following are known problems with the HTTP gateway and DocuSP Web Interface:</p> <ul style="list-style-type: none"> ⇒ Do not specify an ampersand (&) in the sender name, file name (print ready), or Queue name fields. ⇒ Faulted jobs display as held in the queue list. ⇒ When the DocuSP Web Interface is accessed from a client workstation, the web URLs displayed in the Support section are placeholders. 	All
<p>For the IPP gateway using XDS Plus:</p> <ul style="list-style-type: none"> ⇒ Send jobs to a spooling queue only. Do not send jobs to a streaming queue. 	All
After a restart or reboot, ineligible jobs in a held queue move to an active window and change status to pending.	All
Negative image shift values do not display the negative sign but the job prints correctly.	All
Imposition is available for PS and PDF only. Imposition is not supported for PCL, LCDS, VIPP, or ASCII jobs. If non supported jobs are submitted and modified to be imposition jobs, the jobs print as normal and not fault.	All, Imposition only

Caveat	Applicable printer product
The Sides Imaged value for signature layouts must be either the Queue default value or the job must be programmed to be Head-to-Toe regardless of the orientation.	All, Imposition only
If the original size of the job is changed during the printing process, such as after a proof has been run, the Original Size is set to the default Letter size. Be sure to check and, if necessary, change the Original Size before printing the job.	All, Imposition only
The value shown in the Current Stock Size field does not update to match the Size value on the Stock tab.	All, Imposition only

DocuJob Converter

- The DocuJob Converter software must be at least version 2.1.04. This version corrects a timing problem that resulted in jobs being lost at the controller.
- Version 2.2 of the DocuJob Converter software, which runs under Solaris 2.6 on a Sun Ultra 60 platform, is available.

VIPP Interpreter

- VIPP 4.1 demo mode is included with a DocuSP 3.7x new installation for most of the supported printers. In order to fully use VIPP 4.1, a production kit and a license will need to be obtained from your Xerox representative. Existing DocuSP customers with a VIPP license should be able to upgrade to DocuSP 3.7x and VIPP 4.1. In order to use VIPP 4.1, the DocuSP must be at version 3.1 or higher.
- VIPP Core 5.0 will be available in the 4th quarter for upgrade.
- Please reference the VIPP documentation for additional information pertaining to VIPP.
- VIPP Jobs that reference DigiPath 4.0 RDOs as job content do not print successfully. The DigiPath 4.0 VIPP API works with VIPP Core 5.0 and does not work with earlier VIPP releases. Ensure that VIPP Core 5.0 is installed on the DocuSP.

DigiPath

- Please reference the DigiPath 4.x Customer Software Release Supplement for additional information pertaining to DigiPath.
- Many of the DocuSP color image quality controls are not available in the print job programming offered on DigiPath, e.g. trapping, emulations, and halftone selection. Submit jobs to a queue set for Release=No and complete the job programming.
- DigiPath scans containing black text and/or line art print as a muddy brown. The image file does not contain a black color channel. Select the job property "Print as Grayscale". Selecting "Print as Grayscale" may introduce moiré into images. Proof the job.

Clients

- Please reference the Xerox Production Print Services version 3.7.xx documentation for more information.

SNMP

The list of supported MIBs documented in the *Document Services Platform Series Common Controller System Guide* are incorrect. The section on SNMP MIB support on page 2-5 should read as follows:

The information displayed in an SNMP Manager may not always reflect the exact status of a printer on the DocuSP controller. The SNMP Managers that do not support loading Management Information Bases (MIBs) only display the printer status that the Manager supports.

DocuSP 3.x SNMP MIB file uses the Xerox Common Management Interface (XCMI) version 4.0. The following lists the MIB files included for version 4.0:

- ◆ rfc1213 - RFC1213-MIB (MIB-II) - specifically system, ifNumbers, at, ip, tcp, icmp, udp, snmp
- ◆ rfc2790/rfc1514 - HOST-RESOURCES-MIB (XCMI rev 000817) - rfc2790 is a later version of rfc1514. Specifically hrDeviceTable and hrPrinterTable: hrSystem, hrStorage, hrDeviceTable, hrPrinterTable, hrDiskStorageTable, hrPartitionTable
- ◆ rfc2790t - HOST-RESOURCES-TYPES (XCMI rev 000815) - same as 2
- ◆ rfc1759 - Printer-MIB (XCMI rev 000818) - except finTables
- ◆ 06gentc - XEROX-GENERAL-TC
- ◆ 07gen - XEROX-GENERAL-MIB
- ◆ 10hosttc - XEROX-HOST-RESOURCES-EXT-TC - same as 2
- ◆ 11hostx - XEROX-HOST-RESOURCES-EXT-MIB - same as 2
- ◆ 15prtxtc - XEROX-PRINTER-EXT-TC
- ◆ 16prtx - XEROX-PRINTER-EXT-MIB
- ◆ rfc1215 - SNMP Traps version 1

5. Tools and utilities

This section includes various software tools and utilities for use with the DocuSP software.

Ability to bind 128 pages

DocuSP 3.74 introduces the ability to bind more than 125 sheets of paper for the DocuTech 61xx printers only. A UNIX command line utility is now included.

Changing the binding limit

Perform the following steps to modify the number of pages that can be bound from 125 to 128.

1. In the background, right-click to open the menu. Open a Terminal window.
2. Login as root user.
3. Type: `/opt/XRXnps/bin/setBind128 -f #` and press <Enter>, where # equals 1 to set the limit for bind jobs to 128 and # equals 0 to set the limit for bind jobs to 125.
4. Close the Terminal window. Restart the DocuSP software

Set Retain PDL

The retain PDL feature on the DocuSP is limited to only retain 50 completed jobs for future printing. Depending on the size of retained jobs and the size of the internal hard drives, a lower value may be more appropriate for some customers.

A UNIX utility named `setretainPDL` has been added to the DocuSP to allow the user to specify the number of jobs to be retained within a range of 1 to 100.

Customers who use the retain PDL feature must be aware that monitoring the disk capacity is the responsibility of the end-user. The DocuSP does not have a process for indicating when the disk is full. Increasing the number of retained jobs should only be done if the customer is confident that this will not fill the controller hard drive. Approaching disk capacity can prevent job transmission or otherwise impact system behavior.

Changing the retain PDL setting

Perform the following steps to modify the number of PDLs that can be retained on the DocuSP.

5. On the DocuSP interface, select Setup and System Preferences. Select the Job Policy tab.
6. Ensure that the setting for Retain PDL files of last 50 jobs is set as enabled.
7. Select [OK]. Do not restart the system if you are prompted to do so.
8. In the background, right-click to open the menu. Open a Terminal window.
9. Login as root user.
10. Type: `/opt/XRXnps/bin/setretainPDL #` and press <Enter>, where # is a number between 1 and 100. A value of 0 maintains the current setting.
11. Close the Terminal window. Restart the DocuSP software.

Reset the Xrite Spectrophotometer

Perform the following to reset the spectrophotometer:

1. Ensure that the calibration strip that matches the serial number on the spectrophotometer is available. If not, order a new one before continuing.
2. On the DocuSP controller background menu, open a Terminal window.
3. At the % prompt, type:

```
cd /opt/XRXnps/XRXcalLib/bin
```

4. From the % prompt, type:

```
./resetDTP
```

This will restore the spectrophotometer to the factory default settings.

5. After the reset is complete, follow the standard procedure to calibrate the spectrophotometer using the Xrite calibration strip.

DocuSP Emergency Recovery Utility (DSPERU)

The DocuSP Emergency Recovery (DSPERU) utility is specifically designed for backing up and restoring DocuSP systems. The utility allows you to restore the system files to a hard drive that is larger or smaller than the one on which the files were originally backed up, assuming there is enough space on the target drive to hold the data. The utility formats the drives without the need to install Solaris before restoring, which saves from 30 to 75 minutes.

This section contains instructions for running the DSPERU scripts from diskette.

The DSPERU diskette contains the following files:

- btt
- change_log.txt
- dsp_backup_run
- dsp_dump
- dsp_restore
- dsperu_setup
- format.ans
- response.txt
- sdpart_skel.txt

DSPERU limitations

- The scripts on this diskette are still under development. There is limited error checking. Therefore, the scripts may display error messages or may not run as intended, if there are unexpected differences between your system and the systems on which the scripts were tested.
- DSPERU is designed to enable operational recovery of a failed system. It is not intended to substitute for a commercial backup utility or a robust Backup/Restore and Disaster Recovery plan. Data integrity upon restoration cannot be guaranteed.
- DSPERU does not back up external drives. Use the Tapetool utility to back up external drive data.
- DSPERU does not give the option of partial or incremental backups.

Required levels of expertise

The DSPERU tool was designed to be easy to use. However, some assumptions have been made regarding the level of knowledge required to perform various setup, backup, and recovery tasks.

Setting up the tool for use on a system and performing a recovery requires some level of comfort with entering UNIX commands. The commands are not complex, but if you have no UNIX experience, you may require assistance initially.

To initiate a backup, you must know your system root password and how to open a Terminal window.

The following levels of expertise are required to perform the necessary functions:

- Set up DSPERU tool on system: Customer systems administrator, Xerox system analyst or service representative.
- Initiate DSPERU backup: Printer operator, customer system administrator, Xerox analyst or service representative
- Initiate DSPERU recovery: Customer system administrator, Xerox system analyst or service representative

Installing DSPERU on your DocuSP controller

1. Insert the diskette containing the scripts into the diskette drive.
2. Open a Terminal window and logon as root user.
3. Enter **volcheck** to mount the diskette.
4. Enter **sh /floppy/floppy0/dsperu_setup** to launch the setup script.
5. Eject the diskette by entering **cd; eject**.

The setup script does the following:

- Creates the directory **/export/home/xrxusr/backup**.
- Copies the **btt** file to the **/export/home/xrxusr** directory.
- Copies the **dsp_backup_run** and **dsp_dump** files to the backup subdirectory.

If DSPERU was previously set up on your system, an error message may be displayed when it tries to perform the setup again.

If the files and directory listed above are present, the installation was successful.

Backup procedure—DSPERU

The following information and equipment are required prior to starting the backup.

- The root password
- A tape drive connected and powered on with a blank tape inserted. Ensure the tape is write-enabled (write-protect tab in the closed position).

*NOTE: The backup overwrites the tape cartridge that is inserted. Ensure that no valuable data is present on the tape if it is not blank. **The tape is overwritten with no warning.***

NOTE: The system is rebooted during the backup process. Ensure that the system is not actively receiving jobs before starting the backup. It is recommended that you set all queues to [Accept = No] and [Release = No] in the Queue Manager prior to initiating a backup.

1. Ensure a blank tape cartridge has been inserted into the tape drive.
2. Open a terminal window and logon as **root**.
3. From the **/export/home/xrxusr** directory, enter **ls** to list all files. Verify that the file **btt** is listed. If it is not, repeat the DSPERU installation procedure described in the previous section.
4. Enter **sh btt** to initiate the backup. The system reboots and starts the backup.

If the system returns the message **btt: not found**, verify that you are in the right directory by entering **pwd** to verify your location. If you are in a different directory, enter the following command to change to the correct one.

cd /export/home/xrxusr

The system generates a message approximately every 10 minutes during the backup with an estimate of how long it will take to complete the backup from that point.

NOTE: If all the data cannot be stored on one cassette, the system pauses when it detects that the tape is full, and displays messages similar to the following:

DUMP: End-of-tape detected

DUMP: 42.23% done, finished in 1:01

DUMP: Change Volumes: Mount volume '#2' on 'bugs:/dev/rmt/0n'

DUMP: NEEDS ATTENTION: Is the new volume (#2) mounted on 'bugs:/dev/rmt/0n' and ready to go?: (yes or no)

Label the next cassette "Vol 2," insert it into the tape drive, then enter **yes**. This message set is repeated for as many tapes as required to complete the backup.

IMPORTANT: Proper labeling of the tape is essential to a successful recovery. As the system requests additional tape cartridges, be sure to label the tapes in the correct sequence (for example, Vol #1, Vol #2, etc.). If you insert the tapes in the wrong order during the recovery, the restoration fails.

NOTE: Due to the current DocuSP licensing protection scheme, tapes can be restored only to the system from which they were backed up. In other words, tapes from one system cannot be used to "clone" another system. Any attempt to do this will invalidate the DocuSP license, and a full reloading of software will be required to make the system operational.

If you have multiple printing systems, it is recommended that tapes be labeled with the hostname of the system to reduce the possibility of restoring to the wrong system.

Testing the backup tape

The following procedure enables you to check if the backup tape contains valid data.

1. Ensure that the tape drive is connected and powered on. Insert the backup tape in the tape drive. If the backup required more than one cassette, make sure that the first tape (Vol 1) is inserted.
2. Open a Terminal window and logon as **root** user.
3. Enter **mt -f /dev/rmt/0 status** to check the tape drive status. The system returns a message indicating the type of tape drive.

If the system generates the error message `/dev/rmt/0: no such file or directory`, enter **mt -f /dev/rmt/1 status**. If the error message is displayed again, repeat steps 1 through 3 of the "Checking the tape drive" procedure, described later in this chapter. If the problem persists, call for service.

4. When the tape drive location has been verified, enter the following command:

ufsrestore tvf /dev/rmt/xbn"

where x is either 0 or 1, depending on the value that you used in step 3. After a few seconds, the system starts displaying the contents of the tape cassette.

To stop the scrolling display, press <CTRL-c>. When prompted to discontinue the display, enter **y**.

Recovery procedure—DSPERU

Before starting the recovery procedure, ensure that the following has been done:

- The tape drive must be connected and powered on.
- The tape cassette to which the system was backed up must be inserted. If there are multiple tapes, tape 1 must be inserted first. The system prompts you to insert each subsequent cassette when it is required.
- The system must be powered on with the controller screen displaying the ok prompt. (To display this prompt, press <Stop><A>.)

IMPORTANT: Insertion of the tape cartridges in the correct sequence is essential to successful recovery. When the system requests additional tape cartridges, be sure to insert the tapes in the correct sequence (for example, Vol #1, Vol #2, etc.). If the tapes are inserted in the wrong order during the recovery process, the restoration will fail.

1. Insert the appropriate Solaris CD for the controller and DocuSP software version that is being restored (Solaris 2.6 for DocuSP 2.X, Solaris 8 for DocuSP 3.X, etc.)

NOTE: Systems equipped with Tandberg Data tape drives must be booted with Solaris 8 CDs, regardless of the version of DocuSP being restored. The Solaris 2.6 CD does not properly recognize these drives and causes an unrecoverable read error during the recovery operation.

2. Write-enable the DSPERU diskette (tab window closed) then insert the DSPERU diskette into the floppy drive.
3. From the Ok prompt, enter **boot cdrom -sr** to boot the system from CDROM into single-user mode. It may up to five minutes to boot.

NOTE: To stop the system at the ok prompt, power on the controller, then press <Stop> and <A> simultaneously as soon as the screen lights.

If the system is already powered on, logon as **root**, then enter **halt** to display the **ok** prompt.

1. Enter **mount /dev/diskette /a** to mount the diskette.
2. Enter **sh /a/dsp_restore** to launch the recovery script.
3. If multiple tapes were used during the backup, the system pauses at the end of each tape and displays a message similar to the following:

```
Mount volume 2 then enter volume name
(default: /dev/rmt/0bn)
```

Insert the cassettes in sequence as the system requests them.

The system reboots when the recovery is complete.

NOTE: The UNIX ufsrestore utility does not provide the option for estimating how long a recovery will take. However, the normal amount of time required for recovery is approximately 3 times as long as backing up the system.

Examples:

- 4mm Tape, DocuSP 2.X system, very few or no customer files: 0:20 to backup, 1:00 to restore
- QIC Tape, DocuSP 6180 EPS 2.X, 500 Meg customer resource files: 1:30 to backup, 4:30 to restore
- 4mm Tape, DocuSP 3.X, very few or no customer files: 45 minutes to backup, 2:15 to restore

Backup and recovery caveats—DSPERU

Because recovery returns the system to the state that it was in when it was last backed up, certain unexpected or undesirable situations may be encountered. A list of known issues is provided below and will be updated on a continuous basis. Where available, a workaround is provided.

- Accounting logs are restored to their previous values. If you use the accounting logs for your own internal billing, you need to be aware of this and make the necessary adjustments.
- Jobs that are saved on the system or in a Hold state are restored. If you are sure that you do not want these job files restored, you must delete them prior to performing a backup.
- User and file permission changes made after a backup are lost after system recovery. In some instances this could pose a security risk and must be understood by your system administrator.
- Any software problem existing in the system when it is backed up is likely to resurface after a recovery. Perform a backup performed only on a properly functioning system. Do not initiate a backup while the system is in diagnostics.

Troubleshooting—DSPERU

Activity logging

The file **backup.log** is used to record backup activities. It is saved in the **/export/home/xrxusr** directory. The first line of the backup log contains the system name and the time and date the backup was initiated.

To prevent the log being overwritten by a subsequent backup, rename the log. You should give it a name that is somehow related the date that the backup was made (for example, **backup040402.log**).

To rename the log, perform the following steps:

1. Open a terminal window and logon as root user
2. Enter **pwd** to verify that **/export/home/xrxusr** is the current directory.

If it is not, enter **cd /export/home/xrxusr** to change to it.

3. Enter **ls** to display the contents of the directory. One of the files listed should be **backup.log**.
4. Change the log name to your desired name by entering the following command:

```
mv backup.log logname
```

where *logname* is the name you have selected for your backup log.

The file **restore.log** is used to record recovery activities. It is in the root directory of the DSPERU diskette. Please note that this diskette, and therefore the log is only readable on a UNIX system. The first line of the log, contains the time and date the recovery was initiated. To prevent the log from being overwritten the next time a recovery is performed, rename the log. You should give it a name that is somehow related the date that the recovery was made (for example, **restore040402.log**).

Checking the tape drive

If the backup or recovery script generates an error message indicating that the tape drive cannot be found, perform the following steps:

1. If DocuSP is running, follow the procedures in your customer documentation to shut down and power off the controller. If the system displays a # prompt, enter **halt**. When the OK prompt is displayed, power off the controller.
2. Power off the tape drive.
3. Ensure that the SCSI cable connecting the tape drive to the controller is securely connected. If the tape drive is your system's only external SCSI device, there should be only one SCSI cable connected to the tape drive, and it should be connected to the **In** connector.

If there are other SCSI devices (for example, external hard drives), ensure that the cable connected to the In connector leads back towards the controller (even if there is another device between the tape drive and the controller). Also verify that there are no bent pins on the connector.

1. If the tape drive is an older unit (for example, an 8mm DocuTech tape drive) with a 50-pin SCSI connector, a terminator must be installed on the **Out** connector if the tape drive is the last device on the SCSI chain.

NOTE 1: The 50-pin connector is approximately 1.5 inches wide. Newer tape devices have a 68-pin Ultra-SCSI connector, which is 1.75 inches wide.

NOTE 2: The 4mm and QIC tape drives are all Ultra-SCSI devices. These are auto-terminating so no external terminator is needed.

2. Check the SCSI ID selector and ensure that it is not set to 0, 1, 3 or 6. These settings could possibly conflict with internal SCSI devices on some controller types. If there are other external devices, ensure that no two devices are set to the same SCSI ID.

NOTE: The SCSI device ID selector is a small window with two small buttons, located on the back of the drive. Press the buttons to change the value, if necessary.

3. Ensure that the tape inserted in the drive is a regular tape and **not** a cleaning tape.
4. Power on the tape drive, and wait 10 seconds.
5. Power on the controller.
6. Press <Stop + A> as soon as the banner screen appears.

7. **Ultra-SCSI devices only:** Check that both green LEDs on the back of the tape drive are lit.
8. At the **ok** prompt, enter **boot -r** to perform a reconfiguration boot.

If problems recognizing the tape drive persist, call for service.

Resource Backup and Restore (RBR) utility

The Resource Backup and Restore (RBR) utility allows you to back up and restore customer resources such as PostScript fonts, LCDS resources (JSLs, JDLs, etc.), VIPP files, and custom color profiles on color printing systems. The RBR utility backs up files to either magnetic tape or the controller internal hard drive. You can then use the backup disk file or tape to restore the resources onto your controller or other DocuSP controllers.

The following resource files may be backed up to either tape or file:

- LCDS resources: All files in the lcds resource library, located at:

`/var/spool/XXNps/resources/lcds`

- PS fonts: All PostScript font files in the following directory:

`/var/spool/XXNps/resources/ps/fonts`

- Color resources: User TRCs, user ICC profiles, and the ccpof.tv file, which associates the ICC profiles with your stock database

- VIPP resources: Customer VIPP files in the following directory:

`/var/spool/XXNps/resources/XXXgfc`

- Stock Programming database: The media.tv file

NOTE: Use the Media Restore option (Options 3 and 4 of the Restore Menu) only if you are restoring files to the same release of software from which you backed them up. Otherwise, the results are unpredictable and may require scraping the machine.

Procedure for backing up and restoring resources

This procedure requires root access to the DocuSP controller so that the necessary permissions are available to restore the resources.

NOTE: For these instructions, it is assumed that you have some working knowledge of the UNIX operating system.

The RBR script file is available in the `/opt/XXNps/bin` directory of your installed DocuSP 3.6 controller.

1. Open a Terminal window.
2. Enter su.
3. Enter the root password for your system.
4. Change to the directory containing the script.

`cd /opt/XXNps/bin`

5. Ensure that the executable permission is assigned by following this procedure:
 - a. Enter **ls -l**.
 - b. If x permission is not assigned, enter **chmod +x RBR**.
6. Start the script by entering **./RBR**.
7. Follow the instructions as they appear on screen to complete the resource backup procedure.

Helpful hints for using RBR

- If you are backing up a large amount of resources, you can monitor the progress of the backup by opening an additional Terminal window and entering:

```
tail -f /var/spool/XXnps/log/Resource_BandR.log
```

- If you are backing up the resources to tape, you need to know the device ID of the tape drive. There are several ways to verify the ID and operability of your tape drive.
 - If you have only one tape drive, the ID is usually 0.
 - If you have two tape drives, each drive is assigned an ID starting with 0.
 - You should use the **mt** command to check the operation of your tape before beginning. Following are some examples of the **mt** command.

```
mt -f /dev/rmt/0 status
mt -f /dev/rmt/0 rewind
mt -f /dev/rmt/0 erase
```

- When restoring files, the RBR script first makes a backup of the resources that are currently installed on the system. After the original files are backed up, the backup files are restored, and then the original files are restored. This ensures that newer files are not overwritten with older files that are restored from the backup.

If this is not your intent, use the **mv** command to remove the existing resources from their directory so that all the resources from the backup are restored. For example:

```
mv /var/spool/XXnps/resources/lcids
/export/home/xrxusr
```

- Unless you are backing up files and restoring them to the same software release, do not use the RBR utility to restore the Stock Database programming.

You can use the Restore Stock Database option to back up files from DocuSP 2.1 or 3.1 and restore them to DocuSP 3.6 or above.

However, if you restore the stock database programming from DocuSP 2.1 to DocuSP 3.1, the database manager

may not comprehend the older version of the stock database file, and the Restore process would render the software inoperable. A scrape would then be required to correct the problem.

Use the Backup and Restore Bridge tool delivered with your DocuSP software to perform the Stock Database Restore.

Sample resource backup and restore scripts

Following are examples of resource backup and restore scripts. Responses by the user and user-specific information provided by the RBR utility are shown in boldface type.

Sample backup script

./RBR

MAIN MENU

Please enter your selection:

- 1) Backup resources
- 2) Restore resources
- 3) EXIT

Select (1,2,or 3)? > **1**

You have selected Backup resources.

Backing up **10895** LCDS resources to
/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

Backing up **180** PS fonts to
/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

**No user trc's were found. No user trc's were backed up,
No ICC profiles were found. No ICC profiles were backed up.**

Backing up ciprof.tv file to
/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

No customer VIPP files found.

Backing up media.tv file to
/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

a /opt/XRXnps/configuration/media.tv.bak 44K

Done

Compressing
/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar. Please
wait ...

Done.

Your files have been successfully backed up and compressed.

File name is

/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.Z

Do you want to copy file to QIC tape? (Y/N) > **y**

Please enter a device ID for the QIC tape drive [Generally 0
(digit zero)]:**0**

Please insert a QIC tape into QIC tape drive

Press RETURN/ENTER when ready. >

Copying file to QIC tape. A blinking light on the tape drive is an
indication that backup is progressing.

See /var/spool/XRXnps/log/Resource_BandR.log for list of files
that were backed up.

Press RETURN/ENTER to continue. >

Sample resource restore script

MAIN MENU

Please enter your selection:

1) Backup resources

2) Restore resources

3) EXIT

Select (1,2,or 3)? **2**

RESTORE MENU

Please enter your selection:

1) Restore Resources from Tape

2) Restore Resources from File

3) Restore stock programming from Tape

4) Restore stock programming from File

5) Back to Main Menu

Select (1,2,3,4 or 5)? > **1**

You have selected Restore Resources from Tape.

Please enter a device ID for the QIC tape drive [Generally 0
(digit zero)]:**0**

Please insert a QIC tape into QIC tape drive

Press RETURN/ENTER when ready. >

Backing up current resources, so that newer files will not be
overwritten.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view
progress.

No user TRC's were found.

No ICC profiles were found.

Done.

We will now restore your resources from the QIC tape.

A blinking light on the tape drive is an indication
that backup is progressing.

About to uncompress

/export/home/xrxusr/jbs/wiggum_25_Jul_09:54.tar.Z

This may take some time. Please wait ...

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

Uncompress and tar successful.

We will now restore the newer files.

This may take some time.

Check /var/spool/XRXnps/log/Resource_BandR.log file to view progress.

Done.

Press RETURN/ENTER to continue. >

MAIN MENU

Please enter your selection:

1) Backup resources

2) Restore resources

3) EXIT

Select (1,2,or 3)? **3**

You have selected EXIT.

Cleaning up.\:

Done.

6. Adobe Acrobat Reader

To install the Acrobat Reader, follow the instructions below. The Reader software is available on the customer documentation CDROM for Windows 95/98/NT, Macintosh, and Solaris.

For Windows and Macintosh

1. Insert the documentation CDROM into the CDROM reader on your workstation.
2. Open to folder labeled ACROREAD.
3. Open the folder that is specific to your workstation, either Windows or Mac.
4. Windows: Double click on the ar405eng file. Follow the instructions on the screen to install the reader.
5. Macintosh: Copy (select and drag) the ar405eng file to the desktop. Double click on the file and follow the instructions on the screen to install the reader.

For Solaris

1. Insert the documentation CDROM into the CDROM reader on the DocuSP controller.
2. In the background, select and open a terminal window.
3. Logon as the root or superuser.
4. Change directory to the CDROM, Acroread directory:
`cd /cdrom/65docs/acroread/solaris`
5. Copy the ssolrs.tar file to the /tmp directory:
`cp ssolrs.tar /tmp`
6. Change to the /tmp directory:
`cd /tmp`
7. Untar the ssolrs.tar file:
`tar -xf ssolrs.tar`
8. Run the ssolrs install script:
`SSOLRS.install/INSTALL`
9. The license agreement is displayed. Use the [Enter] key to scroll through the agreement, and type accept to accept the agreement.

10. The screen asks for the installation directory for the reader. Press the [Enter] key, and then type y to create the Acrobat4 directory.
11. When the installation is complete, you can start the Acrobat Reader by typing:

```
/opt/Acrobat4/bin/acroread – iconic
```
12. The Adobe Acrobat Reader is started and placed as an icon on the desktop. Open the Reader, and select [File], [Open]. Enter the path to the customer documentation CDROM (/cdrom/65docs) to open one of the pdf files on the documentation CDROM.

NOTE: Steps 11 and 12 will have to be performed every time the system is shutdown and restarted unless a path is set up to the Adobe Acrobat Reader executable.

NOTE: If an icon does not appear, refer to the next procedure.

In order to launch the Adobe Acrobat Reader from the CDE console, located in the bottom center of the screen, perform the following steps:

1. Open the File Manager.
2. Change to the /opt/Acrobat/bin folder.
3. Open the folders pop up menu by selecting the up arrow above the file drawer icon on the CDE console.
4. Use the left mouse button to select and drag the acroread file from the File Manager window to the Install Icon on the Folders pop up menu. This will install an icon that can be selected to launch Acrobat Reader.

When the Acrobat Reader icon is selected, a window titled Action:Run opens. Select [OK] and a run window opens, then Acrobat Reader opens. Minimize the Run window if desired; closing the Run window closes the Acrobat Reader.