

# ***Xerox DigiPath Production Software***

## ***System Administrator Guide***

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## Notices and Certifications

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### Approvals and certification

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For the UK, this product is serviced under a BS5750 Quality system accepted by the British Standards Institution.

#### **60HZ, 115V**

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The equipment is listed by the Underwriters Laboratories, UL1950, certified by Canadian Standards Association, CSA22.2, No. 1950.

#### **50HZ, 220V-240V**

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The equipment is certified by the British Standards Institution, IEC950 (EN60950). The equipment is manufactured under a BS5750 Quality system accepted by the British Standards Institution. The equipment is also certified in compliance with applicable standards by various national bodies.

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## Radio frequency emissions

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### USA

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This equipment generates, uses and can radiate radio frequency energy. It may cause radio interference to radio communications if not installed according to the installation instructions.

The equipment complies with the limits for a Class A computing device as documented in Subpart J, Part 15 of the FCC rules which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference. In such cases, the user is responsible for the expense of correcting the interference.

### Canada

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The equipment does not exceed the class A limits for radio noise emissions from a digital apparatus as documented in the radio interference regulations of the Canadian Department of Communications.

Cet appareil numérique est conforme aux limites d'émission de bruits radioélectriques pour les appareils de classe A stipulées dans le Règlement sur le brouillage radioélectriques du ministère des Communications du Canada.

### Europe 50HZ, 220V-240V equipment

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The equipment was tested and is certified in conformance with the European commission directive 82/499/ECC and VDE 0871/0875, class B which relates to radio frequency interference.

This equipment is certified, manufactured and tested in compliance with strict safety and radio frequency interference regulations.

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# Safety

Your Xerox equipment and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval and compliance with established environmental standards.

Attention to the following notes ensures the continued safe operation of your equipment.

If you need any additional safety information concerning the equipment or materials, contact your local representative.

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## Operational safety

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**Always** connect the equipment to a properly grounded power source receptacle. If in doubt, have the receptacle checked by a qualified electrician.

### WARNING

**Improper connection of the equipment grounding conductor can result in electrical shock.**

**Always** follow all warnings and instructions marked on, or supplied with, the equipment.

**Always** locate the equipment on a solid support surface (not on a thick pile carpet) with adequate strength for the weight of the machine.

**Always** exercise care in moving or relocating the equipment.

**Always** place the equipment in an area which provides adequate room area for ventilation and servicing.

**Always** use the materials and supplies specifically designed for your Xerox equipment. Use of unsuitable materials may result in poor performance and possibly, a hazardous situation.

**Never** use a ground adaptor plug to connect the equipment to a power source receptacle that lacks a ground connection terminal.

**Never** attempt any maintenance function that is not specifically described in this documentation.

**Never** obstruct ventilation openings. These are provided to prevent overheating.

**Never** remove covers or guards that are fastened with screws. There are no operator serviceable areas within these covers.

**Never** install the equipment near a radiator or any other heat source.

**Never** override or “cheat” electrical or mechanical interlock devices.

**Never** push objects of any kind into the ventilation openings.

**Never** operate the equipment if you notice unusual noises or odors. Disconnect the power cord from the power source receptacle and call your customer service engineer to correct the problem.

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## General safety

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### WARNING

**Never look directly at the scanner light. It may cause discomfort to your eyes. Always keep the document handler down on the document glass when you use the scanner.**

**Always** follow all warnings and instructions marked on or supplied with the product.

**Never** locate the scanner where people may walk on the system power cable. Do not place objects on the system power cable.

**Never** use this product near water, wet locations, or outdoors.

**Never** put containers of coffee or other liquids on the product.

**Never** push objects of any kind into the slots of the scanner as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.

**Always** switch off the system power, unplug this product from the wall outlet, and call a Xerox Service Representative under the following conditions:

- When the power cord is damaged or frayed.
- If liquid has been spilled into the product.
- If the product has been exposed to water.
- If the product is producing any unusual noises or odors.
- If the product has been dropped or the cabinet is damaged.



#### **WARNING**

This product is equipped with a 3-wire grounding type plug. A 3-wire plug is a plug having a third (grounding) pin. This type of plug will fit into a grounding-type power outlet. This is a safety feature.



#### **WARNING**

To avoid risk of an electrical shock, contact your electrician to replace the receptacle, if you are unable to insert the plug into the outlet.

**Never** use a ground adapter plug to connect the product to a power source receptacle that lacks a ground connection terminal.

**Never** place the product in a built-in installation unless proper ventilation is provided.

**Never** push objects of any kind into the slots of the product, as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.

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## Maintenance safety

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**Always** follow the cleaning instructions in the *Xerox DocuImage 620S Preventive Maintenance Guide* for proper care and maintenance of the product.

**Never** attempt any maintenance function that is not specified in the *Xerox DocuImage 620S Preventive Maintenance Guide*.

**Always** unplug this product from the wall outlet before cleaning.

**Never** use supplies or cleaning materials for other than their intended purposes.

**Always** keep all materials out of the reach of children.

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### It's illegal . . . USA

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1 3...  
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  - Coupons from bonds
  - Federal Reserve Notes
  - Federal Reserve Bank Notes
  - Fractional Notes
  - Silver Certificates
  - Certificates of Deposit
  - Gold Certificates
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- Bonds



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*NOTE: Foreign passports may be photographed.*

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## 8. Draft Registration Cards

## 9. Selective Service Induction Papers, which bear any of the following information:

- Registrant's earnings or income
- Registrant's previous military service
- Registrant's dependency status
- Registrant's physical or mental condition
- Registrant's court record



*NOTE: U.S. Army and Navy discharge certificates may be photographed.*

## 10. Badges, Identification Cards, Passes, or insignia carried by Military, Naval personnel, or by members of the various Federal Departments and Bureaus, such as FBI or Treasury, unless the photograph is ordered by head of such department or bureau.

## 11. Copying the following is also prohibited in certain states:

- Automobile Licenses
- Driver Licenses
- Automobile Certificates of Title

The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

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## It's illegal . . . Canada

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Parliament, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fines or imprisonment may be imposed on those guilty of making such copies.

1. Current bank notes or current paper money
2. Obligations or securities of a government or bank
3. Exchequer bill paper or revenue paper
4. The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law
5. Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queen's Printer for Canada, or the equivalent printer for a province)
6. Marks, brands, seals, wrappers, or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, commission, or agency established by the Government of Canada or of a province or of a government of a state other than Canada
7. Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada
8. Documents, registers, or records kept by the public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof
9. Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner

The above list is provided for your convenience and assistance, but it is not all inclusive and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

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## About this guide

The *Xerox DigiPath Production Software System Administrator Guide* provides information on configuring, customizing, and maintaining your entire DigiPath system.

This book also:

- includes instructions for implementing file system maintenance, database maintenance, and backup strategies
- creating, modifying, and restricting DigiPath user accounts
- setting up and configuring production printers and all optional DigiPath hardware
- contains detailed instructions for using all the functions in the Library Administration Tool and the Printer Setup applications

This chapter explains the information found in this guide, how the information is organized, and helps you to get the most out of this guide by:

- identifying the audience and the basic skills required to use this guide effectively
- explaining the standard conventions and cues that highlight important information
- listing related documentation you may find helpful
- listing available online Help systems



*NOTE: If you are using DigiPath for the first time, it is recommended that you read this entire guide in the order the chapters are presented.*

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## Audience

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The *Xerox DigiPath Production Software System Administrator Guide* is a comprehensive reference manual intended for site administrators and very experienced DigiPath operators. Many of the procedures described in this guide require you to log on to a computer or network as an administrator with administrative privileges. Also, many of the maintenance tasks described in this guide require a solid understanding of hardware components, networks, and operating systems.

This guide assumes you are familiar with the Windows NT Workstation 4.0 operating system, standard communication protocols, basic networking terms, and production printer connections. You should also have a working knowledge of the following:

- IBM-compatible personal computers
- Local area networks (LANs)
- Token ring networks
- Novell operating system
- DocuTech Network Support Services
- Xerox Publishing Printers
- Magneto-optical drives (MODs)
- Redundant Arrays of Independent Disks (RAIDs)

If you are not familiar with certain Windows NT commands, refer to the Computer Basics chapter of the *DigiPath User Guide* or *Microsoft Windows NT Workstation Start Here Guide* for information on how to use the mouse, icons, windows, and menus.

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## Using this guide with other DigiPath documentation

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Xerox provides a number of different reference manuals with DigiPath production software. Each manual has a specific function and a distinct audience. This section describes the differences between the DigiPath manuals.

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### Using this guide with the User Guide

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The *DigiPath User Guide* is the most comprehensive reference manual in the documentation set. It provides an overview of each of the DigiPath software applications and describes how to use these applications to produce one or more desired outputs.

The *User Guide* is intended for the operators who create, edit, store, manage, and search for objects using DigiPath Production Software (DigiPath).

In addition to high-level overviews, the *User Guide* includes instructions for using all the functions in the following DigiPath software applications:

- Document Scan and Makeready
- Scan and Print
- Quick Print
- Document Library
- Document Library Lite
- Library Search
- Batch Tool
- Job Manager
- DocuTech Tape Tool

The *User Guide* also describes when and how to use some specific operator-level functions in two other DigiPath software applications, Scanner Support and Library Administration Tool. These applications are generally for site administrators or very experienced DigiPath operators, but there are several sections in these chapters that will help you improve your overall efficiency.

## **Using this guide with the Quick Reference Guide**

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The *DigiPath Quick Reference Guide* is a more compact operator reference manual. It provides brief overviews of each of the DigiPath software applications, and includes detailed instructions for only the most frequently-used functions in each application.

Like the *User Guide*, the *Quick Reference Guide* is intended for operators who will create, edit, store, manage and search for objects using DigiPath Production Software (DigiPath).

Unlike the *User Guide*, however, the *Quick Reference Guide* is intended for those operators who are looking for information to refresh their memories, for shortcuts, or for the fastest way to accomplish a specific, common task.

The *Quick Reference Guide* presents DigiPath information using more diagrams and screen captures. This guide also provides brief, less-detailed instructions for using a particular function, without including descriptions of all the available options.

## **Using this guide with the Customer Software Release Document**

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The *DigiPath Customer Software Release Document (CSRD)* contains high-level information about the current version of DigiPath. Compatibility details and brief descriptions of features added since the last DigiPath release are included in the *CSRD*.

As with any software, DigiPath users occasionally encounter minor glitches while using one or more DigiPath applications. The *CSRD* provides a detailed description of any caveats that limit the usability of a DigiPath feature, as well as a Xerox-recommended workaround for the problem, if any.

Use this document to ensure the proper functioning of your software. Refer to the *CSRD* before you call the Xerox Customer Support Center regarding a problem you may be experiencing.

## Using this guide with the Web Viewing and Submission Server Administrator Guide

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The *DigiPath Web Viewing and Submission Server Administrator Guide* provides information on setting up, configuring, customizing, operating, and maintaining your Web Viewing and Submission (WVS) server.

This guide includes instructions for:

- implementing file system maintenance, database maintenance, and backup strategies for your WVS server
- setting up and configuring production printers for use with WVS
- creating, modifying, and restricting WVS user accounts
- creating and managing web collections
- creating, maintaining, and administering print submission requests
- generating reports to monitor use of the documents on the server

The *WVS Server Administrator Guide* is a comprehensive reference manual intended for WVS server administrators to both administer their web servers and to assist users of their web site. Because of the level of expertise expected, the *WVS Server Administrator Guide* assumes familiarity with the Windows NT server operating system, standard communication protocols, basic networking terms, and production printer connections.

The *WVS Server Administrator Guide* provides instructions for using all the administration functions in the WVS software, and contains work flow recommendations for your WVS users.

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## Overview of chapters

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	<p>This section provides a brief description of each chapter found in this guide:</p>
<b>About DigiPath</b>	<p>Introduces the DigiPath product. Topics include a product overview, listing of major capabilities of DigiPath applications, features new to DigiPath 2.0, description of how DigiPath works, hardware components and options, DigiPath third party software application descriptions, descriptions of DigiPath software applications, expected customer work flows, file format information, virus protection recommendations, and instructions for powering up and shutting down the DigiPath workstation.</p>
<b>Setting up a DigiPath system</b>	<p>Contains a list of the tasks you must perform after installing the DigiPath system.</p>
<b>Windows NT and network configuration</b>	<p>Identifies basic procedures you may need to perform to administer and support the Windows NT Workstation environment; provides instructions for shutting down the DigiPath workstation; provides instructions for updating the Emergency Repair Disk; describes the Hummingbird NFS products and provides procedures for configuring Hummingbird with DigiPath; includes instructions for configuring the DocuSP decomposition service; and describes using the Windows NT Event Viewer.</p>
<b>Hardware maintenance</b>	<p>Provides procedures necessary for maintaining the DigiPath hardware. Topics include maintaining the DocuImage 620S scanner, the Magneto-optical drive (MOD), Redundant Array of Independent Disks (RAID), and internal and external tape drives.</p>
<b>Backup and restore</b>	<p>Provides information and procedures for maintaining, backing up, and restoring the files and information stored on a DigiPath workstation and any of its components. Topics include backing up a DigiPath system, using Computer Associates ARCserveIT software, preparing the DigiPath workstation, backing up the DigiPath workstation hard drive, restarting the DigiPath applications and services, backing up the DigiPath data, backing up the RAID device, and restarting a DigiPath system.</p>
<b>System administration</b>	<p>Identifies and describes procedures needed to administer and support the DigiPath system. Topics include using Library Administration Tool, managing user and group accounts, configuring workgroup connections, configuring the database and cabinet creation locations, using the Document Conversion Service, defragmenting cabinets, using the Tape Tool to retrieve DocuJobs stored on DES tapes, using WFTPD to FTP objects from DocuTech, and configuring a remote file server.</p>

- Managing cabinets** Identifies and describes the procedures needed to manage cabinets. Topics include adding, editing, and deleting a cabinet; displaying cabinet properties; purging the contents of a cabinet; sharing a cabinet; dismounting a cabinet; and placing a cabinet online.
- Defining attribute sets** Describes defining attribute sets to manage and maintain DigiPath cabinets using the Library Administration Tool application. Topics include information on why you should define attributes, considerations for defining attributes, why you should back up before defining attributes, identifying the various attribute types, identifying the default attributes, defining attribute sets, and defining user attribute groups.
- Production printing administration** Provides information and procedures for configuring and maintaining DigiPath production printing. Topics include understanding DigiPath production printing, network printer preparation, printer installation and setup, moving Xerox production printers to and from a DigiPath workstation, configuring Network Agents, setting up a Document Centre, setting up the remote print service, specifying the DocuJob Converter directory, using Print Manager options, and resolving production printing problems.
- Appendix** Provides procedures for installing Microsoft NT Y2k updates, installing standalone Quick Print, configuring the Adaptec SCSI adapters, and information about data migration.
- Index** Provides an index of topics covered in the *Xerox DigiPath Production Software System Administrator Guide*.

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## How to recognize important information

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The following sections are designed to help you with the set of DigiPath 2.0 documentation provided with your software, and with the *Xerox DigiPath Production Software System Administrator Guide*, in particular.

### Conventions

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The *Xerox DigiPath Production Software System Administrator Guide* uses the following conventions listed in Table 1 to help you recognize information:

**Table 1. Conventions**

Convention	Description
<CAPS in angle brackets>	Within procedures, the names of keys to press are displayed in capital letters and enclosed in angle brackets (for example, press <ESCAPE>). Keyboard combinations are represented by the plus sign (+) between names of keys (for example, press <CONTROL+C> to copy).
<Angle brackets>	Variable information is enclosed in angle brackets (for example, select <filename>).
[Square brackets]	Names of options you select, including toolbar buttons and buttons in dialog boxes, are enclosed in square brackets (for example, select [Close]). Menu commands are also displayed in square brackets, with the menu name appearing first, then a colon, followed by the option name (for example, select [File: Close]).
<b>Bold</b>	Text you should enter exactly as it appears is displayed in bold (for example, enter <b>test1.rdo</b> ).
<i>Italics</i>	Titles of documents and manuals that provide additional information on the current topic are displayed in italics (for example, the <i>DigiPath User Guide</i> ).

## Flag icons

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The *Xerox DigiPath Production Software System Administrator Guide* uses the following flag icons to help you recognize important information:



*NOTE: The NOTE symbol and text in italics indicate that there is important or supplemental information when performing a task or procedure.*



### CAUTION

*The CAUTION symbol and text in italics indicate that you may lose data or damage equipment if care is not taken when performing the task or procedure following the caution.*



### WARNING

**The WARNING symbol and bold text indicate that you may cause personal injury or death if care is not taken when performing the task or procedure following the warning.**



1. The step-by-step icon identifies the beginning of a procedure.

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## Related information

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This section lists additional materials you need or will find helpful when using your DigiPath system.

To order the Xerox documentation listed below, or for additional information on Xerox solutions, contact your Xerox representative.

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### DigiPath documentation

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For more information on DigiPath, refer to the following publications:

- *Xerox DigiPath 2.0 User Glossary*
- *Xerox DigiPath Production Software DocuTech Scan and Makeready User Guide*
- *Xerox DigiPath Production Software User Guide*
- *Xerox DigiPath Production Software Customer Training Program*

For more information on the training program, contact your Customer Training Specialist (CTS) for more information.

- *Xerox DigiPath Production Software Customer Software Release Supplement*
- *Xerox DigiPath Production Software Quick Reference Guide*
- *Xerox DigiPath Production Software Physical Installation Planning Guide*
- *Xerox DigiPath Production Software Web Viewing and Submission Server Administrator Guide*
- *Xerox DigiPath Production Software Web Viewing and Submission Client User Guide*

## Scanner documentation

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For more information on the DocuImage 620S, refer to the following publications:

- *Xerox DocuImage 620S Preventive Maintenance Guide*
- *Xerox DocuImage 620S Installation Guide*
- *Xerox DocuImage 620S User Guide*
- *Xerox DocuImage 620S Problem Solving Guide*

For more information on the DigiPath Scanner, refer to the DigiPath scanner integrated Help system.

## Xerox Printing Services

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For more information on the Xerox Production Printing Services and Network Server products, refer to the following publications:

- *Site Configuration Guide*
- *Using Xerox Production Printing Services*
- *Problem Solving Guide*
- *Xerox Document Services Platform Series*
- *Xerox DocuPrint Publishing Series*
- *Xerox DocuTech Network Support Services*
- *Xerox DocuTech Publishing Series*

## Xerox solutions

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For more information on Xerox software solutions that can be integrated into a DigiPath system, refer to the following materials:

- *Xerox DocuJob Converter* customer documentation, including the Software Release Document
- *Xerox Extended Connectivity - Print Job Manager (EC-PJM)* customer documentation, including the Software Release Document
- *DocuSP* customer documentation, including the Software Release Document

### **Third party software**

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For additional information about third party software and hardware, refer to the following materials:

- *Compaq Professional Workstation AP500 Reference Guide*
- Adobe Acrobat documentation (Included on the DigiPath CD-ROM)
- Hummingbird NFS documentation (Included on the DigiPath CD-ROM)
- *Sony MO Disk Unit User Guide*
- *Adaptec AHA-2940Ultra / 2940Ultra Wide PCI-to-UltraSCSI Host Adapter with SCSISelect User's Guide*
- *Compaq P1100 Color Monitor User Guide*
- *AIT Autoloader Unit User Guide*
- *ARCserveIT Getting Started*

## **Windows NT related information**

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Microsoft provides users and administrators with several different resources to support the Windows NT environment. Some of these resources include books, web sites, and online Help. The following sections describe these sources and tell you how to find and use them.

### **Books**

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For additional information about Windows NT, refer to the following materials:

- *NT Basics Chapter of the Xerox DigiPath Production Software User Guide*
- *Microsoft Windows NT Workstation Start Here*
- *Microsoft Windows NT Workstation Resource Kit*
- *Microsoft Windows NT User Guide, version 4.0*
- *Microsoft Windows NT Getting Started Guide, version 4.0*

### **Windows NT Online Help**

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Windows NT Workstation includes extensive online Help for all aspects of the operating system. Most likely, this will be your primary source for information. Administrative procedures, from adding users and managing groups to installing Windows printers, can be found in the online Help files. In addition, most applications also contain their own online Help, which is specific to the application.

To access online Help, select [Start: Help] from the Windows task bar. If you are looking for help within a specific application, use the options available from the Help menu.

### **Windows NT Web site**

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Microsoft has a Windows NT Workstation World Wide Web site that contains the latest Windows NT news and information about upgrades. The URL for this site is:

<http://www.microsoft.com/NTWorkstation/>

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## Getting Help online

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This section describes the type of Help available online from the DigiPath system.

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### Using a Help menu

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All DigiPath applications, with the exception of the Scan and Print application, provide a Help menu.

Select the Contents tab to browse for the desired topic in the Help system.

Select the Index tab to scroll an alphabetical index of Help topics.

Select the Find tab to enter the name of the desired function and to search for all topics that pertain to that function.

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### Using Help in a dialog box

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Most dialog boxes in the DigiPath system provide the standard Windows NT Help button [?] in dialog and message boxes. This button is displayed in the title bar of the dialog, next to the close button [X].

This button provides context-sensitive Help, so you can select it, then click in the dialog on the field or option for which you need Help. The Help window opens, displaying information for the specified field or option.

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## Ordering additional materials and supplies

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DigiPath provides you with all the resources you need to operate and maintain the system. However, you may order additional materials or supplies.

To reorder the scanner registration documents or the training disks, or to order screen finder tools, refer to the Xerox supplies Resource Catalog (610P18158) or contact your Xerox representative.

To order cleaning supplies for the scanner, refer to the *DocuImage 620S Preventative Maintenance Guide*.

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## Obtaining additional support

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This section describes where you can obtain additional DigiPath support.

### **X-PRESS FAX**

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Customers can obtain additional DigiPath support documents, including solutions to common work process problems and hints and tips for enabling optimal use of the equipment, from Xerox C&TS Electronic Services.

Call X-PRESS at 1-800-979-9709 and request document number 256000 to receive a complete index of the DigiPath supporting documentation, along with complete instructions.

### **DigiPath FAQ Xerox web site**

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A DigiPath FAQ (Frequently Asked Questions) Xerox web site is available for customers. To access the FAQ, go to <http://www.xerox.com> from your web browser. Search on the word digipath, then select Xerox DigiPath Production Software to go to the main DigiPath area. Select the support option from the pull-down list. Then select FAQ on the support page.

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# 1. About DigiPath

This chapter provides a brief introduction to the DigiPath Production Software system.

Topics covered in this chapter include:

- a product overview
- a list of major capabilities of DigiPath applications
- features new to DigiPath 2.0
- how DigiPath 2.0 works
- supported work flows
- DigiPath networking
- instructions for powering up the DigiPath workstation platform and hardware options
- descriptions of hardware components, both required and optional
- descriptions of the required client platform
- descriptions of each software application included in your DigiPath system
- descriptions of supported production printers and print servers
- printer compatibility notes
- optical media compatibility information
- tape media compatibility information
- descriptions of various file formats you can create in DigiPath
- recommendations for protecting your DigiPath system from virus contamination

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## Product overview

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The DigiPath Production Software (DigiPath) system is a network-based image capture and retrieval system that allows you to scan hardcopy documents to create electronic images; assemble images into documents (Raster Document Objects, or RDOs); edit and enhance documents; store, catalog, and retrieve RDOs and other documents in an Oracle database; and submit documents to a Xerox production publisher to produce high-quality output.

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### Major capabilities of DigiPath applications

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Some of the major capabilities of DigiPath include:

- high-speed scanning of simplex (1-sided) and duplex (2-sided) hardcopy documents up to 17 x 11 inches
- the ability to scan at multiple resolutions, including 600, 400, 300, or 200 dpi (dots per inch)
- manipulation of a wide variety of image quality controls at scan time, adjusted for the destination printer specified
- the ability to scale, crop, deskew, and despeckle images at scan time
- the ability to save scanned images as individual files or include the images in an electronic document called a Raster Document Objects (RDO)
- import of existing TIFF, PostScript, PDF, or RDO files into an RDO
- image editing and enhancement functions of files in an RDO
- the ability to include up to ten transparent or opaque TIFF files on a single page of an RDO
- merge features that enable you to include TIFF or resizable fill images on a range of pages in an RDO
- export of TIFF or PostScript files from an RDO
- RDO formatting and structuring features, including the ability to create and customize sections or chapters
- an RDO to PDF conversion utility which preserves the contents, format, and structure of an RDO in a single PDF file

- production printing makeready functions, including the ability to create signatures; apply highlight color; and add covers, page exceptions, and tab pages into a document
- the ability to format and display 2-Up, 4-Up, 8-Up, and 16-Up RDOs using Document Scan and Makeready (DSM)
- support of a wide range of Xerox production printers and Windows printers
- copier application (Scan and Print) that enables automated scan-to-production print without file storage
- print submission tool (Quick Print) that allows users to submit PostScript, PCL, PDF, ASCII, RDO, or TIFF files with programmed job tickets to Xerox production printers from any Windows NT workstation
- ability to create a DigiPath workgroup using NT peer-to-peer capabilities and customized for optimal use with DigiPath
- electronically catalogued document storage (Document Library), with site-specific document attributes, when the DigiPath system includes the optional DigiPath database
- ability to include a remote file server in a DigiPath workgroup to enable electronically catalogued storage of non-DigiPath documents in the optional DigiPath database
- automated search and retrieval tools (Library Search) when the DigiPath system includes the optional DigiPath database
- batch processing tool (Batch Tool), enabling convenient copy, move, and print operations, when the DigiPath system includes the optional DigiPath database
- the ability to create and edit site-specific object attributes, to use with or instead of the attributes provided with DigiPath, when the system includes the optional DigiPath database

## Features new to DigiPath 2.0

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DigiPath 2.0 offers several enhancements over previous versions of DigiPath. Some of these enhancements are discussed in greater detail later in this guide, but the following summarizes the changes made for this version of DigiPath:

- Virtual cabinets allow you to divide your database into separate spaces (cabinets). You can open an object residing in a database cabinet from Document Scan and Makeready (DSM) and save a Raster Document Object (RDO) directly into a database cabinet; previous versions of DigiPath required users to interact with the Windows NT file system to include objects in the DigiPath database.
- Document Library Lite allows you to open and search for documents in the Windows NT file system. This application is crucial to proper management of the complex objects (RDOs) created in DigiPath.



*NOTE: It is important that users of previous versions of DigiPath and Xerox Documents on Demand (XDOD) understand the differences between Document Library and Document Library Lite provided with DigiPath 2.0.*

- PDF files can be imported into RDOs; if not converted to TIFF files, PDF files appear as “tagged” groups of pages in the DSM Structure window.
- PDF export for a range of pages allows you to create PDF files composed of a range of pages in an RDO or composed of a non-contiguous selection of pages. This feature is similar to how PostScript files can be created from the content of an RDO.
- Page level indexing within RDOs is now enabled. Using Optical Character Recognition (OCR) technology, this version of DigiPath can do a full-text search of an image document.
- Section level headers, footers, and page numbers can now be specified within tags (sections) of an RDO. Page numbers can be specified to appear on all pages of the document or manual page numbers can be applied to specific pages. Page numbers can also be specified automatically for tags within an RDO.
- Use the mouse to drag headers, footers, and page numbers in the DSM View window.

- Image editing features, including the Transparent Mode option and the Invert operation, are now available in the DSM View window.
- Paper color and custom stock type (if applicable) are preserved when you set paper stock to 8.5 x 11 (A4) and select booklet signature, pamphlet signature, calendar signature, or N-Up as the job type.
- You can select the preferred destination printer in Document Scan and Makeready. This allows you to program RDO features that are supported by a particular printer and prevents you from selecting a printer that does not support the features you select.
- 2-Up Flip Right is supported for production printing. If duplex mode is enabled, the left portion of the back page of a 2-Up Flip Right document is flipped. This capability does not support RDOs containing PostScript or PDF files.
- You can now define a paper tray as an “Interposer” tray so stock from that tray does not go through the fuser and is not counted as a printed page. Define the Interposer stock by selecting the Direct Insert Page option from the Insert menu in Document Scan and Makeready.
- The enhanced guide option in DSM helps you align images on the pages of an RDO more easily.
- Printer, queue, and job status information for DocuSP-based printers can now be obtained at the workstation. Previously, this information was accessible only at the printer.
- Common job submission supports a quicker PostScript file submission.
- Common print path conflict checking provides DigiPath with the ability to provide its own conflict messages.
- You can delete Decomposition jobs at the workstation using Decomposition Services, rather than at the DocuTech, in Windows NT Explorer, or in Document Library.
- Using OCR technology, you can search for documents by querying the content of documents in DigiPath cabinets using either Library Search or Web Viewing and Submission.
- Production printing of 2-Up, 4-Up, 8-Up, and 16-Up (N-Up) jobs in Document Scan and Makeready is now supported.

- Autofit during printing and scanning allows you to use content from multiple legacy documents and allows you to save production printing information into an RDO using the Autoscale function in the Job Ticket.
- You can paste color and grayscale images and images with unsupported resolutions from the Clipboard into a page in an RDO. The import functionality allows you to import color and grayscale images and TIFF images with unsupported resolutions into an RDO. Imported color images are converted to black and white images.
- You can now submit multiple files to print as a single job from Quick Print and Document Library.
- You can use Optical Character Recognition (OCR) for automatic and batch document indexing in Document Library. The results of indexing an object can be stored as an attribute of the object, which allows you to perform a full text search on the content of an object.
- You can scroll up and down when dragging the first and last item in the Structure window when dragging an image near the edge of the View window.
- You can scan hard copy documents on any Document Centre device and use the scanned image in an RDO.
- Document Scan and Makeready now enables precise WYSIWIG tab stock viewing.
- You can import and catalog full color PDF and PostScript documents in the Document Library database.
- Common PostScript generation enables applications to convert RDO to PostScript level 2 for printing.
- Using the Printer Administration, you can assign Network Agents to automatically retrieve jobs from DocuSP queues or scan to file locations. The Network Agent queue works much like the Decomposition Services queue, but the output of the Network Agent queue is an RDO. Also, Network Agent doesn't require Hummingbird NFS to set it up.
- Document Scan and Makeready now includes Undo and Redo functionality.
- You can now view unconverted PDF images in color.
- The Page Number Wizard allows you to choose if you want to automatically update page numbers in a document or not using the Automatic or Manual Page Mode options in Document Properties.

- The Annotate Text dialog box now contains Rotate and Opaque attribute options.
- You can now fuse merged images and/or merged fills using the Include Merge Items option in the Fuse dialog box.
- You can select whether to apply Scale, Frame/Fill/Crop, Fuse, Move, and Merge Fill to All Pages, Front Pages only, or Back Pages only within the document.

### **DigiPath scanner**

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A new DigiPath scanner is available with DigiPath 2.0. The DigiPath scanner provides a new interface and an integrated Help system, and the document handler capacity is 65 pages per minute.

For more information on the DigiPath scanner scanning application, refer to the *Xerox DigiPath production Software User Guide*.

For more information on the DigiPath scanner Scan and Print application, refer to the *Xerox DigiPath Production Software User Guide*.

## How DigiPath works

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DigiPath can work in any number of ways, and offers a wide range of makeready and print functions. This section describes all the ways DigiPath can create new digital images or use existing information, as well as the advantages it provides for manipulating and storing that information efficiently and easily.



*NOTE: Several examples of supported, end-to-end DigiPath work flows are described in the following section.*

### Scanning

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Hardcopy documents can be scanned into DigiPath using either of the optional scanners sold with the system. When you scan a document, it is converted into a video bit stream and stored electronically. The scanner software creates one CCITT Group 4 compression TIFF file (Tagged Image File Format) for each scanned page.

### Creating files

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You can incorporate TIFF image files into raster document objects (RDO), using the Document Scan and Makeready (DSM) software application. An RDO is a digital image file which you can view on the screen, save, edit, format, or print. You can include up to 10 images on one page of an RDO. There are a wide variety of features provided in DSM that enable you to prepare an RDO for printing, including creating tabs and changing the paper stock of specified pages.

DSM also includes several wizards to guide you through the RDO creation and makeready process.

### Importing existing electronic files

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You can import existing TIFF, PostScript, PDF, or other RDOs into an RDO using DSM. When you import a PostScript or PDF file, you can convert the file to a series of TIFF files or maintain the original format type.

## **Editing image files**

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You can change the content of your electronic files using several of the features found in DSM. You can crop, scale, or rotate images, as well as perform cut-and-paste, copy, invert, deskew, despeckle, tile, frame, fill, and annotation functions on any TIFF in an RDO.



*NOTE: These editing functions are not available for PostScript or PDF images imported into an RDO, but not converted to TIFFs.*

## **Simulating a copier**

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With the Scan and Print application in DigiPath, you can use the scanner and an attached production printer just as you would use a copier. Place a hardcopy original in the scanner's multi-sheet feeder and scan it; the hardcopy output can be retrieved from the default printer for your DigiPath system. There is no digital file stored in the system when you use Scan and Print. There are several standard editing features provided in this application.

## **Submitting print jobs**

---

You can submit print jobs from almost any DigiPath application. The most commonly used submission features are found in DSM and Quick Print.

If you have an RDO open in DSM, you can submit the RDO to print to the default printer or to any other attached printer, edit the production print job ticket, and save the programmed job ticket into the RDO file.

Using Quick Print, you can submit a print-ready file (a directory of TIFF files, RDO, PostScript, PDF, or HP/PCL file) to a DocuTech or DocuPrint Network Publisher. The print job file and the associated job ticket are sent to the print server that is attached to the designated production printer.

## **Storing electronic files**

---

With Document Library Lite, you can manage directories and a variety of electronic file types, including RDO, TIFF, PostScript, PDF, bitmap files, desktop publishing files, spreadsheet files, and web-ready files.

If your DigiPath system includes the optional Oracle database, you can import any of these file types (or objects) into database cabinets and assign attributes to the objects using Document Library. You can also store the objects on a local hard drive, a workstation in your NT network neighborhood, an optical disk, or a RAID.

### **Retrieving files from directories or cabinets**

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You can use the Search option in the Document Library Lite application to locate objects you stored in the NT file system.

If your DigiPath system includes the optional Oracle database, you can quickly retrieve one or more objects from the database cabinets using the Library Search application. This search tool enables you to use a simple, common word search string or to use the advanced features to search for objects with specific attributes.

### **Batch processing**

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If your DigiPath system includes the optional Oracle database, you also have access to Batch Tool, a simple batch processing application that allows you to schedule several common types of jobs for specific times. For example, you can schedule your daily reports to print during the lunch hour, or you can move all newly-created RDOs to a single directory on the RAID at 12:00 AM, simply by scheduling a move operation using Batch Tool.

### **Administering your DigiPath system**

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If your DigiPath system includes the optional Oracle database, the Library Administration Tool is crucial for setting up, configuring, and administering your system, as well as for maintaining the integrity of your data. This tool allows advanced users (usually system administrators) to create and maintain user accounts and user groups, configure your workstation to work with other DigiPath workstations and remote file servers, defragment your database, and customize your site attributes.

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## Supported work flows

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DigiPath supports a wide range of work environments. It provides functionality to any work environment where high speed image capture, manipulation of images, and printing of image documents is essential. If you are currently a DocuTech user, DigiPath increases productivity to your printer by allowing you to scan and manipulate images on a PC workstation separate from the production printer. When you need to scan and store large numbers of documents, DigiPath offers a full range of file management capabilities, including optional database storage.

In general, your work environment dictates the extent to which you take advantage of the functionality in DigiPath.

The following list provides some examples of typical work flows. Using DigiPath, you can:

- Scan a hardcopy document, deskew the electronic images, group the images into sections of an RDO, apply tabs, and print the workbook on your DocuTech 135.
- Import a PostScript file containing last month's budgeting figures into an RDO (which converts the PostScript to TIFF on import), then add the figures for this month and use Batch Tool to schedule the report to print on the DocuTech 6180 before tomorrow's staff meeting.
- Scan several pages of a rare book using the scanner's image quality features to enhance the appearance of the resulting images, make an RDO, export the RDO as a PDF file, then upload the PDF file to your DigiPath Web Viewing and Submission server for use by a group of co-workers.
- Scan all the pages of a textbook, create an RDO, use the OCR indexing feature in DSM to catalog all the text, and store the RDO in a Document Library cabinet. When you search for the RDO using Library Search, you will be able to search on the textbook's content.
- Import a PDF file from last year's marketing seminar into an RDO (converting the PDF to TIFF on import), then update the images and text to reflect the new marketing messages, and print new brochures on your DocuColor 40 for this year's marketing seminar.
- Scan all the pages of a textbook, create an RDO, store the RDO in a Document Library cabinet that is shared with your DigiPath Web Viewing and Submission server, and make the textbook available to the students in your class.

## **Understanding DigiPath networking**

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A DigiPath workstation uses networking for a variety of purposes. Some of the functions DigiPath allows you to perform by communicating over a network include the following:

- production printing to a networked Xerox production printer
- accessing and modifying imported objects on a remote workstation in a workgroup
- mounting UNIX drives to use Xerox products such as DocuJob Converter and DocuSP Decomposition Services

DigiPath systems support Ethernet and Token Ring networks and use two main protocols for network communication: TCP/IP and IPX/SPX. Also, to enable the mounting of UNIX drives, the NFS protocol is used.

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## Powering up the hardware and starting DigiPath

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This section contains instructions for powering up the DigiPath workstation platform and hardware options.



It is very important you power up the hardware components in the order presented below.

1. If there is a scanner attached to the DigiPath workstation, power up the scanner.
2. If there is a Windows printer attached to the DigiPath workstation, power up the printer.
3. If there is a Magneto-Optical Drive (MOD) attached to the DigiPath workstation, power up the MOD.



*NOTE: If there is an optical disk in the MOD drive when the drive is powered up, the start-up time is shorter.*

4. If there is a RAID attached to the DigiPath workstation, power up the RAID.



*NOTE: Do not power off the RAID or if you have a UPS attached to the RAID at any time, unless you are moving the RAID to another workstation.*

5. If there is an external tape drive attached to the DigiPath workstation, power up the tape drive.
6. Power up the monitor.
7. Power up the workstation processor (CPU).
8. Log in to the network.
9. To open the DigiPath applications, select [Start: Programs: Xerox DigiPath Production Software: <select the appropriate DigiPath application>] from the Windows desktop.



*NOTE: All DigiPath applications are found in the DigiPath program group.*

## Ending the current DigiPath session

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To protect files from unauthorized access, and to enable access to the network server, end your DigiPath session when you have finished using the system.



To end a DigiPath session:

1. Exit all DigiPath applications.
2. To exit Windows NT, select [Start: Shut Down] from the Windows desktop. A confirmation dialog box appears.
3. Choose the desired Shut Down option from the confirmation dialog box.



*NOTE: For more information on the Shut Down options, see your Windows NT documentation.*

4. Select [Yes].

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## Hardware components

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Table 1-1 lists the required hardware components for DigiPath.

**Table 1-1. Required hardware components**

Hardware component	Description
Compaq Professional Workstation AP500	The DigiPath Production Software client platform. This system allows for the optimum performance and provides uniformity for service and installation.
Compaq P1100	DigiPath Production Software supports the 21-inch color, high-resolution monitor.

Table 1-2 lists the optional hardware components available with DigiPath.

**Table 1-2. Optional hardware components**

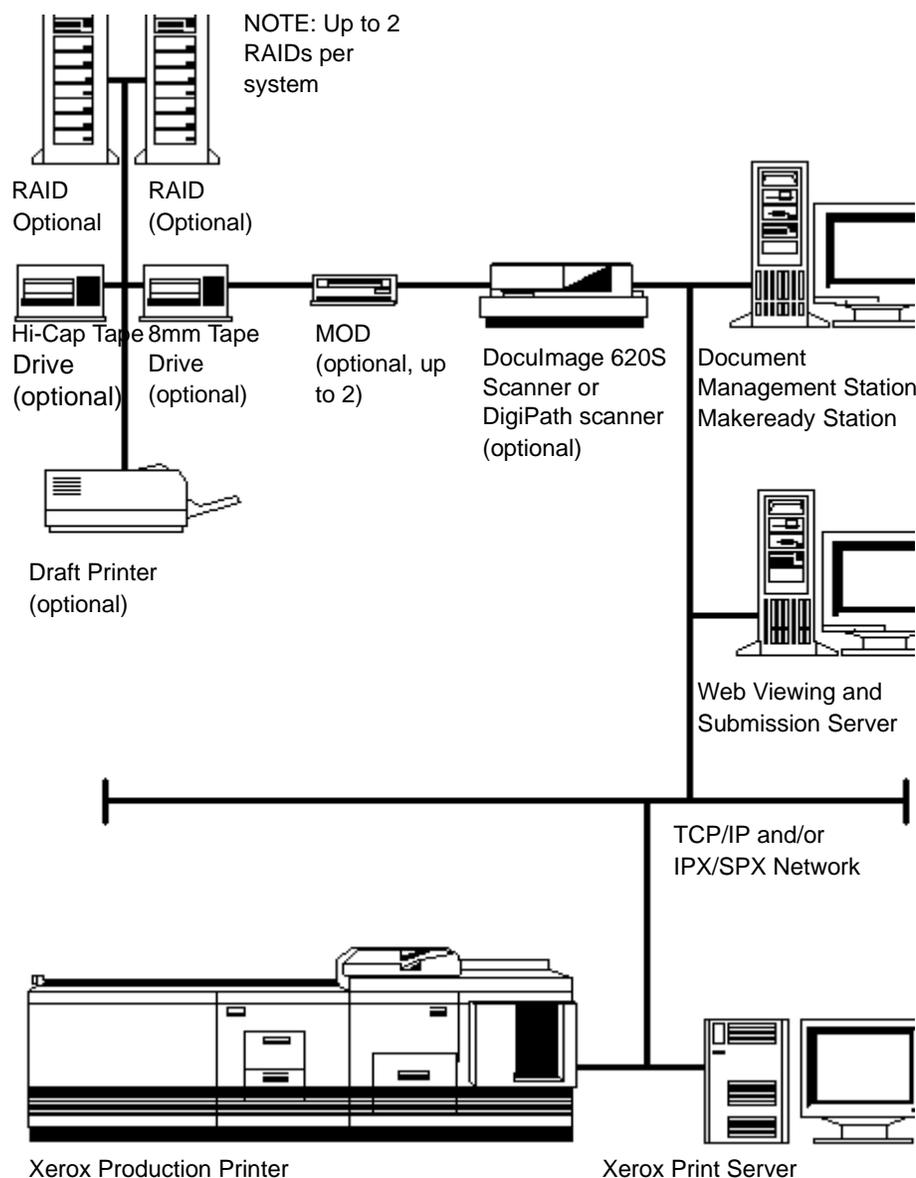
Hardware component	Description
Xerox DocuImage 620S	A high resolution flatbed scanner required for high speed image scanning. The scanner is fitted with a document handler or an optional manual platen cover.
DigiPath Scanner	A Xerox color scanner that interfaces with a PC workstation.
Sony Magneto-optical drive (MOD)	This is an optical storage device that allows for up to 5.2 GB of local document storage and retrieval. Two MOD devices may be connected to one DigiPath Production Software workstation.
Redundant Array of Independent Disks (RAID)	This mass storage device (50, 100, or 150 GB approximately capacity) allows for the largest capacity local storage. Two RAID devices may be connected to one DigiPath Production Software workstation.
Sony AIT Autoloader tape drive	This multi-tape drive is used for high capacity backup needs, such as the RAID device.s
Storage Dimensions 8mm tape drive	This tape drive is used with the DocuTech Tape Tool for extended storage DocuJob migration.
Local draft printers	The Xerox DocuPrint N17, DocuPrint N32, and Docuprint N3225 are the local printers currently supported by the DigiPath Production Software system.
Production printers	One or more DocuTech or DocuPrint production printers with the associated print server are the production printers that are currently supported by the DigiPath Production Software system.
Token ring kit	This optional NIC allows you to use the Token Ring network adapter in place of the integrated Ethernet NIC.

## Configuration of hardware

Figure 1-1 shows the DigiPath system with most of the possible hardware components, including the optional Web Viewing and Submission server.



*NOTE: If your DigiPath system includes the Web Viewing and Submission server, it is strongly recommended that you configure the system as shown below, with the MOD(s) and RAID attached to the server.*



**Figure 1-1. DigiPath Hardware Configuration**

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## Client platform

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The Compaq Professional Workstation AP500 Model is the required PC platform for new installations of the DigiPath system. Table 1-3 identifies the minimum features provided by the AP500.

**Table 1-3. Feature recommendations for the DigiPath PC platform**

Feature	Minimum System Recommendation
Processor	550MHZ Pentium III
Expansion slots	six total with five available: 1 PCI/ISA, 3 PCI, 1 ISA, and 1 AGP
Memory	256 MB RAM
Hard drive	Two 9.1 GB hard drives
Floppy drive	1.44 MB, 3.5-inch high-density diskette drive
CD-ROM drive	32X IDE, internal CD-ROM drive
Backup device	Internal TR5 tape drive
Input	Enhanced 101 keyboard with a three-button mouse
Network interface card	Compaq Fast Ethernet Embedded Controller (NC3161)
SCSI adapters	PCI Ultra-SCSI controller board (included with the PC) Adaptec PCI Ultra Wide controller board (for scanner or RAID)
Modem	56k internal fax/modem
Operating system	Microsoft Windows NT 4.0 Workstation with service pack 5
Monitor	P1100 21-inch high resolution color monitor
Video adapter	ELSA graphics controller

## Software components

This section provides descriptions of most of the software applications associated with DigiPath workstation configurations, including third party applications.

Table 1-4 shows which software applications are required or not available with a Document Scan and Makeready workstation, a Document Library workstation, or a Web Viewing and Submission server.

**Table 1-4. DigiPath workstation makeready software**

Software application	Document Scan & Makeready workstation	Document Library workstation	Web Viewing & Submission server
Document Scan & Makeready	required	not available	not available
Scan Tool	required	not available	not available
Image Editor	required	not available	not available
Scanner Support	required	not available	not available
Scan and Print	required	not available	not available
Quick Print	required	required	required
Printer Setup	required	required	required
Document Library Lite	required	required	required
Job Manager	required	required	required
Document Library	optional	required	required
DocuTech Tape Tool	optional *	optional	optional
Library Search	optional	required	required
Batch Tool	optional	required	required
Library Administration Tool	optional	required	required
Web Viewing & Submission	not available	not available	required

\* DocuTech Tape Tool is optional with a Document Scan and Makeready workstation only if Document Library is installed.

Table 1-5 shows which third-party applications are required or not available with a Document Scan and Makeready workstation, a Document Library workstation, or a Web Viewing and Submission server.

**Table 1-5. Third party applications provided with DigiPath**

<b>Software application</b>	<b>Document Scan &amp; Makeready workstation</b>	<b>Document Library workstation</b>	<b>Web Viewing &amp; Submission server</b>
Adobe Acrobat	required	required	required
Hummingbird NFS	optional	optional	optional
DocuJob Converter	optional	optional	optional
Enterprise Storage Manager	optional	optional	optional
Autologic StorageView	optional	optional	optional
WFTPD Pro	optional	optional	optional
ARCserveIT	optional	optional	optional

## **DigiPath application overviews**

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This section provides descriptions of the DigiPath applications.

### **Document Scan and Makeready**

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Document Scan and Makeready is the application used for creating, editing, structuring, and building RDOs in DigiPath. Using one of the optional scanners with Document Scan and Makeready, users can scan original hardcopy documents into individual CCITT Group 4 TIFF files or create electronic documents (RDOs) from the TIFFs. Users can then edit and enhance the images in RDOs, and format, edit, and print RDOs.

You can import existing electronic documents (TIFF files, PostScript files, PDF files, or other RDOs) into an RDO, and export TIFF files, PDF files, RDO pages, or PostScript segments for use with other desktop applications.

Features of Document Scan and Makeready allow users to:

- Edit, rotate, scale, crop, or enhance images in an RDO
- Arrange up to 10 images on an RDO page, including merge items
- Format, organize, and number the pages of an RDO
- Format the RDO, including creating a header and footer
- View RDOs as they will appear in print, including accurate tab display
- Perform makeready functions (defining Signature jobs, and applying covers, special pages, and paper stocks) for an RDO at the workstation, rather than at the printer

### **Scan and Print**

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The Scan and Print application is designed to support a standard scan-to-print work flow. When you use Scan and Print, the automatic document handler of the scanner, the scanner software, and the production print path are all brought together in one easy-to-use application. Only basic input scan settings and printing options for the job are available in Scan and Print.

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## Quick Print

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Quick Print is a separate application for submitting production print jobs in any of the following file formats: PostScript, PCL, PDF, ASCII, or RDO. Quick Print also enables printing a directory of TIFF files.

With Quick Print, you can create and save new print job tickets as files, store the information with the print job, or use existing print job ticket files to specify print options.

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## Document Library

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Document Library is a new application used for database management. Previously, Document Library was used for both database management and file system management.

Document Library uses “cabinets” as virtual containers for documents and folders. This allows you to set up each cabinet in a logical tree hierarchy, much like directories are set up in Windows NT Explorer. You can have multiple cabinets on non-removable media.

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## Document Library Lite

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Document Library Lite complements Document Library by allowing you to manage objects on the local workstation or on DigiPath peers. Similar to Windows NT Explorer, Document Library Lite provides extensive file management capabilities, including copying, moving, deleting, and renaming objects in the DigiPath system.



*NOTE: Document Library Lite treats RDOs as single objects, so all RDO file operations (move, copy, rename, delete) must be performed using Document Library Lite.*

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## Library Search

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Library Search is an application that allows you to search for documents in Document Library cabinets by querying the content of documents or the attribute values of the documents. You can define the search parameters for objects, then search mounted cabinets that reside on a variety of media. The attribute information for objects stored in DigiPath cabinets can be displayed in the Library Search results list.



*NOTE: Library Search cannot be used to search for objects that have not been imported into a cabinet in Document Library.*

## **Batch Tool**

---

Batch Tool is a batch processing application that allows users to create a job request (batch job) to move or copy one or more electronic files at a specific date and time to a specific location. Users can also schedule a print job, but only one object can be printed in one batch print job. Batch processing is useful when copying, moving, or printing large documents immediately would be inconvenient. A batch job is entered into a queue to be executed at a time when the system is less busy.

You can also use Batch Tool to import one or more objects into a Document Library cabinet at a scheduled date and time, or to export one or more objects from a cabinet back into the NT file system.

## **Library Administration Tool**

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The Library Administration Tool application enables a system administrator to perform the following functions: add and maintain cabinets, create and edit attribute sets, edit attributes of existing cabinets, add and remove users and groups, create workgroups for remote document storage, define the accessible storage areas for local and remote data, defragment cabinets, and set up the Document Conversion Service.

Only DigiPath systems that include a Web Viewing and Submission server will make use of the conversion service.

## **Scanner Support**

---

The Scanner Support application allows users to perform system tests and maintenance procedures on the DocuImage 620S scanner. These procedures include, but are not limited to, scanner registration and document handler sensor cleaning. Scanner Support also maintains processing information about the scanner, as well as a fault history log.



*NOTE: Scanner support is not included with DigiPath systems that do not have the optional DocuImage 620S scanner.*

## **Job Manager**

---

The Job Manager application allows users to manage jobs in the print queues for any DocuSP printer (version 1.3 or higher).

## **Web Viewing and Submission**

---

Web Viewing and Submission allows you to make objects on a server available to any person who has access to the World Wide Web (WWW). If the objects are RDO (created in Document Scan and Makeready), TIFF, PS, JPEG, GIF, TXT, or another image format supported by the browser or with a browser plug-in, Web Viewing and Submission enables viewing the documents on the web. Examples of file types supported by browser plug-ins are PDF (Adobe Acrobat file) and DOC (word processing program file).

If the objects are RDO, TIFF, PostScript, or PCL files, Web Viewing and Submission enables print job submission to any Xerox production printer supported in DigiPath.



*NOTE: Configuring the Web Viewing and Submission server is not discussed in this book. For additional information regarding this DigiPath application, refer to the DigiPath Web Viewing and Submission Server Administrator Guide.*

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## Third party applications

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This section describes the function of each third party application provided with DigiPath.

### Adobe Acrobat

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The Adobe Acrobat applications enable the conversion of RDOs to PDF files. Conversion utilities are available in Document Scan and Makeready, Document Library, and Web Viewing and Submission.

### Hummingbird NFS

---

This software enables the connectivity necessary for DigiPath Production Software to communicate with other Xerox products, such as DocuJob Converter, that require NFS on the client platform.

### Enterprise Storage Manager

---

This software allows you to configure, monitor, and troubleshoot the 100 GB RAID device.

### Autologic StorageView

---

This software allows you to configure, monitor, and troubleshoot the 150 GB RAID device.

### WFTPD Pro

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This Windows FTP software enables the connectivity between the DocuTech Tape Tool and the Remote File Drawers of a DocuTech Production Printer.

### ARCserveIT

---

The ARCserveIT software suite is used for manually backing up the DEC HA730CU RAID device.



*NOTE: When troubleshooting third-party software applications, all calls should be directed to Xerox Technical Support. Calls should not be placed to the software vendor, as their support lines may not be familiar with DigiPath software and its use of their application.*

## Supported production printers and print servers



*NOTE: The production and Windows printers information provided in the tables below is correct at this writing. However, consult the latest CSRD (Customer Service Release Document) to get the most recent information on supported DigiPath production and Windows printers.*

Table 1-6 provides a list of the production printers and print servers supported for use with this version of DigiPath.

**Table 1-6. Supported production printers**

Printer	Configuration/Revision Level	DigiPath Application
DocuTech 65	DocuSP 1.3 (TCP/IP) DocuSP 1.3 (Netware) DocuSP 1.4 (TCP/IP) DocuSP 1.4 (Netware)	DL, DSM, WV&S, QP
DocuTech 90	Network Server 1.4x (TCP/IP) Network Server 1.4x (Netware)	DL, DSM, WV&S, QP
DocuStation DP 301	Print Services 1.x (TCP/IP)	DL, DSM, QP
DocuTech 135	Network Server 1.4x (TCP/IP) Network Server 1.4x (Netware) NS+ 2.0 with patches #4, A & G (TCP/IP) NS+ 2.1 with patches 2 & B (TCP/IP) NSPlus Server Series 1.1 (TCP/IP) DTNS-J 1.4.1, 1.5.0 (TCP/IP)	DL, DSM, WV&S (DTNS-J not supported), QP
DocuTech Publisher — 6135	DocuSP 1.1 (TCP/IP) DocuSP 1.1 (Netware) DocuSP 1.2 (TCP/IP) DocuSP 1.2 (Netware) DocuSP 1.33 (TCP/IP) DocuSP 1.33 (Netware) DocuSP 1.4 (TCP/IP) DocuSP 1.4 (Netware) DocuSP 1.4-J (TCP/IP) DocuSP 1.4-J (Netware)	DL, DSM, WV&S (DocuSP 1.4-J not supported), QP
DocuTech Publisher — 6180	DocuSP 1.33 (TCP/IP) DocuSP 1.33 (Netware) DocuSP 1.4 (TCP/IP) DocuSP 1.4 (Netware) DocuSP 1.4-J (TCP/IP) DocuSP 1.4-J (Netware)	DL, DSM, WV&S (DocuSP, 1.4-J not supported), QP

**Table 1-6. Supported production printers**

<b>Printer</b>	<b>Configuration/Revision Level</b>	<b>DigiPath Application</b>
DocuTech Publisher — 6100	DocuSP 1.33 (TCP/IP) DocuSP 1.33 (Netware) DocuSP 1.4 (TCP/IP) DocuSP 1.4 (Netware)	DL, DSM, WV&S, QP
DocuPrint	DocuPrint 180 - NPS 7.0 (TCP/IP) DocuPrint 180 - NPS 7.0 (Netware) DocuPrint 96 - NPS 7.0 (TCP/IP) DocuPrint 96 - NPS 7.0 (Netware) DocuPrint 4090 - NPS 1.6.1 (TCP/IP) DocuPrint 4090 - NPS 1.6.1 (Netware) DocuPrint 4890 - NPS 1.6.1 (TCP/IP) DocuPrint 4890 - NPS 1.6.1 (Netware) DocuPrint 4850 - NPS 1.6.1 (TCP/IP) DocuPrint 4850 - NPS 1.6.1 (Netware) DocuPrint 4050 - NPS 1.6.1 (TCP/IP) DocuPrint 4050 - NPS 1.6.1 (Netware) DocuPrint 4635 - NPS 7.0 (TCP/IP) DocuPrint 4635 - NPS 7.0 (Netware) DocuPrint 92C/600 - NPS 1.6.1 (TCP/IP) DocuPrint 92C/600 - NPS 1.6.1 (Netware)	DL, DSM, WV&S, QP
DocuPrint 180 Enterprise Printing System (Quantum)	DocuPrint 180 EPS - DocuSP (TCP/IP) DocuPrint 180 EPS - DocuSP (Netware)	DL, DSM, WV&S, QP
DocuColor 40	NSPlus Server Series 1.1 (TCP/IP)	DL, DSM, WV&S, QP
DocuColor 70/100	EFI	DL, WV&S, QP
Sfida 45/60	EFI	DL, WV&S, QP
DocuCentre 235, 265	none	DL, DSM, WV&S, QP
Extended Connectivity Print Job Manager (ECP-JM)	EC PJM 1.3	DL, DSM, WV&S, QP
Xerox DocuJob Converter	XDJC 2.1	DL, DSM, QP

## Supported Windows printers

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Table 1-7 provides a list of the Windows printers supported for use with this version of DigiPath.

**Table 1-7. Supported Windows printers**

<b>Printer</b>	<b>Print Driver</b>
Xerox DocuPrint N32	HP LaserJet 5si MX PCL driver
Xerox DocuColor 40 with Fiery print server	Fiery PostScript driver
Xerox 4517	Xerox 4517 PCL driver
Hewlett-Packard 4V or 4MV	HP LaserJet 4V or 4MV PCL driver

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## **Printer compatibility notes**

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This section describes compatibility issues regarding using DigiPath software with several Xerox printers.

### **DocuColor 40 with Fiery ZX40**

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You cannot print an RDO via this print path.

Only the Windows print path and Windows job ticketing options are available.

### **DocuColor 40 with Network Server Series 1.X**

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The production print path is available but you cannot open the associated job ticket.

### **DocuTech 135 with Network Server Series 1.X**

---

The production print path is available with all associated job ticket options.

### **Extended Connectivity - Print Job Manager**

---

You cannot print an RDO via this print path.

Only the Windows print path and Windows job ticketing options are available.

## **DocuTech 61XX with DocuSP 1.3 and later**

Table 1-8 lists the features that are not available via the DigiPath production print job ticket, but are supported by the DocuTech 61XX production printer with DocuSP 1.3 and later. You can still use these features by performing the workarounds provided in the table.

**Table 1-8. Workarounds for DocuTech 61XX features**

<b>Feature</b>	<b>Workaround</b>
Page Range upper limit of 65,000 pages	To submit DigiPath print jobs exceeding 9999 pages, send the job from the DigiPath workstation in segments.
Unspecified value job ticket parameters	DigiPath currently specifies all values in job tickets.
Media weight selection	For DigiPath print jobs requiring a special media weight, you may enter this information in the Special Instructions field of the Job Notes tab in the production print job ticket. Send the print job to a DocuSP hold queue, then program the media weight selection at the DocuSP server.
Signature Booklet Maker (SBM)	For DigiPath print jobs requiring the SBM, send the print job to a DocuSP hold queue, then program the SBM selection at the DocuSP server.
Custom Ordered Stock	For DigiPath print jobs requiring a custom stock, send the print job to a DocuSP hold queue, then program the stock selection at the DocuSP server.

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## Optical media compatibility information

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Table 1-9 describes the ability of DigiPath to interact with information stored on optical media previously supported by Xerox products.

**Table 1-9. Optical media compatibility**

Optical Drive	MOD Platter Capacity	Can read from platter	Can write to platter
Sony 650 MByte	650 MByte	yes	yes
Sony 1.3 GByte	650 MByte	yes	yes
Sony 1.3 GByte	1.3 GByte	yes	yes
Pinnacle 1.3 GByte	650 MByte	yes	yes
Pinnacle 1.3 GByte	1.3 GByte	yes	yes
Sony 2.6 GByte	650 MByte	yes	no
Sony 2.6 GByte	1.3 GByte	yes	yes
Sony 2.6 GByte	2.6 GByte	yes	yes

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## Tape media compatibility information

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Table 1-10 lists the ability of the DocuTech Tape Tool offered with DigiPath to interact with information stored on tape media previously supported by Xerox products.

**Table 1-10. Tape media compatibility**

<b>Xerox Legacy Product</b>	<b>Tape Drive</b>	<b>Can read from tape</b>	<b>Can write to tape</b>
DocuTech Extended Storage (DES)	Exabyte model 98K27531C	yes	yes
DocuTech Offline File Storage (DFOFS)	Exabyte model 98K27531C	yes	yes
DocuTech Internal tape drive	Exabyte model 98K27531C	yes	yes

## File formats

Table 1-11 provides a list of the main file formats you can create using DigiPath. For each file format, the following information is provided:

- a description of the file type
- the DigiPath application used to create the file type
- examples of other applications that can use this file type



*NOTE: For information on using DigiPath applications to create additional file formats to improve your work flow, refer to the “Creating settings and templates files” chapter of the Xerox DigiPath Production Software User Guide.*

*File formats discussed include .SCS, .IQS, .RDT, .XJT, .QRY, and .QRS.*

**Table 1-11. File formats and descriptions**

File format	Description
*.TIF (Tagged Image File Format)	This is a universal image file format type. When a TIFF file is created with the DocuImage 620S scanner, the file is in a CCITT Group 4 compressed format, with a single-strip scheme. In Document Scan and Makeready, you can import and export a compressed, Pack Bits, or uncompressed CCITT Group 4 single-strip TIFF file.
*.RDO (Raster Document Object)	This is a PostScript wrapper containing the structuring and formatting information for the TIFF, PostScript, and RDO files in the object. This file is proprietary to the DigiPath Document Scan and Makeready application. When you create an RDO, a .CON directory is created as well, with the same name as the RDO. The .CON directory contains the actual files that make up the object and the RDO contains links to the files in the .CON directory. The RDO also contains the formatting instructions for the document.
*.PDF (Portable Document Format)	This is an Adobe Acrobat file. You can use Document Scan and Makeready, Document Library, and Web Viewing and Submission to create a PDF file from an existing RDO or part of an RDO.
*.PS (PostScript)	This is a PostScript file. You can use Document Scan and Makeready to create a Postscript file from an existing RDO or part of an RDO.

## Naming conventions for DigiPath objects

---

DigiPath uses file name extensions (an extension is the part of a file name appearing after the period [or dot]) to help identify objects. The default extension for objects created in Document Scan and Makeready is RDO.



*NOTE: To ensure that DigiPath objects are managed correctly in Document Library, Document Library Lite, and the DigiPath database, it is strongly recommended that you always use the RDO extension when creating objects in Document Scan and Makeready.*

DigiPath supports the use of long file names, up to 254 characters, consisting of symbols, letters, and numbers. Some character restrictions apply to all objects created and stored in DigiPath. Table 1-12 lists characters that are not recognized in an object name.



*NOTE: DigiPath reserves two characters for database identification.*

**Table 1-12. Invalid characters in object names**

Keyboard Character	Character Name
< >	angle brackets
\	back slash
:	colon
,	comma
=	equal sign
?	question mark
“	quotation marks
;	semicolon
/	slash
[ ]	square brackets
	vertical slash
*	asterisk

Leading and trailing spaces are ignored and removed from a file name, and trailing periods (.) are also removed.

The following file names are reserved by the system and cannot be used to name files of any type:

- CON
- AUX
- PRN
- LPT1
- LPT2
- LPT3
- COM1
- COM2
- COM3
- COM4
- NUL

### **Using file names containing spaces in DigiPath**

---

DigiPath functionality supports the use of file names containing spaces.

The following are important guidelines for creating, copying, moving, or renaming DigiPath objects whose file names contain spaces:

- If you copy, move, or rename these objects using the commands in Document Library Lite, include quotation marks around the file names in the From or To text boxes within the respective dialog boxes.
- You should not have any problems when moving or copying these objects using drag and drop.

---

## Virus protection recommendations

---

This section describes the recommended procedures for protecting your DigiPath system from virus contamination.

### Protecting DigiPath from virus contamination

---

Xerox takes special precautions to ensure the software is shipped free from computer virus contamination. It is strongly recommended that you invest in a virus detection software application to continue to protect your DigiPath system from viruses.

Computer viruses are best detected by virus detection and control application software that is accepted by the PC industry.

Some of the virus detection and control applications available to, and widely-used by, the PC industry include:

- Norton Anti-Virus by Symantec
- VirusScan NT by Network Associates, Inc.



*NOTE: To ensure maximum protection from new viruses, update or upgrade your virus detection software frequently.*

It is strongly recommended that you follow these guidelines to keep your DigiPath system decontaminated:

- On a regular basis (at least weekly), run virus detection software on all DigiPath workstations.
- In the event you find a virus on a DigiPath workstation, do not remove the virus. Instead, cancel the virus detection, then back up the entire hard drive.



*NOTE: This is to protect your data in the event of corruption during the course of the virus removal.*

You can then remove the virus using the procedures supplied with your virus protection software.



---

## **2. Setting up a DigiPath System**

This chapter contains a list of the tasks you must perform after installing the DigiPath system. These tasks should be performed in the order in which they are presented in this chapter.

This chapter assumes that a Xerox representative has performed the installation of all hardware and software necessary to run the DigiPath system.

---

## **Creating user accounts**

---

The Users utility allows you to create, modify, and delete user accounts for users accessing Document Library applications. User accounts must be activated to allow the user to access Document Library applications from a local workstation only, or web access.

For information on creating user accounts, refer to Chapter 6, System administration.

---

## Creating group accounts

---

The Users utility allows you to create, modify, and delete group accounts. User group accounts define a group of users. When creating a new cabinet, you can assign read, write, and administrator rights to various users and user groups. When many users need to access a specific cabinet, it is quicker to assign user access rights to that cabinet if the users are all members of the same group.

For information on creating group accounts, refer to Chapter 6, System administration.

---

## Setting the database location

---

The System utility is used to specify on which local drive the cabinet database is stored.

The database stores information such as:

- cabinet name
- description of the cabinet
- attributes and attribute sets
- location of the cabinet
- documents

For information on setting the database location, refer to Chapter 6, System administration.

---

## **Setting the cabinet creation location for local users**

---

The System utility is used to set up and modify drives on which local users can create cabinets. By default, users have the ability to create cabinets on all local drives.

For information on setting the cabinet creation location for local users, refer to Chapter 6, System administration.

---

## Creating cabinets

---

The Cabinet utility in the Library Administration Tool allows you to manage cabinets, including:

- adding a cabinet
- defining the properties and attributes of a cabinet
- deleting a cabinet
- purging the contents of a cabinet

When you create a cabinet, the access rights you define are critical. If you do not assign Read or Write permissions for other users of the object in the cabinet, those users will not be able to view the cabinet when they use Document Library.

By default, newly created cabinets are not shared. For more information on sharing cabinets, refer to the User's Guide.

For more information on sharing cabinets, refer to the Users Guide.

For information on creating cabinets, refer to Chapter 7, Managing cabinets.

---

## **Creating new attributes, attribute groups, and attribute sets**

---

Use the Attributes utility to:

- create new custom attributes
- modify existing attributes
- delete attributes
- create user defined groups
- create new attribute sets

You can create up to four additional user defined groups for organizing attributes.

Attribute sets are applied to cabinets when they are created. Attribute sets allow you to apply the same attribute and attribute group to several cabinets. By doing so, you can easily create the same properties for several cabinets.

For information on creating new attributes, attribute groups, and attribute sets, refer to Chapter 8, Defining attribute sets.

---

## **Scheduling the Document Conversion Service**

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The Document Conversion Service provides a background batch utility for converting documents in Document Library cabinets. You will need to verify that the Document Conversion Service is installed and started on the workstation and the Web Viewing and Submission server, specify the login for the Document Conversion Service, and schedule a time period and priority for converting the documents.

For information on scheduling the Document Conversion Service, refer to Chapter 6, System administration.

---

## Setting up remote access

---

The Workgroup utility in the Library Administration Tool allows you to add and remove access to cabinets stored on host workstations (remote machines). When access to host workstations is configured, local users can access shared cabinets on those host workstations.

For information on setting up remote access, refer to Chapter 6, System administration.



---

### 3. Windows NT and network configurations

This chapter describes some of the Windows NT functions and network configurations used with DigiPath.

Topics covered in this chapter include:

- a brief description of some of the basic Windows NT procedures you may need to perform
- instructions for shutting down the Makeready workstation
- instructions for updating the Emergency Repair Disk
- a description of the Hummingbird products included on the DigiPath software CD-ROM and instructions to configure them for use with Digipath
- instructions for configuring the DocuSP decomposition service
- using the Windows NT Event Viewer



*NOTE: You are strongly advised to obtain a dedicated Windows NT 4.0 Administration Guide.*

---

## Understanding and using Windows NT

---

This guide assumes you have a working knowledge of the Windows NT Workstation 4.0 operating system and does not contain basic Windows NT procedures unless they are part of a DigiPath-specific procedure.

---

### Performing basic Windows NT administrative functions

---



*NOTE: This section does not provide the instructions for performing the basic Windows NT administrative functions. Refer to your Windows NT documentation for more information.*

In addition to the DigiPath-specific administrative functions you will perform, you may also have to know how to perform common Windows NT administrative functions such as the following:

---

#### Creating shortcuts

---

You can create a shortcut to an application or file so you can open it directly from the Windows NT desktop.

---

#### Adding Windows printers

---

To add a local Windows printer, refer to the printer kit instructions that is packaged with your printer.

---

#### Adding and configuring users and groups

---

You can use the User Manager tool, which is accessed by selecting [Start: Programs: Administrative Tools: User Manager] from the Windows task bar, to add, delete, and configure users and groups for the workstation.



*NOTE: If you do not want to use a password for a specific user account, leave both of the password fields blank.*

---

#### Setting up shared folders, files, and printers

---

Windows NT allows you to set up shared folders, files, and printers that can be accessed from other Windows NT workstations.



*NOTE: The Document Library Lite application can also be used to set up shared folders, files, and printers.*

## **Setting up and starting Windows NT services**

---

Using the Services icon in the Control Panel, you can specify the start-up properties for services and also start or stop them.

DigiPath 2.0 uses the following services:

- Auth Service
- Remote Print Service
- DigiPath Batch Server
- NobleNet Portmapper
- DigiPath Document Library Server
- Visual Recall Application Server
- Document Conversion Service
- OracleOraHome81TNSListener
- OracleServiceORCL
- IIS Admin Service
- World Wide Web Publishing Service

## **Adding or removing network services**

---

From the Network icon in the Control Panel, you can add, remove, or change the properties for network services on the workstation.

---

## Preparing to shut down the Makeready workstation

---

For the most part, shutting down the Makeready workstation is the same as shutting down any other Windows NT workstation. However, because of the Document Library cabinet system and the ability to access the Document Library cabinets from a remote workstation, there are some precautions you need to take before shutting down and powering off a Makeready workstation.

The most important thing to do before shutting down a Makeready workstation is make sure no one else is connected to the workstation and possibly using local cabinets. If you shut down the workstation while someone is remotely accessing and using local cabinets, the remote user could lose data and experience problems with their workstation.



### CAUTION

*If you shut down the Makeready workstation and receive a message such as “still connected to a user; do you want to disconnect?,” select [No]. To properly shut down the local workstation and avoid problems with the remote workstation, you must have the connected user exit the application that is accessing the cabinet system and then you must disconnect the remote workstation from the local workstation.*

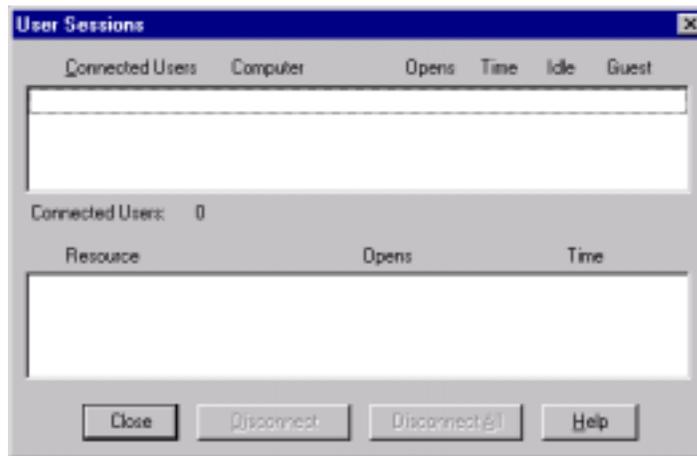
The following sections describe how to check for connected users, notify them that the workstation is going to be shut down, and then disconnect them from the remote workstation.

## Checking for connected users

1 3...  
2

To check to see if any users are connected to the workstation:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel opens.
2. Double-click on the Server icon. The Server dialog box opens.
3. Select [Users]. The User Sessions dialog box opens. See Figure 3-1.



**Figure 3-1. User Sessions dialog box**

If any users are connected to the workstation, the name of their host machine and other details are listed in the top list box. The resources they are using on the workstation are listed in the lower list box.

4. If no other machine is connected to the workstation, then it is safe to shut down the system. Otherwise, continue with “Notifying users connected to the workstation” on page 3-6.

To shut down the workstation, refer to “Ending the current DigiPath session” on page 1-14.

5. Select [Close] to close the User Sessions dialog box.
6. Select [OK] to close the Server dialog box.
7. Select [File: Close] to close the Control Panel.

## Notifying users connected to the workstation

---



To notify any users connected to the workstation that they should close any files or applications they are currently using on the workstation and disconnect from the workstation:

1. Select [Start: Programs: Command Prompt] from the Windows desktop. The Command Prompt window opens.
2. At the prompt, type the following command:

**net send <destination> <message>**



*NOTE: The <destination> is either the name of the connected computer or an asterisk (\*), which sends the message to every computer within the current workgroup. The <message> should tell the user or users to close any applications or files they may have open on the workstation.*

3. Press <Enter> to send the message to the specified destination.
4. Close the Command Prompt window.

---

## Disconnecting users connected to the remote workstation

---

1 3...  
2

After connected users have notified you that they have disconnected, or after giving the users a reasonable amount of time (10 minutes or so) to save any files and disconnect from the database, disconnect the remote workstation by completing the following:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel opens.
2. Double-click on the Server icon. The Server dialog box opens.
3. Select [Users]. The User Sessions dialog box opens.  
If any users are connected to the workstation, the name of their host machine and other details are listed in the top list box. The resources they are using on the workstation are listed in the lower list box.
4. Select [Disconnect All] to disconnect all users connected to the workstation.
5. Select [Yes] from the confirmation message box that opens.  
Any connected users are disconnected from the local workstation. It is now safe to shut down the Makeready workstation.
6. Select [Close] to close the User Sessions dialog box.
7. Select [OK] to close the Server dialog box.
8. Select [File: Close] to close the Control Panel.

To shut down the workstation, refer to "Ending the current DigiPath session" on page 1-14.

---

## Updating the Emergency Repair Disk

---

When DigiPath Production Software was installed, the Emergency Repair Disk was updated to reflect the most recent configuration. You may need to occasionally update the Emergency Repair Disk again if you make changes to the DigiPath workstation configuration such as the following:

- Add, delete, or change user accounts and user information or configuration
- Install new software or hardware
- Change or remove network drive mappings



To update the Emergency Repair Disk for a DigiPath workstation:

1. Locate the Emergency Repair Disk for the workstation and have it ready for use.
2. Select [Start: Run] from the Windows desktop to open the Run dialog box.
3. Type **rdisk** in the Open text box and select [OK]. The Repair Disk Utility dialog box opens.
4. Select [Update Repair Info] and then select [Yes] to confirm updating the information.

Window NT saves the current configuration information for the workstation. The process may take several minutes.

5. When prompted, select [Yes] to create an Emergency Repair Disk.
6. When prompted, insert the Emergency Repair Disk into the floppy drive and select [Yes]. Then select [OK].

The Emergency Repair Disk is reformatted and then updated with the new repair information. This process may take several minutes.

7. Select [OK] at the message informing you that the repair information contains security sensitive data.
8. When the Emergency Repair Disk update is completed, select [Exit] to close and exit the Repair Disk Utility.
9. Eject the Emergency Repair Disk and place it in a secure storage area.

---

## Using Hummingbird NFS products with DigiPath

---

Along with the software, the documentation for both Hummingbird NFS Maestro and Server is provided on the DigiPath software CD-ROM. Table 3-1 lists the available PDF document files and their location on the DigiPath software CD-ROM.

**Table 3-1. Hummingbird NFS documentation on CD-ROM**

Document Title	CD-ROM Location and File Name
NFS Maestro - Client User's Guide	<CD-ROM drive>:\nfs\maestro\nfsma32.pdf
Host Explorer User's Guide	<CD-ROM drive>:\nfs\maestro\heuser32.pdf
NFS Maestro Server for Windows NT	<CD-ROM drive>:\nfs\server\nfssrv.pdf
Hummingbird Basic Language Guide	<CD-ROM drive>:\nfs\maestro\hbasic.pdf
Hummingbird Applications Guide	<CD-ROM drive>:\nfs\maestro\hbapps.pdf

## Using Hummingbird to mount UNIX hosts

---

The following procedure provides instructions for mounting a UNIX host from a DigiPath workstation. By doing this, you can use UNIX-based Xerox products such as DocuJob Converter and DocuSP Decomposition Services.



*NOTE: This section does not provide instructions for configuring DocuJob Converter to use the Hummingbird authentication daemon. Refer to the documentation provided with that product for more information. The procedure to configure the DocuSP Decomposition Service follows this section.*



To mount a UNIX host from a DigiPath workstation:

1. From the DigiPath workstation, log in as the administrator.



*NOTE: If the installation site is running DNS, then go to step 3.*

2. Add UNIX hosts using the following procedure:
  - a. Select [Start: Programs: NFS Maestro: Accessories: Host Editor] from the Windows desktop. The Host Editor opens.
  - b. Select the [+] button.
  - c. Enter the IP address of the host (a DJC or DocuSP server, for example) to which you are connecting.
  - d. Select [Add Name].
  - e. Enter the name of the machine you are connecting to and select [OK].
  - f. Select [OK].
  - g. Select [File: Exit] to exit the Host Editor application.
  - h. Select [Yes] to save the changes to Hosts.
3. Connect to the UNIX server.
  - a. Select [Start: Programs: NFS Maestro: NFS Network Access]. The NFS Network Access dialog box opens.
  - b. Select the [Register] tab.
  - c. Enter the user name and password for the account that you created on the host.



*NOTE: The Username and Password must be identical to the Username and Password of the host account. These items are case sensitive.*

- d. Select [Register].

- e. Select [OK] to confirm.
- f. Select the [Connect] tab.

The next available drive is displayed in the **Drive** field. You can select any available drive.

- g. In the Network Path text box, enter the network path. Use the following syntax:

\\<host name>\ /<exported\_directory\_name>



*NOTE: If you do not remember the complete path to the exported directory, select [Browse]. In the Browse Network Connection dialog, locate the makeready host and double-click on it to expand it. Select the share point related to the exported directory, then select [OK]. The complete path of the exported directory will be displayed in the Network Path text box.*

- h. Mark the check box for [Permanent] to ensure the connection is reestablished when the system is restarted or the user logs out of Windows NT.
- i. Select [Connect].
- j. In the HCLNet confirmation dialog that opens, confirm the network mapping by selecting [OK].
- k. Select [File: Exit].

The DigiPath workstation is now connected to the proper directory on the UNIX server. The directory should be visible and accessible through Windows NT Explorer and DigiPath software applications as a network drive.

---

## Configuring the DocuSP Decomposition Service

---

Before a DigiPath workstation can be used to submit jobs to the Decomposition Service, both the DocuSP server and the DigiPath workstation must be configured to direct the output from the Decomposition Service directly back to the DigiPath workstation. Hummingbird NFS Maestro Server software must be configured as detailed in the previous section, "Using Hummingbird to mount UNIX hosts," to accomplish this task.

At the DigiPath workstation, perform the following tasks:



1. If necessary, define a directory where the decomposed jobs will be automatically downloaded (the decomp directory). Use Document Library Lite to create a Decomp download directory on the DigiPath workstation local hard drive.

For example: **<DigiPath directory>:\digipath\decomp**

*NOTE: Note the location and name of this directory. The directory name is case-sensitive.*



2. If necessary, open Document Library Lite by selecting [Start: Programs: DigiPath Production Software: Document Library Lite] from the Windows desktop.
3. Select [File: Search]. The Search dialog box opens.
4. Enter **Exports** in the Search For field.
5. Enter the drive where the Maestro server software is installed.
6. Select [OK]. The Search Results dialog box opens.
7. Highlight the Exports file and select [File: Run]. The Run dialog box opens.
8. Type **notepad** then <space> in front of the displayed file name. Select [OK].
9. Scroll to the bottom and enter the defined decomp directory from step 1.
10. Select [File: Exit] and select [Yes] to save the changes.

11. Select [File: Exit] to close Document Library Lite.
12. Select [Start: Programs: NFS Maestro Server: NFS Maestro Server Status] from the Windows desktop. The NFS Maestro Server for Windows NT Server Status dialog box opens.
13. Select [Exports]. The Current Exports dialog box opens.
14. Select [Reload].
15. Select [OK] to confirm reload.
16. Select [Close] to close the Current Exports dialog box.
17. Select [Close] to close the NFS Maestro Server for Windows NT Server Status dialog box.
18. Select [Start: Settings: Control Panel]. The Control Panel opens.
19. Double-click on the [HCL NFS Server] icon. The NFS Maestro Server for Windows NT Configuration dialog box opens.
20. Under the Configure tab:
  - a. Select [NT Style] as the Attribute/Permissions parameter.
  - b. Enter **administrator** in the NT User Name for Non-Mapped field.
21. Select [Apply].
22. Select [OK] to exit the dialog.
23. Select [File: Close] to close the Control Panel.

### Information for the DocuSP administrator

---

1 3...  
2

Supply the following information to the DocuSP System Administrator to set up the Decomposition Service queue:

1. Log in as a DocuSP superuser.
2. Create a decomposition service queue using the following steps:
  - a. Specify a queue name of **<dgphost>decomp** where <dgphost> is the host name of your DigiPath workstation.
  - b. Specify a queue destination of **save** as an override parameter for the jobs it receives.
  - c. Specify a save location of **/var/spool/<dgphost>** where <dgphost> is the host name of your DigiPath workstation.

3. NFS-mount the save location directory (in step 2c) onto the directory you exported on the DigiPath workstation. In a DocuSP command tool, type the following command:

```
mount <dgphost>:/<drive>/<dir> /var/spool/<dgphost>
```

where

- <dgphost> is the host name of your DigiPath workstation,
- <drive> is the drive letter of the decomp output directory created on the DigiPath workstation, and
- <dir> is the full path of the decomp output directory on the DigiPath workstation.



*NOTE: All of the above variables are case-sensitive.*

For example, if your DigiPath workstation host name is DGP1 and you exported the directory C:\DigiPath\Decomp, the command should be:

```
mount DGP1:/c/DigiPath/Decomp /var/spool/DGP1
```

4. You can make this NFS mount point permanent using the **vfstab** command.



*NOTE: If you choose not to make this mount point permanent, a reboot of the DocuSP server causes the mount point to be lost, and the mount command will need to be executed again.*

This completes the configuration of the DocuSP server and the DigiPath workstation. You can now submit jobs to the DocuSP Decomposition queue and the output will be written back to your DigiPath workstation into the directory you defined.

---

## Windows NT event log management

---

Use the Windows NT Event Viewer to view the Windows NT event logs.



*NOTE: For more information on reading and interpreting the event log, refer to your Windows NT documentation.*

Table 3-2 lists and describes the three types of events.

**Table 3-2. Types of events**

Event	Description
Application	Collects messages from Windows NT applications.
Security	Tracks success and failure audits.
System	Records errors, warnings, and information events of the system.

Table 3-3 provides the NT log files to which DigiPath writes event data.

**Table 3-3. NT log files**

Log file	Log file path
Application log	c:\winnt\system32\config\AppEvent.Evt
Security log	c:\winnt\system32\config\SecEvent.Evt
System log	c:\winnt\system32\config\SysEvent.Evt



To access the Event Viewer:

1. Select [Start: Programs: Administrative Tools (Common): Event Viewer] from the Windows desktop. The Event Viewer dialog box opens.
2. Select one of the following options in Table 3-4 to view the different event logs, if appropriate.

**Table 3-4. Viewing the event logs**

Event Log	Do this:
Application Log	Select [Log: Application] from the Event Viewer menu bar.
Security Log	Select [Log: Security] from the Event Viewer menu bar.
System Log	Select [Log: System] from the Event Viewer menu bar.

You should save the Windows NT event logs to a file approximately once every two months and keep these log files for approximately one year. After saving the logs to file, you can then clear them.



*NOTE: It is important to save these logs as they may be needed in the future for diagnosing problems.*

3. Select [Log: Exit] to close the Event Viewer.

---

## 4. Hardware maintenance

This chapter provides procedures necessary for maintaining the DigiPath hardware.

Topics covered in this chapter include:

- maintaining the DocuImage 620S scanner
- maintaining the DigiPath scanner
- maintaining a Magneto-optical drive (MOD)
- maintaining Redundant Array of Independent Disks (RAID)
- maintaining Internal and external tape drives

---

## Maintaining the DocuImage 620S scanner

---

The following sections identify two basic maintenance procedures you may be required to perform on the Xerox DocuImage 620S scanner. For further information regarding regular maintenance for the DocuImage 620S, refer to the various guides found in the *Xerox DocuImage 620S User Documentation*.

---

### Moving and reinstalling the DocuImage 620S

---



*NOTE: For a more detailed description of the steps in the following procedure, refer to the Installation Guide found in the Xerox DocuImage 620S User Documentation.*



#### WARNING

**The scanner weighs 50 pounds (23 kg) and the document handler weighs 28 pounds (12.7 kg). To prevent personal injury or equipment damage, it is recommended that you seek assistance when moving the scanner and when removing or installing the document handler.**



If you have to move the Xerox DocuImage 620S after it has been installed:

1. Make sure the scanner is turned off, and then unplug the power cord.
2. Power off the PC.
3. If necessary, disconnect the SCSI cable from the back of the scanner.
4. Remove the document handler from the scanner.
5. Secure the movable parts in the scanner by reinstalling the packing screws removed during the scanner installation.



*NOTE: To perform this step, go into scanner support and select the Position scan bar for shipping option under the Tools pull-down menu.*

6. Before moving the scanner to its new location, use the same procedures from the initial installation to make sure the surface on which it will be placed is level.
7. Move the scanner to its new location.
8. Remove the packing screws from the scanner.
9. Reinstall the document handler on top of the scanner.
10. Plug the scanner power cord into an acceptable power source and reconnect the SCSI cable to the scanner.



*NOTE: Make sure the PC and scanner are off before connecting the SCSI cable.*

11. Perform the scanner registration procedure found in the following section.

### Registering the scanner

---

Register the scanner every time you remove or replace the document handler, or if images appear shifted off the page.

When you register the scanner, the parameters for scanning are captured. The scanner identifies the position of the registration documents, compares that position to the document, and makes the necessary adjustment.

To register the scanner, you need ten registration documents, part number 82E8371. These documents have an X in the upper right and lower right corners of the page, and they come in an envelope with your DigiPath software setup.

If an error occurs during registration, acknowledge the error and begin the process again. If you continue to have trouble, call your Xerox representative for assistance.



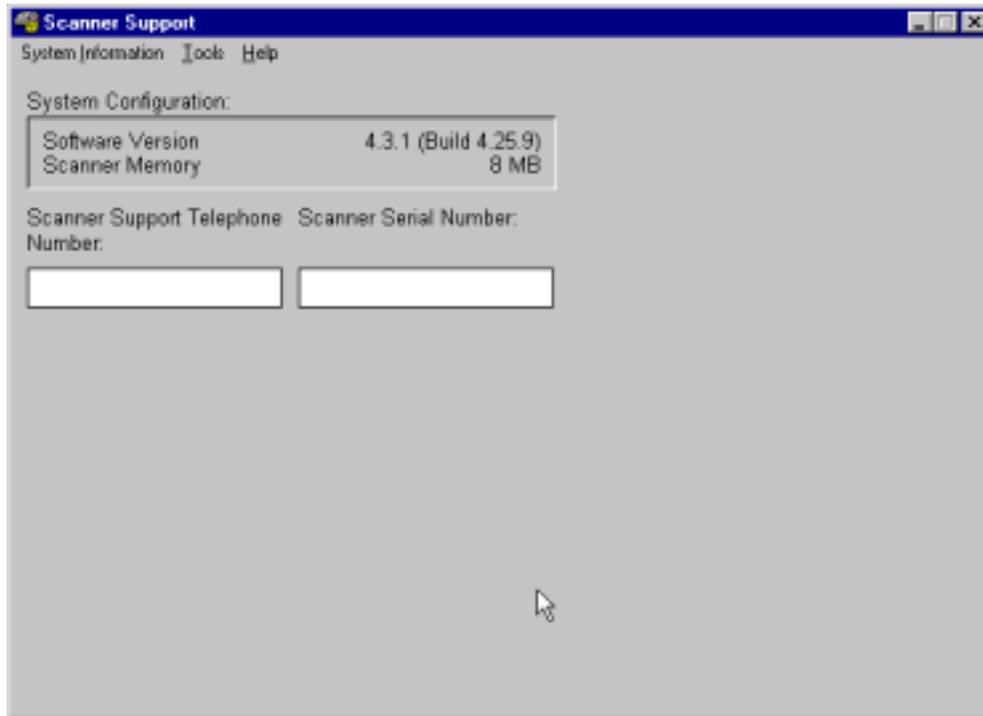
*NOTE: If you have a document handler attached to your scanner, register both the document glass and the document handler.*

The registration process lasts approximately 10 seconds for the document glass and approximately 30 seconds for the document handler.

1 3...  
2

To register and set up the scanning parameters for the document glass and document handler:

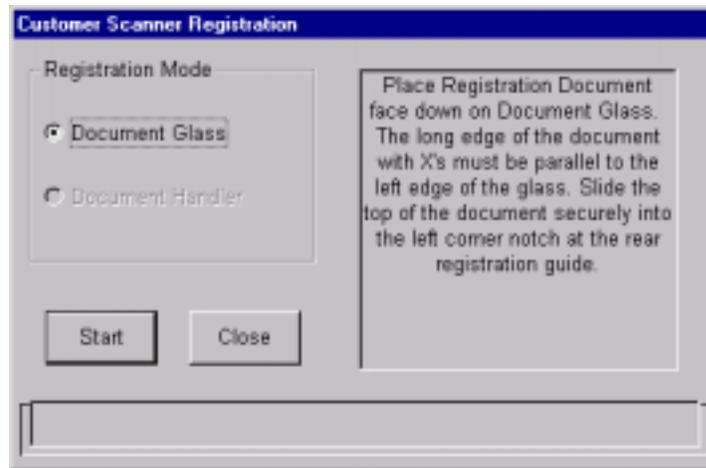
1. Select [Start: Programs: Xerox DigiPath Production Software: Scanner Support] from the Windows desktop. The Scanner Support dialog box opens. See Figure 4-1.



**Figure 4-1. Scanner Support dialog box**

2. Select [Tools: Options: Document Handler] from the menu bar. Validate that there is a check mark beside Document Handler.

3. Select [Tools: Scanner Registration] from the Scanner Support menu bar. The Customer Scanner Registration dialog box opens. See Figure 4-2.



**Figure 4-2. Customer Scanner Registration dialog box**

4. To register the Document Glass:
  - a. Mark the [Document Glass] radio button option in the Registration Mode area.
  - b. Place one of the scanner registration documents face down on the document glass.



*NOTE: The long edge of the document with xs must be parallel to the left edge of the glass. Slide the top of the document securely into the left corner notch at the rear registration guide. Make sure the document does not move when closing the document handler or manual platen cover.*

- c. Select [Start] from the Customer Registration dialog box.  
The registration process begins. When the test is complete, a message appears in the message bar at the bottom of the Customer Scanner Registration dialog box.

5. To register the Document Handler:



*NOTE: If you have a manual platen cover instead of a document handler, skip to step 7.*

- a. Mark the [Document Handler] radio button option in the Registration Mode area.

- b. Remove the single registration document from the document glass and place 10 of the scanner registration documents all together face up on the document handler.  
Follow the directions on the screen for proper placement and orientation of the documents. Make sure the ready light on the document handler is illuminated.
  - c. Select [Start] from the Customer Registration dialog box.  
The registration process begins. When the test is complete, a message appears in the message bar at the bottom of the Customer Scanner Registration dialog box.
6. Remove the scanner registration documents from the document handler.
  7. Select [Close] to close the Customer Scanner Registration dialog box.
  8. Select [System Information: Exit] to close the Scanner Support window.

---

## **Maintaining the DigiPath scanner**

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For information regarding regular maintenance for the DigiPath scanner, refer to the DigiPath scanner integrated Help system.

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## Using a magneto-optical drive (MOD)

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As an option, DigiPath Production Software supports the use of up to two magneto-optical drives (MODs) for mass storage of objects. A MOD offers you the ability to transfer DigiPath documents and images to a relatively inexpensive medium, an optical disk, for online and offline storage. After the stored information is taken offline, you can easily restore the optical disk to online status and access the information.



### CAUTION

*When using a MOD with DigiPath Production Software, users must be sure the optical disk is mounted and online before moving data to it. Similarly, users must also offline the optical disk before removing it from the drive. Failing to perform either of these steps may result in either a loss of data or incorrect data in the Document Library cabinet system.*

DigiPath Production Software 2.0 supports the following MOD devices:

- Sony 5.2 GB MOD (can be purchased with DigiPath Production Software)
- Sony 2.6 GB MOD



*NOTE: Previous versions of DigiPath Production Software supported the 650MB Sony MOD and 1.3 GB MODs. These devices are no longer supported by DigiPath Production Software.*

Table 4-1 lists the currently supported MOD devices and identifies their optical disk capacity and compatibility.

**Table 4-1. Supported MOD devices and their compatibility**

MOD Device	Optical Disk Capacity	DigiPath Production Software Image Capacity*	Compatible Optical Disks and Read/Write Capability
Sony 5.2 GB	5.2 GB (2.6 GB per side)	30952	650 MB (read only) 1.3 GB (read only) 2.3 GB (read/write) 2.6 GB (read/write) 5.2 GB (read/write)
Sony 2.6 GB	2.6 GB (1.3 GB per side)	15476	650 MB (read only) 1.3 GB (read/write) 2.3 GB (read/write) 2.6 GB (read/write)

\* The storage capacity of an optical disk depends upon the average size of the images being stored. Assuming that a 600 dpi letter-size image is compressed at an average ratio of 25:1, each image page would require approximately 168 KB of space. The number of images listed in this column is based on an average of 168 KB per image.



### CAUTION

*Due to a low-level formatting incompatibility between the XDOD 3.X Corel SCSI drivers and the Windows NT 4.0 drivers, any optical disk data created with XDOD 3.X running under Windows 3.1 is not accessible from DigiPath Production Software 2.0 running under Windows NT 4.0.*

## **Sony 5.2 GB magneto-optical disk**

---

The MOD for DigiPath 2.0 is the Sony 5.2 GB drive. In the past DigiPath/XDOD supported four different MOD drives:

- Sony model SMO-S501 - 650 MB
- Sony model SMO-S521 - 1.3 GB
- Sony model CMO-R540-40 - 2.6 GB
- Pinnacle Micro Sierra MOD - 1.3 GB

All the MODs use 5.25 inch optical media. The difference is in the storage capacity as shown above. The 650 MB and 1.3 GB optical disks can now be used only as read only devices with the new MOD drive. There is a hardware limitation that prevents writing to the 650 MB optical disks with the new drive.

## Formatting the Sony 5.2 GB MOD platter

---

The MOD platter can store 2.6 GB per side. The platter must be manually turned over to access the opposite side.



*NOTE: Use this procedure to format the 5.2, 2.6, and 2.3 MODs.*

Before you can use a MOD platter, it must be partitioned and formatted. Use the following procedure to prepare the MOD for use:

1. Place a blank 5.2 GB platter in the MOD drive. Be sure that the side you wish to prepare is face up.
2. Select [Start: Programs: Administrative Tools: Disk Administrator].
3. Select [OK] at the warning regarding Disk Administrator.
4. Select [Yes] to write the disk signature, if prompted.



*NOTE: Since the MOD is not formatted, you may receive an error message stating that the system cannot write to the MOD.*

5. Select the MOD. It should show 2464 MB of free space.
6. Select [Partition: Create].
7. Select [OK] to make the partition the full size.
8. Select [Partition: Commit Changes Now] and confirm.
9. Reselect the MOD drive.
10. Select [Tools: Format].
11. Select [FAT] for the file system.
12. Enter a Volume label and select [Start]. Select [OK] if a warning appears. The formatting may take several minutes.
13. Select [OK] when the message Format is Complete appears. Select [Close] to exit the Format dialog box.
14. Select [Partition: Exit].
15. Eject the MOD platter from the drive and turn it over so the second side is face up. Reinsert the platter into the drive and repeat steps 2 through 14.

## Using DigiPath 1.2 MODs with DigiPath 2.0

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To mount a DigiPath 1.2 MOD with DigiPath 2.0:

1. Place the DigiPath 1.2 MOD in the MOD drive.
2. Select [Start: Programs: Xerox DigiPath Production Software: Document Library] from the Windows desktop.
3. Select [Cabinet: Mount] to mount the MOD.

For more information on mounting MODs, refer to the *Xerox DigiPath Production Software User Guide*.

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## Using a Redundant Array of Independent Disks (RAID)

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As an option, DigiPath Production Software supports the use of a Redundant Array of Independent Disks (RAID) for mass storage of objects. As the name implies, a RAID device is an array of two or more relatively small, inexpensive SCSI hard disks organized to function as if they were a single large disk drive. The hard disks are contained in an enclosure called the RAID cabinet and are managed by the RAID device controller. The RAID cabinet for the 100 GB RAID is capable of holding up to seven SCSI hard disks and the RAID cabinet for the 150 GB RAID is capable of holding up to ten SCSI hard disks. DigiPath Production Software supports a configuration using one or two RAID cabinets.

The device controller and management software, included with the RAID system, manage all internal aspects and operation of the device and make them transparent to the attached computer. From a computer and user viewpoints, the RAID device appears to be a single large disk rather than several small disks.

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### Understanding RAID levels

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Often, part of the total available capacity for the disk array is devoted to storing the extra check data needed to detect and correct errors. Different schemes exist for writing actual data and check data to the disk array. Referred to as the RAID level, these schemes use a variety of techniques such as those described in Table 4-2.

**Table 4-2. RAID level techniques**

Technique	Description
Mirroring	Writes the same data to more than one disk in the array.
Parity bits	Stores extra bits with the actual data to assist in detecting and correcting errors.
Striping	Distributes consecutive data block sequences across the disk array.

Table 4-3 lists and describes the available RAID levels.

**Table 4-3. RAID Level**

RAID level	Description
Level 3	RAID Level 3 uses one entire disk (sometimes referred to as a parity disk) for storing the check data for a group of disks. The actual data is striped across the other data disks in the array. When reading or writing data in the array, all disks are accessed simultaneously, which allows for only one data transfer at a time. This data configuration is optimal for many small data transfers.
Level 5	RAID Level 5 uses the equivalent of one entire disk for storing check data but distributes the check data over all the disks in the array. When reading or writing data in the array, only two disks are accessed simultaneously, which allows for multiple simultaneous data transfers. This data configuration is preferable for large data transfers.
Level 3/5	The RAID Level 3/5 data configuration is adaptive, combining the advantages of both Level 3 and Level 5 data configurations. Based upon the data transfer size, RAID Level 3/5 determines which data storage scheme to use. Level 3/5 incorporates both data striping, so that data is written across the array of disks, and parity bits, which eliminate the possible slowdown associated with a dedicated parity disk. Because of the composition of DigiPath Production Software application data, RAID Level 3/5 is optimal for both data transfer rates and efficient use of disk space.



*NOTE: In general, the check data on a RAID device reduces the probability of losing actual data. However, just as with any mass storage device, such as a hard drive, you should regularly back up the data stored on the RAID device.*

Several RAID levels exist; however, currently, no RAID device is capable of supporting all RAID levels. Table 4-4 provides the RAID levels used in the DigiPath supported RAID devices.

**Table 4-4. DigiPath supported RAID devices**

RAID	RAID Level
24/50 GB RAID	Uses RAID Level 3/5 data configuration, which is a combination of the two most common RAID data configurations, Level 3 and Level 5.
100 GB RAID	Uses RAID Level 5 data configuration with moving parity.
150 GB RAID	Uses RAID Level 5 data configuration with moving parity.

## Understanding the DigiPath RAID device configurations

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Table 4-5 describes the RAID system configurations supported by the DigiPath Production Software.

**Table 4-5. RAID system configurations**

RAID device	System configuration
24/50 GB RAID	The RAID device has on 24/50 GB SCSI hard disk.
100 GB RAID	The RAID device has the following hardware: <ul style="list-style-type: none"><li>• Seven 18.0 GB SCSI hard disks per cabinet</li><li>• Two redundant RAID device controllers</li></ul>
150 GB RAID	The RAID device has the following hardware: <ul style="list-style-type: none"><li>• Ten 18.0 GB SCSI hard disks per cabinet</li><li>• Two redundant RAID device controllers</li></ul>

The RAID system is configured as one virtual disk or drive.



*NOTE: Because part of the disk array is used to store check data, the space available for storing actual data files is not equal to the total size of all the drives.*

## Using the 100 GB RAID

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This section provides instructions for using the Enterprise Storage Manager software with the 100 GB RAID device, shutting down the 100 GB RAID device, and powering up the 100 GB RAID device.

### Using the Enterprise Storage Manager

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The Enterprise Storage Manager (ESM) software is included with the RAID system. This software is used to configure, operate, monitor, and troubleshoot the RAID system. The ESM software is what your Xerox service representative uses to create the RAID volume and configure the RAID controller for use with DigiPath Production Software.

In general, you should not change any of the settings for your RAID system using the ESM software. However, you may need to access the ESM software to view the RAID configuration or as part of a troubleshooting procedure when you call customer support with a problem.



#### CAUTION

*You should not change the settings or configuration of the RAID device unless instructed to do so by a Xerox customer support or service representative. Doing so may result in data loss or incompatibility with the DigiPath Production Software software.*



To access the ESM software:

1. Select [Start: Programs: Enterprise Storage Manager] from the Windows desktop.

For more information on how to use the ESM software, refer to the online Help or to your RAID documentation.

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## Shutting down the 100 GB RAID system

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The following procedure should be used if you have to temporarily shut down the RAID system.



To shut down the RAID system:

1. Close and exit all applications to end all activity to the RAID system.
2. Select [Start: Programs: Enterprise Storage Manager: SC5230 Storage Window] to start the ESM. The SC5320 Management dialog box opens.
  - a. Select the SCSI Radial button.
  - b. Select [OK].
  - c. Select the RAID drive letter.
  - d. Select [OK].
3. Select [Storage: Controller: Configuration: Save] from the SC5230 Storage Window to save the current RAID configuration. Save the configuration to a file name of your choice.
4. Select [Yes] when the ESM warning message appears.
5. Shut down the RAID device controller.
  - a. Select [Storage: Controller: Shutdown] from the SC5230 Storage Window menu and confirm.
  - b. Select [File: Exit] from the SC5230 Storage Window menu to exit the ESM.
6. Select [Start: Shut Down] option on the Windows desktop to shut down the host computer.
7. Power off the host computer system.
8. Power off the RAID system.

## Powering on the RAID system

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Use this procedure to power on the RAID device.



To power on the RAID device:

1. Power on the RAID device.



*NOTE: It takes several minutes for the RAID controller to power on and reach the ready state. If you power on the host computer system before the RAID controller reaches the ready state, the host computer does not detect the RAID system.*

2. Power on the host computer system.

The RAID system should be automatically detected by the system and be ready for use.

## Using the 150 GB RAID

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This section provides instructions for using the StorageView software to monitor the 150 GB RAID system.

### Using StorageView

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The StorageView software is included with the RAID system. This software is used to configure, operate, monitor, and troubleshoot the RAID system. The StorageView software is what your Xerox service representative uses to create the RAID volume and configure the RAID controller for use with DigiPath Production Software.

In general, you should not change any of the settings for your RAID system using the StorageView software. However, you may need to access the StorageView software to view the RAID configuration or as part of a troubleshooting procedure when you call customer support with a problem.



#### CAUTION

*You should not change the settings or configuration of the RAID device unless instructed to do so by a Xerox customer support or service representative. Doing so may result in data loss or incompatibility with the DigiPath Production Software software.*



To access the StorageView software:

1. Select [Start: Autologic StorageView: StorageView] from the Windows desktop. The StorageView application opens.

For more information on how to use the StorageView software, refer to the online Help or to your RAID documentation.

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## Using the internal and external tape drives

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DigiPath Production Software uses the following tape drives listed in Table 4-6 for backing up the system:

**Table 4-6. DigiPath internal and external tape drives**

Tape drive	Description
Internal TR4 or TR5 tape drives	<p>The internal tape drive, which is included with the recommended Compaq Professional Workstation AP550, is used to back up the workstation hard drive. The TR4 or TR5 internal tape drive has an expected data transfer rate of 60 MB per minute and the TR4 uses tapes with a maximum capacity of 4 GB uncompressed and 8 GB compressed and the TR5 uses a maximum capacity of 10 GB uncompressed and 20 GB compressed. The tape drive performance and tape capacity of the internal tape drives allow you to complete a full backup of the hard drive in a reasonable amount of time and use only one or two tapes.</p> <p><i>NOTE: Because of the large capacity of the RAID device, using one of the internal tape drives to back up the RAID would require numerous tapes and many hours. Therefore, it is strongly recommended that you purchase and use the optional DLT drive for backup of a RAID system.</i></p>
8 mm Storage Dimensions tape drive	<p>The Storage dimension 8 mm Tape Drive is an optional unit. It is used only with DocuTech Tape Tool to manipulate DocuTech Extended Storage Tapes.</p>
External DLT tape drive	<p>The DLT drive is an optional external drive that you can purchase with DigiPath Production Software. The DLT drive has an expected data transfer rate between three and 6 GB per hour and a maximum data transfer rate of 9 GB per hour when using data compression. Each tape has a maximum capacity of 30 GB with compression and 15 GB without compression.</p> <p><i>NOTE: Although the DLT tape drive is capable of 2:1 compression, these results are not likely with the DigiPath data. The TIFF images in the RDO documents are already highly compressed, and little gain is realized from the AIT tape drive's compression algorithm.</i></p>

**Table 4-6. DigiPath internal and external tape drives**

Tape drive	Description
External AIT tape drive	<p>The Sony AIT tape drive is intended to be used to back up the RAID device only. The RAID device can store up to 140 GB of data. The AIT drive can back up 140 GB by automatically spanning the data over four 35 GB tapes. Thus the RAID device can be completely backed up to a set of tapes without manual intervention. The PC hard drive must be backed up to the internal TR5 tape drive independently of the RAID backup procedure.</p> <p><i>NOTE: Although the AIT tape drive is capable of 2:1 compression, these results are not likely with the DigiPath data. The TIFF images in the RDO documents are already highly compressed, and little gain is realized from the AIT tape drive's compression algorithm.</i></p> <p>Instead of using a driver, the Sony AIT tape drive is controlled by the Computer Associates ARCserveIT software installed on the DigiPath workstation.</p>

The following sections provide detailed instructions for using the internal and external tape drives to back up the DigiPath system.

## Storage Dimensions 8mm Tape Drive

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The Storage Dimensions 8mm Tape Drive is an optional unit. It is used only with DocuTech Tape Tool to manipulate DocuTech Extended Storage tapes.



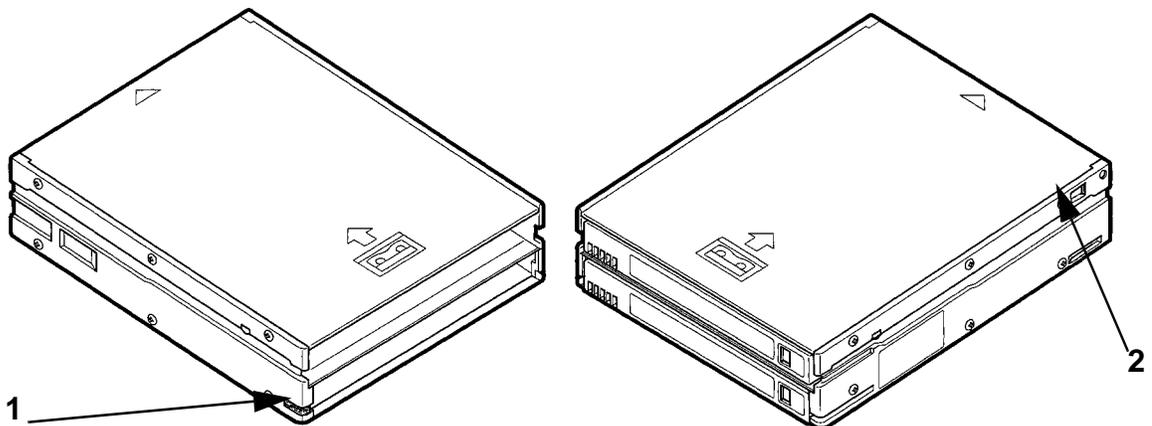
*NOTE: If you have a previous version of the Exabyte Tape Drive, part Number 98K27531C, and are having problems reading tapes, you should contact your Xerox Service Representative. The part number is displayed on a nameplate on the rear of the tape drive unit.*

## Sony AIT 100 GB autoloading tape drive

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### Sony AIT tape magazine

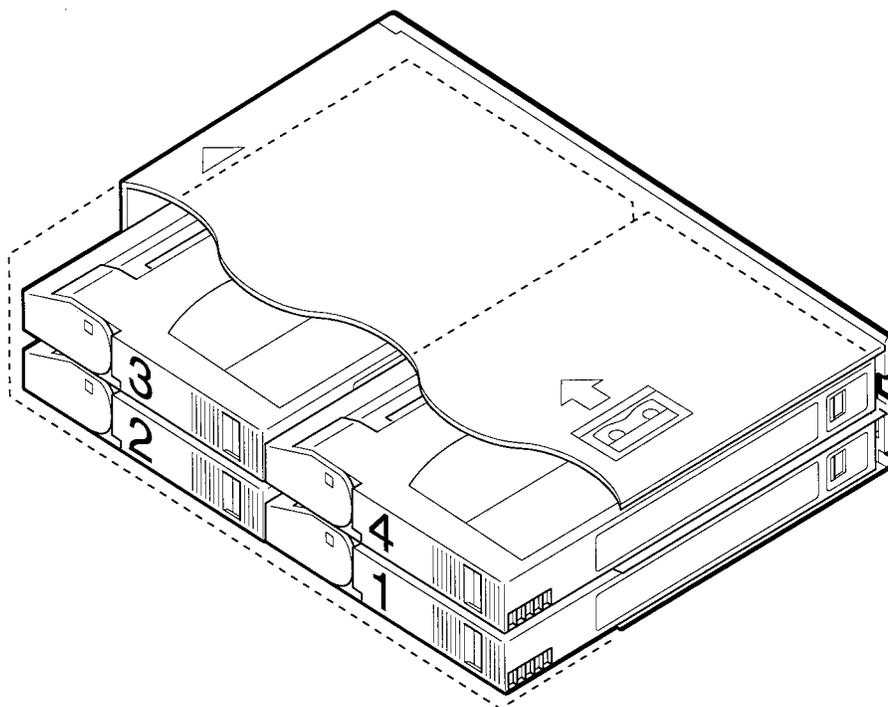
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**Figure 4-3. Sony AIT tape magazine**

Figure 4-3 shows the tape release button and write protect tab on the Sony AIT tape magazine.

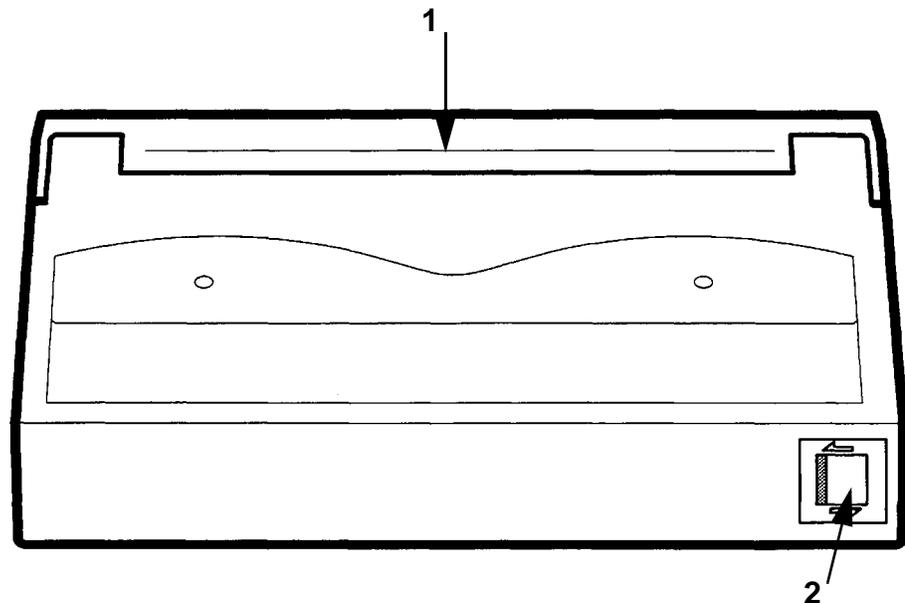
- **1 Release button**—Press this button to remove tapes from the magazine.
- **2 Write protect tab**—Slide the tab to the left to write-protect the tapes in the magazine. This tab inhibits writing to the tapes, regardless of whether the tape cartridges are individually write-protected.



**Figure 4-4. The numerical positions of tapes in the magazine**

Figure 4-4 shows the slot number assignments of tapes when they are loaded in the magazine. For example, when you use the <SELECT> key on the AIT tape drive to select tape slot 4, you are selecting the tape shown in position four in the figure above. For DigiPath, the tapes can be loaded in any order.

## Advanced Intelligent Tapes (AIT)



**Figure 4-5. AIT cartridge**

Figure 4-5 shows the AIT cartridge and its components. An AIT tape cartridge is capable of storing 35 GB of data.



### CAUTION

*Do not open the tape lid or attempt to disassemble the tape cartridge.*

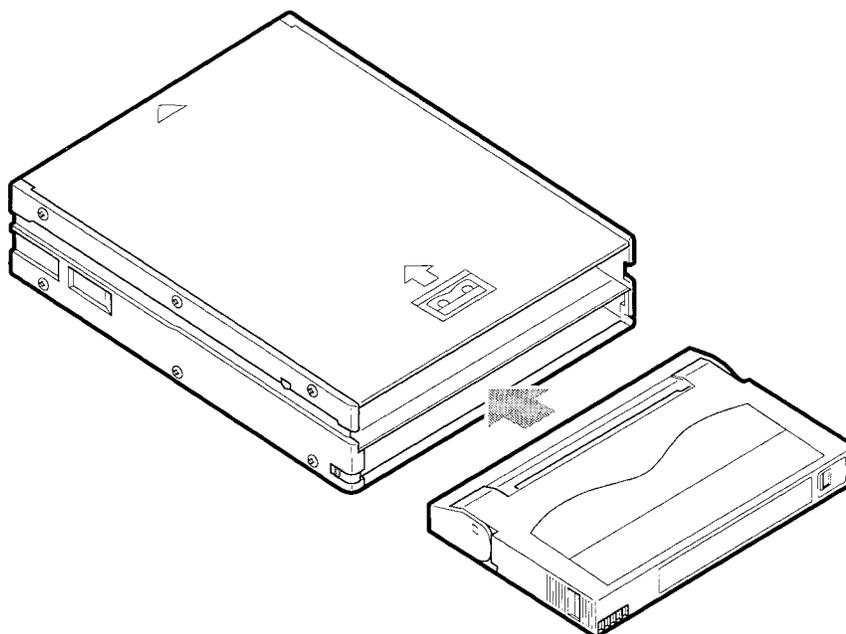
- **1 Tape lid**—Protects the medium when the tape is not in the drive.
- **2 Write-protect tab**—Slide to the left to enable writing and erasure. Slide to the right to write-protect the tape.

### Loading the Sony AIT tape magazine



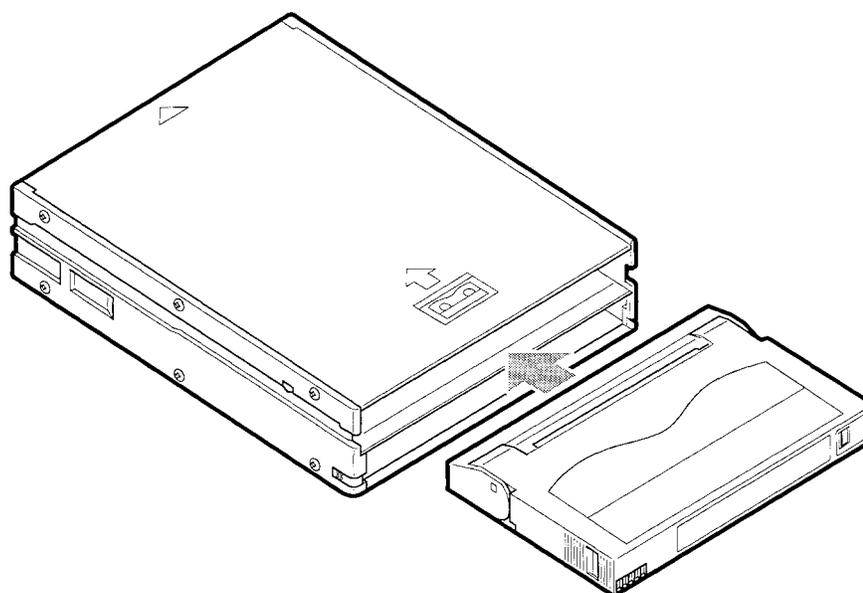
The AIT tape drive uses a magazine of four tapes, which it automatically rotates, to backup up to 140 GB of data. These tape cartridges move through the magazine in one direction only. To load the magazine:

1. Hold the magazine upright. Insert two tapes in the bottom slot. See Figure 4-6.



**Figure 4-6. Insert two tapes into the bottom slot**

2. Insert two tapes into the top slot. See Figure 4-7.



**Figure 4-7. Insert two tapes into the top slot**

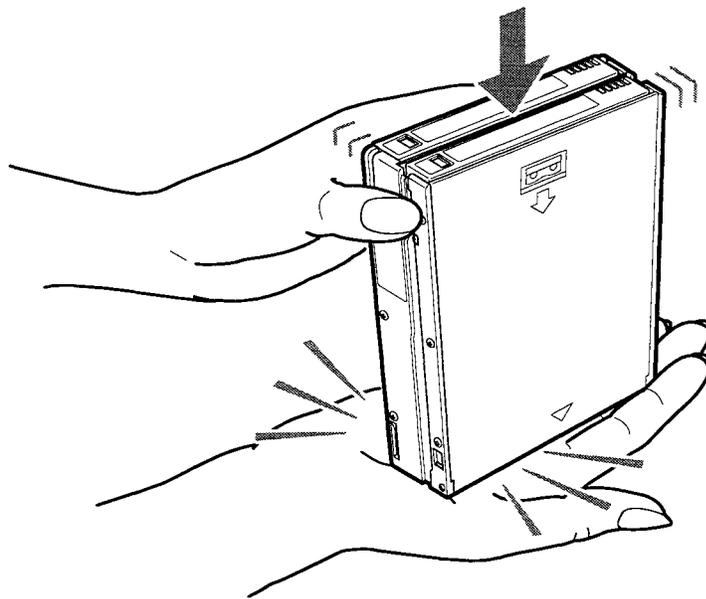
3. Insert the loaded magazine into the AIT drive.

## Unloading the Sony AIT tape magazine

1 3...  
2

The tape magazine is emptied from the bottom slot.

1. Hold the magazine in one hand with the open end tilted slightly downward.
2. Press the release button on the lower left side of the magazine (see Figure 4-3). The first tape slides out and the second tape slides into the first position. The third tape drops to the bottom slot.
3. Press the release button and the second tape slides out.
4. Press the release button and the third tape slides out.
5. Grasping the open end of the magazine in one hand, briskly tap the closed end of the tape drive against your open palm one time (see Figure 4-8). The fourth tape drops into the bottom slot.



**Figure 4-8. Tap the magazine against your palm to drop the fourth tape to the bottom slot**

6. Tilt the open end of the magazine downward and press the release button. The fourth tape slides out.

## Cleaning the Sony AIT tape drive heads

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Regular cleaning of the heads of the Sony AIT tape drive is necessary for maintaining reliable performance. The AIT tape drive displays the message "CleanReq" when cleaning is necessary. Use the following procedure to clean the heads:



1. If the tape magazine is in the drive, eject it.
2. Load the cleaning cartridge into the tape magazine in tape position 1, as shown in Figure 4-4. (To do this, remove the first tape and insert the cleaning cartridge in its place.)



*NOTE: The cleaning cartridge can be loaded in any position, but it is faster to load it in position 1.*

3. Insert the loaded tape magazine into the drive.
4. Push the <SELECT> button on the tape drive until the cleaning cartridge (tape 1) is selected.
5. Push the <ENTER> button on the drive.
6. You will see the following messages, in sequence:
  - "Load Tape"
  - "Cleaning in Process"
  - "Unload Tape 1"
  - "Ready"
7. Eject the magazine, remove the cleaning tape, and store it in its case until needed again.

## Using the AIT tape drive with DocuTech Tape Tool

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If you have installed an AIT tape device with the ARCserveIT software, you may encounter problems when using the DocuTech Tape Tool.

There are two methods for avoiding these problems.



*NOTE: The following procedure is recommended if you do not use the Tape Tool application very frequently (less than once per week).*

*Use this procedure each time you want to use the DocuTech Tape Tool.*



1. Before opening the DocuTech Tape Tool application, shut down the AIT services using the following steps:
  - a. Select [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager].
  - b. Select [Device Management].
  - c. Select [File: Stop All Engines].
  - d. Select [OK] to confirm the stop.
  - e. Select [File: Exit] and close the application.
2. Open and use the DocuTech Tape Tool application.
3. After using the DocuTech Tape Tool application, restart the AIT services.



*NOTE: The following procedure is recommended if you use the Tape Tool application often (more than once per week).*

*Use this procedure after installing the AIT tape device, but before using the DocuTech Tape Tool for the first time. Perform this procedure only once.*



1. Select [Start: Control Panel: Services].
2. Select [ARCserveIT Message Engine] and select [Startup].
3. Select [Manual] and select [OK].
4. Shut down and restart the system.

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## 5. Back up and restore

This chapter provides information and procedures for maintaining, backing up, and restoring the files and information stored on a DigiPath workstation and any of its components.

The topics covered in this chapter include:

- Backing up a DigiPath system
- Using Computer Associates ARCserveIT software
- Preparing the DigiPath workstation
- Backing up the DigiPath workstation hard drive or the 25/50 GB RAID device
- Restarting the DigiPath applications and services
- Backing up DigiPath data
- Backing up the RAID device to the AIT tape drive
- Restoring a DigiPath system

---

## **Backing up a DigiPath system**

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Backing up your DigiPath system is an important and necessary function. Should the DigiPath system experience an internal hard disk or RAID system failure, accidental file deletion, or other catastrophic event, a successful backup of data minimizes the amount of lost data and work. Using a successful and efficient backup strategy also reduces the amount of time required to restore the system to a fully operational state once the necessary hardware repairs have been made.

The following sections provide information on the backup devices, the backup and restore software, the various backup types, and backup strategies.

## Backup devices

---

Table 5-1 lists the backup devices and what each device is used to backup.

**Table 5-1. Backup devices**

Device	Used to back up
TR4 tape drive	Compaq 6300 <ul style="list-style-type: none"> <li>• 2 GB C drive</li> <li>• 2 GB D drive</li> <li>• 9 GB E drive</li> </ul>
TR5 tape drive	Compaq AP500/450, AP500/550 <ul style="list-style-type: none"> <li>• 2 GB C drive</li> <li>• 7 GB D drive</li> <li>• 9 GB E drive</li> </ul>
Sony DLT tape drive	25 and 50 GB RAIDs
Sony AIT tape drive	25 GB, 50 GB, 100 GB, 150 GB RAIDs

The following sections provide information on each of the backup devices.

### TR4

---

The TR4 tape drive has the following uncompressed and compressed backup rates:

- 4 GB uncompressed data at a backup rate of 30MB/minute
- 8 GB compressed data at a backup rate of 60MB/minute

The TR4 tape drive is used to backup a total of 13 GB on the C, D, and E drives. A full backup using a minimum of 1 tape takes approximately 3.61 hours. A full backup using a maximum of 2 tapes takes approximately 7.22 hours.

## TR5

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The TR5 tape drive has the following uncompressed and compressed backup rates:

- 10 GB uncompressed data at a backup rate of 60MB/minute
- 20 GB compressed data at a backup rate of 120MB/minute

The TR5 tape drive is used to backup a total of 18 GB on the C, D, and E drives. A full backup using a minimum of 1 tape takes approximately 2.5 hours. A full backup using a maximum of 2 tapes takes approximately 5 hours.

## Sony DLT

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The Sony DLT tape drive has the following uncompressed and compressed backup rates:

- 15 GB uncompressed data at a backup rate of 75MB/minute
- 30 GB compressed data at a backup rate of 150MB/minute

The Sony DLT tape drive is used to backup one or two 25/50 GB RAID devices. Table 5-2 provides the approximate time it takes to complete a full backup using the minimum and maximum number of tapes.

**Table 5-2. Sony DLT full backup time**

Storage	Tapes (minimum)	Tapes (maximum)	Full backup time (minimum)	Full backup time (maximum)
1 x 25 GB	1	2	2.78 hours	5.56 hours
2 x 25 GB	2	4	5.56 hours	11.11 hours
1 x 50 GB	2	4	5.56 hours	11.11 hours
2 x 50 GB	4	7	11.11 hours	22.22 hours

## Sony AIT

The Sony AIT tape drive supports two tape lengths; a 25/50 GB (170 meter) tape and a 35/70 GB (230 meter) tape. These two tapes have the following backup rates:

- 25 GB (170 meter) or 35 GB (230 meter) uncompressed data at a backup rate of 180MB/minute
- 50 GB (170 meter) or 70 GB (230 meter) compressed data at a backup rate of 360MB/minute

The Sony AIT tape drive is used to backup one or two 25 GB, 50 GB, 100 GB, 150 GB RAID devices. Table 5-2 provides the approximate time it takes to complete a full backup using the minimum and maximum number of tapes.

**Table 5-3. Sony AIT full backup time**

RAID configuration	Storage	Tapes (minimum) 35/70 GB (230 meter)	Tapes (maximum) 35/70 GB (230 meter)	Full backup time (minimum)	Full backup time (maximum)
1 x 25 GB	25 GB	1	1	1.16 hours	2.31 hours
2 x 25 GB or 1 x 50 GB	50 GB	2	4	2.31 hours	4.63 hours
1 x 25 GB and 1 x 50 GB	75 GB	2	3	3.47 hours	6.94 hours
2 x 50 GB	100 GB	2	3	4.63 hours	9.26 hours
1 x 100 GB	100 GB	2	3	4.63 hours	9.26 hours
1 x 50 GB and 1 x 100 GB or 1 x 150 GB	150 GB	3	5	6.94 hours	13.89 hours
1 x 25 GB and 1 x 150 GB	175 GB	3	5	8.10 hours	16.20 hours
1 x 50 GB and 1 x 150 GB or 2 x 100 GB	200 GB	3	6	9.26 hours	18.52 hours
1 x 100 GB and 1 x 150 GB	250 GB	4	8	11.57 hours	23.15 hours
2 x 150 GB or 1 x 300 GB	300 GB	5	9	13.89 hours	27.78 hours
2 x 300 GB	600 GB	9	18	27.78 hours	55.56 hours
2 x 9 GB (internal)	18 GB	0.26	0.51	0,83 hours	1.67 hours

## Backup and restore software

Table 5-4 lists and describes the two software programs used to backup and restore the DigiPath system.

**Table 5-4. Backup and restore software**

Backup and restore software	Description
Windows NT Backup utility	<p>Tool used to backup the following:</p> <ul style="list-style-type: none"> <li>• DigiPath workstation hard drive to the internal TR4/TR5 tape drive</li> <li>• 25 GB and 50 GB RAIDs to the external DLT tape drive</li> </ul> <p>To use the Windows NT Backup utility, you must be a member of either the Backup Operators group or the Server Operators group, or have Backup Files and Directories rights.</p>
ARCserveIT application	<p>Backup software application used to backup the 25, 50, 100, 150 GB RAID devices to the external Sony AIT tape drive.</p> <p>The job data on the RAID is highly compressed, so little additional compression can be achieved by using the compression algorithms in the Sony AIT tape drive. Thus, a 35/70 GB (230 meter) tape provides close to the uncompressed 140 GB capacity, not the 280 GB compressed capacity. Therefore, it is not likely that you will have room on the AIT tape set for the data from the hard drive.</p> <p><i>NOTE: The ARCserveIT archive software engines (in actuality, NT Services that manage tape, job, and database information for the ARCserveIT applications) conflict with the NT Backup Utility and prevent it from recognizing the TR5 tape drive. Before you can back up the workstation hard drive to the TR5 tape using the NT Backup utility, you must stop the ARCserveIT engines. See "Stopping the ARCserveIT engines" on page 5-19.</i></p>

## Understanding the various backup types

The backup strategies recommended by DigiPath Production Software use three different types of backups: full, differential, and incremental. Table 5-5 lists and describes these backup types.

**Table 5-5. Recommended backup types**

Backup Type	Description
Full	This type of backup copies every file on the selected drive(s) onto the tape.
Differential	This is an intermediate type of backup. It copies only those files that have been added or changed since the last full backup was performed.
Incremental	This is an intermediate type of backup. It copies only those files that have been added or changed since the most recent backup was performed, either full or incremental.

Each of the various backup types have their advantages and disadvantages. Table 5-6 lists and describes the advantages and disadvantages of each backup type.

**Table 5-6. Advantages and disadvantages of each backup type**

Backup Type	Advantages	Disadvantages
Full	This type of backup is the most complete and reliable type of backup.	This type of backup takes the longest amount of time and tape storage.
Differential	This type of backup requires the last full backup and the last differential backup if you need to restore a hard disk or RAID system.	This type of backup requires more tape and takes longer than incremental backups.
Incremental	This type of backup takes the least amount of time and tape storage.	This type of backup requires the last full backup and all of the incremental backup sets since the last full backup, if you need to restore a hard disk or RAID system. Also, if any incremental tapes are lost or damaged, it may not be possible to recover all the backed up data.



*NOTE: The Sony magneto-optical drive (MOD) can be backed up or duplicated to another MOD.*

A full backup is a necessary part of a backup strategy. Most often, full backups are used in combination with either differential or incremental backups. A combination of differential and incremental backups should not be used. The following section explains how to select and implement a backup strategy.

### **Selecting and implementing a backup strategy**

---

When backing up your DigiPath system, it is important to identify the backup strategy that is most efficient and effective for your situation. The backup strategy you select is determined by the number of new files or file changes made on a DigiPath workstation every day, week, or month. You should perform a full backup of both partitions on the hard drive and RAID system at least once a week. Most likely, you will want to back up the system more than once a week.

The most common backup strategies involve a combination of full backups with either incremental or differential backups. Some backup strategies require more time to back up data, but less time to restore. Others require less time to back up data, but more time to restore. It is important to understand your work environment and select a method that best supports your work activities.



*NOTE: Regardless of the backup strategy you select, it is recommended that you perform backups at the end of the work day rather than at the beginning. By backing up the DigiPath system at the end of the workday, you minimize the period of vulnerability to data loss.*

Table 5-7 lists and describes the recommended backup strategies.

**Table 5-7. Recommended backup strategies**

Backup strategy	Description
Full backups only	In this strategy, every time a backup is performed, all the data on the drive is backed up. This is an effective strategy to use when backing up the local hard drive to the internal tape drive. However, because of the amount of time and tape required, this strategy is not recommended for backing up the RAID device to the external DLT drive. This strategy is most efficient only when there are significant changes or additions to the contents of the drive being backed up.
Full backups combined with differential backups	In this strategy, after a full backup is performed, a series of differential backups is made until the next full backup is performed. This cycle repeats itself, with another series of differential backups followed by another full backup. This strategy is most efficient when the changes to the contents of the drive are localized to a small number of files.
Full backups combined with incremental backups	In this strategy, after a full backup is performed, a series of incremental backups is made until the next full backup is performed. This cycle repeats itself, with another series of incremental backups followed by another full backup. This strategy is most efficient when the changes to the contents of the drive are to different files.



*NOTE: A different backup strategy can, and probably should, be used for backing up the hard drive and backing up the RAID device.*

Once you choose the backup strategy that is most efficient for your DigiPath system, you need to decide on the frequency of the backups. It is recommended that you perform a full backup at least once a week. The scheduling of incremental or differential backups can then be arranged within the full backup cycle. The more critical the data stored on the DigiPath system, the more frequently you should back up the system.

After you choose a backup strategy and frequency, you need to organize the tapes and decide how they will be used to implement your backup strategy. For example, based on a five-day backup cycle (five working days between full backups), Table 5-8 lists the minimal tape usage for all three backup strategies. Notice how the different backup strategies require a different number of tapes. The more tapes you can use for backups, the longer they last because they will not be used as frequently as if you had the minimum number of required tapes.

**Table 5-8. Tape usage and backup strategies**

<b>Backup Day</b>	<b>Tape usage with full backup only</b>	<b>Tape usage with full and differential backups</b>	<b>Tape usage with full and incremental backups</b>
Week 1, Day 1	Tape #1	Tape #1 (full)	Tape #1 (full)
Day 2	Tape #2	Tape #2 (differential)	Tape #2 (incremental)
Day 3	Tape #1	Tape #3 (differential)	Tape #3 (incremental)
Day 4	Tape #2	Tape #2 (differential)	Tape #4 (incremental)
Day 5	Tape #1	Tape #3 (differential)	Tape #5 (incremental)
Week 2, Day 1	Tape #2	Tape #4 (full)	Tape #6 (full)
Day 2	Tape #1	Tape #1 (differential)	Tape #1 (incremental)
Day 3	Tape #2	Tape #2 (differential)	Tape #2 (incremental)
Day 4	Tape #1	Tape #1 (differential)	Tape #3 (incremental)
Day 5	Tape #2	Tape #2 (differential)	Tape #4 (incremental)
Week 3, Day 1	Tape #1	Tape #3 (full)	Tape #5 (full)

NOTE: Depending on your selected backup cycle and strategy, you may need to order additional backup tapes from your supplier. DigiPath Production Software includes one backup tape each with both the internal tape drive and the optional external DLT drive.



*NOTE: You may want to archive or store monthly full backups rather than recycle them.*

Table 5-8 represents only a sample backup cycle based on the typical five-day work week. If you choose, you can implement a three-day cycle (Monday, Wednesday, Friday) or any cycle that is most effective and convenient for your environment. The backup cycle and backup strategy you use determines the number of tapes required. Also, depending on the amount of data being backed up, backups may require more than one tape. In such a case, with relation to Table 5-8, each tape is actually a collection of tapes. For example, Tape #1 would actually be tapes 1a and 1b if two tapes were required to complete the backup.

## Backup media

---

Xerox recommends that you use multiple backup media sets for each device. Having multiple backup sets provides additional security in the event that one set is corrupted or damaged. Table 5-9 lists the minimum recommendation for each device:

**Table 5-9. Minimum recommendation**

Tape drive	Minimum recommendation
TR4	At least two TR4 tape cartridges. Alternate backups between tapes. Make the first backup on the first cartridge, make the second backup on the second cartridge. For the third backup, overwrite the first tape cartridge. And so on.
TR5	At least two TR5 tape cartridges. Alternate backups between tapes. Make the first backup on the first cartridge, make the second backup on the second cartridge. For the third backup, overwrite the first tape cartridge. And so on.
Sony DLT	At least two DLT tape cartridges. Alternate backups between tapes. Make the first backup on the first cartridge, make the second backup on the second cartridge. For the third backup, overwrite the first tape cartridge. And so on.
Sony AIT	At least two sets (eight tape cartridges) per RAID. Use the same alternating strategy described for the TR5 hard drive backup.

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## Computer Associates ARCserveIT software

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In the DigiPath configuration, the ARCserveIT software suite is intended to be used for manually backing up the RAID device only. The backup procedure is simple and has been tested to ensure compatibility with the existing DigiPath hardware and software components.



### CAUTION

*ARCserveIT comprises a powerful suite of applications that allow for complex, fully automated backup and archive management strategies. You are cautioned, however, to completely investigate the capabilities of ARCserveIT before modifying the basic backup strategy presented herein. Some of the ARCserveIT applications and services conflict with key components of the DigiPath Production Software configuration if not used carefully. Additionally, failure to understand the impact of innovative uses of the ARCserveIT applications on the complete DigiPath backup and restore strategy may lead to incomplete backups and / or a loss of your data.*

---

### Resolving conflicts with the Windows NT Backup utility

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ARCserveIT does not support the TR4/TR5 tape drives. Therefore, use the Windows NT Backup utility to back up the workstation hard drive to the TR4/TR5 tape. However, the ARCserveIT engines (Windows NT Services used for scheduling backup jobs, tracking the archive database, sending system messages, etc.) conflict with the NT Backup utility. The NT Backup utility is unable to recognize the TR5 internal tape drive while the ARCserveIT tape engine is running.

To enable the NT Backup utility to recognize and operate the TR5 tape drive, you must first stop the ARCserveIT tape engine if it is running. For more information, refer to "Stopping the ARCserveIT engines" on page 5-19.

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## Resolving conflicts with the Hummingbird NFS

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If your DigiPath configuration includes the optional Hummingbird Network File System, the following procedure, if required, was performed by your Xerox representative during installation. It is included here for your reference only.



To avoid a catastrophic conflict, the ARCServeIT Message Engine (a Windows NT service) must be started after the Hummingbird HCLNFSServer service. To make sure the HCLNFSServer service is started first, perform the following procedure:

1. Select [Start: Settings: Control Panel] from the Windows desktop.
2. Double-click the Services icon. The Services dialog box opens.
3. Highlight [ARCserveIT Message Engine] in the Services list box.
4. Select the [Startup] button.
5. Select [Manual].
6. Select [OK].
7. Reboot the DigiPath workstation.

---

## Preparing the DigiPath workstation

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The general steps for preparing the DigiPath workstation for backup and restore are outlined below. Refer to the appropriate sections for specific details.

1. Notify and disconnect any remote users.
2. Close any open applications.
3. Stop the DigiPath services.

---

### Disconnecting remote users

---

The backup software skips files that are in use. To guarantee a complete backup, you must be sure all users are logged off or disconnected from the system and that they remain disconnected from the system until the completion of the backup.



1. Notify any users connected to the workstation that they should close any files or applications they are currently using on the workstation and disconnect from the workstation.



*NOTE: You can manually disconnect users using the Server icon in the Control Panel. However, if you disconnect the users, any files they are editing on the current workstation will be lost.*

- a. Select [Start: Programs: Command Prompt] from the Windows desktop. The Command Prompt opens.
- b. At the prompt, type the following command:

**net send <destination> <message>**

The <destination> is either the name of the connected computer or an asterisk (\*), which sends the message to every computer within the current workgroup. The <message> should tell the user or users to close any applications or files they have open on the workstation.

- c. Press <Enter> to send the message to the specified destination.
- d. Close the Command Prompt window.

## Closing any open applications

---

Before backing up and restoring the DigiPath 2.0 system, close any open files and exit any open applications on the workstation.



*NOTE: Any files that remain opened and locked by applications are not backed up.*

---

## Stopping the DigiPath applications and services

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The DigiPath applications and services must be stopped before backing up the DigiPath system. You can stop the DigiPath services using the Services utility or using a batch utility. See the following sections for the procedures for stopping the DigiPath applications and services.

---

### Closing the DigiPath applications

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Close the following DigiPath applications:

- Network Agent Sys Tray by right-mouse clicking on the [Network Agent] icon on the task bar and selecting [Exit] from the drop-down menu.
- Batch Tool Sys Tray by right-mouse clicking on the [DigiPath Batch Systems] icon on the task bar and selecting [Close] from the drop-down menu.

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### Using the Services utility to stop the services

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To stop the DigiPath services using the Services utility:

1. From the Control Panel, double-click the [Services] icon to open the Services dialog box.
2. For the following services, stop each service by selecting it, selecting [Stop], and selecting [OK] or [Yes] to any confirmation messages that display:
  - Services for all configurations:
    - Auth Service
    - Remote Print Service
  - Services specific to configurations with the Document Library applications installed:
    - DigiPath Batch Server
    - NobleNet Portmapper (stopping this service also stops the DigiPath Document Library Server, Visual Recall Application Server, and Document Conversion Service services)
    - OracleOraHome81TNSListener
    - OracleServiceORCL
  - Services specific to Web Viewing and Submission configurations:

- IIS Admin Service (stopping this service also stops the World Wide Web Publishing Service)
- Document Conversion Service

### **Using the batch utility to stop the services**

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The DigiPath services can also be stopped using the following batch utility: <drive>:\digipath\XSTOPDGP.BAT

1. Select [Start: Run] from the Windows desktop. The Run dialog box opens.
2. In the text box, enter  
**<digipath drive>:\digipath\XSTOPDGP.BAT**
3. Select [OK] to run the batch file.

---

## Backing up the workstation hard drive or the 25/50 GB RAID

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The following sections provide detailed instructions for backing up the workstation hard drive to the internal TR4/TR5 tape drive and the 25/50 GB RAID device to the DLT tape drive.

---

### Preparing the workstation for backup

---



#### CAUTION

*Before performing this procedure, be sure the DigiPath workstation has been prepared for the backup.*



To prepare the workstation for backup:

1. Prepare the workstation for backup by completing the procedure “Preparing the DigiPath workstation” on page 5-15.

---

### Stopping the ARCserveIT engines

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To enable the Windows NT Backup utility to recognize and operate the TR4/TR5 tape drive or the DLT tape drive, you must first stop the ARCServeIT tape engine if it is running.



To stop the ARCServeIT tape engine:

1. Select [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager] from the Windows desktop. The Quick Access screen opens.
2. Select the Classic Quick Access tab.
3. Select the [Device Management] button.
4. From the menu bar, choose [File: Stop All Engines] and select [OK] to confirm the stop.
5. From the menu bar, select [File: Exit] to close the ARCserveIT window.
6. Select [OK] to confirm.

---

## Backing up the workstation hard drive or the 25/50 GB RAID device

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Use this procedure to back up the local hard drive on a DigiPath workstation or the 25/50 GB RAID device.



*NOTE: This procedure uses the internal TR4/TR5 tape drive to backup the workstation hard drive and the DLT tape drive to backup the 25/50 GB RAID device.*

1. Insert a blank tape into the appropriate tape drive.
2. Select [Start: Programs: Administrative Tools (Common): Backup] from the Windows desktop. The Backup application window opens.
3. Select [Operations: Hardware Setup] from the menu bar. The Hardware Setup dialog box opens.
4. From the Tape Drive drop-down list box, select the appropriate tape drive.
5. Select [OK].
6. If the drives window is minimized, restore it to view the list of drives.
7. Mark the check boxes for the appropriate drives and ensure the check boxes for all other drives are cleared. Or, select the appropriate drive letter and select [Select: Check] for each drive in which you wish to backup.
8. Select [Operations: Backup] from the menu bar. The Backup Information dialog box opens.
9. Mark the check boxes for the following options:
  - Verify After Backup
  - Backup Local Registry (If you are backing up the C: drive.)
  - Restrict Access to Owner or Administrator
10. Select [Replace] under Operation.
11. Under the Backup Type drop-down list, select [Normal] for a full backup. Otherwise, select [Differential] or [Incremental] depending on the backup strategy you choose.
12. Under Backup Set Information, enter a description for the backup in the Description text box.
13. Select [OK]. The Backup Status dialog box opens, and the backup begins.



*NOTE: Change tapes as often as necessary until the backup completes.*

14. When the backup and verification is complete, select [OK] to close the Backup Status dialog box.
15. Remove the tape, and label and date it.
16. Choose [Operations: Exit] to close the Backup application.



*NOTE: If backing up the 25/50 GB RAID, refer to the procedure, "Backing up DigiPath data" on page 5-24 to backup the DigiPath database located on the DigiPath drive, if applicable.*

## Starting the ARCserveIT engines

---



To start the ARCServeIT tape engine:

1. From the Windows desktop, select [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager]. The Quick Access screen opens.
2. Select the Classic Quick Access tab.
3. Select the [Device Management] button.
4. From the menu bar, select [File: Start All Engines] and select [OK] to confirm the stop.
5. From the menu bar, select [File: Exit] to close the ARCServeIT window.
6. Select [OK] to confirm.

## Restarting the DigiPath applications and services

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To restart the DigiPath applications and services:

1. Restart the DigiPath applications and services by completing the procedure "Restarting the DigiPath applications and services" on page 5-22.

---

## Restarting the DigiPath applications and services

---

When the backup or restore process is complete, you need to restart the DigiPath applications and services. The following sections provide detailed instructions for restarting the DigiPath applications and services.

### Starting the DigiPath applications

---

Restart the following DigiPath applications:

- Network Agent Sys Tray by selecting [Start: Programs: Startup: Network Agent Sys Tray] from the Windows desktop.
- Batch Tool Sys Tray by selecting [Start: Programs: Startup: Batch Tool Sys Tray] from the Windows desktop.

---

## Starting the DigiPath services

---



To restart the DigiPath services:

1. From the Control Panel, double-click on the [Services] icon to open the Services dialog box.
2. For the following services, restart each service by selecting it and selecting [Start]:
  - Services for all configurations:
    - Auth Service
    - Remote Print Service
  - Services specific to configurations with the Document Library applications installed:
    - DigiPath Batch Server
    - DigiPath Document Library Server (starting this service also starts the NobleNet Portmapper and Visual Recall Application Server services)
    - OracleOraHome81TNSListener
    - OracleServiceORCL
  - Services specific to Web Viewing and Submission configurations:
    - Document Conversion Service
    - World Wide Web Publishing Service (starting this service also starts the IIS Admin Service)
3. Select [Close] to close the Services dialog box.
4. Select [File: Close] to close the Control Panel.

---

## Backing up DigiPath data

---

Use the `xdbbackup` utility to backup your entire DigiPath repository or individual cabinets. The `xdbbackup` utility backs up the attributes or the file data along with the attributes.

The `xdbbackup` utility has four optional arguments. Table 5-10 lists and describes the argument options.

**Table 5-10. Optional arguments**

Argument	Description
<code>--all</code>	Backs up all cabinets.
<code>--cab &lt;cabinet name&gt;</code>	Backs up an individual cabinet.
<code>--Data</code>	Backs up the file data in the cabinets. <i>NOTE: Without this option, the file data that has been imported into the cabinets is not backed up to the backup directory.</i>
<code>&lt;Backup Directory&gt;</code>	The directory in which the backup data is stored.

For example:

- **`xdbbackup --All e:\BackupDirectory`**  
Backs up all of the cabinets, but not the data, to the directory `e:\BackupDirectory`
- **`xdbbackup --data --cab TestCabinet1 e:\BackupDirectory`**  
Backs up the cabinet, `TestCabinet1` with the data to the directory `e:\BackupDirectory`

When backing up an individual cabinet, take the cabinet offline before using the `xdbbackup` utility.

Back up the data to tape to ensure a proper restore.

When backing up cabinets with the data to the hard drive, you must ensure that there is sufficient disk space to perform the backup.

When you backup the data directly to tape, you should offline the cabinets before running the `xdbbackup` utility or backing up the data to tape. The cabinets should be kept offline until the backup of the data is complete. If the cabinet is not taken offline, there is the potential that data could be deleted before it is backed up to tape.



To run the DigiPath data backup utility:

1. Select [Start: Programs: Command Prompt] from the Windows desktop. The Command Prompt opens.
2. At the prompt, enter: **xdbbackup <parameter>**  
**<parameter> e:\BackupDirectory**



*NOTE: You must delete any existing backup files before running the utility.*



*NOTE: If no arguments are defined, a syntax help message displays.*

3. Press [Enter].



*NOTE: Xdbbackup prints out the full path to the backup directory in which you need to back up to tape.*

4. When complete, the system returns to the system prompt.
5. Enter: **exit** to close the command prompt window.
6. Backup the backup directory to tape. Refer to the procedure “Backing up the workstation hard drive or the 25/50 GB RAID” on page 5-19.

---

## Backing up the RAID device to the AIT tape drive

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The following sections provide detailed instructions for backing up the RAID device to the AIT tape drive using the ARCserveIT backup software.

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### Preparing the workstation for backup

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#### CAUTION

*Before performing this procedure, be sure the DigiPath workstation has been prepared for the backup.*



To prepare the workstation for backup:

1. Prepare the workstation for backup by completing the procedure “Preparing the DigiPath workstation” on page 5-15.

---

### Loading a tape magazine

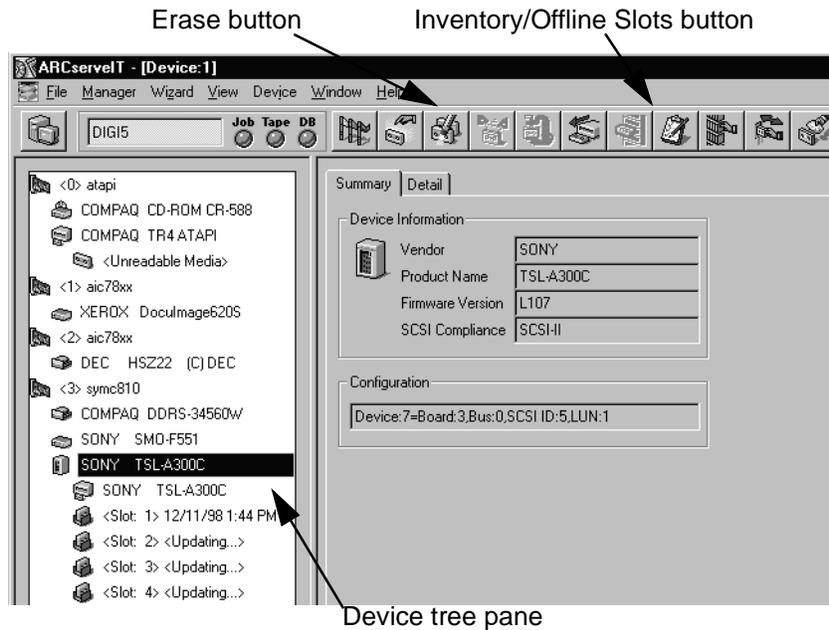
---

Before backing up the RAID, completely erase the previous backup. This ensures that the new backup is complete and thorough. It is also the reason why you should have at least two backup sets. If a problem arises while erasing and backing up to one set, there is always another intact backup set available from which to restore.



To load and erase a tape magazine:

1. Insert a loaded magazine into the Sony AIT tape drive.
2. Open the ARCserveIT Manager application by selecting [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager]. The ARCserveIT engines restart.
3. Select the [Classic Quick Access] tab.
4. Select the [Device Management] button.
5. Select the [SONY TSL-A300C] device from the device tree pane on the left of the display (see Figure 5-1). The AIT drive will be cycling through the tapes, loading, reading, and rewinding each in turn. The slots listed beneath the device name have the term “Updating...” next to them. Each slot in turn displays the contents of the tape in that slot as the tape is read.



**Figure 5-1. ARCserveIT Device Management window**

6. After all slots have been updated and the AIT tape drive has finished cycling through the tapes, select the [Erase] button on the tool bar (see Figure 5-1). From the Erase dialog, select each slot. To do this, click on the button to the left of slot 1, hold the <SHIFT> key down, and select the button to the left of slot 4.
7. Select the [Quick Erase] radio button.
  - a. Select [OK] to erase the tapes.
  - b. Select [OK] when the warning message appears.
8. When the erase operation is complete, select [OK].

## Backing up the RAID device

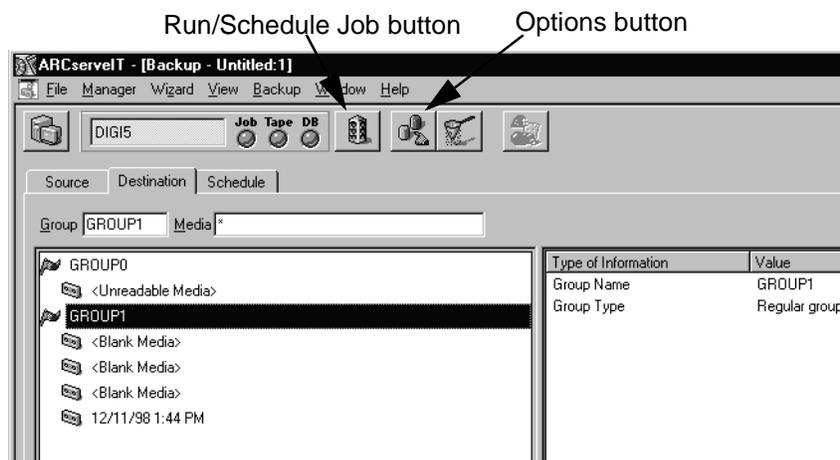
1 3...  
2

To back up the RAID device:

1. Select [Manager: Backup] from the menu bar.
2. Select the drive letter representing the RAID as the source of the backup.
3. Select the [Destination] tab.
4. Select [Group 1] from the list. (See Figure 5-2.)



*NOTE: Group 0, which represents the TR5 drive, is listed as "unreadable media."*

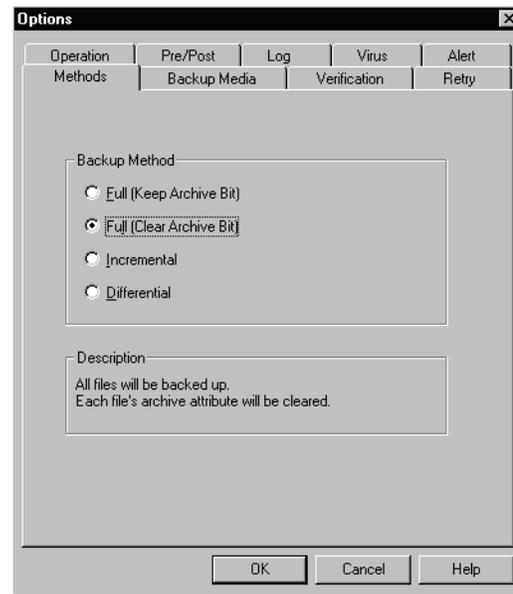


**Figure 5-2. Select the backup destination**

5. Select the [Schedule] tab. Select [Custom Schedule] and [Run Now].
6. Select the [Options] button. (See Figure 5-2.)

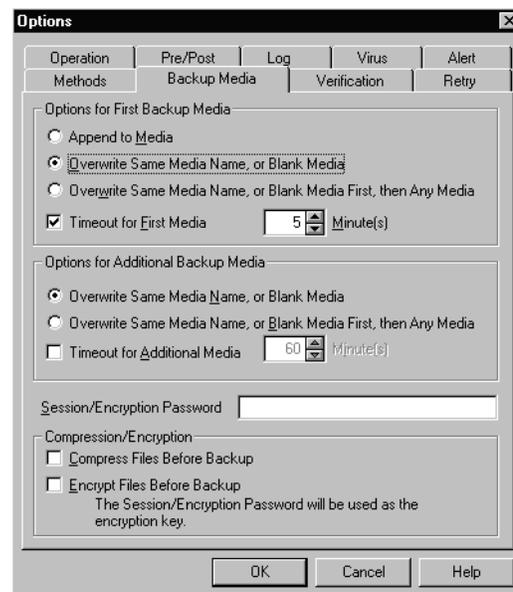
Make the following selections in the Options dialog box:

- a. Select the [Methods] tab. Select the [Full (Clear Archive Bit)] radio button. (See Figure 5-3.)



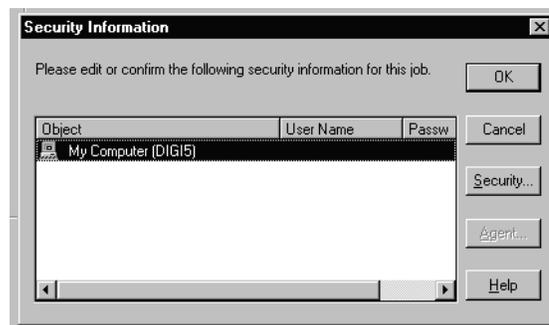
**Figure 5-3. Options dialog box, Methods tab**

- b. Select the [Backup Media] tab. In the Options for First Backup Media section, select the [Overwrite Same Media Name, or Blank Media] radio button. In the Options for Additional Backup Media section, select the [Overwrite Same Media name, or Blank Media] radio button. (See Figure 5-4.)



**Figure 5-4. Options dialog box, Backup Media tab**

- c. Select the [Log] tab. Select [Log Summary Only].
  - d. Select the [Verification] tab. Select the desired verification level.
  - e. Select [OK] to save the Options settings and close the dialog box.
7. Select the [Run/Schedule] button on the tool bar.
  8. If you wish to protect the backup with a password use the following procedure; otherwise advance to step 9.
    - a. Select the object in the Security Information dialog box (see Figure 5-5) and select the [Security...] button.



**Figure 5-5. Select the object to receive password security**

- b. Enter the appropriate user name and password in the Security dialog box (see Figure 5-6).



**Figure 5-6. Enter user name and password**

- c. Click [OK] to close the Security dialog box.
- d. Click [OK] to close the Security Information dialog box.

9. For the description, enter the tape set number (depending on the number of backup tape sets you have chosen to keep) and the type of backup.
10. Select [OK] to continue. The Job Status screen opens.
11. When the backup and verification is complete, select [File: Exit] to close the ARCserveIT Manager.
12. Press the <EJECT> button on the Sony AIT tape drive.
13. Remove the tape cartridges from the magazine, label them, and store them together in a secure location.



*NOTE: Refer to the procedure, "Backing up DigiPath data" on page 5-24 to backup the DigiPath database located on the DigiPath drive, if applicable.*

## Restarting the DigiPath applications and services

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To restart the DigiPath applications and services:

1. Restart the DigiPath applications and services by completing the procedure "Restarting the DigiPath applications and services" on page 5-22.

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## Restoring a DigiPath system

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If the DigiPath system experiences an internal hard disk or RAID system failure, accidental file deletion, or other catastrophic event, the amount of time required to restore the file or system is determined by the backup cycle and strategy you selected. If the backup strategy and cycle you selected are efficient and effective for your environment, you should be able to restore most, if not all, of the data lost due to hardware failure or accidental deletion.



*NOTE: Your Xerox service representative restores the hard disk after replacing or repairing it. You are responsible only for locating the necessary backup tapes and having them available when the Xerox service representative needs them. Do not restore the hard disk yourself unless instructed to do so.*

Use the Windows NT Backup utility as the tool to restore the DigiPath workstation hard drive from the internal TR4/TR5 tape drive and restore the 25/50 GB RAID device from the external DLT tape drive. This utility allows you to restore files on both FAT and NTFS volumes. To use the Windows NT Backup utility, you must be a member of either the Backup Operators group or the Server Operators group, or have Backup Files and Directories rights.

Use the ARCserveIT software to restore the 25 GB, 50 GB, 100 GB, and 150 GB RAID device from the Sony AIT tape drive.

The following sections provide detailed instructions for restoring the Digiath system.

## Restoring the workstation hard drive or the 25/50 GB RAID device

---

Use the following procedure to restore the DigiPath workstation hard drive or the 25/50 GB RAID device.



To restore the DigiPath workstation hard drive or the 25/50 GB RAID device from tape:

1. Prepare the workstation as you would for a backup. Refer to “Preparing the DigiPath workstation” on page 5-15.



*NOTE: You cannot restore a file if it is opened and locked by an application.*

2. Locate and have ready the tape or tapes required to restore the DigiPath workstation or 25/50 GB RAID device.
3. Insert the backup tape into the appropriate tape drive.
4. Select [Start: Programs: Administrative Tools: Backup] from the Windows desktop. The Backup application window opens.
5. If necessary, specify the appropriate tape drive to be used.
  - a. Select [Operations: Hardware Setup] from the menu bar. The Hardware Setup dialog box opens.
  - b. From the Tape Drive drop-down list box, select the appropriate tape drive.
  - c. Select [OK] to select the tape drive and close the Hardware Setup dialog box. The Tapes window displays the backup set stored on the current tape.
6. Select [Window: Tape].
7. Select [Operations: Catalog] to update the system’s catalog of backup sets.
8. In the Tapes window, select the check boxes next to the files you want to restore. Double-click on folders to open them and view the files and folders within them.
9. Select [Operations: Restore] from the menu bar. The Restore Information dialog box opens.
10. Enter the necessary information.



*NOTE: When restoring files, you should always restore them to the same drive and directory from which they were backed up.*

- a. If necessary, select a different drive from the Restore to Drive drop-down list box. The default is the original drive and directory in which the file was located and should not require any changes.
  - b. Make sure the following check boxes are selected:
    - Restore Local Registry
    - Restore File Permissions
    - Verify After Restore
11. Select [OK] to close the Restore Information dialog box and start the restore process.
- The Restore Status dialog box opens and displays the current status of the file restoration as it progresses. If the files exist already on the workstation, you must confirm their replacement. After the restore process completes, the Restore Status dialog box changes to the Verify Status dialog box and the verification process automatically begins.
12. After the restore and verification processes complete, select [OK] to close the Verify Status dialog box.
- Once the selected file or files are restored, you may need to restart the workstation before you can use the files. Files that may require restarting the workstation include application, application extension, configuration settings, registry, or system files.
13. Select [Operations: Eject Tape]. Wait for the tape to rewind then remove the tape from the tape drive.
14. Return the tape to its plastic case and place it in a secure storage area.
15. Select [Operations: Exit] to close and exit the Backup application window.
16. Restart the DigiPath applications and services. Refer to “Restarting the DigiPath applications and services” on page 5-22.



*NOTE: If restoring the 25/50 GB RAID, refer to the procedure, “Restoring the DigiPath data” on page 5-35 to restore the DigiPath database located on the DigiPath drive, if applicable.*

## Restoring the DigiPath data

---

Use the `xdbrestore` utility to restore your entire DigiPath repository database or individual cabinets. `Xdbrestore` restores the data along with the attributes, or restores only the attributes.

The `xdbrestore` utility has three optional arguments. Table 5-10 lists and describes the argument options.

**Table 5-11. Optional arguments**

Argument	Description
<code>—all</code>	Restores all cabinets and data.
<code>—cab &lt;cabinet name&gt;</code>	Restores an individual cabinet.
<code>&lt;Backup Directory&gt;</code>	The directory in which the backup data is stored.

For example:

- **`xdbrestore —All e:\BackupDirectory`**  
Restores all of the cabinets from the backup directory.
- **`xdbrestore —cab e:\TestCabinet1 e:\BackupDirectory`**  
Restores the cabinet, `TestCabinet1` with the data from the directory `e:\BackupDirectory`

When restoring from the workstation hard drive, enter the `xdbrestore` command only.

When restoring a cabinet where the data has been backed up to tape, you must restore the data from tape and use the `xdbrestore` utility to restore the attribute data and cabinets.



To run the DigiPath data restore utility:

1. Select [Start: Programs: Command Prompt] from the Windows desktop.
2. At the prompt, enter: **xdbrestore.exe**



*NOTE: If no arguments are defined, a syntax help message displays.*

3. Press [Enter].
4. When complete, the system returns to the system prompt.
5. Enter: **exit** to close the command prompt window.

## Restoring a RAID device

---



Use the following procedure to restore a RAID device for a DigiPath system. This procedure restores all files to the drive.

1. Prepare the workstation as you would for a backup. Refer to “Preparing the DigiPath workstation” on page 5-15.



*NOTE: You cannot restore a file if it is opened and locked by an application.*

2. Locate the AIT tape set required to restore the drive. Load the tapes into the magazine. The order in which you load the tape does not matter.
3. Insert the magazine into the AIT drive.
4. Select [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager] from the Windows desktop.
5. Select the [Classic Quick Access] tab.
6. Select [Device Management] button.
7. In the Device list, select the SONY TSL-A300C device.
8. Select the [Inventory/Offline Slots] button from the toolbar.
9. Select slots 1 through 4 and select [OK].
10. Select [Manager: Restore] from the menu bar.
11. Select the [Source] tab.
12. Select [Restore by Session] from the drop-down list.
13. Select the tape and session you wish to restore.
14. Select the [Destination] tab.
15. Select [Restore Files to Original Location].
16. Select the [Schedule] tab.
17. Select the [Run Now] radio button.
18. Click on the [Run/Schedule] button on the toolbar.
19. In the Security dialog box, enter the appropriate user name and password, if applicable.
20. Select [OK] to continue.
21. Select [OK] to accept the session password.
22. Select [OK] to accept the summary. The files are restored to the selected location.

23. Restart the DigiPath applications and services. Refer to “Restarting the DigiPath applications and services” on page 5-22.



*NOTE: Refer to the procedure, “Restoring the DigiPath data” on page 5-35 to restore the DigiPath database located on the DigiPath drive, if applicable.*

## Restoring specific files to the RAID device

---



Use the following procedure to restore specific files to a RAID device for a DigiPath system. This procedure restores all files to the drive.

1. Prepare the workstation as you would for a backup. Refer to “Preparing the DigiPath workstation” on page 5-15.

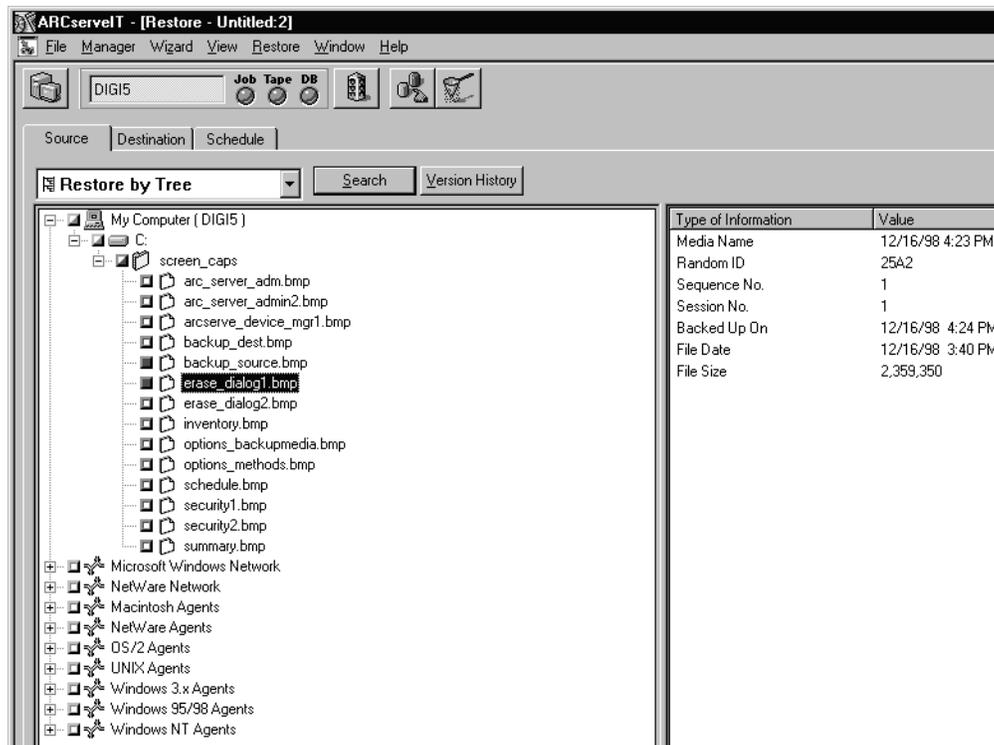


*NOTE: You cannot restore a file if it is opened and locked by an application.*

2. Locate the AIT tape set with the files to be restored. Load the tapes into the magazine. The order in which you load the tape does not matter.
3. Insert the magazine into the AIT drive.
4. Select [Start: Programs: ARCserveIT for Windows NT: ARCserveIT Manager] from the Windows desktop.
5. Select the [Classic Quick Access] tab.
6. Select the [Device Management] button.
7. In the Device list, select the SONY TSL-A300C device.
8. Select the [Inventory/Offline Slots] button from the toolbar.
9. Select the [Regular Inventory] radio button.
10. Select slots 1 through 4 and select [OK].

The AIT tape drive cycles through the tapes and updates the description for each slot in the device tree pane.

11. When the AIT tape drive has finished cycling through the tapes, select [OK] in the Inventory Complete message box.
12. Select [Manager: Restore] from the menu bar.
13. Select the [Source] tab.
14. Select [Restore by Tree] from the drop-down list (see Figure 5-7).



**Figure 5-7. Restore Source tab**

15. Select the files to restore.
16. Select the [Destination] tab.
17. You can choose to restore the files to their original location or to another location. If you want to restore to the original location, select [Restore Files to Original Location]. Otherwise, deselect [Restore Files to Original Location] and choose the desired location for the restored files.
18. Select the [Schedule] tab.
19. Select the [Run Now] radio button.
20. Click on the [Run/Schedule] button on the toolbar.
21. In the Security dialog box, enter the appropriate user name and password, if applicable.
22. Select [OK] to continue.
23. Select [OK] to accept the session password.
24. Select [OK] to accept the summary. The files are restored to the selected location.

25. Restart the DigiPath applications and services. Refer to “Restarting the DigiPath applications and services” on page 5-22.



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## 6. System administration

This chapter identifies and describes the procedures needed to administer and support the DigiPath system.

Topics covered in this chapter include:

- using the Library Administration Tool
- managing user accounts
- managing user group accounts
- configuring workgroup connections
- configuring the database and cabinet creation locations
- using the Document Conversion Service
- defragmenting cabinets
- using the DocuTech Tape Tool
- using WFTPD to FTP objects from DocuTech
- configuring a Remote File Server

---

## Using the Library Administration Tool

---

The Library Administration Tool provides several utilities used to administer and support the DigiPath Document Library applications. Table 6-1 lists and describes the Library Administration Tool utilities.

**Table 6-1. Library Administration Tool utilities**

Utility	Description
Cabinets and Attributes	Allows you to add a new cabinet, delete a cabinet, purge the contents of a cabinet, and define and edit the properties of new or existing cabinets.
Users	Allows you to add, delete, and modify user and user group accounts.
Workgroup	Allows you to add and remove access to remote machines.
System	Allows you to define the local location of the database and define a user's ability to create cabinets on local and remote drive.
Conversion	Allows you to set and modify batch document conversion.
Database Defrag	Allows you to defragment cabinets.

## Logging on to the Library Administration Tool

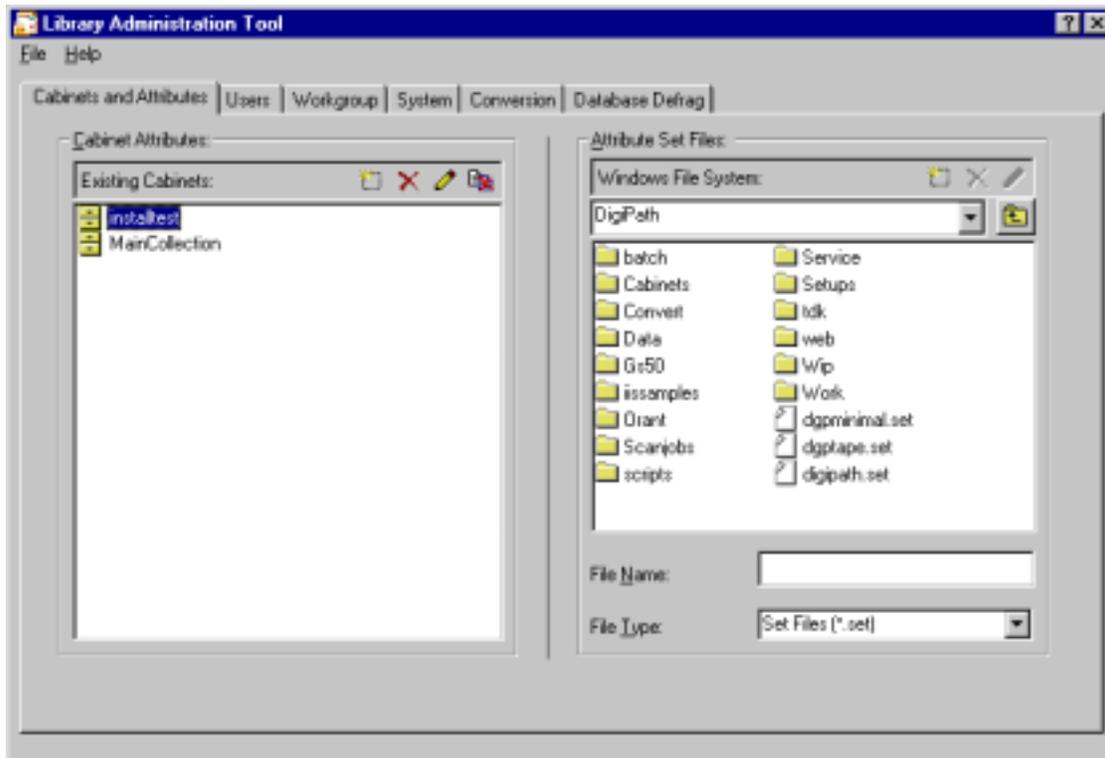
1 3...  
2

To log on to the Library Administration Tool:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop. The Document Library Login dialog box opens.
2. If necessary, provide a password to logon to the Library Administration Tool. The Library Administration application opens. See Figure 6-1.



*NOTE: The Document Library Login displays the first time you log on to the Document Library Service. See your System Administrator for the correct User Name and Password. Do not select to remember the password.*



**Figure 6-1. Library Administration application**

3. Select [File: Exit] to close the Library Administration Tool.

---

## Managing user accounts

---

Use the Users utility to set and modify user access to Document Library applications. Access to Document Library applications is restricted to those with user accounts. User accounts can be activated to allow access from the local workstation only, or can include web access.

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### Adding a user account

---

User accounts are login accounts that allow users access to Document Library applications. Without a user account, a user cannot access Document Library applications.

A user account specifies logon name and password. It also specifies whether that user is limited to logging on to Document Library applications from the local workstation and/or from the web.

1 3...  
2

To add a new user account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool. See Figure 6-2.

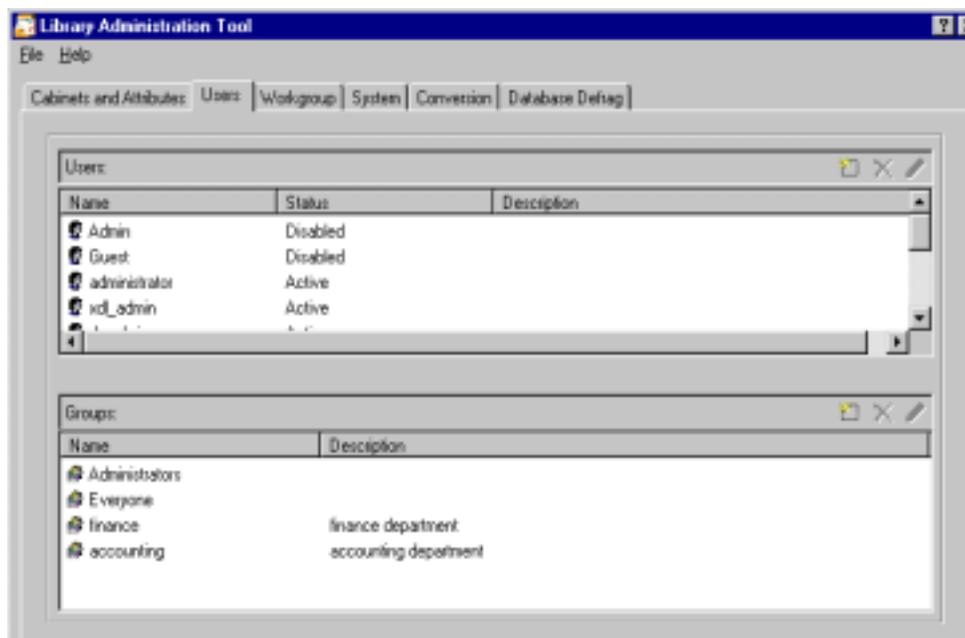


Figure 6-2. Users tab

3. Select the [New] icon button on the Users Toolbar. Or, select [Edit: New User] from the menu bar. The New User dialog box opens. See Figure 6-3.

**Figure 6-3. New User dialog box**

4. Enter the user name in the Name text box.



*NOTE: A user name cannot be identical to any other user or group name of the machine being administered. A user name cannot consist solely of periods (.) and spaces. It can contain up to 20 uppercase and lowercase characters except for the following: “/\[ ] : ; | = , + \* ? < > .*

5. Enter in a password in the Password text box up to 14 characters.



*NOTE: Passwords are case-sensitive.*

6. Re-enter the password in the Confirm Password text box to confirm the password.
7. Enter a description for the user account in the Description text box. This field is optional.
8. Select the Group Membership for the user.

- To add users to the group, highlight the users from the Available Users list, then select [>>] to add the users to the Current Users list.
- To remove the users from the group, highlight the users from the Current Users list, then select [<<] to move the users to the Available User list.

9. Mark the Active Status check box to activate the user account.



*NOTE: To disable the user account, leave the Active Status check box blank.*

10. Mark the Local and/or Web User Type check boxes to select the type of user.

- Local — User has access to cabinets on the local machine.
- Web — User has access to the Web Viewing and Submission Server as a web user.

11. Select [OK] to close the dialog box and save the changes. Otherwise, select [Cancel] to close the dialog box and cancel the operation.

The new user account appears in the User list.

12. Select [Apply].



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

13. Select [File: Exit] to close the Library Administration Tool.

## Editing the properties of a user account

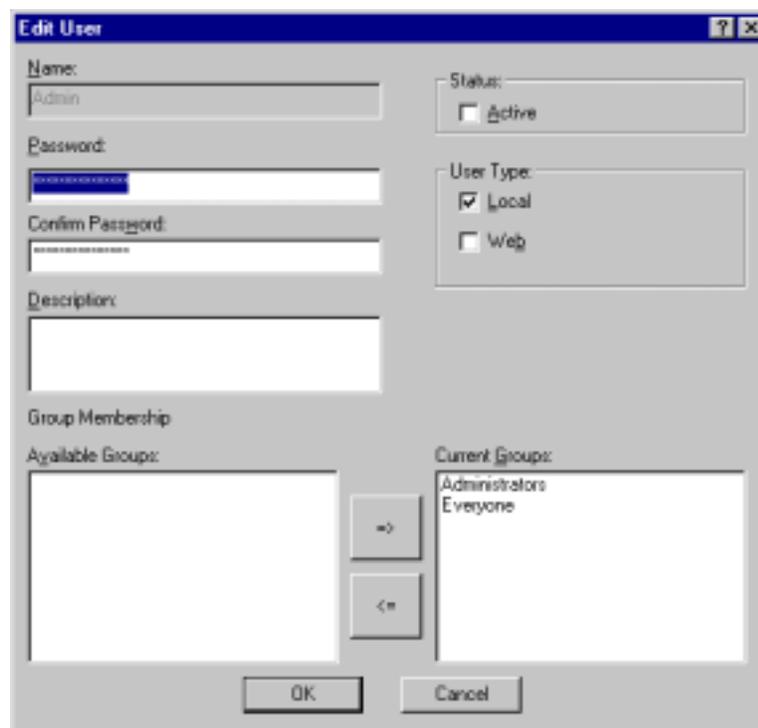


To edit the properties of an existing user account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the user account you wish to edit in the Users list.
4. Select the [Edit] icon button on the Users Toolbar. Or, select [Edit: Edit User] from the menu bar. The Edit User dialog box opens. See Figure 6-4.



*NOTE: You can double-click on a user name to open the Edit User dialog box.*



**Figure 6-4. Edit User dialog box**

5. Enter the necessary changes to the user account.
  - To activate an inactive user account and allow the user to log on to Document Library applications, mark the Active check box.
  - To disable an active user account, clear the Active check box for the user. The user account still appears in the Users list, but the user is not able to log into Document Library applications.

For a description of each field in the Edit User dialog box, see the section Adding a user account in the previous section.

6. Select [OK] to close the dialog box and save the changes.
7. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

8. Select [File: Exit] to close the Library Administration Tool.

## Cloning a user to a workgroup machine

---

Use the cloning functionality to duplicate the current user settings on host workstations (remote machines).



*NOTE: Machines must exist in the workgroup to clone a user to a workgroup machine.*



To clone a user to an existing workgroup machine:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the user account you wish to clone in the Users list.
4. Select [Clone to Workgroup Machine]. The User Password dialog box opens.
5. To clone a user:
  - a. Enter the user's password in the Password text box.
  - b. Reenter the user's password in the Confirm Password text box.
  - c. Select [OK]. The Clone to Workgroup Machines dialog box opens.
6. Mark the check box(es) next to the machine in the current workgroup from which to clone with the user.
7. Select [OK].
8. Select [File: Exit] to close the Library Administration Tool.

## Deleting a user account

---

A user account can be deleted. After deleting the user account, the user is no longer able to log on to Document Library applications.



### CAUTION

*A deleted user account cannot be recovered. The built-in Administrator and Guest accounts cannot be deleted.*



To delete an existing user account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the user account you want to delete from the Users list.
4. Select the [Delete] icon button on the Users Toolbar. Or, select [Edit: Delete User] from the menu bar. A confirmation message opens.
5. Select [Yes] to close the message box and delete the selected user account. Otherwise, select [No] to cancel the operation.
6. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

7. Select [File: Exit] to close the Library Administration Tool.

---

## Managing user group accounts

---

Use the Users utility to manage user group accounts. User group accounts define a group of users. When creating a new cabinet, you can assign read, write, and administrator rights to user groups instead of assigning individual users access to the cabinet. When there are many users who need to access a specific cabinet, it is quicker to assign user access rights to that cabinet if the users are all members of the same group.

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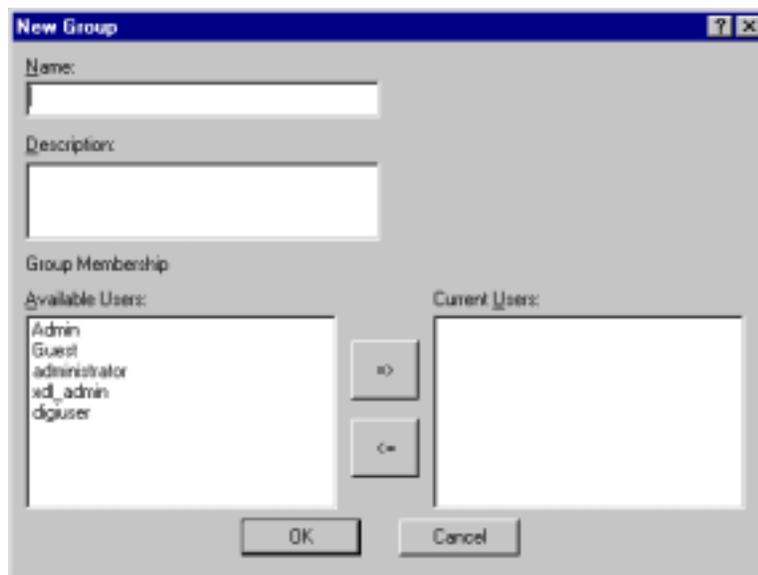
### Adding a group account

---

1 3...  
2

To add a group account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Select the [New] icon button on the Groups Toolbar at the bottom of the screen. Or, select [Edit: New Group] from the menu bar. The New Group dialog box opens. See Figure 6-5.



**Figure 6-5. New Group dialog box**

4. Enter a group name in the Name text box.



*NOTE: A group name cannot be identical to any other group or user name on the machine being administered. It can contain up to 256 uppercase and lowercase characters, but not the backslash character (\). Table 6-2 lists typical group names:*

**Table 6-2. Typical group names**

Group names	Description
Administrators	Members can fully administer the computer/domain.
Backup Operators	Members can bypass file security to back up files.
Guests	Users granted guest access to the computer/domain.
Power Users	Members can share directories and printers.
Replicator	Supports file replication in a domain.
Users	Ordinary users.

5. Enter a description for the group in the Description text box. This field is optional.
6. Select the Group Membership for the group.
- To add users to the group, highlight the users from the Available Users list, then select [>>] to add the users to the Current Users list.
  - To remove the users from the group, highlight the users from the Current Users list, then select [<<] to move the users to the Available User list.
7. Select [OK] to close the dialog box and save the changes. Otherwise, select [Cancel] to cancel the operation.  
The new group account displays in the Group list.
8. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

9. Select [File: Exit] to close the Library Administration Tool.

## Editing the properties of a group account

---



To edit the properties of an existing group account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the group account from the Groups list.
4. Select the [Edit] icon button on the Groups Toolbar. Or, select [Edit: Edit group] from the menu bar. The Edit Group dialog box opens.



*NOTE: You can double-click on a group name to open the Edit Group dialog box.*

5. Enter the necessary changes to the group account.
  - To add users to the group, highlight the users from the Available Users list, then select [>>] to add the users to the Current Users list.
  - To remove the users from the group, highlight the users from the Current Users list, then select [<<] to move the users to the Available User list.

For a description of each field in the Edit Group dialog box, see the procedure “Adding a group account” on page 6-11.

6. Select [OK] to close the dialog box and save the changes.
7. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

8. Select [File: Exit] to close the Library Administration Tool.

## Cloning a group to a workgroup machine

---

Use the cloning functionality to duplicate the current group settings on host workstations (remote machines).



*NOTE: Machines must exist in the workgroup to clone a group to a workgroup machine.*



To clone a group to an existing workgroup machine:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the group account you wish to clone in the Groups list.
4. Select [Clone to Workgroup Machine]. The Clone to Workgroup Machines dialog box opens.
5. Mark the check box(es) next to the machine in the current workgroup from which to clone with the group.
6. Select [OK].
7. Select [File: Exit] to close the Library Administration Tool.

## Deleting a group account

---

A group account can be deleted. If you delete a user group, the user accounts are not deleted and you disable access to specific cabinets for users that were in the user group. Access to those cabinets need to be enabled at the individual user level.



### CAUTION

*A deleted group account cannot be recovered.*



To delete an existing group account:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Users] on the tab bar in the Library Administration Tool.
3. Highlight the group account you want to delete from the Groups list.
4. Select the [Delete] icon button on the Groups Toolbar. Or, select [Edit: Delete Group] from the menu bar. A confirmation message opens.
5. Select [Yes] to close the message box and delete the selected user account. Otherwise, select [No] to cancel the operation.
6. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore to the previous settings.*

7. Select [File: Exit] to close the Library Administration Tool.

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## Configuring workgroup connections

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This section describes the communication between DigiPath machines in a workgroup and provides instructions for configuring the workgroup.

---

### Communicating with host workstations

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Communication between DigiPath host workstations (remote machines) in a workgroup is accomplished by using the TCP/IP protocol and the Windows NT shared resources functionality. The Remote Print Service and the Document Library Services use the TCP/IP protocol to enable communication between two DigiPath host workstations. These two services are the main components that enable peer-to-peer cabinet object management and production printing. In addition, the cabinets between two workstations use the shared resources functionality to enable communication.

Configuring the connection of workstations in a workgroup requires configuration of the NT networking features as well as configuration of the DigiPath cabinet.

Each DigiPath workstation can function as both a client and a server to the Document Library applications. This functionality allows you to manage documents on any other DigiPath workstation as long as the workstation acting as the server is running a multi-user version of the database application.

When configuring connections between workstations in a workgroup, there are several conditions that must be met and steps you must complete to enable access to objects using DigiPath applications. The conditions that must be met and the preparatory steps that must be completed include the following:

- The Document Library service must be running on both workstations and a multi-user version must be running on any workstation in the workgroup that acts as a server.
- The proper directory and file sharing must be set up on both workstations. Any shared objects should be made available by using the Document Library [Network: Share As] menu option.
- For each host workstation in the workgroup, Library Administration Tool must be used to configure remote connections to all other workstations.

- To use Document Library or Library Search to access a mounted cabinet on the host workstation, the cabinet must be mounted and online using the Document Library application on the host workstation.



*NOTE: The procedures to mount and online cabinets are described in the Xerox DigiPath Production Software User Guide.*

- The Remote Print Service must be running on the workstation to allow production printing from host workstations.

The procedures to verify and start the Remote Print Service are found in Chapter 9, Production printing administration.

Once workgroup connections are established between DigiPath host workstations, users can locally and remotely copy, move, and print objects within the cabinet(s) to which they have access.

## Configuring the workgroup

---

Library Administration Tool gives you the ability to connect to cabinets on host workstations, or remote machines. After you connect to a remote cabinet, you can then use DigiPath applications to access the cabinet and to search for, view, or print documents in the remote cabinet(s) and documents in local cabinets.



*NOTE: For additional information regarding shares and file and directory permissions, refer to your Windows NT documentation.*

The NT operating system allows you to restrict access to specific files and directories on your workstation. Once a host workstation is configured all relevant data on the host workstation is displayed through cabinet searches, including objects that may not be shared. However, the accessing workstation is unable to manipulate those objects unless they have the appropriate NT file permissions. To allow the full functionality of the DigiPath cabinet to work with the security features of Windows NT, the following administrative tasks should be performed before establishing workgroup connections.

- Create a share for the data you want to make accessible on the host workstation.
- Create a user account and password on the host workstation identical to the user account and password of the user who will be accessing the workstation.
- Set appropriate file and directory permissions at the host workstation.

## **Adding a host workstation to the current workgroup**

---

The Workgroup utility is used to add and remove access to cabinets stored on host workstations. To enable user access to documents on remote cabinets, use the Workgroup utility to add the host workstation to the DigiPath Document Library workgroup configuration. Once a connection is established, the current workgroup settings can be copied to that host workstation.

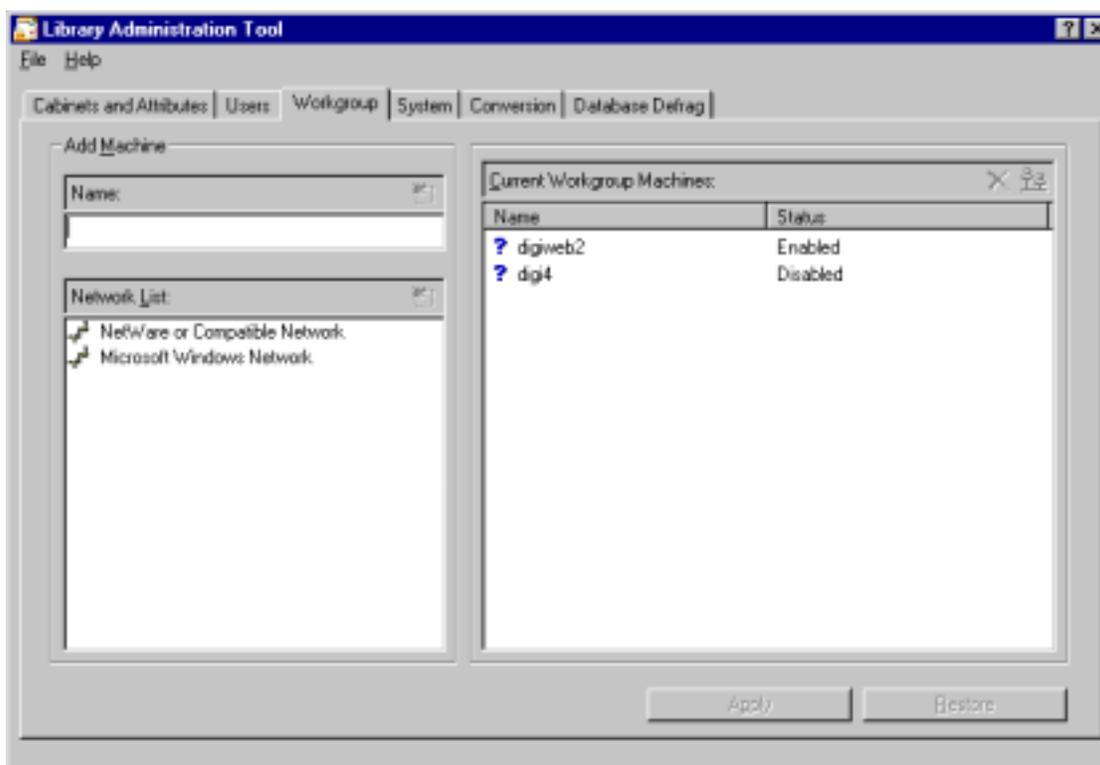
When access to host workstations is configured in the Workgroups utility, local users can access shared cabinets on those host workstations. Without access to host workstations, local users have access only to cabinets on local drives.

To add a host workstation to the current workgroup, you must have administrator privileges and a logon account on the host workstation.

1 3...  
2

To add a host workstation to the workgroup:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Workgroup] on the tab bar in the Library Administration Tool. See Figure 6-6.



**Figure 6-6. Workgroup tab**

3. Enter the name of the workstation you want to add to the current group in the Name text box.
4. Select the [New] icon button on the Name Toolbar. Or, select [Edit: Add New Workgroup] from the menu bar.



*NOTE: If you do not know the name of the workstation, scroll down the Network list and double-click on the Network to display a list of available workstations. Highlight the workstation and select [Edit: Add Network Workgroup] from the menu bar.*

The workstation should appear in the Current Workgroup Machines list box. A status indicator with a check mark next to the workstation name indicates that you have a good connection to the workstation. An X next to the workstation indicates that you have do not have a good connection.



*NOTE: The system polls the network approximately every ten seconds to verify the connection.*

The Current Workgroup Machines list displays all workstations in the current workgroup and displays the following information for each host workstation:

- Name — The user-defined name of the workstation
- Status — The workstation's status (enabled or disabled)

5. Select [Apply] to apply the changes.
6. Select [File: Exit] to close the Library Administration Tool.

## Reestablishing a connection with a host workstation

---

When access to a host workstation is denied, it is probably because a connection to the host workstation has been lost.



To re-establish a connection to a host workstation:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Workgroup] on the tab bar in the Library Administration Tool.
3. Highlight the workstation from the Current Workgroup Machines list.



*NOTE: If the connection is lost, an X appears next to the workstation name.*

4. Select the [Verify Connection] icon button on the Current Workgroup Machines Toolbar to re-establish the connection to the host workstation. Or, select [Edit: Verify connection] from the menu bar.



*NOTE:*

- *When the icon to the left of the workstation name changes to a check mark, a connection has been re-established.*
- *If the icon remains an X, a connection could not be established.*

5. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

6. Select [File: Exit] to close the Library Administration Tool.

## Enabling or disabling a host workstation in the current workgroup

---



To enable or disable a host workstation in the current workgroup:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Workgroup] on the tab bar in the Library Administration Tool.
3. Click in the Status area of the current workgroup workstation in which you wish to disable. A Status drop-down list box appears.
4. Select [Enabled] to enable the host workstation. Or, select [Disabled] to disable the host workstation.
5. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

6. Select [File: Exit] to close the Library Administration Tool.

## Cloning a workstation to a workgroup workstation

---

Use the cloning functionality to duplicate the workstation settings on host workstations (remote machines).



*NOTE: Machines must exist in the workgroup to clone a workstation to a workgroup workstation.*



To clone a workstation to an existing workgroup workstation:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Workgroup] on the tab bar in the Library Administration Tool.
3. Highlight the workstation you wish to clone in the Current Workgroup Machines list.
4. Select [Clone to Workgroup Machine]. The Clone to Workgroup Machines dialog box opens.
5. Mark the check box(es) next to each host workstation on which you want to clone the current workstation settings.
6. Select [OK].
7. Select [File: Exit] to close the Library Administration Tool.

---

## Removing a host workstation from the current workgroup

---



To remove a host workstation from the current workgroup:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Workgroup] on the tab bar in the Library Administration Tool.
3. Highlight the workstation from the Current Workgroup Machines list.
4. Select the [Remove] icon button on the Current Workgroup Machines Toolbar. Or, select [Edit: Delete Workgroup] from the menu bar. A confirmation message opens.
5. Select [Yes] to close the message box and remove the selected host workstation from the current workgroup. Otherwise, select [No] to cancel the operation.
6. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

7. Select [File: Exit] to close the Library Administration Tool.

## Connecting to a host workstation

---

The Document Library application is used to connect to a host workstation.



To connect to a host workstation:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Document Library] from the Windows desktop.
2. If necessary, provide a password to logon to the Document Library application



*NOTE: See your System Administrator for the correct User Name and Password.*

3. Select [Cabinet: Connect to Remote] from the menu bar. The Connect To Remote Cabinets dialog box opens.
4. Select the workstation name from the Workgroups list. The shared cabinets available display in the Cabinets list box.
5. Highlight the cabinet to which you want to connect.
6. Select [OK] to connect to the remote cabinet. Otherwise, select [Cancel] to cancel the operation. The remote cabinet appears in the Cabinet Tree.
7. Select [File: Exit] to close Document Library.

---

## **Configuring the database and cabinet creation location**

---

Use the System utility to configure the following two Document Library application settings:

- Database location — Where the local database is stored
- Cabinet location — Local and network drives on which local users can create cabinets

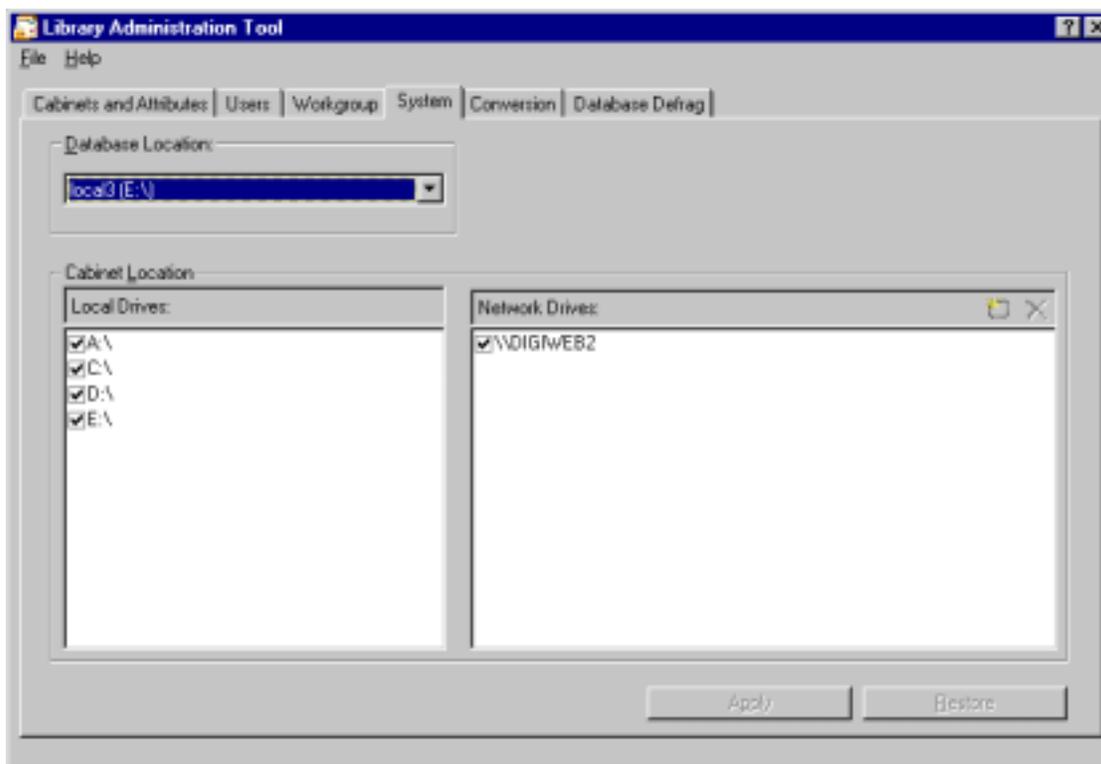
## Specifying the location of the local cabinet database

Information about cabinets is stored on the local machine in a database. The database stores the information such as the cabinet name, description, attributes and attribute sets, location, and documents. The System utility is used to specify on which local drive the cabinet database is stored.

1 3...  
2

To specify on which local drive the cabinet database is stored:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [System] on the tab bar in the Library Administration Tool. See Figure 6-7.



**Figure 6-7. System tab**

3. Select the database location you wish to specify from the Database Location drop-down list.
4. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

5. Select [File: Exit] to close the Library Administration Tool.

## Specifying the cabinet location

---

A user's ability to create cabinets on local and network drives is enabled in the System utility. By default, users have the ability to create cabinets on all local drives. Use the System utility to set up and modify cabinet creation locations.



To specify on which drive local users can create cabinets:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [System] on the tab bar in the Library Administration Tool.

The following sections provide detailed instructions for specifying the local drives and adding network drives on which you want users to create cabinets.

### Specifying the local drives

---



To specify on which drive local users can create cabinets:

1. In the Local Drives list, mark the check box next to each drive you want to enable for creating cabinets.



*NOTE: Clear the check box next to each drive on which you do not want users to be able to create cabinets.*

2. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

3. Select [File: Exit] to close the Library Administration Tool.

## Adding network drives

---



To add a network drive on which users can create cabinets:

1. Select the [New] icon button on the Network Drives Toolbar. Or, select [Edit: New Network Drive] from the menu bar. The Add Network Drives dialog box opens.
2. Select the Path Name radio button to enter the path to the network machine. Or, select the Network List button to navigate to the network drive and select it.
- 3.
4. Select [OK] to add the Network Drive to the Network Drive list.
5. Select [Apply] to apply the changes.



*NOTE: You must select [Apply] for the new user to be created. Select [Restore] to restore the previous settings.*

6. Select [File: Exit] to close the Library Administration Tool.

## Deleting network drives

---



To delete a network drive on which users can create cabinets:

1. Highlight the drive in which you want to delete from the Network drives list.
2. Select [Edit: Delete Network Drive] from the menu bar.
3. Select [File: Exit] to close the Library Administration Tool.

---

## Using the Document Conversion Service

---

The Document Conversion Service provides a background batch utility for converting documents in Document Library cabinets. Once converted, these documents are accessible in the Web Viewing and Submission application.

- RDO documents are converted to either PDF, JPG (JPEG), or both.
- PostScript and TIFF documents are converted to JPG only.

Converted documents are stored in a \*.CON directory in the NT file system.

The procedures described in this section tell you how to install, start, specify the login, and schedule the Document Conversion Service.

---

### Installing the Document Conversion Service

---

During the initial DigiPath installation, you may have had the Document Conversion Service installed and started. However, if you did not have it installed by your Xerox service representative, use the following procedure to install and start the service.



*NOTE: Check the services list under [Start: Settings: Control Panel: Services] to verify that the Document Conversion Service is not running.*



To install the Document Conversion Service:

1. Select [Start: Run] from the Windows desktop. The Run dialog box opens.
2. In the Open text box, type the following command:  
**<DigiPath directory>\convert\xdoccvts.exe -install**  
where <DigiPath directory> is the installation drive and directory for the DigiPath software (for example, **e:\digipath**).
3. Select [OK] to close the Run dialog box and install the Document Conversion Service.
4. Proceed to the next section, Starting the Document Conversion Service.

---

## Starting the Document Conversion Service

---



*NOTE: Check the services list under [Start: Settings: Control Panel: Services] to verify that the Document Conversion Service is not running.*



To start the Document Conversion Service:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel opens.
2. Double-click on the Services icon. The Services dialog box opens.
3. Highlight the [Document Conversion Service] in the Service list box.
4. Select [Start]. A status box displays while the Document Conversion Service is started. Once the service is started, the status box closes.
5. Select [Close] to close the Services dialog box.
6. Select [File: Close] to close the Control Panel.

The Document Conversion Service is now running on the DigiPath workstation. In the future, the service starts automatically if you shut down or restart the DigiPath workstation.

## Specifying the login for the Document Conversion Service

---

To configure the Document Conversion Service to convert objects on a remote machine or remote file server, a logon must be specified in the conversion service setup that matches the machine or remote file server logon.



To specify the login for the Document Conversion Service:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel window opens.
2. Double-click on the Services icon. The Services dialog box opens.
3. Scroll through the Services list box and highlight [Document Conversion Service].
4. If the Document Conversion Service has been started, stop the service by selecting [Stop].
5. Select [Startup]. The Service dialog box opens.
6. Under Log On As, select the [This Account] option button.
7. Select [...]. The Add User dialog box opens.
8. Select [Add] to add the user.
9. From the list of users, highlight the user account you want to use. Do not select the Administrator account.



*NOTE: The user must be a member of the Administrators group.*

10. In the Password text box, enter the password for the selected user account and then enter the password again in the Confirm Password text box.
11. Select [OK] to close the Add User dialog box. The selected user account appears in the This Account text box.
12. Select [OK] to close the Services dialog box and save the settings.
13. In the Services dialog box, select [Start] to start the Document Conversion Service.
14. Select [Close] to close the Services dialog box.
15. Select [File: Close] to close the Control Panel.

## Scheduling the Document Conversion Service

Using the Library Administration Tool application, you can specify a time period and priority for the Document Conversion Service. Depending on the size of the document and the number of images it contains, it can take several minutes to nearly an hour to convert a document from an RDO to a format that can be viewed using a web browser. Therefore, it is recommended that you convert the documents in advance to prevent long waiting periods for web browser users.



To schedule a specific time period for the Document Conversion Service to run:

1. Select [Start: Programs: DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Conversion] on the tab bar in Library Administration Tool. See Figure 6-8.

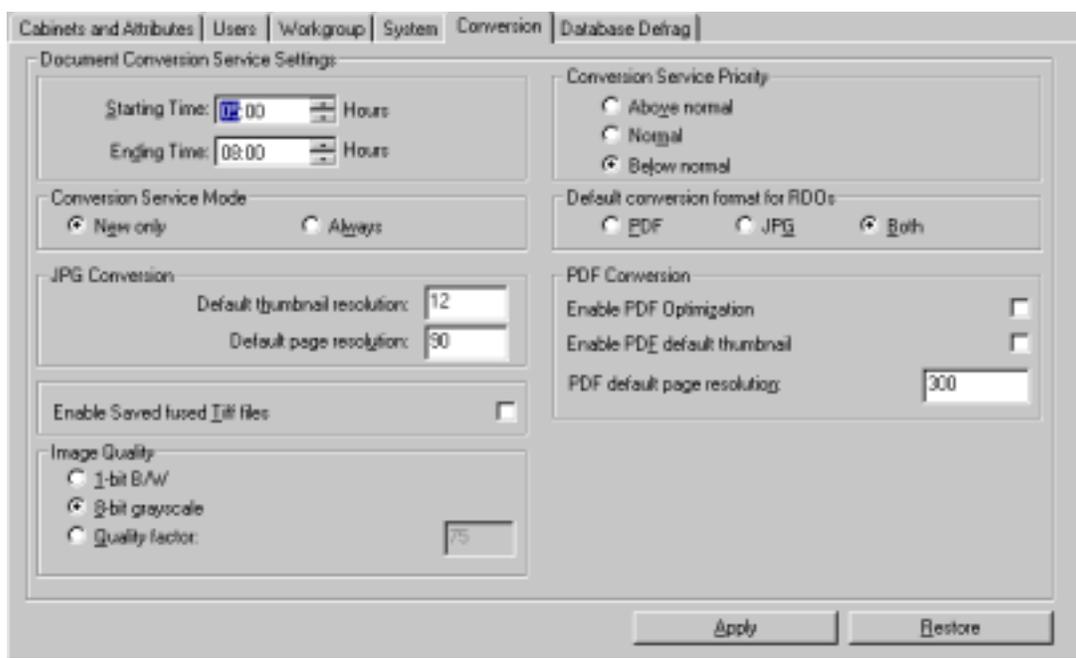


Figure 6-8. Conversion tab

3. To specify the Document Conversion Service settings:
  - a. In the Starting Time fields, enter a starting time for the conversion process.
  - b. In the Ending Time fields, enter an ending time for the conversion process.
4. In the Conversion Service Priority area, specify the level of priority that should be assigned to the Document Conversion Service.

The priority determines whether other DigiPath services that are running have a higher priority than the Document Conversion Service. The higher the priority assigned to the Document Conversion Service the less likely it will be interrupted by another service. Table 6-3 lists and describes the Conversion Service priority options.

**Table 6-3. Conversion Service priority options**

Options	Description
Above Normal	Specifies that the Document Conversion Service process takes priority over other processing activity.
Normal	Specifies that the Document Conversion Service process has equal priority with other processing activity.
Below Normal	Specifies that the Document Conversion Service process has lower priority over other processing activity.

5. Select one of the following options in Table 6-4 to set the Conversion Service Mode.

**Table 6-4. Conversion Service Mode options**

Options	Description
Always	Specifies that all cabinet objects are converted.
New only	Specifies that only those objects that have been added to a cabinet (or set of cabinets) since the last conversion are converted.

6. Select one of the following options in Table 6-5 to set the JPG Conversion Service.

**Table 6-5. JPG Conversion Service options**

Options	Description
Default thumbnail resolution	Specifies the default thumbnail resolution for JPG conversion.
Default page resolution	Specifies the default page resolution for JPG conversion.

7. Mark the Enabled Saved fused TIFF files check box to save the fused TIFF format for documents converted to JPG.



*NOTE: When documents are converted to JPEG, they are first converted to an intermediate format of fused TIFFs. This format allows for future capabilities. Saving TIFFs requires greater storage capacity.*

8. Select one of the following options in Table 6-6 to set the JPG Image Quality.

**Table 6-6. JPG Image Quality options**

Options	Description
1 bit B/W	Converts documents to 1-bit black and white.
8-bit grayscale	Converts documents to 8-bit grayscale. This is the default option and recommended for JPG conversion.
Quality factor	Converts documents to 8-bit grayscale and allows for specification of a higher quality factor. The default quality factor for 8-bit grayscale is 75 (scale of 1 to 99). Use the text box to specify a quality factor other than the default of 75.



*NOTE: The higher the quality factor, the larger the file size.*

9. Select one of the following options in Table 6-7 to set the default conversion format of RDOs.

**Table 6-7. Default conversion format of RDOs**

Options	Description
PDF	Specifies conversion of RDOs and documents in a cabinet to PDF format.
JPG	Specifies conversion of RDO, PostScript, and TIFF documents in a cabinet to JPG format.
Both	Specifies conversion of RDOs to both PDF and JPG format.

10. Select one of the following options in Table 6-8 to set the PDF Conversion

**Table 6-8. PDF Conversion options**

Options	Description
Enable PDF optimization	Allows you to enable or disable PDF optimization.
Enable PDF default thumbnail	If enabled, thumbnails for PDF documents can be viewed in the Web Viewing and Submission application. <i>NOTE: This option requires greater storage capacity.</i>
PDF default page resolution	Allows you to specify the default page resolution for documents converted to PDF.

11. Mark the Enabled OCR conversion check box if you want to enable character recognition during conversion. This converts RDOs to text-editable documents.
12. Select [Apply] to save the conversion settings. Otherwise, select [Restore] to restore the conversion settings to the previous settings.
13. Select [File: Exit] to close the Library Administration Tool.

---

## Defragmenting cabinets

---

The Database Defrag utility is used to remove fragmentation in cabinets and improve system performance.

Fragmentation occurs when files are deleted from a disk and new files are added. Sometimes files are written to different portions of the disk depending on the available space. This fragmentation of files slows system performance.



*NOTE: It is recommended that you defragment the cabinet(s) approximately once a month. If you add, change, or delete a large number of objects or a large amount of attribute data, you should defragment the cabinet(s) more frequently than once a month.*



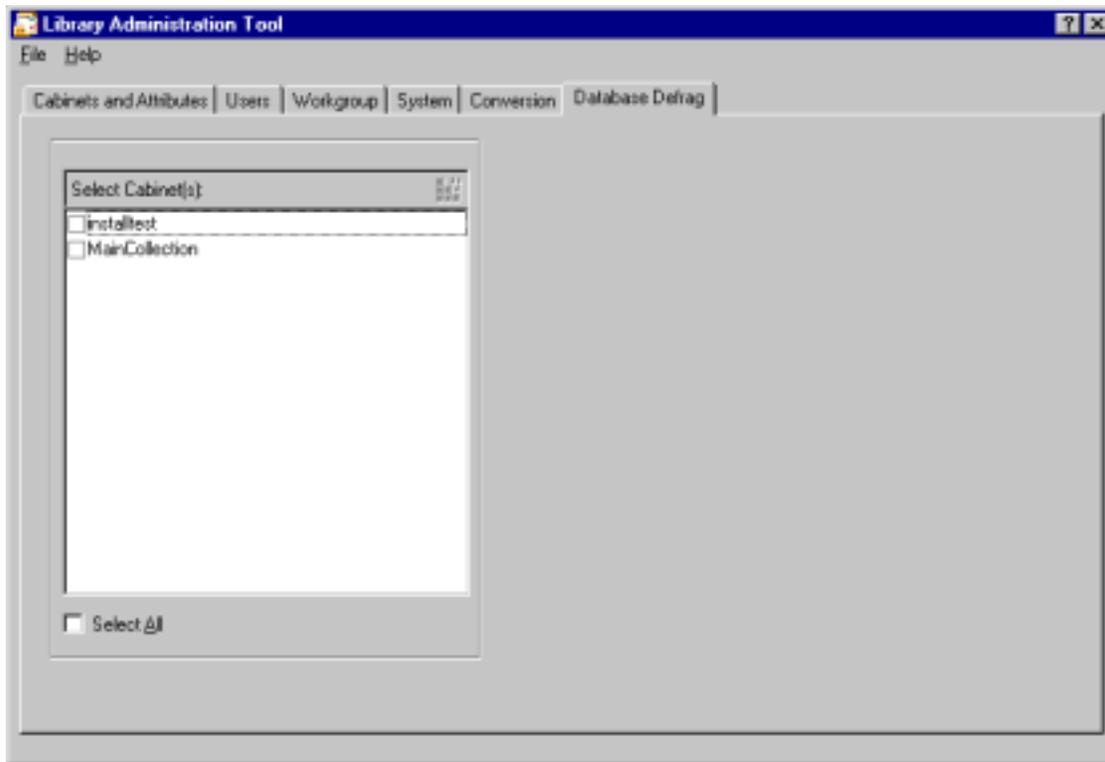
### CAUTION

*You should notify all machines in the workgroup before beginning defragmentation. There is a possibility of corrupting the cabinet(s) if a machine is accessing data while defragmentation occurs.*

1 3...  
2

To defragment the local cabinet(s) on your workstation:

1. Select [Start: Programs: DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Database Defrag] on the tab bar in the Library Administration Tool. See Figure 6-9.



**Figure 6-9. Database Defragment tab**

3. Mark the check box next to the cabinet(s) you want to defragment in the Select Cabinet(s) list.



*NOTE: Mark the [Select All] check box to select all the available cabinets for defragmenting.*

4. Select the [Defrag] icon button on the Select Cabinets Toolbar to begin the defragmentation process. Or, select [Edit: Defragment Database] from the menu bar.

A process indicator appears while the cabinet(s) is being defragmented.



*NOTE: The amount of time this process takes depends on the amount of fragmented information in the cabinet(s).*

5. Select [File: Exit] to close Library Administration Tool.

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## Using the DocuTech Tape Tool

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The DocuTech Tape Tool is a utility that works with Document Library to manipulate 8mm DES or DTOFS tapes that store DocuJob objects. DocuTech Tape Tool provides a way to view, remove, or copy DocuJobs to Document Library. You can drag and drop DocuJobs from DocuTech Tape Tool into cabinets in Document Library.

The DocuTech Tape Tool is used to:

- Import a DocuJob document from tape to the specified cabinet on your DigiPath workstation



*NOTE: Objects from the DocuTech Tape Tool must be imported into a cabinet in Document Library in which the attribute set file is derived from the `dgptape.set` file.*

- Index a DocuJob document in the specified DigiPath cabinet so you can search the document using Library Search



*NOTE: Objects must be dropped onto a cabinet in Document Library in which the attribute set file is derived from the `dgptape.set` file. A new cabinet is created with the tape name, using the `dgptape.set` attributes allowing you to input any `.djo` file into the cabinet.*

- Submit a DocuJob document to DocuJob Converter for printing



*NOTE: This feature is enabled only if the DocuJob Converter is set up.*

For further information on DocuJob Converter, see Chapter 9, Production printing administration.

- As jobs are copied from tape to Document Library, the `.djo` file extension is appended to the file name.

By storing DocuJobs in a cabinet, you can:

- Use Document Library to assign attribute values to the DocuJob
- Use Library Search to locate DocuJobs based on a set of specified attribute values
- Use Batch Tool to submit DocuJobs to a DocuTech for printing
- Use DocuJob Converter to convert DocuJobs into a source format for Document Scan and Makeready



*NOTE: When cabinet documents are copied to tape, the DocuTech Tape Tool copies the document, its attributes, and associated job information.*



*NOTE: Tapes must be initialized in the Individual Job Manager (IJM) format used by the DocuTech On-line Tape Storage or DocuTech Extended Storage.*



*NOTE: DocuJobs residing on networked DocuTech may be transferred to Document Library via File Transfer Protocol.*



*NOTE: Documents stored on the tapes may contain characters that are invalid in the Windows NT environment. Document names containing invalid characters may be renamed when copied from the tape to Document Library.*

Table 6-9 lists the default tape attributes for DocuTech Tape Tool objects.

**Table 6-9. Default Tape Attributes**

Attribute	Description	Attribute Type
Archive Date	The date the object was stored to tape	Date Time
Job Name	Name of the object	Integer
Job Size	The size of the job in megabytes	Integer
Job Type	The internal value for the job type used by DocuTech	Long Integer
Mesa job Name	The original name of the file after it has been converted to a compatible UNIX file name	String
Number of Files	The number of data files contained in the job	Integer
Store Date	The date of the file when it was on the DocuTech or NT system	Date Time



*NOTE: The DocuTech Tape Tool will not copy objects into any cabinet that has not been derived from the dgptape.set file.*

Custom attributes for DocuTech Tape Tool are stored in a file called dgptape.set. This is an attribute set file in which can be opened and customized using the Library Administration Tool. Form more information on using attribute sets, refer to “Using attribute sets” on page 8-9 of this manual.

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## Using WFTPDPro to FTP objects from DocuTech

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WFTPDPro is an application that allows File Transfer Protocol (FTP) capability from a DocuTech to a DigiPath workstation or server. It is set up and installed on all DigiPath workstations that contain Document Library. The application can be found in the Control Panel menu on the workstation.

During WFTPD setup and configuration, a local directory is defined that will accept all objects sent from the DocuTech. Once the object is accepted on the DigiPath workstation, it displays a .djo (DocuJob) extension. The following Document Library commands are then available for the object:

- Copy, Move, Delete, Rename
- Submit to Print (This option is available only if the DocuJob Converter is set up.)

Some characters transferred from the DocuTech may not be acceptable in a Windows NT environment. File names that contain invalid characters are renamed when they are copied to Document Library. See File Format in Chapter 1, About DigiPath for a list of invalid characters and a description of the character mapping process.



*NOTE: Do not use spaces and other non-DocuTech characters in the directory names that will serve as paths for FTP. They are not accepted during file drawer configuration at the DocuTech.*

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## Configuring a Remote File Server

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A Remote File Server allows the use of non-DigiPath workstations or servers for object storage, with database capability. With a Remote File Server users can import and export remote objects on a local (host) cabinet.

The following operating systems are supported for Remote File Server:

- Microsoft Windows NT Server and Workstation 4.0
- Solaris 2.5 (UNIX)
- Novell NetWare 4.1

The following conditions apply when connecting to a remote file server:

- All access to the remote file server objects must be done using Document Library.
- All cabinets on a single remote file server must be managed by the same DigiPath host and database.
- Other DigiPath workstations must be set up as peers to the host database workstation to access the remote file server objects.
- There may be only one database host workstation associated with a remote file server.
- Importing objects on a remote file server is different than importing objects on a local workstation.
  - Removable media attached to a remote file server is not supported by the DigiPath software.
  - Objects stored on the remote cabinet are only accessible through the host database workstation and its' peers.

The following administrative tasks must be performed to configure a remote file server:

- Create a user name and password on the remote file server to allow access for the user at the DigiPath workstation. This user name and password must match the user name and password at the DigiPath workstation.



*NOTE: Access may be given to multiple users or to a user group. The only requirement is that the users or user groups exist on both the DigiPath workstation and the remote file server.*

- Designate fixed volumes on the remote file server to be available to DigiPath.
- Share the volumes on the remote file server, as appropriate to your operating system. Set the volume to read and write access.
- Assign a drive letter to the remote file server using Windows NT Explorer if importing and exporting from the remote file server to the remote file server cabinet.

## Connecting to a remote file server

---

Use the System tab in the Library Administration Tool at the DigiPath workstation to connect to the remote file server.



To connect to a remote file server:

1. Select [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [System] on the tab bar in the Library Administration Tool.
3. Select the [Add] button in the Network Drives section. The Add Network Drives dialog box opens.
4. Enter the path name of the remote file server in which you wish to connect in the Path Name text box.



*NOTE: You can select the remote file server from the Network List.*

5. Select [OK].
6. Select [Apply].
7. Select [File: Exit] to close the Library Administration Tool.

## Creating a cabinet

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Create a remote file server cabinet at the DigiPath workstation using Document Library in which you want users to import and export objects.



To create a cabinet for use with the remote file server:

1. Select [Start: Programs: Xerox DigiPath Production Software: Document Library] from the Windows desktop to log on to the Document Library.
2. Create a new cabinet on the remote file server specifying the following:
  - Select the remote file server as the [Location] of the cabinet.
  - Assign appropriate user access rights.

For more information on creating cabinets using Document Library, see the *Xerox DigiPath Production Software User Guide*.

## Configuring Document Conversion for remote objects

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To configure the Document Conversion Service to convert imported objects on a remote file server, a user must be specified in the conversion service setup that matches a remote file server user.



To specify the login for the Document Conversion Service:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel window opens.
2. Double-click on the Services icon. The Services dialog box opens.
3. Scroll through the Services list box and highlight [Document Conversion Service].
4. If the Document Conversion Service has been started, stop the service by selecting [Stop].
5. Select [Startup]. The Service dialog box opens.
6. Under Log On As, select the [This Account] option button.
7. Select [...]. The Add User dialog box opens.
8. Select [Add] to add the user.
9. From the list of users, highlight the user account you want to use. Do not select the Administrator account.



*NOTE: The user must be a member of the Administrators group.*

10. In the Password text box, enter the password for the selected user account and then enter the password again in the Confirm Password text box.
11. Select [OK] to close the Add User dialog box. The selected user account appears in the This Account text box.
12. Select [OK] to close the Services dialog box and save the settings.
13. In the Services dialog box, select [Start] to start the Document Conversion Service.
14. Select [Close] to close the Services dialog box.

## **Performance considerations**

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Performance of a remote file server is dependent upon the network, protocol, and operating system of that server, although some performance degradation may be experienced by DigiPath peer workstations that are accessing the remote file server through its host workstation.

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## 7. Managing cabinets

This chapter identifies and describes the procedures needed to manage cabinets.

Topics covered in this chapter include:

- working with cabinets
- creating cabinets using the Library Administration Tool
- editing the properties of a cabinet
- deleting a cabinet
- purging the contents of a cabinet
- editing the attributes of a cabinet
- adding a new attribute to a cabinet
- deleting an attribute from a cabinet

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## Working with cabinets

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A CABINET is a logical storage space on any kind of media. A cabinet has a set of attributes that are used to describe the objects in the cabinet. When you place an object into a cabinet, the attributes of the cabinet become available to the object.

There are two ways to create cabinets in DigiPath.

- You can create cabinets directly from the Document Library application, and use an existing attribute set file to define the attributes for the cabinet.

For more information on creating cabinets from the Document Library application, refer to the *DigiPath User Guide*.

- You can also use the Library Administration Tool to create a cabinet and select the specific attributes for the cabinet while you are creating it.

The Cabinet utility in the Library Administration Tool allows you to manage cabinets, including adding a cabinet, viewing and modifying the properties of a cabinet, deleting a cabinet, and purging the contents of a cabinet. The Cabinet utility also allows you to define the properties and attributes of a new cabinet.



*NOTE: Attribute values are assigned to cabinet documents in Document Library. For more information, refer to the DigiPath User Guide.*

The ability to create cabinets on various drive locations is enabled in the System utility. If you are unable to create a cabinet, set the cabinet creation locations in the System tab. For more information, refer to Chapter 6, System administration.

## Creating cabinets using the Library Administration Tool

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When you create a cabinet, the access rights you define are critical. If you do not assign Read or Write permissions for other users of the object in the cabinet, those users will not be able to view the cabinet when they use Document Library.



### CAUTION

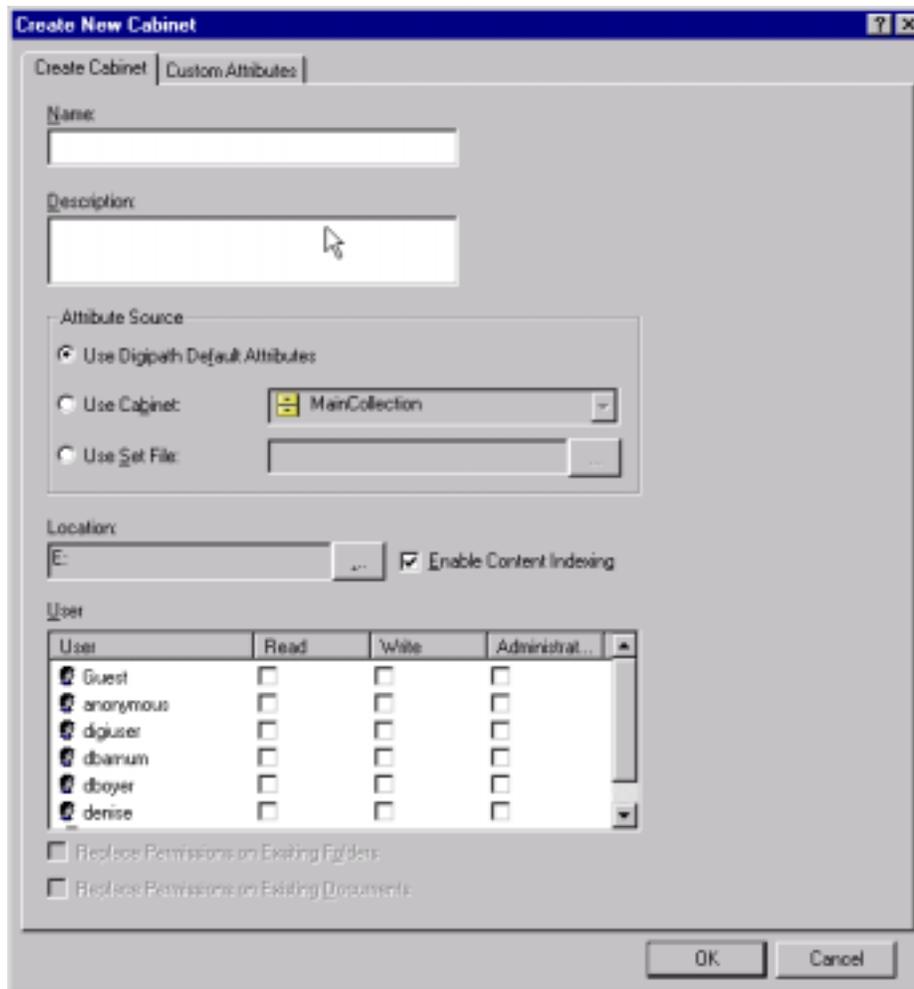
*When creating cabinets, do not share the XDLCabinets directory on the drive in which the cabinets are located. Sharing the XDLCabinets directory prevents Document Library from sharing any cabinet beneath the directory.*

By default, newly created cabinets are not shared. For more information on sharing cabinets, refer to the User's Guide.



To create a new cabinet:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
3. Select the [New] icon button on the Existing Cabinets Toolbar. Or, select [Edit: New Cabinet] from the menu bar. The Create New Cabinet dialog box opens. See Figure 7-1.



**Figure 7-1. Create New Cabinet dialog box**

4. Enter the name of the new cabinet in the Name text box. This is a required field.



*NOTE: If you do not enter a name, the cabinet is created with "New Cabinet" as the default name.*

5. Enter a description of the cabinet in the Description text box. This field is not required.

6. Select one of the Attribute Source options described in Table 7-1 to determine the attribute set for the new cabinet.

**Table 7-1. Attribute Source options**

Option	Description
Use DigiPath Default Attributes	Select this option to use the set of attributes provided with DigiPath to describe the objects of the new cabinet.
Use Cabinet	Select this option to use the set of attributes for an existing cabinet to describe the objects in the new cabinet.
Use Set File	Select this option to use an existing attribute set file to describe the objects in the cabinet.

For more information on defining set files, see to Chapter 8, Defining attribute sets.

7. Enter the drive on which the new cabinet will be stored in the Location text box.



*NOTE: Select the Browse Location button to browse for the path of the cabinet instead of typing the path name.*

8. Mark or clear the Enable Content Indexing check box to indicate whether the objects in the cabinet will be OCR'd.



*NOTE: If you enable this option, searches run more quickly. Disabling this option increases the amount of time it takes for search results to display.*

9. In the User Access area, specify the users you wish to enable to access the objects in the new cabinet. See Table 7-2 for a list and a description of each user access right.



*NOTE: The user list in the User Access area contains a complete list of the user accounts and user groups that have been created on your workstation. These users may have been created using the Windows NT User Manager, or using the DigiPath Library Administration Tool.*

**Table 7-2. User access rights**

Access rights	Description
Read access	Allows the user to read the documents in the new cabinet.
Write access	Allows the user to add documents to the new cabinet.
Administration access	Allows the user to administer the new cabinet.

10. Select [OK].

11. To set the attributes for the new cabinet:

- a. Select [Custom Attributes] on the tab bar.
- b. View the attributes currently assigned to the cabinet by selecting either the Attribute View or the Group View radio buttons.



*NOTE: The Attribute View displays the cabinet properties in a list. The Group View displays the cabinet properties in groups.*

- c. Modify the cabinet's attributes, as needed.

For more information on modifying cabinet attributes, refer to Chapter 8, Defining attribute sets.

12. Select [OK] to create the new cabinet. The new cabinet appears in the Existing Cabinets list.

13. Select [File: Exit] to close the Library Administration Tool.

---

## Editing the properties of a cabinet

---



To edit the properties and attributes of a cabinet:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
3. Highlight a cabinet from the list of existing cabinets.
4. Select the [Edit] icon button on the Existing Cabinets Toolbar. Or, select [Edit: Edit Cabinet] from the menu bar. The Edit Properties dialog box opens.
5. Enter the necessary changes to the properties of the cabinet.
6. Mark the [Replace permissions on existing folders] option to replace the existing permissions on folders.
7. Mark the [Replace permissions on existing documents] to replace the existing permissions on documents.
8. Select [Apply] to apply the changes.
9. Select [Close].
10. Select [File: Exit] to close the Library Administration Tool.

## Deleting a cabinet

---

When you delete a cabinet, all folders and files within that cabinet are also deleted.



*NOTE: Cabinets can be deleted using the Library Administration Tool or Document Library. For more information on deleting a cabinet using Document Library, refer to the Xerox DigiPath Production Software User Guide.*



### CAUTION

*Once a cabinet has been deleted, it cannot be recovered.*

To delete an existing cabinet:



1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
3. Highlight the cabinet you want to delete from the Existing Cabinets list.
4. Select the [Delete] icon button on the Existing Cabinets Toolbar. Or, select [Edit: Delete Cabinet] from the menu bar. A confirmation message appears asking if you are sure you want to delete the selected cabinet.
5. Select [Yes] to delete the cabinet. Otherwise, select [No] to cancel the operation.
6. Select [File: Exit] to close the Library Administration Tool.

## Purging the contents of a cabinet

---

This operation can be performed only from the DigiPath Library Administration Tool.

Occasionally, the physical media on which a cabinet is stored becomes damaged or is misplaced. If this cabinet is currently offline, the only way to remove the attribute information from the database is to purge the cabinet.



### CAUTION

*Purging a cabinet deletes all attribute information for the cabinet, its objects, and deletes the cabinet. Once the cabinet is purged, there is no way to recover the deleted information. Any user can purge local cabinets from their workstation, but only System Administrators can purge remote cabinets.*



To purge the contents of a cabinet:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select the [Cabinets and Attributes] tab.
3. Highlight the desired cabinet to be purged from the Existing Cabinets list.
4. Select the [Purge] button on the Existing Cabinets Toolbar. Or, select [Edit: Purge Cabinet] from the menu bar. A confirmation message appears asking if you are sure you want to purge the selected cabinet.
5. Select [Yes] to purge the cabinet. Otherwise, select [No] to cancel the operation.
6. Select [File: Exit] to close the Library Administration Tool.

---

## Editing the attributes of a cabinet

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A cabinet's attributes can be modified only in the Library Administration Tool.



To edit the attributes of a cabinet:

1. Select: [Start: Programs: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop to log on to the Library Administration Tool.
2. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
3. Highlight a cabinet from the list of existing cabinets.
4. Select the [Edit] icon button on the Existing Cabinets Toolbar. Or, select [Edit: Edit Cabinet] from the menu bar. The Edit Properties dialog box opens.
5. Select [Custom Attributes] on the tab bar to edit the attributes of the cabinet.
6. Enter the necessary changes to the attributes of the cabinet.  
For more information regarding editing the custom attributes, refer to Chapter 8, Defining attribute sets.
7. Select [Apply] to apply the changes.
8. Select [Close].
9. Select [File: Exit] to close the Library Administration Tool.

---

## 8. Defining attribute sets

This chapter describes defining attribute sets to manage and maintain DigiPath cabinets using the Library Administration Tool.

Topics covered in this chapter include:

- Why define attributes?
- Considerations for defining attributes
- Why should I back up before defining attributes?
- Identifying the various attribute types
- Identifying the default attributes
- Using attribute set files
- Using attributes
- Using user attribute groups
- Using objects across cabinets

---

## Why define attributes?

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DigiPath uses attributes, or properties, to make it easier to manage and maintain a cabinet(s) that contain folders and documents. Attributes describe the origin, purpose, contents, and other characteristics of a DigiPath object. Using Library Search, users can search and select documents based on their attributes. Instead of having to remember file names and naming conventions, users can find and select documents based on such things as the document title or author.

DigiPath provides several initial attributes. Using the Library Administration Tool application, which is included with DigiPath, you can define the properties of a cabinet(s) by creating, modifying, or deleting various custom attributes. Some of the reasons you may want to define the properties of a cabinet(s) include the following:

- Creating additional custom attributes gives users the information they need to effectively search a cabinet(s) to find documents.
- By defining the properties of a cabinet(s), you can provide attributes that are unique to your cabinet(s) and that enhance the management of your cabinet(s).
- When you create custom attributes, you can also organize and group them to make updating and back-up procedures more efficient.

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## Considerations for defining attributes

---

In general, the best time to define your attributes is when you install the system, since no data has yet been stored into the cabinet(s). However, this is not the only time you can define attributes of cabinet(s). If someone discovers a new piece of information that would allow DigiPath users to find documents or objects in the cabinet(s) more easily, you can create an attribute for storing that information at any time. Then, either you or the DigiPath user can enter the attribute values for objects already in the cabinet(s), if necessary, and for any future objects when they are imported into the cabinet(s).



### CAUTION

*It is strongly recommended that you perform a full backup of the entire DigiPath system (workstation and RAID) before you define the attributes for your cabinet(s). Defining the attributes of the cabinet(s) may result in the loss of data and you should have that data backed up.*

When defining the attributes of a cabinet or several cabinets, the following information should be considered:

- If you have peer machines configured you should verify that the peer machines are not connected to the cabinet before you edit the attributes set. Editing the attributes of a cabinet when another machine is accessing or attempting to access the cabinet could result in data corruption. Close all Document Library applications running on peer systems to close peer connections.
- If you have more than one cabinet containing the same kinds of objects, you should define the attributes in each cabinet the same way. By doing so, you avoid confusing the user when they search for documents on the various cabinets for which they have access. For example, if you can search one cabinet for documents with a specific publisher, you would expect that you could perform the same search on any other available cabinet(s).
- When moving or copying objects between two dissimilar cabinets, a mapping dialogue displays. This dialog box prompts the user for appropriate mapping information for each attribute that does not match. For example if there is an Author field in cabinet1, but not in cabinet2, the dialog prompts for direction of the information in the Author field.

- When importing objects contained through DigiPath Tape Tool, an attribute map displays if the database is customized differently than the tape object's default attributes.
- When you delete an attribute, all information pertaining to the deleted attribute is removed from the cabinet unless you replace it with and map it to an attribute of the same or similar type. This could result in the loss of a great deal of information and affect the ability of a user to locate documents in the cabinet.
- DigiPath allows you to create up to 30 custom attributes. However, more is not necessarily better. You should create only those attributes that the user is likely to use and delete those attributes that take up unnecessary space in the cabinet.

The following sections give more detail about the available types of attributes and the attributes included with your DigiPath system.

### **Why should I back up before defining attributes?**

---

If your system is configured with workgroup connections, it is important to back up, or copy, the cabinet(s) before defining the attributes. If peer machines are able to connect to the cabinet during the defining of the attributes of the cabinet, the cabinet could become corrupt. A copy of the cabinet in another location allows you to restore the cabinet back to its original state, should problems occur.

For more information on backing up the Digipath cabinets, refer to Chapter 5, Back up and restore.

## Identifying the various attribute types

All attributes have a type, or format. This type specifies the valid values for the attribute. When you create or modify a custom attribute, you must specify its type. Table 8-1 lists the various attribute types and gives a description of the values each type can accept. For each type, the table also lists an attribute that uses the specified type and gives a sample valid value for an attribute with the specified type.

**Table 8-1. Available attribute types**

Type Name	Value Description	An Attribute Using This Type	Sample of Valid Attribute Value
Boolean	The value must be True/Yes, indicated by a marked check box, or False/No, indicated by a cleared check box.	Is Online	Marked check box (True/Yes)
Date	The value must be a date matching the format specified by the Regional Settings in the Control Panel.	Publication Date	05/04/96
Date Time	The value must be a date and time matching the format specified by the Regional Settings in the Control Panel.	Register Date Time	01/02/94 12:34:56AM
Double	The value must be a real number ranging from -9.9999E99 to 9.9999E99 and in the format 9.9999E99.	None	-1.3964e98 or 1.3964e+98
Integer	The value must be a whole number ranging from -32768 to 32767.	Number of Pages	+28809
Long Integer	The value must be a whole number ranging from -2147483647 to 2147483647.	None	-2059372440
Long String	The value can be a sequence of up to 4096 characters, including spaces.	Abstract	The article lists and examines differences between...
String	The value can be a sequence of up to 254 characters, including spaces.	Publisher	C2 Publishing
String Set	The value can be a group of strings with each string containing up to 251 characters, including spaces.	Authors	Gail Bartlett Denise Barnum Margaret Lohrding



*NOTE: The Date Time attribute can be entered in any format, regardless of the Windows NT Control Panel settings. For example, you may enter the date as August 1999 or 08/09/99.*

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## Identifying the default attributes

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You can assign the DigiPath default attribute set (digipath.set) file to a cabinet when you create the cabinet. The DigiPath default attribute set file includes system and custom attributes as defined in Table 8-2.

**Table 8-2. DigiPath default attribute set file**

Attribute Type	Description
System	Includes information used by the system to identify the location and status of the cabinet. System attributes cannot be modified.
Custom	Contains a default set of custom attributes and values to associate with the cabinet. You can modify, delete, or add to the default attribute set.

Table 8-2 lists the system attributes contained in the DigiPath default attributes set file. You cannot modify any of the system attributes.

**Table 8-3. System attributes**

<b>Attribute Name</b>	<b>Description</b>	<b>Attribute Type</b>	<b>Required?</b>	<b>User can modify?</b>
Internal Catalog ID	The identification number DigiPath assigned to the object when it was first imported into Document Library	String (64)	Yes	No
URL	The Web address of the object or document	String	Yes	No
Description	The description of the object	String	Yes	No
Name	The name of the object	String	Yes	No
Object Type	The type of object	Integer	Yes	No
File Modified	The last modification date of any of the content elements in the document	Date Time	Yes	No
File Size	The total size of all the content files that comprise the document	Long Integer	Yes	No

Table 8-3 lists the default set of custom attributes included in the DigiPath default attributes set file. You can modify the value for any custom attribute. You can also delete any of the default custom attributes or create new ones using the Library Administration Tool.



*NOTE: The information in Table 8-4 is accurate only if the DigiPath-supplied Custom attributes have not been edited or deleted from your DigiPath database.*

**Table 8-4. Default custom attributes**

Attribute Name	Description	Attribute Type	Required?	User can modify?
Abstract	A summary of the contents of the object	Long String	No	Yes
Authors	The person, people, or group responsible for the content of the object	String	No	Yes
Customers	The list of customers associated with the object	String	No	Yes
Dates Used	A list of dates on which the object was opened	String	No	Yes
Edition	The edition of the publication	String	No	Yes
External Catalog ID	The identification number you assign to the object to link it with other databases	String (64)	No	Yes
Keywords	A list of words to indicate the content of the object	String	No	Yes
Number of Pages	The number of pages in the object	Integer	No	Yes
Published Date	The date on which the object was first published	Date	No	Yes
Publisher	The name of the original publisher of the object	String	No	Yes
Subtitle	The secondary title for the object	String	No	Yes
Title	The identifying name for the object (can be different from the file name)	String	No	Yes
Volume	The publication volume in which the object is contained (not related to Volume Label)	String	No	Yes

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## Using attribute sets

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Use the Attribute utility to create new attribute sets. Once you create an attribute set, you can then apply the attribute set to new cabinets created in Document Library or Library Administration Tool.

Sets of attributes are applied to a cabinet when the cabinet is created. All files imported to that cabinet have the same attributes applied to them.

After importing a file to a cabinet, you can assign values to each of its attributes. The values you specify are used to search for the file at a later date.

The Library Administration Tool is used to define and manage attribute sets. Attribute sets allow you to apply the same attribute and attribute group to several cabinets. By doing so, you can easily create the same properties for several cabinets.



To display the Library Administration Tool:

1. Select [Start: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop.
2. If necessary, provide a password to logon to the Library Administration Tool. The Library Administration Tool opens with the Cabinets and Attributes page.

## Creating a new attribute set

Create an attribute set by adding, deleting, and modifying attributes and attribute groups.

1 3...  
2

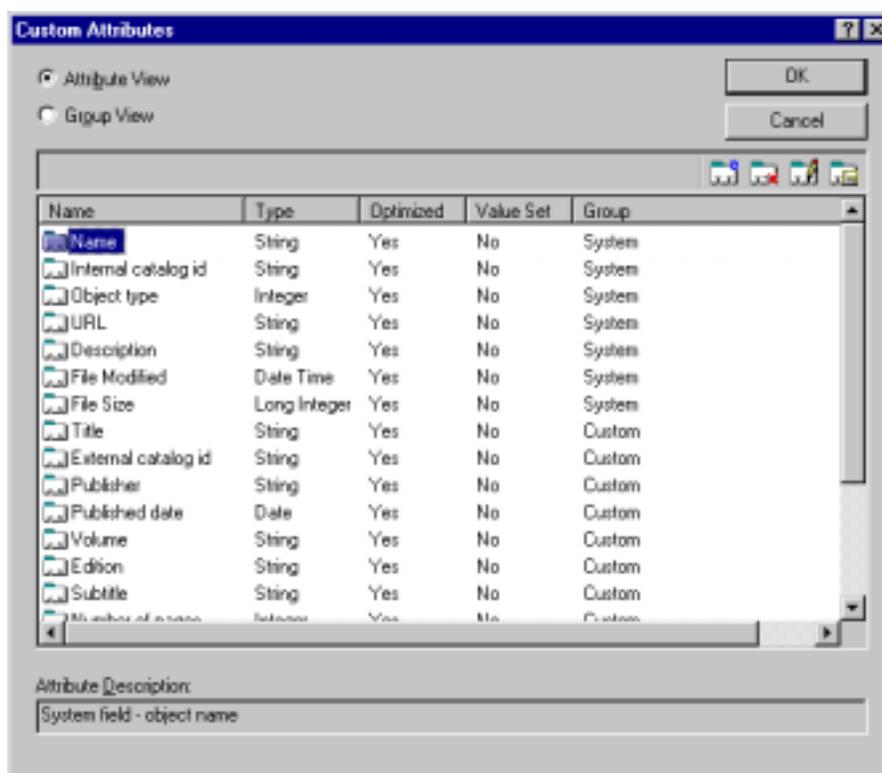
To add an attribute set file to associate with a cabinet(s):

1. Select [Cabinet and Attributes] on the tab bar in the Library Administration Tool.
2. Select the directory or folder in the Windows file system to which you want to add the attribute set file.



*NOTE: You can use the Windows NT File System pull-down menu to select the directory or folder you want. Use the .set File Type.*

3. Select the [New] icon button on the Windows File System Toolbar. Or, select [Edit: New Attribute Set] from the menu bar. The Custom Attributes dialog box opens. See Figure 8-1.



**Figure 8-1. Custom Attributes dialog box**

4. Define attributes. Adding or modifying them as necessary.  
For more information on adding or modifying attributes, refer to “Adding an attribute” on page 8-14.
5. Select [OK]. The Save As dialog box opens.
6. Navigate to the folder in which you want to save the set file.
7. Enter in the name of the set file in the File name text box.
8. Select Property Set files (\*.set) as the file type.
9. Select [Save] to save the set file. Otherwise, select [Cancel] to cancel the operation.

The new attribute set file appears in the Attributes Set File list.

You can now use this attribute set file when creating cabinets. For more information, refer to “Creating cabinets using the Library Administration Tool” on page 7-3.

10. Select [File: Exit] to close the Library Administration Tool.

## Editing an existing attributes set file

---



To edit an existing attributes set:

1. Select [Cabinet and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attribute set file from the Windows File System.



*NOTE: You can use the Windows NT File System pull-down menu to select the file you want. Use the .set File Type.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
4. Define the custom attributes. Adding or modifying them as necessary.  
  
For more information on adding or modifying attributes, refer to “Adding an attribute” on page 8-14.
5. Select [OK] to save the changes. The Save As dialog box opens.
6. Select [Save] to save the set file.
7. Select [File: Exit] to close the Library Administration Tool.

## Deleting an attributes set

---



To delete an existing attributes set:

1. Select [Cabinet and Attributes] on the tab bar in the Library Administration Tool.
2. Highlight the attribute set file from the list of attribute sets in the Windows File System.
3. Select the [Delete] icon button on the Windows File System Toolbar. Or, select [Edit: Delete Attribute Set] from the menu bar. A confirmation message appears asking if you are sure you want to delete the selected cabinet.
4. Select [Yes] to delete the cabinet.
5. Select [File: Exit] to close the Library Administration Tool.

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## Using attributes

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The Attribute utility is used to create new custom attributes, modify existing attributes, and delete attributes.

The Custom Attributes dialog box is used to add a new custom attribute, modify an existing attribute, and delete an attribute.

Table 8-5 lists and describes the two views available for viewing attributes.

**Table 8-5. Types of attribute views**

<b>View</b>	<b>Description</b>
Attribute	Displays the cabinet properties as a list.
Group	Displays the cabinet properties in logical categories or in a group.

The following sections provide detailed instructions for using attributes.

## Adding an attribute

---



To add a new attribute to an existing attribute set:

1. Select [Start: Xerox DigiPath Production Software: Library Administration Tool] from the Windows desktop.
2. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
3. In the Windows File System, highlight the attribute set file (with a .set extension) in which the attribute is contained.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

4. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
5. Select the Attribute View radio button to display a list of all attributes for the selected attributes set file.
6. Select the [New Attribute] icon button on the Toolbar. The New Custom Attribute dialog box opens. See Figure 8-2.



**Figure 8-2. New Custom Attribute dialog box**

7. Enter in the name of the attribute in the Attribute Name text box.
8. Select the attribute type from the Type drop-down list.  
For more information on attribute types, refer to “Identifying the various attribute types” on page 8-5.
9. Mark the box next to the attribute group(s) in which you want the new attribute to be included.  
For more information on Groups, refer to “Using User defined groups” on page 8-20.
10. Enter a description of the attribute in the Description text box. (optional)
11. Mark the Optimize Attribute for Quick Search check box to optimize file search capabilities using this new attribute as search criterion.



*NOTE: You can index an attribute of any type except Long String. You should index an attribute only if it will be frequently used for searching the database.*

12. Mark the Has User Defined Value Sets check box to define values for the following attribute types: Double, Integer, Long Integer, Long String, String, String Set.



*NOTE: You can define a fixed set of values for the attribute only if the attribute type is Double, Integer, Long Integer, String, or String Set.*

13. In the User Defined Value Sets area, define a new set of values for the attribute, if appropriate.

- a. Select the Add Attribute Value icon button.
- b. Enter the first value for the set.
- c. Select [Enter].

The value is added to the Fixed Value Set list box.

- d. Repeat steps b and c to add all necessary values to the fixed set.

14. Repeat the above steps to add additional attributes.

15. Select [OK] to save the changes. The Save As dialog box opens.

16. Select [Save].

17. Select [OK].

The newly defined attribute is added to the Attribute View list and to the Custom group in the Group View list.

18. Select [File: Exit] to close the Library Administration Tool.

## Editing a custom attribute

---



*NOTE: System attributes cannot be edited. Only custom attributes can be edited.*

After you have created a custom attribute, you can then edit the attribute, if necessary. These attributes are associated with cabinets in Document Library.



To edit a custom attribute:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Highlight the attribute set file in which the attribute is contained.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
4. Select the Attribute View radio button to display a list of all attributes for the selected attributes set file.
5. From the Attribute View list box, highlight the custom attribute you want to edit.
6. Select the [Edit Attribute] icon button on the Toolbar. The Edit Custom Attribute dialog box opens.
7. If necessary, change the Attribute Name for the attribute. The title can contain up to 20 characters. Duplicate and empty titles are not accepted.
8. If necessary, change the attribute type by selecting a new type from the Type drop-down list box. This field cannot be empty. See Table 8-1 for a description of the available values.
9. Mark the box next to the attribute group(s) in which you want the attribute to be included.

For more information on Groups, refer to “Creating a new attribute group” on page 8-21.

10. If you want to optimize file search capabilities, mark the Optimize Attribute for Quick Search check box.



*NOTE: You can index an attribute of any type except Long String. You should index an attribute only if it is used frequently for searching the database.*

11. If the assigned values for this attribute are to be from a fixed set of values, make sure the Has User Defined Value Sets check box is marked. Then, make any necessary changes to the values in the User Defined Value Sets list box.
  - To add a new value to the set, select the New Attribute Value icon button.
  - To remove a value from the set, highlight the value in the Fixed Value Set list box and select the Delete icon button.
  - To modify an existing value in the set, remove the value from the set and then add a new value to replace it.
  - To move the values up or down in the list box, use the Move Up and Move Down icon buttons.
12. Repeat steps 5 through 11 to edit any other attributes that require changes.
13. Select [OK].
14. Select [Ok] in the Custom Attributes dialog box. The Save As dialog box opens.
15. Select [Save].
16. Select [Yes].

The Edit Custom Attribute dialog box closes and the changes are applied to the selected attribute.
17. Select [File: Exit] to close the Library Administration Tool.

## Deleting a custom attribute

---



*NOTE: You cannot delete a system attribute. Only custom attributes can be deleted.*

Using Library Administration Tool, you can delete one or more custom attributes.



To delete a custom attribute:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Highlight the attribute set file in which the attribute is contained.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar.
4. Mark the Attribute View radio button. The Custom Attributes dialog box opens.
5. From the Attribute View list box, highlight the custom attribute or attributes you want to delete.
6. Select the [Delete Attribute] icon button on the Toolbar. A confirmation message box opens.
7. Select [Yes] to close the message box and remove the selected attribute or attributes from the Attribute View and Group View lists. Otherwise, select [No] to cancel the operation.



*NOTE: Once an attribute has been deleted, any values assigned to that attribute are also deleted. If you choose to recreate that attribute in the future, you need to use Document Library to add values to that attribute for all affected documents.*

8. Select [File: Exit] to close the Library Administration Tool.

---

## Using User defined groups

---

In addition to the Custom group, you can also create additional groups for organizing custom attributes. These groups are in addition to the existing System and Custom groups, which cannot be removed or renamed.

The Library Administration Tool is used to define user groups, including creating a new custom attribute group, deleting attribute groups, inserting attributes into groups, and removing attributes from groups.

The following sections provide detailed instructions for using user defined groups.

## Creating a new attribute group

---



To create a new attribute group:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attributes set file in which you want to create a new attribute group from the Windows File System.



*NOTE: You can use the NT Windows File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
4. Select the Group View radio button to display the attribute groups.
5. Select the [New Group] icon button on the Toolbar. A new group appears in the window.
6. In the Group Title text box, type a name for the new group.



*NOTE: The name can contain up to 15 displayable characters. You cannot use "Custom" or "System" as the name for the new group.*

7. Add the appropriate attributes to the group.

For more information on adding an attribute, refer to "Adding an attribute" on page 8-14.



*NOTE: You must add an attribute to the newly created group or the group is deleted when you save the attribute set file.*

8. Select [OK]. The Save As dialog box opens.
9. Select [Save].
10. Select [Yes] to replace the existing set file.
11. Select [File: Exit] to close the Library Administration Tool.

## Deleting an attribute group

---

If you have created a user-defined group and you no longer need or want the group, you can delete it.



*NOTE: You cannot delete the Custom or System groups.*



To delete an attribute group:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attributes set file from which you want to delete an attribute group in the Windows File System.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
4. Select the Group View radio button to display the attribute groups.
5. Highlight the group(s) you want to delete.
6. Select the [Delete Group] icon button on the Toolbar. A warning message box opens.



*NOTE: Deleting a group results in purging all attributes within the group. Move any attributes that you do not want deleted into another group.*

7. Select [Yes].
8. Select [OK]. The Save As dialog box opens.
9. Select [Save].
10. Select [Yes] to replace the existing set file.
11. Select [File: Exit] to close the Library Administration Tool.

## Renaming an attribute group

---



To rename an attribute group:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attributes set file from which you want to rename an attribute group in the Windows File System.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar.
4. Select the Group View radio button to display the attribute groups.
5. Highlight the group you want to rename.
6. Type in the new name for the group in the text box.
7. Select [OK]. The Save As dialog box opens.
8. Select [Save].
9. Select [Yes] to replace the existing set file.
10. Select [File: Exit] to close the Library Administration Tool.

---

## Adding an attribute to a user-defined group

---



To add a custom attribute to a user-defined group:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attributes set file from the Windows File System.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute Set] from the menu bar. The Custom Attributes dialog box opens.
4. Select the Group View radio button to display the attribute groups.
5. Select the + next to the Group attribute icon(s) to display the list of attributes in each group.
6. Highlight the custom attribute or attributes you want to add to a group.
7. Select the [Move Up] icon button to move the attribute up to the group to which you want to move the attribute.
8. Select the [Move Down] icon button to move the attribute down to the group to which you want to move the attribute.
9. Repeat the above steps to insert additional attributes into user defined attribute groups.
10. Select [OK]. The Save As dialog box opens.
11. Select [Save].
12. Select [Yes] to replace the existing set file.
13. Select [File: Exit] to close the Library Administration Tool.

## Removing attributes from a user-defined group

---

If you have a user-defined group and you have added custom attributes to it, you can remove those attributes from the group at any time.



*NOTE: You cannot remove attributes from the System group.*



To remove a custom attribute from a user-defined group:

1. Select [Cabinets and Attributes] on the tab bar in the Library Administration Tool.
2. Select the attributes set file from the Windows File System.



*NOTE: You can use the Windows NT File System pull-down menu to select the attributes set file or type in the name of the attribute set file. Use the File Type pull-down menu to select the file type you want.*

3. Select the [Edit] icon button on the Windows File System Toolbar. Or, select [Edit: Edit Attribute set] from the menu bar. The Custom Attributes dialog box opens.
4. Select the Group View radio button to display the attribute groups.
5. Select the + next to the Group attribute icon(s) to display the list of attributes in each group.
6. Highlight the custom attribute or attributes you want to remove from a group.
7. Select the [Delete Attribute] icon button on the Toolbar.  
A confirmation message box opens.
8. Select [Yes] to close the message box and to remove the selected attribute or attributes from the user-defined group. Otherwise, select [No] to cancel the operation.
9. Select [OK]. The Save As dialog box opens.
10. Select [Save].
11. Select [Yes] to replace the existing set file.
12. Select [File: Exit] to close the Library Administration Tool.

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## Using objects across cabinets

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If you copy or move an object from one cabinet to a cabinet with a different set of attributes, you get a warning message dialog box.

This dialog box warns you that the source and destination cabinet for the object have different schemas. As a result, some or all attributes for the object you are copying or moving may be lost.

You will receive the warning message dialog box when you perform any of the following functions involving cabinets that have different attribute sets:

- Copy or move an object from one cabinet to another, including cabinets that reside on the Web Viewing and Submission server
- Copy or move an object from a cabinet on a remote file server to a cabinet on a workstation, or from a cabinet on a workstation to a cabinet on a remote file server

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## 9. Production printing administration

This chapter provides information and procedures for setting up and maintaining DigiPath production printing.

Topics covered in this chapter include:

- Understanding DigiPath production printing
- Identifying Xerox production print servers for DigiPath
- Preparing Network printers
- Installing and setting up printers
- Moving Xerox production printers to and from a DigiPath workstation
- Configuring Network Agents
- Setting up the Document Centre
- Setting up the Remote Print Service (RPS)
- Specifying the DocuJob Converter directory
- Using Print Manager options
- Resolving production printing problems



*NOTE: This chapter covers only topics specific to production printing with DigiPath. Refer to your print server and production printer documentation for detailed information regarding those Xerox products.*

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## Understanding DigiPath production printing

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The following sections give a basic overview of how production printing works with DigiPath and some of the things that need to be considered when setting up production printers for use with DigiPath. DigiPath supports production printing using two network types: TCP/IP and IPX/SPX.

The most commonly used network protocol is TCP/IP. This protocol is used for communication between the DigiPath workstation and production print servers that use UNIX for their network operating system.

The other network protocol, IPX/SPX, is used for communication between the DigiPath workstation and production print servers that use Novell NetWare as their network operating system.

DigiPath support three basic types of production printing:

- Printing locally from the DigiPath workstation
- Printing remotely on another DigiPath workstation using the Remote Printing Service (RPS), also called peer-to-peer production printing
- Printing to a print server via a modem connection using the Remote Access Service (RAS)

The procedures in this chapter discuss the first two types of production printing. For more information about setting up a remote access server and configuring RAS, refer to your Windows NT documentation.

## **Production printing via TCP/IP (UNIX)**

---

To print to a TCP/IP production printer, a valid user account must be available on the print server. Two kinds of accounts are available on a TCP/IP print server. One account does not require the user to log in to the server and the other does require the user to log in when submitting a print job.

To allow a user to print openly, or without logging on to the server, you must create an account with the user name **xdoduser** and a password of **xdodppp**. Once this account is created, the print server is available to any user that knows the name of the server and print queue. No security check is provided by the server.

To provide some degree of security, a login can be required from the user before a job is submitted to a print server. You can either create a local account for the user on the print server, or the user can use a network information service (NIS) account. Either way, the user is prompted for an account and password when submitting a print job to a particular print server.

## **Production printing via IPX/SPX (Novell NetWare)**

---

To print to a Novell Netware production printer, the user account on the DigiPath workstation and the print server must match exactly. This means they must have the same user name and password, or the print server will not accept the job submission. A user must also belong to the group Everyone.

Unlike a TCP/IP production printer, a NetWare production printer does not allow open printing to the server. To print to a NetWare production printer, a user must have a valid and matching user account on the server.

---

## Xerox production printer servers for DigiPath

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DigiPath supports several Xerox production printer and server combinations. Table 9-1 identifies the combinations of print servers and printers supported for DigiPath 2.0. Refer to “Preparing network printers” on page 9-5 section for instructions for configuring Xerox production print servers to be used by DigiPath production software.

**Table 9-1. Print servers and supported printers**

Print Server	Protocol	Supported Printers
DocuSP 1.1 or 1.2	TCP/IP	DocuTech 6135
DocuSP 1.1 or 1.2	Novell	DocuTech 6135
DocuSP 1.3 or higher	TCP/IP	DocuTech 65, 6100, 6135, and 6180
DocuSP 1.3 or higher	Novell	DocuTech 65, 6100, 6135, and 6180
DocuPrint NPS 1.6.1	TCP/IP	DocuPrint 4050, 4090, 4890, 4890/600, and 4850
DocuPrint NPS 1.6.1	Novell	DocuPrint 4050, 4090, 4890, 4890/600, and 4850
DocuPrint NPS 7.0	TCP/IP	DocuPrint 96, 180, and 4635
DocuPrint NPS 7.0	Novell	DocuPrint 96, 180, and 4635
NSPlus Server Series 1.1	TCP/IP	DocuColor 40, DocuTech 135
Network Server Plus 2.0 (w/ patches 4, A, & G) or 2.1 (w/ patches 2 & B)	TCP/IP	DocuTech 135
DocuTech Network Server 1.4x	TCP/IP	DocuTech 90 and 135
DocuTech Network Server 1.4x	Novell	DocuTech 90 and 135

---

## Preparing network printers

---

This section contains the procedures for configuring Xerox network printers and print servers to be used by DigiPath Production Software. Table 9-2 identifies the procedures in this section.



*NOTE: You need support from the site System Administrator for many of the printer preparation procedures in this section because they require you to log in to the print server or network with root or supervisor access.*

**Table 9-2. Network printer preparation procedures**

Procedure	Description
DocuSP 1.1 and above using TCP/IP	The procedure for configuring a DocuSP controller for DigiPath use via TCP/IP.
DocuSP 1.1 and above using a Novell Gateway	The procedure for configuring a DocuSP controller for DigiPath use via a Novell Gateway.
DocuPrint NPS 1.6.1 and above using TCP/IP	The procedure for configuring a DocuPrint server for DigiPath use via TCP/IP.
DocuPrint NPS 1.6.1 and above using a Novell Gateway	The procedure for configuring a DocuPrint server for DigiPath use via a Novell Gateway.
NSPlus Server Series 1.1	The procedure for configuring an NSPlus Server Series server for DigiPath use.
DocuTech Network Server Plus 2.X	The procedure for configuring a DocuTech Network Server Plus server for DigiPath use.
DocuTech Network Server 1.4x using TCP/IP	The procedure for configuring a DocuTech Network Server for DigiPath use via TCP/IP.
DocuTech Network Server 1.4x using Novell NetWare	The procedure for configuring a DocuTech Network Server for DigiPath use via Novell NetWare.

---

## DocuSP 1.1 and above using TCP/IP

---

Perform the following procedures only if DigiPath users will submit jobs to a DocuSP controller using TCP/IP.



*NOTE: For DigiPath Production Software to submit jobs to the DocuSP print controller, the XDOD Gateway MUST be installed on the print controller.*

---

### Creating the DocuSP printers and queues

---

Perform this procedure only if the required queues have not been created on the DocuSP controller. Check with the site System Administrator to determine whether the required queues have been created. If they have been created, continue with the procedure “Adding hosts and users to the DocuSP controller” on page 9-7.



To create the required printers and queues, complete the following steps on the DocuSP controller:

1. Open a command tool or terminal window and enter **su root** at the command prompt.
2. When prompted, enter the root password.
3. At the command prompt, enter **admintool &** to open the Admintool application.
4. From the Admintool menu bar, choose [Browse: Printers].
5. Complete the following steps to create new printers:
  - a. From the menu bar, choose [Edit: Add: Local Printer]. The Add Local Printer dialog box opens.
  - b. In the Printer Name text box, type the name of the virtual printer.
  - c. From the Printer Port drop-down list box, select [Other]. The Specify Printer Port dialog box opens.
  - d. In the Enter Printer Port text box, type **/dev/xeroxnull** and click [OK].
  - e. From the User Access List, ensure “All” is listed.
  - f. Accept all other default settings. Select [OK].
  - g. Repeat steps a through f for each additional printer that needs to be created on the DocuSP controller.

6. If you need to add users to the server, leave the Admintool application open; otherwise, select [File: Exit] to close it.
7. Log on to DocuSP Print Services as the System Administrator user.
8. Select the [Queue Manager] button to open the Queue Manager window.
9. Complete the following steps to create the required queues:
  - a. From the menu bar, select [Queue: New]. The New Queue Set Up dialog box opens.
  - b. In the Name text box, type the name for the virtual printer created in step 5.
  - c. Accept all other default settings and select [OK] to create the queue.
  - d. Repeat steps a through c to create additional required queues.
10. Continue with the procedure Adding hosts and users to the DocuSP controller.

### **Adding hosts and users to the DocuSP controller**

---

Perform this procedure only if the site is not running NIS or if the site System Administrator wants to allow users to print openly to the server; otherwise, continue with the procedure “Enabling job statusing on the DocuSP controller” on page 9-9.



*NOTE: To allow users to print openly to the server, instead of adding individual users, you may wish to add an account with a user name of **xdoduser** and a password of **xdodppp**. This account enables open printing. If this is requested, then perform steps 4 and 5 regardless of whether the site is running NIS.*



To add hosts and users to the DocuSP controller, complete the following steps on the DocuSP controller:

1. If necessary, complete the following steps to open the Admintool application:
  - a. Open a command tool or terminal window and enter **su root** at the command prompt.
  - b. When prompted, enter the root password.
  - c. At the command prompt, enter **admintool &**.

2. From the Admintool menu bar, choose [Browse: Hosts].
3. Complete the following steps to add the DigiPath PC(s) to the DocuSP controller hosts file:
  - a. From the menu bar, choose [Edit: Add]. The Add Host dialog box opens.
  - b. In the Host Name text box, type the computer name for the DigiPath PC.
  - c. In the IP Address text box, type the IP address for the DigiPath PC.
  - d. Select [OK] to add the DigiPath PC to the hosts table.
  - e. Repeat steps a through d for each DigiPath workstation that needs to be added to the hosts table.
4. From the Admintool menu bar, select [Browse: Users].
5. Complete the following steps to add the necessary user accounts to the DocuSP controller:
  - a. From the menu bar, select [Edit: Add]. The Add User dialog box opens.
  - b. In the User Name text box, type the name for the user.
  - c. In the User ID text box, type the numeric ID for the user.
  - d. In the Primary Groups text box, type **xrxgrp**.
  - e. In the Comment text box, type a description for the user.
  - f. From the Login Shell drop-down list box, select [C].
  - g. From the Password drop-down list box, select [Normal Password]. The Set User Password text box opens.
  - h. In both password text boxes, type and retype the password for the user, and select [OK].
  - i. In the Path text box, type the local path for the user. If no path is specified in the worksheets, then clear the [Create Home Directory] check box and type / for the path.

- j. Select [OK] to add the user to the DocuSP controller. If a message displays stating that the home directory belongs to another user, select [OK].
  - k. Repeat steps a through j to create all the required users on the DocuSP controller.
6. From the Admintool menu bar, select [File: Exit].
  7. Continue with procedure “Enable job statusing on the DocuSP controller.”

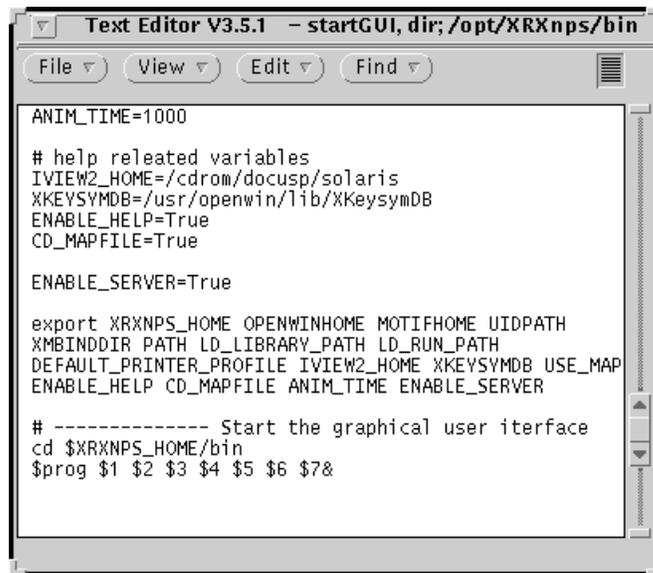
### **Enabling job statusing on the DocuSP controller**

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1 3...  
2

To enable statusing on the DocuSP controller, complete the following steps on the DocuSP controller:

1. If necessary, open a command tool or terminal window and enter **su root** to log in as the root user.
2. When prompted, enter the root password.
3. At the command prompt, enter **/usr/openwin/bin/textedit** to open the Text Editor.
4. Use the [File: Open] menu option to open **/opt/XXnps/bin/startGUI** in the Text Editor.
5. Verify that the setting **ENABLE\_SERVER=True** exists. Refer to Figure 9-1. If the value is not set to “True,” then you must change it to “True”. This entry is case-sensitive and must be entered exactly as shown in Figure 9-1.

A screenshot of a text editor window titled "Text Editor V3.5.1 - startGUI, dir: /opt/XXNps/bin". The window has a menu bar with "File", "View", "Edit", and "Find" options. The main text area contains the following configuration script:

```
ANIM_TIME=1000

# help related variables
IVIEW2_HOME=/cdrom/docusp/solaris
XKEYSYMDB=/usr/openwin/lib/XKeysymDB
ENABLE_HELP=True
CD_MAPFILE=True

ENABLE_SERVER=True

export XXNPS_HOME OPENWINHOME MOTIFHOME UIDPATH
XMBINDDIR PATH LD_LIBRARY_PATH LD_RUN_PATH
DEFAULT_PRINTER_PROFILE IVIEW2_HOME XKEYSYMDB USE_MAP
ENABLE_HELP CD_MAPFILE ANIM_TIME ENABLE_SERVER

# ----- Start the graphical user interface
cd $XXNPS_HOME/bin
$prog $1 $2 $3 $4 $5 $6 $7&
```

**Figure 9-1. The Text Editor window**

6. Save the changes and quit the Text Editor.
7. Log out as root and close the command tool or terminal window.
8. From the DocuSP Print Services menu bar, select [System: Restart] to restart the DocuSP controller with the changes.

---

## DocuSP 1.1 and above using a Novell Gateway

---

Perform the procedures in this section only if DigiPath users will submit jobs to a DocuSP controller using a Novell Gateway.



*NOTE: Before you begin the procedures in this section, ensure the user accounts have been created on the Novell Server. These users must belong to the group Everyone. If the user accounts have not been created, consult the site System Administrator and create the users now.*

---

### Creating the print queue, print server, and printer on the Novell Server

---

This procedure outlines the tasks to be performed at each Novell Server that will communicate with the DocuSP controller. These steps should be performed by the site System Administrator.

Refer to the “Pconsole utility” in the *Novell NetWare Print Server Manual* and/or the “Syscon utility” in the *NetWare Utilities Reference Manual* for assistance in performing this procedure.



To create the print queue, print server, and printer on the Novell Server, complete the following steps on the Novell Server:

1. Create a printer queue on the Novell Server that will receive the DigiPath print jobs.
2. Create a print server that will service the jobs from the Novell Server queue.
3. Create a printer on the Novell Server that will attach remotely to the DocuSP controller. When creating the printer, define the Type as “Remote/Other Unknown.”
4. Attach the print queue to the print server.
5. For each Novell Server, ensure the Autoexec.NCF file contains the following statement:  
**‘Set allow unencrypted passwords=on’**
6. If the above statement was added to the Autoexec.NCF file, down the Novell Server and restart it.
7. Repeat steps 1 through 6 for each Novell Server that will communicate with the DocuSP controller.
8. Continue with the procedure “Configure the Novell Gateway on the DocuSP controller.”

---

## Configuring the Novell Gateway on the DocuSP controller

---



To configure the Novell NetWare settings for the DocuSP controller, complete the following steps on the DocuSP controller:

1. Log on to DocuSP Print Services as the System Administrator.
2. In the DocuSP Print Services window, select the [Administration] button to open the System Administration window.
3. From the System Administration menu bar, select [Gateways: NetWare Set Up]. The NetWare Set Up dialog box opens.
4. Enter the Novell Internal Net Number.
5. Enter in the Novell Net Number.
6. For the framing type, select either [Ethernet\_II] or [Ethernet\_802.3].
7. Select [OK] to close the NetWare Set Up dialog box.
8. When the restart DocuSP software message box opens, select [OK] to confirm the restart.
9. After the DocuSP software restarts, log on to DocuSP Print Services as the System Administrator user.
10. In the DocuSP Print Services window, select the [Administration] button.
11. From the System Administration menu bar, select [Gateways: Queue Server Set Up]. The NetWare Queue Server Set Up dialog box opens.
12. Select [New]. The NetWare Logon dialog box opens.
13. In the User Name text box, enter the user name.
14. In the Password text box, enter the password for the user.
15. From the File Servers list box, select the appropriate Novell file server.
16. Select [OK]. The NetWare Print Servers dialog box opens.

17. In the Pserver Access Password text box, enter the Novell print server password, if there is one.
18. From the Print Servers list, select the appropriate Novell print server.
19. Select [OK]. The NetWare Add Queue Server dialog box opens.
20. From the Print Queues list box, select the appropriate Novell print queue.
21. In the Query Interval text box, enter **5**.
22. From the DocuSP Print Queues list box, select the appropriate virtual printer.
23. Select [OK]. The Qserver Gateway information displays in the NetWare Qserver Setup dialog box.
24. When the Qserver successfully added message displays, select [OK].
25. Select [Close] to close the NetWare Qserver Setup dialog box.
26. From the DocuSP Print Services menu bar, select [System: Restart] to restart the software with the changes.

---

## DocuPrint NPS 1.6.1 and above using TCP/IP

---

Perform the following procedure only if DigiPath users submit jobs to DocuPrint NPS using TCP/IP.



*NOTE: DocuPrint NPS 1.6.1 and above allows only open printing to the server from a DigiPath Production Software client. User accounts can no longer be created to restrict printing.*

---

### Configuring DocuPrint NPS for use with DigiPath

---



To configure the DocuPrint NPS server for use with DigiPath, complete the following steps on the server:

1. From the DocuPrint Print Service window on the printer controller, ensure you are at the PS-admin prompt. If not, enter **privilege administrator**.
2. When prompted, enter the administrator password, which you should obtain from the site System Administrator.
3. From the prompt, enter **Configure**.
4. When prompted, enter the root password.
5. From the Options list, select item [5] to view the individual parameter values.
6. Check the values for *tcpip.ftp* under the “TCP/IP Protocol” section and *xipp.enable* under the “XIPP for XDOD (xipp)” section and do one of the following:
  - If both values are set to (Y) then enter **q** to quit the view and change application. Enter **9** to exit the Configure utility and advance to step 11.
  - If *tcpip.ftp* is set to (N), continue with the next step.
  - If *tcpip.ftp* is set to (Y) and *xipp.enable* is set to (N), advance to step 8.
7. To change the value for *tcpip.ftp* to (Y), complete the following steps:
  - a. At the prompt, enter **m**.
  - b. Enter **tcpip.ftp** as the parameter to modify.
  - c. Enter **y** to enable the option.

8. If `xipp.enable` is set to (Y), then continue with the next step; otherwise, complete the following steps:
  - a. At the prompt, enter **m**.
  - b. Enter **y** to enable the option.
9. At the prompt, enter **c** to commit the changes.
10. Enter **y** for Yes to commit the changes now.
11. If the site is not running NIS, then use a text editor to add the DigiPath Production Software client host names and IP addresses to the `/etc/hosts` file on the DocuPrint controller.
12. Enter **shutdown -r now** to reboot the machine and initialize the changes.

---

## DocuPrint NPS 1.6.1 and above using a Novell Gateway

---

Perform the procedures in this section only if DigiPath users submit jobs to DocuPrint NPS using a Novell Gateway.



*NOTE: Before you begin the procedures in this section, ensure the user accounts have been created on the Novell Server. These users must belong to the group Everyone. If the user accounts have not been created, consult the site System Administrator.*

---

### Creating the print queue, print server, and printer on the Novell Server

---

This procedure contains an outline of the tasks that need to be performed at each Novell Server that will communicate with a DocuPrint NPS server. These steps should be performed by the site System Administrator.

Refer to the “Pconsole utility” in the *Novell NetWare Print Server Manual* and/or the “Syscon utility” in the *NetWare Utilities Reference Manual* for assistance in performing this procedure.



To create the print queue, print server, and printer on the Novell Server, complete the following steps on the Novell Server:

1. Create a printer queue on the Novell Server that will receive the DigiPath print jobs.
2. Create a print server that will service the jobs from the Novell Server queue.
3. Create a printer on the Novell Server that will attach remotely to the DocuPrint server. When creating the printer, define the Type as “Remote/Other Unknown.”
4. Attach the print queue to the print server.
5. For each Novell Server, ensure the Autoexec.NCF file contains the following statement:

**'Set allow unencrypted passwords=on'**

6. If the above statement had to be added to the Autoexec.NCF file, down the Novell Server and restart it.
7. Repeat steps 1 through 6 for each Novell Server and DocuPrint server listed in the *Installation Worksheet Guide*.
8. Continue with procedure "Configure Novell NetWare on the DocuPrint server."

## Configuring Novell NetWare on the DocuPrint server

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1 3...  
2

To configure the Novell NetWare settings for the DocuPrint server, complete the following steps on the DocuPrint server:

1. From the DocuPrint Print Service window on the printer controller, ensure you are at the PS-admin prompt. If not, enter **privilege administrator**.
2. When prompted, enter the administrator password, which you should obtain from the site System Administrator.
3. From the prompt, enter **Configure**.
4. When prompted, enter the root password.
5. From the Options list, select item [3] to review standard installation questions and change answers to some or all.
6. Enter **n** when the Review all questions message displays.
7. Enter **novell** to select the Novell package.
8. Enter **n** when the User Remote Printer for Novell NetWare? question displays.
9. Enter **Y** when the Print Server for Novell Netware? question displays.
10. Enter the name of the Novell file server to service or press <Enter> to accept the default.
11. Enter the name of the print server.
12. Enter the password for the print server or press <Enter> for none.
13. Re-enter, or press <Enter> if no password is being entered, to confirm the password.

14. Enter the name of the queue to service or press <Enter> to accept the default.
15. Enter the IPX Internal Network Number or press <Enter> to accept the default.
16. Enter the IPX Number of the connected LAN or press <Enter> to accept the default.
17. Enter the Novell Network Framing Type or press <Enter> to accept the default.
18. Enter **y** for Yes to accept the changes.



*NOTE: If the IPX or SPX drivers are already loaded, a message may display stating the Novell configuration failed. Dismiss this message by selecting [Cancel]; it is erroneous.*

19. Enter **Restart System** to reboot the machine and initialize the changes.

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## NSPlus Server Series 1.1

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Perform the following procedure only if DigiPath users submit jobs to a NSPlus Server Series server.

If the procedures in the *Xerox DocuTech Network Server Plus Series Administrator's Guide* regarding XDOD Job Submission have not been performed, then perform the procedure in this section.

On the server, you must either add an account to enable open printing (the **xdoduser** account with **xdodppp** as the password) or create individual accounts, which will restrict printing access. To do this, choose one of the following options:

- If the site is running NIS, contact the site System Administrator to add the necessary accounts.
- If the site is not running NIS, then complete the following steps on the NSPlus Server Series server to add the user accounts and host names:



1. From the NSPlus Server Series operator interface, select [Logout of NSPlus] from the System menu.
2. At the NSPlus Server Series welcome dialog box, enter **root**.
3. Enter the root password and select [OK]. The default password is **xerox**.
4. Select [System Admintool] from the NSPlus Manager.
5. From the Admintool menu bar, select [Browse: Users].
6. Complete the following steps to add the necessary user accounts to the server:
  - a. From the menu bar, select [Edit: Add]. The Add User dialog box opens.
  - b. In the User Name text box, enter the name for the user.
  - c. In the User ID text box, enter the numeric ID for the user.
  - d. In the Primary Groups text box, enter **xrxgrp**.
  - e. In the Comment text box, enter a description for the user.
  - f. From the Login Shell drop-down list box, select [C].

- g. From the Password drop-down list box, select [Normal Password]. The Set User Password text box opens.
  - h. In both password text boxes, type and retype the password for the user, and select [OK].
  - i. In the Path text box, enter the local path for the user.
  - j. Select [OK] to add the user to the server. If a message displays stating that the home directory belongs to another user, select [OK] to dismiss it.
  - k. Repeat steps a through j to create all the required users on the server.
7. From the Admintool menu bar, select [Browse: Hosts].
8. Complete the following steps to add the DigiPath PC(s) to the server hosts file:
  - a. From the menu bar, select [Edit: Add]. The Add Host dialog box opens.
  - b. In the Host Name text box, enter the computer name for the DigiPath PC.
  - c. In the IP Address text box, enter the IP address for the DigiPath PC.
  - d. Select [OK] to add the DigiPath PC to the hosts table.
  - e. Repeat steps a through d for each DigiPath PC that needs to be added to the hosts table.
9. From the Admintool menu bar, select [File: Exit].
10. From the NSPlus Manager pull-down menu, select [Logout of NSPlus].
11. Enter the operator account and password to reactivate the NSPlus Server Series utility.
12. Refer to the procedures in the *Xerox DocuTech NS Plus Server Series Administrators Guide* for more information on configuring printers.

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## DocuTech Network Server Plus 2.X

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Perform the following procedure only if DigiPath users submit jobs to a Network Server Plus server.

On the server, you must either add an account to enable open printing (the **xdoduser** account with **xdodppp** as the password) or create individual accounts, which will restrict printing access. To do this, choose one of the following options:

- If the site is running NIS, contact the site System Administrator to add the necessary accounts.
- If the site is not running NIS, then complete the following steps on the Network Server Plus server to add the user accounts and host names:



1. Open a command tool window and enter **su root** at the command prompt.
2. When prompted, enter the root password. If necessary, contact the site System Administrator for the password.
3. At the prompt, enter **/usr/xerox/admin/sysadm** to open the Sysadmin Tool.
4. Complete the following steps to add the necessary user accounts to the server:
  - a. Enter **5** at the prompt to go to the User Management screen.
  - b. Enter **2** at the prompt to go to the List Current Users screen and verify that the user names are not already listed. When finished, press <Enter> to return to the Main Menu.

- c. Enter **1** at the prompt to go to the Add User screen. Complete the following steps at the Add User screen:
    - i. Enter the full name for the user.
    - ii. Enter the user name for the user.
    - iii. Enter the password for the user and verify when prompted.
  - d. Repeat steps a through c for each user that needs to be added.
5. Use a text editor to add the DigiPath Production Software client host names and IP addresses to the /etc/hosts file on the DocuPrint controller.

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## DocuTech Network Server 1.4x using TCP/IP

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Perform the following procedures only if DigiPath users submit jobs to a DocuTech Network Server using TCP/IP.



*NOTE: Before you begin the procedures in this section, ensure the user accounts have been created on the Novell Server. These users must belong to the group Everyone. If the user accounts have not been created, consult the site System Administrator.*

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### Verifying trustee assignments and adding users to the NetWare Server

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To configure DocuTech Network Server for use with DigiPath, complete the following steps on the DigiPath PC:

1. Using Windows NT Explorer, map a network drive to the server and log in as supervisor.
2. Using Windows NT Explorer, start the SYSCON utility by double-clicking the syscon.exe file in the public directory on the server.
3. From the Available Topics list, select [Group information] and press <Enter>.
4. From the list of group names, select the group [EVERYONE] and press <Enter>. The Group Information dialog box opens.
5. Select [Trustee Directory Assignments] and press <Enter>.
6. Verify that the following directory trustee assignments exist:

**SYS:SYSTEM/XRX/SUBMIT [RWCE F]**

**SYS:SYSTEM/XRX [R F]**

If these assignments do not exist, then complete the following steps to create them:

- a. Select the directory to be modified and press <Enter>. The Trusted Rights Granted dialog box opens.

- b. Press <Insert>. The Trusted Rights Not Granted dialog box opens.
- c. Select the desired rights and press <Enter> to add them. The values are Read, Write, Create, Edit, and File Scan.
- d. When all rights have been added, press <Esc> until you return to the Main Menu.



*NOTE: You are not creating a new directory. You are only setting access rights for a directory that already exists.*

7. If the user accounts have not been created on the server, then complete the following steps to enable them:
  - a. From the Available Topics list, select [User Information] and press <Enter>.
  - b. Press <Insert> and enter the name of the user.
  - c. Press <Enter> when the creation path for the home directory displays.
  - d. Select [Yes] to verify the creation of the new directory.
  - e. Select the user and press <Enter>.
  - f. From the User Information list, select [Change Password] and press <Enter>.
  - g. Enter the password for the user.
  - h. Reenter the password and press <Enter>.
  - i. Press <Esc> to exit the User Information list.
  - j. Repeat steps a through i for each user that needs to be added.
8. Press <Esc> twice and then answer [Yes] to exit SYSCON.
9. Using Windows NT Explorer, disconnect the network drive mapped to the server.

## Configuring the Novell NetWare Server

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To configure the Novell NetWare Server for use with DigiPath, complete the following steps on the NetWare server:

1. Press and hold the <Alt> key to see if you are at the System Console screen (look at the banner at the top of the screen). If you are at the System Console screen, then continue with the next step; otherwise, press and hold the <Alt> key and press <Esc> repeatedly to cycle through the available screens until you reach System Console screen.
2. Ensure that NFS version 1.2C or greater is running on the server. If you are unsure, perform the following steps to verify the version:
  - a. At the prompt, type **load install** and press <Enter>. The Installations Options screen opens.
  - b. Select [Product Options] and press <Enter> to view the list of products installed on the server.
  - c. Ensure that NetWare NFS Version 1.2C or a more recent version is listed.
3. At the System Console screen, enter **load nfsadmin**. The NFS Administration menu opens.
4. From the Main Menu screen, select [Novice Configure] and press <Enter>.
5. When asked to modify the user table information, select [No] and press <Enter>.
6. When asked to modify the group table information, select [No] and press <Enter>.



*NOTE: If NFS is not installed, then refer to the Xerox Network Server documentation for the installation procedures.*

7. When asked to modify the host table information, select [Yes], press <Enter>, and complete the following steps:
  - a. Press <Insert> to add the DigiPath PC information.
  - b. Type the IP address and press <Enter>.
  - c. Type the host name for the DigiPath PC and press <Enter>.
  - d. Repeat steps a through c for each DigiPath PC that needs to be added.
  - e. Press <Esc>, select [Yes], and press <Enter> when asked to save the changes.
8. When asked to modify the export table information, select [Yes], press <Enter>, and complete the following steps:
  - a. From the Exported Path window, ensure the SYS/SYSTEM/XRX directory is listed. If it is not, then press <Insert> and add the following exported path:  
**/SYS/SYSTEM/XRX**
  - b. Press <Enter> to select the directory.
  - c. Press <Enter> again to bring up the Exports File Options menu.
  - d. Set the Read-Only Access to **No**.
  - e. Set the Anonymous Access to **Yes**.
  - f. Verify the following settings and, if necessary, change them by selecting them and pressing <Enter>:
    - Read-Write Access: <blank>
    - DOS Attributes: **Do not modify attributes from NFS**
    - Trusted Hosts: <blank>
    - Trustee Rights: **Create trustee rights from NFS**
  - g. Press <Esc> twice, select [Yes], and press <Enter> when asked to save the changes.
9. Select [No] to any further prompts to modify screens until the "NFS Configuration is Complete" message.
10. Press <Esc> to return to the Main Menu screen.
11. Press <Esc> and select [Yes] to exit the NFSAdmin tool.

12. You must now configure the print queue to be serviced by PLPD. At the System Console screen, enter **load plpdcfg**. The LPD Configuration Menu opens.
13. From the Main Menu, select [Select Print Queues for use by LPD] and press <Enter>.
14. Verify that the appropriate printer queues are present. If they are not, then complete the following steps:
  - a. Press <Insert>.
  - b. Select the appropriate Xerox Network Server Print Queue.
  - c. Press <Enter>.
  - d. Repeat steps a through c for each print queue that needs to be configured.
15. Press <Esc> to return to the Main Menu.
16. From the Main Menu, select [Select Trusted Hosts] and press <Enter>.
17. Press the <Insert> key, select the name of the DigiPath PC added to the host table information in step 7, and press <Enter>.
18. Repeat step 17 for each DigiPath PC that needs to be configured.
19. Press <Esc> to return to the Main Menu.
20. From the Main Menu, select [Select Username Mapping Mode] and press <Enter>.
21. Select [All Clients use same NetWare Account] and press <Enter>.
22. Ensure GUEST is listed as the selected user name. If it is not, then complete the following steps:
  - a. Press <Enter>.
  - b. From the list of available user names, select [GUEST] and press <Enter>.
  - c. Press <Esc>.
  - d. Select [Yes] for to save the changes and then select [Yes] to update the mapping mode.

23. Select [Use Client Username as NetWare Username] and press <Enter>.
24. Select [Yes] and press enter when prompted to update mapping mode.
25. Press <Esc> twice, select [Yes], and press <Enter> when prompted to exit.
26. Complete the following steps to restart NFS:
  - a. At the System Console screen, enter **unistop**.
  - b. When asked to confirm, answer yes.
  - c. If a message displays regarding NetWare locks being discarded, press <Y> to unload the module, anyway.
  - d. At the System Console screen, enter **unistart**.

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## DocuTech Network Server 1.4x using Novell NetWare

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Perform the following procedures only if DigiPath users submit jobs to a DocuTech Network Server using Novell NetWare.



*NOTE: Before you begin the procedures in this section, ensure the user accounts have been created on the Novell Server. These users must belong to the group Everyone. If the user accounts have not been created, consult the site System Administrator.*



To configure DocuTech Network Server for use with DigiPath, complete the following steps on the DigiPath PC:

1. Using Windows NT Explorer, map a network drive to the server and log in as supervisor.
2. Using Windows NT Explorer, start the SYSCON utility by double-clicking the syscon.exe file in the public directory on the server.
3. From the Available Topics list, select [Group information] and press <Enter>.
4. From the list of group names, select the group [EVERYONE] and press <Enter>. The Group Information dialog box opens.
5. Select [Trustee Directory Assignments] and press <Enter>.
6. Verify that the following directory trustee assignments exist:

**SYS:SYSTEM/XRX/SUBMIT [RWCE F]**

**SYS:SYSTEM/XRX [R F]**

If these assignments do not exist, then follow these steps to create them:

- a. Select the directory to be modified and press <Enter>. The Trusted Rights Granted box opens.
- b. Press <Insert>. The Trusted Rights Not Granted box opens.
- c. Select the desired rights, and press <Enter> to add them. The values are Read, Write, Create, Edit, and File Scan.
- d. When all rights have been added, press <Esc> until you return to the Main Menu.



*NOTE: You are not creating a new directory. You are only setting access rights for a directory that already exists.*

7. If the user accounts have not been created on the server, then follow these steps to enable them:
  - a. From the Available Topics list, select [User Information], and press <Enter>.
  - b. Press <Insert>, and enter the name of the user.
  - c. Press <Enter> when the creation path for the home directory opens.
  - d. Select [Yes] to verify the creation of the new directory.
  - e. Select the user and press <Enter>.
  - f. From the User Information list, select [Change Password], and press <Enter>.
  - g. Enter the password for the user.
  - h. Reenter the password, and press <Enter>.
  - i. Press <Esc> to exit the User Information list.
  - j. Repeat steps a through i for each user that needs to be added.
8. Press <Esc> twice, and then answer [Yes] to exit SYSCON.
9. Using Windows NT Explorer, disconnect the network drive mapped to the server.

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## Installing and setting up printers

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This section contains the procedures for installing a local printer and setting up production printers for DigiPath use. Table 9-3 identifies the procedures in this section.

**Table 9-3. Printer installation and setup procedures**

Procedure	Description
Installing the local draft printer	The procedure for creating a local Windows NT draft printer on a DigiPath system.
Setting up DigiPath production printers	The procedure for creating production printers for use with the DigiPath Production Software applications.

### Installing the local draft printer

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*NOTE: Perform this procedure only if installing a local draft printer. If you are installing a Xerox DocuPrint N32 printer, then you should install the HP LaserJet 5 Si/MX print driver. Also, if you install Microsoft NT Service Pack 5 after installing the N32 printer, you need to reinstall the HP LaserJet 5 Si/MX print driver.*



To install the local draft printer:

1. From the Windows desktop, select [Start: Settings: Printers] to open the Printers window.
2. Double-click the [Add Printer] icon. The Add Printer Wizard opens.
3. Select [My Computer], and select [Next].
4. From the list of available ports, mark the check box for [LPT1:], and select [Next].
5. Select the appropriate manufacturer and printer model, and select [Next]. If the printer has its own driver disk or CD, follow the directions in the printer documentation for selecting the manufacturer and model.

6. Accept the default name for the printer by doing the following:
  - a. Select [Yes] where setup asks if you want to use the printer as the default printer.
  - b. Select [Next].
7. Select [Not shared], and select [Next].
8. Select [No] when prompted to print a test page, and select [Finish].
9. If the printer has its own driver disk or CD, follow the directions in the printer documentation for installing the driver; otherwise, continue these steps to install the driver:
  - a. Insert the Windows NT CD-ROM into the CD drive and close the AutoPlay browser by clicking the X icon in the upper right-hand corner of the window.
  - b. Select [OK] to close the Insert Disk message. The Files Needed dialog box opens.
  - c. In the text box, enter **i:\i386**, and select [OK]. Files are copied.
  - d. After the driver files are copied, remove the Windows NT CD-ROM from the CD drive.
10. Close the Printers window.

---

## Setting up DigiPath production printers

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1 3...  
2

To set up DigiPath production printers:

1. From the Windows desktop, select [Start: Programs: Xerox DigiPath Production Software: Printer Administration]. The Printer Setup dialog box opens.
2. Select [Production Printers], and select [OK]. The Servers and Connections dialog box opens.
3. Select [Add Printer]. The Add Printer dialog box opens.
4. If you are adding a TCP/IP printer, complete the following steps; otherwise, continue with step 5:
  - a. Under Network Type, select [TCP/IP].
  - b. In the Printer Name text box, enter the descriptive name for the printer.
  - c. In the Print Server text box, enter the host name or IP address of the print server.
  - d. In the Print Queue text box, enter the name of the desired queue on the print server.
  - e. From the Printer Model: Server Type drop-down list box, select the appropriate printer and server combination.
  - f. From the Print Manager drop-down list box, select the appropriate print manager
  - g. Select [OK] to add the printer.
5. If you are adding a Novell NetWare printer, complete the following steps; otherwise, continue with step 6:
  - a. Under Network Type, select [Novell NetWare]. The Browse button is enabled.
  - b. In the Printer Name text box, enter the descriptive name for the printer.

- c. Select [Browse]. The Connect to Printer dialog box opens.
- d. From the Shared Printers list box, locate and select the desired print server. The queues for the server are listed.



*NOTE: If no queues display, then the current Windows NT user account does not exist on the Novell NetWare server. To access the list of printer queues, double-click the Network Neighborhood icon on the desktop, locate the print server, and connect to it with a valid Novell NetWare user account and password.*

- e. Select the desired print queue, and select [OK].
- f. If a message displays stating that a printer driver needs to be installed, complete the following steps; otherwise, continue with step g:
  - i. Insert the Windows NT CD-ROM into the CD drive and close the AutoPlay browser by selecting the X icon in the upper right-hand corner of the window.
  - ii. Select [OK] to close the message. The Add Printer Wizard dialog box opens.
  - iii. From the Manufacturers list box, select [Xerox].
  - iv. From the Printers list box, select either [Xerox DocuTech 90 PS2] or [Xerox DocuTech 135 PS2].
  - v. Select [OK]. The Insert Disk message opens.
  - vi. Select [OK]. The Files Needed dialog box opens.
  - vii. Enter **i:\386** in the text box, and select [OK]. The driver is installed and the Print Server and Print Queue fields are automatically populated with the printer information.
  - viii. Remove the Windows NT CD-ROM from the CD drive.
- g. From the Printer Model: Server Type drop-down list box, select the appropriate printer and server combination.
- h. From the Print Manager drop-down list box, select the appropriate print manager
- i. Select [OK] to add the printer.

6. Repeat steps 3 through 5 for all printers.
7. Select [Close] to exit the Servers and Connections dialog box.
8. Select [Cancel] to exit Printer Setup.

---

## Removing Xerox production printers from a DigiPath workstation

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The following procedure describes how to remove production printers so they are no longer available for use with DigiPath applications.



*NOTE: This procedure is valid for both Novell NetWare (IPX/SPX) and UNIX (TCP/IP) production printers.*



To remove an existing production printer:

1. Select [Start: Programs: Xerox DigiPath Production Software: Printer Administration] from the Windows desktop. The Printer Administration dialog box opens.
2. Select the [Production Printer] radio button.
3. Select [OK]. The Servers and connections dialog box opens.
4. Select the production printer you wish to remove from the Printer drop-down list box.
5. Select [Delete Printer]. A confirmation message box appears.
6. Select [OK] delete the selected printer and close the Servers and Connections dialog box.
7. Select [Cancel] to close the Printer Administration dialog box.



*NOTE: To remove the access to the print server for a particular Windows NT user, you must do either of the following:*

- *For a Novell NetWare server, delete the matching user account from the NetWare server account database.*
- *For a UNIX server, delete the user account from the UNIX server account database. In addition to, or as an alternative, delete the default **xdoduser** account.*

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## Configuring Network Agents

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This section contains the procedures for configuring Network Agents for DigiPath use.

### Creating a Network Agent save queue

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To create a Network Agent save queue, complete the following steps on the DocuSP print controller:

1. Open a command tool or terminal window.
2. At the command prompt, enter **mkdir -p /var/spool/data/netagt/<queue\_name>** to create the save directory.
3. Ensure you are logged on to DocuSP Print Services as the System Administrator user.
4. Double-click the [Prefs] icon to open the Preferences window and complete the following steps. If the icon is not present, choose [Options: Preferences] from the DocuSP Print Services menu bar:
  - a. In the Preferences window, select the Save tab.
  - b. Under File Server Type, ensure [UNIX] is selected.
  - c. From the directory structure list box, select the [/var/spool/data/] directory.
  - d. Ensure **/var/spool/data/** is displayed in the Selection text box and click [OK].
5. Double-click the [QM] icon to open the Queue Manager window and complete the following steps:
  - a. From the menu bar, select [Queue: New]. The New Queue Set Up dialog box displays.
  - b. In the Name text box, type the name for the Network Agent queue.



*NOTE: The Network Agent queue name should be different than the Network Agent save queue name.*

- c. Under Job Destination, select [Save]. The Save Location button is enabled.
- d. Click [Save Location], ensure **/var/spool/data/netagt/<queue\_name>** is displayed in the Selection text box, and select [OK].

- e. Under Job Destination, mark the check box for [Override].
  - f. Ensure no other Override check boxes in the New Queue Set Up dialog box or under any Extended Options are marked.
  - g. Click [OK]. The Network Agent queue is added to the list of existing queues.
6. Repeat steps 1 through 5 for each DocuSP server and save queue.
  7. Enable job statusing on the DocuSP controller, refer to “Enabling job statusing on the DocuSP controller” on page 9-9.

## Configuring the network agent

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To configure a Network Agent for a DigiPath system, complete the following steps on the DigiPath PC:

1. Select [Start: Programs: Xerox DigiPath Production Software: Printer Administration] from the Windows desktop. The Printer Administration dialog box opens.
2. Select the [Network Agent] radio button.
3. Select [OK]. The Network Agent Setup dialog box opens.
4. Select [Add]. The Add/Edit Network Agent dialog box opens.
5. Mark the [DocuTech Decomp Services] radio button.
6. In the Server name text box, enter the host name of the DocuSP server.
7. In the Queue name text box, enter the name of the Network Agent save queue.



*NOTE: The Network Agent save queue name should be different than the Network Agent queue name.*

8. In the User name text box, enter **root**.
9. In the Password text box, enter the password for the root user.
10. In the Server Path text box, enter **`/var/spool/data/<queue_name>`**.
11. Under file system type, select [UNIX].

12. Under Save retrieved jobs to, use the Windows file System or the Cabinet System to specify the directory or cabinet in which you want incoming jobs from the DocuSP stored. This directory or cabinet must be on the DigiPath PC; if it is not, create the directory using Windows NT Explorer or create the cabinet using the Library Administration Tool.



*NOTE: The proper directory and file sharing must be set up on the Network Agent directory.*

13. Select [OK] to add the Network Agent.
14. Repeat steps 3 through 12 for each Network agent.
15. Select [Done] to close the Network Agent Setup dialog box.
16. Select [Cancel] to close the Printer Administration dialog box.

### **Enabling the network agent service**



To enable the Network Agent service on the DigiPath workstation, complete the following steps on the DigiPath PC:

1. Select the [Network Agent] icon on the Windows task bar using the right-mouse button.
2. Clear the check mark next to the [Disabled] option to enable the Network Agent service.
3. Reboot the PC.

### **Adding the network agent print queue to the DigiPath workstations**

Use the Printer Administration to add the Network Agent print queue to all the DigiPath workstations that will be accessing the Network Agent directory including the DigiPath workstation in which the directory resides. For more information on adding the network agent print queue to a DigiPath workstation, refer to "Setting up DigiPath production printers" on page 9-33.

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## Setting up the Document Centre

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Before a Document Centre can be used to submit jobs to the DigiPath workstation, both the Document Centre and the DigiPath workstation must be configured to direct the output from the Document Centre directly back to the DigiPath workstation.

The following sections provide detailed instructions for setting up the Document Centre.

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### Configuring the WFTPD Pro software

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*NOTE: WFTPD Pro must be installed on the DigiPath workstation in which documents are going to be sent from the Document Centre. If WFTPD Pro software is not installed on the DigiPath workstation, contact your Xerox representative.*

The following sections provide detailed instructions for configuring the FTP server and creating a Document Centre user for use with the FTP server.

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### Configuring the FTP server

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Complete the following steps to configure the WFTPD server:

1. Under Servers, select [New Server]. The Create Server dialog box opens.
2. In the Server Name text box, type the computer name.
3. In the Listen at Address text box, remove the default value and type the IP address of the computer.
4. Select [OK].
5. Highlight the server you just created and select [Configure].
6. Select the [Logging] tab and complete the following steps:
  - a. Type **e:\digipath\wftpd.ftp** for the log file information.
  - b. Mark the [Enable Logging] check box.
  - c. Under [Log These Items], mark the check boxes for the following items and ensure all other check boxes are cleared:
    - Gets
    - Puts
    - Commands

- Warnings
  - Logins
7. Select the [Security] tab and complete the following steps:
    - a. Ensure the [Enable Security] and [Allow Uploads, etc.] check boxes are marked.
    - b. Under [Advanced Network Settings], ensure the [Do not connect to low(<1024) Port Number] check box is marked.
    - c. Make the following setting changes:
      - Maximum User Count = **10**
      - Idle Timeout (seconds) = **300**
      - Failed Logins Before Disconnect = **5**
  8. Select [OK] to close the Configure Server dialog box.
  9. In the WFTPD Main Control dialog box, highlight the server and select [Go].
  10. Select [Start Service]. The status indicator next to the server name should turn green.
  11. From the Control Panel, double-click the [Services] icon to open the Services dialog box.
  12. From the list of services, select [Remote Print Services] and select [Startup]. The Services dialog box opens.
  13. From the list of services, scroll down to the WFTPD Pro service and ensure the Startup option is set to "Automatic."

## Creating the Document Centre user for the FTP server

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To create the Document Centre user for the FTP server, complete the following steps:

1. In the WFTPD Main Control dialog box is not already open, double-click the [WFTPD FTP Server] icon in the Control Panel to open it.
2. Select the FTP server and select [Configure].
3. Select the [Users] tab and select [Create User]. The Create New User dialog box opens.
4. In the New User text box, type the case-sensitive value for the Document Centre user and select [OK].
5. When the Set User Password dialog box opens, type and retype the password for the Document Centre user.
6. Select [OK] to close the Set User Password dialog box.



*NOTE: Do not mark the [User is a Xerox DocuTech] option.*

7. In the Home Directory text box, type the directory in which the user places the xsm Document Centre files to be submitted to the Document Centre.



*NOTE: The directory must already exist; WFTPD Pro will not automatically create it if it does not exist. If the directory does not exist, use Windows NT Explorer to create it now.*

8. Under Rights for user, complete the following steps:
  - a. In the Directory text box, type the directory in which the Document Centre stores the converted RDO files.
  - b. Ensure all four rights check boxes are marked.
9. Select [OK] to close the Configure Server dialog box.
10. Select [Close] to exit the WFTPD Main Control dialog box.

## Configuring the Document Centre directory

---



At the DigiPath workstation, complete the following tasks:

1. If necessary, define a directory in which you want the converted RDO files stored. Use Document Library Lite to create a Document Centre download directory on the DigiPath workstation local hard drive.

For example: **<DigiPath directory>:\digipath\doccentre**



*NOTE: Note the location and name of this directory. The directory name is case-sensitive.*

2. Select [Start: Programs: Xerox DigiPath Production Software: Printer Administration] from the Windows desktop. The Printer Setup dialog box opens.
3. Select the [Network Agent] radio button.
4. Select [OK]. The Network Agent Setup dialog box opens.
5. Select [Add]. The Add/Edit Network Agent dialog box opens.
6. Select the [Document Centre] radio button.
7. Select the directory in which the user places the xsm Document Centre files to be submitted to the Document Centre.
8. Use the Windows File System or the Cabinet System to specify the directory or cabinet in which you want the converted RDO files stored.



*NOTE: When using the Cabinet System, you must enter a user name and password, specify the local or remote system, and enter the location in which you want jobs saved.*

9. Select [Done] to close the dialog box.
10. Select [Cancel] to close the Printer Administration dialog box.

### Enabling the network agent service

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The Network Agent service must be enabled on the DigiPath workstation. To enable the Network Agent service, refer to “Enabling the network agent service” on page 9-43.

## **Adding the Document Centre printer to the DigiPath workstations**

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Use the Printer Administration to add the Document Centre printer to all the DigiPath workstations that will be accessing the Document Centre.

When setting up the Document Centre print queue, specify the following options:

- Print Server - enter the name or IP address of the destination printer
- Print Queue - enter **lp**

For more information on adding the Document Centre print queue to the DigiPath workstation, refer to Setting up DigiPath production printers on page 9-33.

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## Setting up the Remote Print Service (RPS)

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To production print remotely from a DigiPath workstation, you must set up the Remote Print Service on both the remote and local workstations.



To set up the Remote Print Service:

1. Select [Start: Settings: Control Panel] from the Windows desktop. The Control Panel window opens.
2. Double-click on the Services icon. The Services dialog box opens.
3. Scroll through the Services list box and highlight [Remote Print Service].
4. If the Remote Print Service has been started, stop the service by selecting [Stop].
5. Select [Startup]. The Service dialog box opens.
6. Under Log On As, select the [This Account] option button.
7. Select [...]. The Add User dialog box opens.
8. Select [Add] to add the user.



### CAUTION

*If you are remote printing to a production printer that uses the Novell NetWare operating system (for example, the DocuTech 135 with the DocuTech Network Server), you must select a user account that exactly matches a user account existing on the Novell server.*

9. From the list of users, highlight the user account you want to use. Do not select the Administrator account.



*NOTE: Remote printing works correctly if the user account has security privileges for the directory where the document is being printed. The System Administrator must ensure the user account can access the desired directory and file before a job is submitted remotely.*

10. In the Password text box, enter the password for the selected user account and then enter the password again in the Confirm Password text box.
11. Select [OK] to close the Add User dialog box. The selected user account appears in the This Account text box.

12. Select [OK] to close the Services dialog box and save the settings.
13. In the Services dialog box, select [Start] to start the Remote Print Service.
14. Select [Close] to close the Services dialog box.

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## Specifying the DocuJob Converter directory

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The Xerox DocuJob Converter (DJC) converts DocuJobs into a series of TIFF files, PostScript files, or RDO files. Queues are set up on XDJC to direct the flow of jobs in and out. Users submit DocuJobs to an “input” directory. The following steps document the procedure to set up the DocuJob Converter “input” directory on a DigiPath workstation.



To configure the XDJC directory on the DigiPath PC:

1. Select [Start: Programs: Xerox Digipath Production Software: Printer Administration] from the Windows desktop. The Printer Setup dialog box opens.
2. Select [DocuJob Converter Directory].
3. Select [OK]. The DocuJob Converter Input dialog box opens.
4. Select [Browse]. The Browse dialog box opens.
5. Select the XDJC inbox directory you mapped to a network drive during the Hummingbird NFS Maestro procedures from the Drives drop-down list box.
6. Select [OK].
7. Select [OK] to close the DocuJob Converter Input dialog box.



*NOTE: Refer to the Xerox DocuJob Converter User Guide for more information and instructions regarding the configuration and use of Xerox DocuJob Converter.*

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## Print Manager Options

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This section describes using the Extended Connectivity Print Job Manager as a print job manager.

### **Extended Connectivity Print Job Management (EC-PJM)**

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Extended Connectivity Print Job Manager (EC-PJM) is an alternative print job manager available for the Network Server. It is used with networked DocuTech, DocuPrint NPS, Docutech 6135/6180, DocuColor 40, and Network Server Plus production printers.

The following DigiPath applications support EC-PJM as a print manager option:

- Document Library
- Document Scan and Makeready
- Web Viewing and Submission
- Quick Print



*NOTE: Job status information is not available for jobs submitted through EC-PJM.*

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## Resolving production printing problems

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This section describes resolving TCP/IP and Novell Netware printing problems, viewing the Windows NT event viewer to troubleshoot printing problems, and cleaning up print file problems.

### Resolving TCP/IP problems

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If you or a user encounter problems when printing from a DigiPath workstation to a TCP/IP server, some things to check include the following:

- Make sure the user is using a valid login for the print server.
- Make sure the default user name and password, and xdoduser/xdodppp account exists on the server.
- Make sure the printer added in the Servers and Connections dialog box has a selected printer type and server type that matches the TCP/IP print server.
- Make sure the print queue exists on the TCP/IP server and is enabled.
- If you or a user are having problems printing remotely, make sure you have properly set up the Remote Print Service and that it is using a valid user account for the print server.

## **Resolving Novell NetWare problems**

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If you or a user are having problems when printing from a DigiPath workstation to a Novell NetWare server, some things to check include the following:

- Make sure the user name and password used on the workstation exists and exactly matches a valid user name and password on the NetWare server.
- Make sure the user account on the NetWare server is a member of the group Everyone.
- Make sure the user is connected to the NetWare print server and that a mapped drive exists for the server.
- Make sure the printer added in the Servers and Connections dialog box has a selected printer type and server type that matches the NetWare print server.
- Make sure the print queue exists on the NetWare server and is enabled.
- If you or a user are having problems printing remotely, make sure you have properly set up the Remote Print Service and that it is using a valid user name and password for the NetWare print server.

## Viewing the Windows NT Event Log

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The Windows NT Event log captures all printing type faults. Refer to this log when experiencing problems printing.

To view the event log, select [Start: Programs: Administrative Tools: Event Viewer].



*NOTE: Refer to your Windows NT documentation for additional information on reading and interpreting the event log.*

## Cleaning up print file problems

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Occasionally, DigiPath job files submitted to DocuTech Network Server, Network Server PLUS, or DocuSP servers may not be deleted from the server queue directory after they are finished printing. If such files are not removed, the queue directory could reach maximum capacity and no longer accept incoming print jobs. Documentation for all three servers contains procedures for manually cleaning up the server queues if this situation occurs. For each of the server types, refer to the following documentation:

- For DocuTech Network Server, refer to the *Network Server Problem Solving Guide*.
- For Network Server PLUS, refer to either the letter included with Patch #4 (for version 2.0, part number 701P91548) or the job file cleanup packet (for version 2.1, part number 701P93727).
- For DocuSP, refer to the section regarding undeclared faults in the *Xerox Document Services Platform Series Problem Solving Guide*.



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## **A. Data Migration**

This appendix provides information for migrating data from a DigiPath 1.2 system to a DigiPath 2.0 system.

To migrate from a DigiPath 1.2 Document Library and/or Web Viewing and Submission system to a DigiPath 2.0 Document Library and/or Web Viewing and Submission system, refer to the DigiPath 2.0 Installation Worksheet Guide.



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## B. Microsoft NT Y2K updates

This appendix provides detailed instructions for downloading the latest version of the Microsoft NT Y2K updates and changing the attributes of the N32 print drivers file

All versions of the Xerox Corporation DigiPath software have been certified Year 2000 compliant. The DigiPath solution is made up of DigiPath software, Microsoft Windows NT 4.0 (workstation or server) with Service Pack 5, and third party software.

DigiPath customers who want to load the associated Y2K patches and the Java VM update must work with Microsoft to do so. You should use the Microsoft web site ([www.microsoft.com](http://www.microsoft.com)) and follow the links to "Microsoft Year 2000 Resource Center." If you do not have access to the Microsoft web site, or you are having difficulties accessing the web site, call Microsoft at (800) 360-7561.



*NOTE: You should monitor the Microsoft web site for the latest updates.*

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## Changing the attributes of the N32 print drivers file

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After installing Microsoft's NT Service Pack 5 and/or the Microsoft Y2K fixes on your NT workstation, the following settings are missing from the Print Properties dialog box of the N32 printer: duplex settings, paper sizes including 11x17 and Tabloid, and the Paper/Output only lists upper.



Copy the old xer taxpcl.dl file over the new xer taxpcl.dll file by doing the following:

1. Change the attributes of the **c:\windows\system32\spool\drivers\w32x86\2\xer taxpcl.dll** (dated 10/15/98) to not read-only.
2. Copy the old **xer taxpcl.dll** (dated 11/11/97) over the new one:  
copy  
**c:\windows\system32\spool\drivers\w32x86\xer taxpcl.dll** to  
**c:\windows\system32\spool\drivers\w32x86\2\xer taxpcl.dll**



*NOTE: To avoid losing the N32 printer driver functionality, install the N32 printer drivers after installing Microsoft NT Service Pack 5 and Y2K fixes.*

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## C. Quick Print

This appendix provides procedures for installing standalone Quick Print and using DOS command lines to automate job submission with Quick Print.

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## Installing Standalone Quick Print

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To install Quick Print on a standalone workstation:

1. Logon to the workstation.
2. Insert the Quick Print CD in the CD-ROM drive. The DigiPath 2.0 Autorun dialog box opens.
3. Mark the [Quick Print] option in the DigiPath 2.0 Platform Applications area.
4. Select [Install].
5. Follow the instructions on the screen.
6. When installation is complete, restart the workstation.

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## Automated job submission with command lines

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You can use DOS command lines to automate job submission with Quick Print.

You can write and run a batch (list of DOS commands) to print multiple jobs in Quick Print without user interface display or user interaction. Quick Print prints the specified file(s) with the specified copy count to the specified printer and exits. All other job ticket attributed are default values (default values can be whatever job ticket values are in the RDO document).

This is how the initiating program accesses Quick Print via the command line:

**domgr “<path name/file name>”/b “<printer name>”<copy count>**

If an invalid file name or printer name is specified in the command line, an error message is displayed and subsequent UI selections need to be made. In these cases, user interaction is required.

If an invalid copy count is specified, Quick Print prints the specified file with copy count of 1 (default value) to the specified printer and exit.



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## D. Configuring the Adaptec SCSI adapters

This appendix contains the procedure for configuring the Adaptec SCSI adapters.

The Adaptec SCSI adapters have their own configuration utility called *SCSISelect* that is loaded on the system during the installation. This utility allows you to view or change the Adaptec SCSI adapter settings without opening the computer or handling the adapter.



### CAUTION

*During installation, the SCSI adapters were configured to work properly with your DigiPath Production Software system components. It is recommended that you do not change the configuration settings unless instructed to do so by a Xerox service or customer support representative.*

To start the *SCSISelect* utility, press <Ctrl>+<A> when prompted during the boot process. If you have more than one SCSI device connected, you must select the desired device when the software prompts you. The first menu displayed provides you with two main options: Configure/View Host Adapter Settings and SCSI Disk Utilities. When you are finished using the utility, you can exit *SCSISelect* by pressing <Esc> until a message prompts you to exit.

For more information regarding the options available in the *SCSISelect* utility and how to use them, refer to the *Adaptec AHA-2940Ultra / 2940Ultra Wide PCI-to-UltraSCSI Host Adapter with SCSISelect User's Guide*.



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