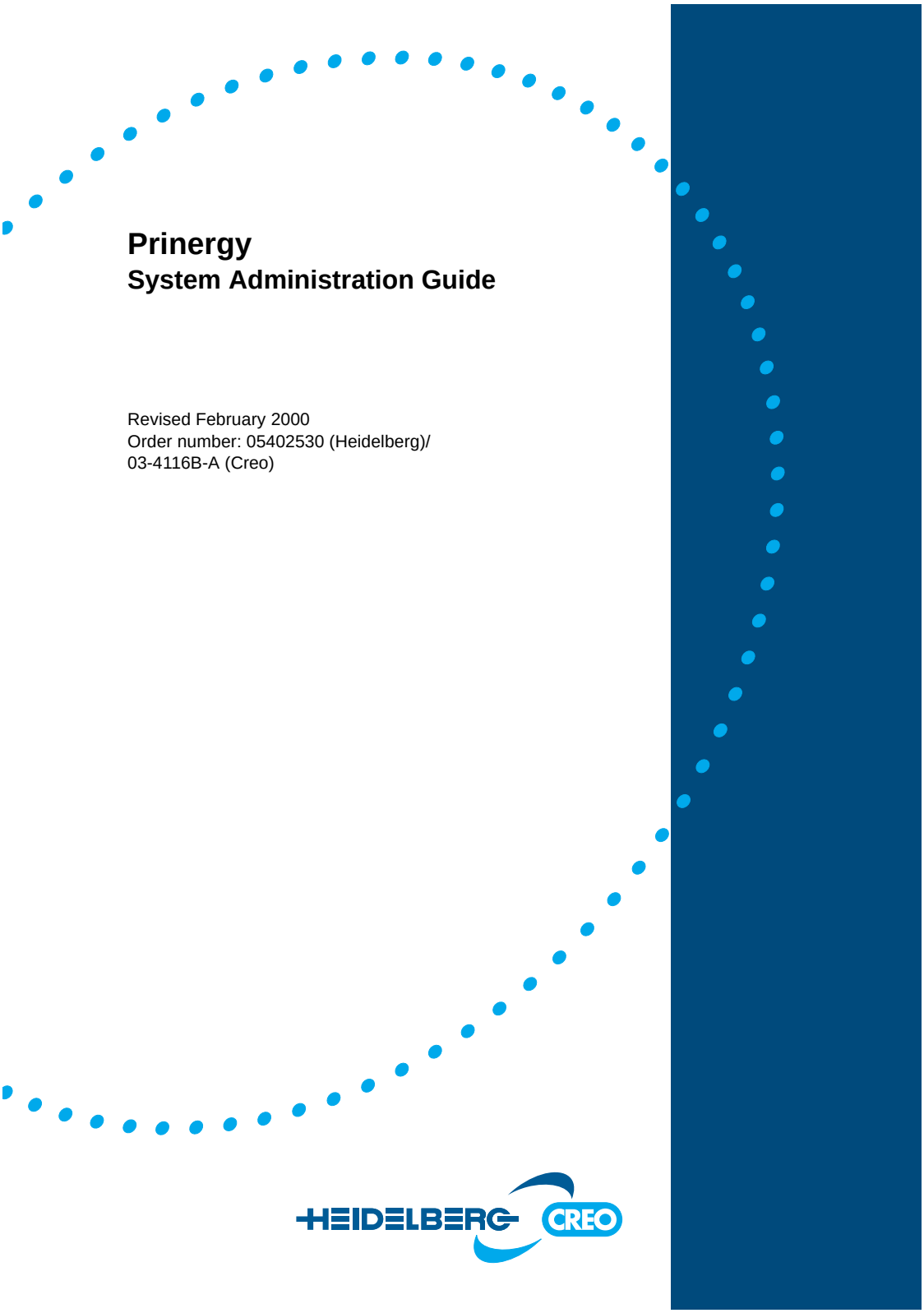
Prinergy
System Administration Guide

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USING THIS MANUAL

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Who Should Use This Manual

This manual is intended for anyone who administers a Prinergy system using Prinergy software version 1.1. This includes configuring the system, archiving jobs, and backing up the system.

To use this manual, you should:

- have a working knowledge of prepress operations
- be familiar with using a personal computer running the Windows NT operating system
- be familiar with using a Macintosh computer

This manual assumes that:

- All the hardware, software, and network components of your Prinergy system are installed, configured, and operating correctly.
- Files submitted to the Prinergy system are free of common errors usually dealt with during preflight, such as missing fonts and PostScript errors.

Conventions Used in This Manual

This section describes the fonts, terminology, and symbols used in this manual.

Fonts

Helvetica Bold is used to refer to buttons and other items in a dialog box, file names, folders, menu names, and menu commands.

Times Italic is used to refer to other chapters in the manual, book titles, and titles of other guides.

Helvetica is used for figure and table captions.

`Courier` is used for messages on your computer screen and for information you must type.

SMALL CAPS is used for a key or key combination on your keyboard.

Symbols

The following symbols are used in this manual:



ATTENTION:
This symbol warns you of things that can cause permanent data loss, or that can cause a loss of function, reliability, or quality.

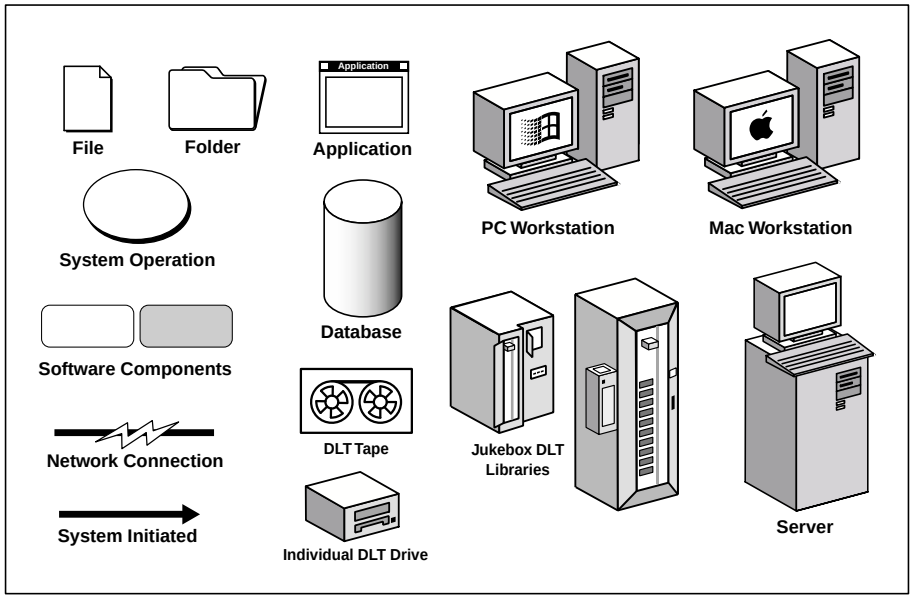


TIP: This symbol draws attention to information that can help you perform a task more quickly or easily.

Terminology

Clear	Place the mouse pointer over the check box for the specified option, and click the left mouse button so that the X or check mark is removed from the check box.
Click	Place the mouse pointer over the specified option or button, and then press and release the left mouse button.
Double-click	Place the mouse pointer over the specified option or button, and then quickly press and release the left mouse button twice.
Drag	Hold down the left mouse button while moving the mouse, and then release the button.
Enter	Type the information, then press the ENTER key.
Point	Position the mouse pointer over a submenu or menu command. For example, point to the **File** menu.
Press	Press the specified key or key combination on your keyboard, for example, press CTRL+ALT+DEL.
Select	Place the mouse pointer over the check box for the specified option, and click the left mouse button so that an X or check mark appears in the check box. Or: Place the mouse pointer over the specified box or button, and then click the left mouse button.
Type	Type the information. Do not press the ENTER key.

Graphic Legend



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- Can you find the information you are looking for? (and quickly enough?)
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- What could be improved?

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1

PRINERGY SYSTEM OVERVIEW

Included in This Chapter:

What Is Prinergy? 1-2

System Administration Skills and Tasks 1-3

Prinergy Architectural Concepts 1-7

Prinergy File Formats 1-12

About Prinergy Jobs 1-14

About Prinergy Server Software 1-18

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How the System Works 1-30

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What Is Prinergy?

Prinergy is a PDF-based workflow management tool that organizes prepress and plate production. Tasks such as file optimization, trapping, color management, proofing, color matching, imposition, archiving, and film/plate making are managed by the system for increased process control and productivity.

Prinergy is built around Adobe Extreme technology. Extreme provides some core software components, as well as a structure and a means of communication for custom components.

Prinergy is an expandable, multi-server, multi-user system based on a client/server architecture. Software can be distributed over multiple computers, increasing throughput and allowing for load sharing. An underlying Oracle database stores job status and history details.

Prinergy software consists of Prinergy Server software and Prinergy Workshop software. Prinergy Server includes the Oracle database, Adobe Extreme, daemons (software processes that perform specific tasks), and the Prinergy Administrator application to help you configure your system.

Prinergy Workshop is a cross-platform (Macintosh and Windows NT) application that makes up the client side of Prinergy. It is the main user interface to the system and can be distributed on machines throughout the shop, creating a teamwork environment where prepress managers, customer service representatives, and prepress and plateroom operators can initiate work or obtain current production status.

System Administration Skills and Tasks

Prinergy is a distributed system and requires some system administration.

Skills Required

To set up and maintain Prinergy, you should have:

- A working knowledge of the general principles of client/server architecture and networking.
- A working knowledge of administering and troubleshooting the Windows NT operating system.
- A working knowledge of TCP/IP networking.
- A working knowledge of how to use Macintosh computers in a networked environment.
- The ability to do basic performance tuning using Windows NT.

System Administration Tasks

System administration involves a number of duties. Table 1-1 on page 1-4, describes these tasks, the software used to perform them, and where you can find more information in this manual.

Table 1-1: Prinergy system administration tasks and resources in this guide

To do this...	Use this software...	Find information here...
Manage JTP distribution	Prinergy Administrator	*Distributing JTPs* on page 3-6
Manage user accounts and groups	User Manager for Domains	*Setting Up User Accounts and User Groups* on page 3-11
Add more storage space for job files and input files	Windows NT	*Adding More Storage Space* on page 3-19
Set up and configure proofing devices	• Windows NT • Harmony • Prinergy Workshop	*Configuring a Proofing Device* on page 3-27
Set up and configure output devices	• Windows NT • Harmony • output device control software (for example, Print Console) • Prinergy Workshop	*Configuring an Output Device* on page 3-31
Archive jobs and job files	Prinergy Archiver Media Manager	*Chapter 4, Using the Prinergy Archiver System*
Back up the system, and run regular “restore” tests	• software of your choice, OR • Legato (optional)	*Chapter 5, Backing Up the Prinergy System*

Prinergy System Administration Features

Prinergy has a number of features that are relevant to system administration:

Table 1-2: Prinergy features relevant to system administration

Feature	Description
Prinergy Administrator application	Application that allows you to monitor and configure the system. For more information on Prinergy Administrator, see the Prinergy Administrator online help, and *Distributing JTPs* on page 3-6 of this guide.
Distributed architecture	Built-in system ability to distribute Prinergy operations on a number of servers and clients. This means: • Prinergy can be operated from multiple client machines. • Job ticket processors (JTPs) and jobs can be distributed from the primary server onto secondary servers for optimal load sharing. • Input files and jobs can be distributed onto tertiary servers. • Input files can be distributed onto file servers.

Feature	Description
Process plans	A predetermined set of processing instructions that enable operators to reliably and repeatedly perform pre-defined operations, such as creating a loose page proof. Process plans can be user-defined. For more information, see the Prinergy Workshop online help.
Support tools	A set of tools for diagnosing problems and maintaining the Prinergy system. These tools include: • Prinergy Workshop (for tracking job status and history, and queue management) • Prinergy Administrator (described earlier in this table) • Remote diagnostics (used by your service representative to help you maintain and troubleshoot your system)

Prinergy Architectural Concepts

This section explains some key concepts related to Prinergy's architecture:

- Prinergy's client/server architecture
- Adobe Extreme technology
- Prinergy's internal communications structure

Prinergy is a client/server system that is based on Adobe Extreme technology. In addition, Prinergy uses Common Object Request Broker Architecture (CORBA) for some internal communication.

Client/Server Architecture

Prinergy is a client/server system. In a client/server environment, client software makes a request of the server software, which initiates the requested service, then sends relevant information back to the client software.

About Prinergy Server Software

Server software is made up of a number of software components that work together to perform tasks and maintain files.

In Prinergy, the server software is called Prinergy Server. It includes an Oracle database, Adobe Extreme (which includes JTPs, or job ticket processors), and daemons. JTPs and daemons are both software processes:

- *JTPs* deal with the manipulation of PDF files and their contents—for example, trapping and color management.
- *Daemons* deal with non-PDF processing—for example, job ticket creation, job status and history, imposition, and input file registration.

These processes work together to help Prinergy Server perform various tasks, such as trapping or normalizing files, as requested by client software. The Oracle database maintains data about your Prinergy system and related files.

Prinergy Server software also includes Prinergy Administrator, a software application that helps you configure your system. Using Prinergy Administrator, you can distribute Prinergy Server components over a number of machines, resulting in load sharing and increased throughput. For more information about Prinergy Server, see *About Prinergy Server Software* on page 1-18.

About Client Software

Prinergy Workshop is Prinergy's main client software and user interface. Through Prinergy Workshop, the user can make a request for certain services, such as trapping a file. Prinergy Workshop is available for Windows NT 4.0 and Macintosh O/S 8.1 or higher.

For more information about Prinergy Workshop, see *About Prinergy Workshop* on page 1-28, or see the Prinergy Workshop online help.

Note: Prinergy Administrator is also technically client software, in that it makes requests of server software in order to perform system tasks such as starting and stopping the system. However, Prinergy Administrator is installed with and considered part of Prinergy Server. It is available for Windows NT 4.0 only and runs only on a Prinergy server machine.

Adobe Extreme

Prinergy's architecture is based on Adobe PostScript 3 Extreme technology. Extreme is a high-end, production-printing architecture that provides three important features:

- support for Portable Document Format (PDF), which provides a reliable digital master
- support for Portable Job Ticket Format (PJTF), a control mechanism for specifying the sequence of operations and parameters that are to be performed on PDF files
- a communications structure, for messaging and managing the Extreme system

Support for PDF

Adobe Extreme provides support for Adobe's Portable Document Format (PDF). PDF is Prinergy's native format. All files submitted to Prinergy are converted to the PDF format, which provides a reliable digital master.

For more information about the PDF format, see *Prinergy File Formats* on page 1-12.

About the Portable Job Ticket Format

Extreme supports Portable Job Ticket Format (PJTF), a control mechanism built into PDF. PJTF is the glue that holds the PDF workflow together by allowing all of a PDF document's pertinent processing information (including all prepress data) to be stored in a companion job ticket.

Within Extreme, a "job" is a task that must be performed. An Extreme job ticket is the collection of information relating to one task—it is much like an outline of processing steps that need to be performed. A job ticket processor (JTP) is a software process that performs a specific step to help process a job ticket. Prinergy contains a number of JTPs, including custom JTPs created specifically for Prinergy, such as the PDF Trapping JTP and the Archive/Retrieve JTP. Extreme's well-defined architecture makes it readily extensible, so custom JTPs are easily integrated.

For more information about Adobe Extreme, see *Adobe Extreme* on page 1-24. For more information about JTPs, see *About Job Ticket Processors (JTPs)* on page 1-25.

Note: Be aware that the term "job" has dual meanings. In the Extreme context, the term "job" refers to a task that must be performed within the system—hence the term "job ticket." In the Prinergy context, the term "job" refers to a related collection of customer files. This is the standard prepress definition of the term. Unless otherwise specified, in this and other Prinergy documentation the term "job" refers to a collection of customer files—NOT an Extreme task.

Extreme's Communications Structure

Like Prinergy, Extreme uses distributed architecture. It uses a TCP/IP-based communication structure to allow various Extreme components, such as JTPs, to communicate with each other.

Prinergy Communications Structure

Prinergy uses the Common Object Request Broker Architecture (CORBA) for some internal communications. CORBA was introduced in 1991 and has been adopted by many vendors because of its platform and hardware independence. In short, CORBA allows applications to communicate with one another, no matter where they are located or who designed them.

The Object Request Broker (ORB) is the middleware that brokers the communication between client and server applications—for example, between the Prinergy Workshop and the various Prinergy daemon processes on the server.

Prinergy uses an implementation of CORBA by IONA Technology called Orbix and OrbixWeb. It uses TCP/IP as the core networking protocol.

Note: Not all communication in Prinergy relies on CORBA. Adobe Extreme does not use CORBA and has its own communication structure. However, Extreme still uses TCP/IP as the underlying protocol.

Prinergy File Formats

Prinergy is a PDF-based system. Prinergy supports a number of file formats, and files in supported formats are converted—or "normalized"—to PDF after they are added to a Prinergy job.

Supported Formats

Directly supported formats are:

- PDF (Prinergy's internal format)
- PostScript
- EPS

There are a number of formats that are not directly supported by Prinergy; however, by using companion software such as CEPs-to-Press, you can convert files into a format that can be read by Prinergy. These formats include:

- CT/LW
- TIFF/IT P1

Table 1-3: Prinergy file formats

Format	Direct Support	Indirect Support
PDF	Yes	
CT/LW		Yes
EPS	Yes	
PostScript	Yes	
TIFF/IT P1		Yes

PDF: Prinergy's Internal File Format

The internal file format in Prinergy is PDF. This means that all PostScript and EPS files are converted, or "normalized," into PDF digital masters for use in subsequent phases of the workflow. The Normalize JTP performs the conversion, and all file types are converted to PDF during this phase.

Advantages of PDF

Using PDF as Prinergy's main format offers a number of advantages:

- PDF files are small, which saves storage space, reduces CPU usage, and shortens file transfer times. File sizes are small because PDF supports both vector and image objects within a file, and images are compressed using industry standard algorithms.
- PDF files RIP reliably and predictably. Unlike PostScript files, they do not have to be interpreted to ensure that all referenced resources (for example, fonts and images) are available. Thus, rasterizing—the second phase of RIPing that occurs just prior to output—is a straightforward and predictable process.
- PDF is an industry standard; thus, a variety of industry standard tools are available to create, view, and edit PDF files.
- PDF files are independent of any platform, operating system, authoring application, and output device. They are viewable in Windows, Macintosh, and UNIX environments, and printable to output devices at high resolution.

About Prinergy Jobs

In Prinergy, a job is a unit used to organize work. A job typically (but not necessarily) corresponds to all the components related to a single publication.

A Prinergy job has a number of components:

- a job folder and subfolders
- job system files
- job input files (customer files)
- database information (which contains job status and history information)

The following section describes these components.

Job Folders and Subfolders

A job folder is a folder on a Prinergy server that contains all the system files for a job. In addition, a job folder may also include any input files from your customer (though input files can also be stored elsewhere in the system, as long as the location is visible from the server that holds the job folder).

Job folders are stored in a central directory. The default name for this directory is **Jobs**, but this name can be changed during the Prinergy installation. A job folder may include any number of subfolders to help organize job information.

When you create a job, you specify a home server and home volume for that job. Prinergy then created the following folders in this location:

- a job folder
- a **System** subfolder (for storing system files)
- a **UserDefinedFolders** subfolder (for storing input files). You can specify which default folders you want Prinergy to create inside this folder.

A server on which job folders are stored can be referred to as a "job server." A job server can be any Windows NT server in the Prinergy system. The job server on which a particular job is stored is called the job's "home server."

A server can have one or many physical or logical disks. Any disk that has been designated for Prinergy use during Prinergy Server installation can be used to store Prinergy jobs.

Job System Files

Job system files are Prinergy-generated files related to a job. System files include master PDF files and thumbnails. (A thumbnail is a low-resolution rendering of a PDF page.)

Job system files are stored in the **Jobs\<jobname>\System** directory on the job's home server.



ATTENTION:
Never modify your job system files in any way; doing so may affect Prinergy's ability to reference your job and its components.

Job Input Files

Input files are the files that contain the original information for a job, such as PostScript files. These files must be one of the Prinergy-supported file formats. (For a list of supported formats, see *Prinergy File Formats* on page 1-12.)

Input files can be stored on the job's home server in **Jobs\<jobname>\UserDefinedFolders**; however, this is not mandatory. Input files can also be stored on any computer—Windows NT or Unix—that is visible from the job's home server, regardless of whether or not the storage computer is running Prinergy software.

Database Information

The Oracle database stores information about a job, such as the location of input and system files, and the current status of job elements, such as input files. When you create a job, Prinergy automatically creates the appropriate entries for the job in the database.

Example of a Distributed Job

Figure 1-1 on page 1-17 illustrates an example of a job that is distributed on the system. Note that job components can also be stored in different configurations—for example, the job folder may be stored on the same server as the Oracle database, and input files may be stored directly inside the job folder, instead of on a tertiary server as illustrated.

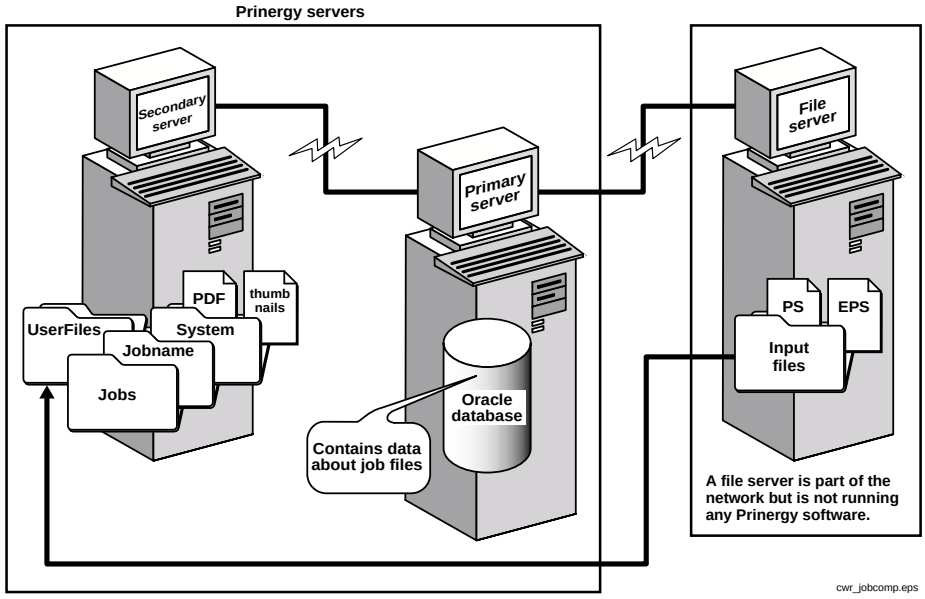


Figure 1-1: Job components distributed on a Prinergy system

About Prinergy Server Software

The server software side of a Prinergy system is called Prinergy Server. Prinergy Server is made up of the following components:

- daemons
- Araxi Service (**Araxi.exe**)
- Adobe Extreme
- Oracle database
- Prinergy Administrator

Prinergy Server components can be placed on a single machine. Alternatively, because of Prinergy's distributed architecture, you may chose to run some server software components, such as certain JTPs, on other servers in the system to distribute processing and increase throughput. For more information on distribution, see *Prinergy's Distributed Architecture* on page 1-32.

Daemons

Daemons are processes on a server that run behind the scenes to perform specific tasks. They have no user interface, and you do not interact directly with a daemon. Instead, you make requests through Prinergy Workshop, which initiates communication with the appropriate daemons.

Each daemon plays a unique role as part of the Prinergy system. A daemon has two reference names:

- the full name, as viewed from the Prinergy Administrator
- the executable name, as displayed from Windows NT Task Manager

For example, Process Daemon is the full name, and **PTaskD.exe** is the corresponding executable name.

The following sections describe each daemon in detail.

Note: Daemons are also commonly referred to as "servers." In Prinergy, the term daemon is always used, in order to avoid confusion between server software and server hardware.

Orbix Daemon (orbixd.exe)

Orbix Daemon brokers requests to connect with daemons and maintains a list of daemons that are available. It uses TCP/IP as the core networking protocol. Requests to connect with a particular daemon may come from Prinergy Workshop or from other daemons.

Process Daemon (PTaskD.exe)

Process Daemon is the main bridge to Adobe Extreme. It communicates with various daemons and assembles a job ticket to submit to Extreme, which then makes arrangements to carry out the job. (For more information on Adobe Extreme, see *Adobe Extreme* on page 1-24.)

Process Daemon provides services for creating, monitoring, logging, and controlling processes. It also logs process history.

Device and Services Daemon (PDeviceAndServiceD.exe)

Device and Services Daemon is another link to Extreme. It communicates with Prinergy Administrator to stop, start, add, and remove JTPs upon your request. It also reports on JTP status.

Main Directory Daemon (PMainDirectoryD.exe)

Main Directory Daemon interacts closely with the Oracle database and is responsible for creating jobs and maintaining job history. It maintains a list of all jobs on the system and a list of the Prinergy servers available for distribution.

Main Directory Daemon is also responsible for user authentication. When someone attempts to log into your Prinergy system through the Prinergy Workshop, Main Directory Daemon verifies the user name and password against the Windows NT user accounts.

Note: Prinergy Server doesn't help you set up the Windows NT user accounts. Instead, you need to set them up in Windows NT User Manager for Domains. Users log in to Prinergy using their Windows NT login name and password. For specific information about setting up Windows NT accounts for Prinergy, see *Setting Up User Accounts and User Groups* on page 3-11 of this guide. For information on setting up Windows NT user accounts, see the Windows NT Server 4.0 documentation.

Process Plan Daemon (PTaskTemplateD.exe)

Process Plan Daemon manages access to the creation and deletion of process plans according to type and group. It is responsible for reading and writing process plans from disk on the primary server.

Registered File Daemon (PRegFileD.exe)

Registered File Daemon tracks the location of disk files in the database. It also responds to requests from other daemons for information about files and their locations.

Job Daemon (PJobD.exe)

Job Daemon reads and writes job information to the database and communicates it to Prinergy Workshop, daemons, and JTPs, as needed. It also provides services for actions that modify a job.

Job Daemon is launched by Orbix Daemon when a user opens a job from Prinergy Workshop. There is one Job Daemon for each active job. A Job Daemon fulfills requests from Prinergy Workshop and the JTPs.

After a job is inactive for a period of time, the corresponding Job Daemon stops running, but will be automatically relaunched when the job is opened again.

Locator Daemon (PLocatorD.exe)

Locator Daemon lets you log on to the Prinergy system by responding to logon requests from Prinergy Workshop. If there is more than one Prinergy server available, you are provided with a list of choices. This feature allows you to log on to different Prinergy servers, without having to know the location or exact name of the servers.

Locator Daemon is a TCP/IP multicast group member and responds to messages directed to this group from clients.

File Daemon (PFileD.exe)

File Daemon tests whether the input files being added to a job via Prinergy Workshop are actually visible to the Prinergy server machine the job is running on.

Imposition Daemon (PImpositionD.exe)

Imposition Daemon determines how pages are positioned on the proofing media when creating loose-page proofs. It creates an imposition plan on demand for loose page proofs. The imposition is determined by selections made in the layout section of the loose page output process plan (in the Prinergy Workshop Process Plan Editor).

Automaton Daemon (PAutomationD.exe)

Automation Daemon provides the ability to execute Prinergy processes in a sequential, automated fashion. It allows input files to be registered, refined, and proofed automatically.

This feature is available only with hot folder input.

Spool Daemon (PSpoolServerD.exe)

Spool Daemon is a central repository for hot folder information and status.

HotFolder Daemon (PHotFolderD.exe)

HotFolder Daemon monitors any hot folders that are active on the server.

Font Installer Daemon (FINS.exe)

Font Installer Daemon lets a user add a font to a job's folder, and allows the font to be converted to a RIP-ready format.

Diagnostic Log Daemon (PDiagnosticD.exe)

Diagnostic Log Daemon maintains a log of all informational warning errors for the other daemons. It listens on a specific TCP/IP port, then writes the information to log files. The log files are cyclic—when a log has reached the size limit, Diagnostic Log Daemon will start another log until it reaches the max number of log files. It then rolls back and overwrites the first log file. The number and size of the log files are determined in the Windows NT registry.

Diagnostic View Daemon (diagserver.cmd)

Diagnostic View Daemon reads and buffers the log files written by Diagnostic Log Daemon. It filters events and only sends information requested by the Diagnostic Viewer, an internal diagnostic tool.

Araxi Service (Araxi.exe)

Araxi Service is a Windows NT service launched automatically by the NT operating system when NT is started on a Prinergy server. Since Prinergy runs as an NT service, Prinergy can be configured to start up automatically after a reboot without requiring the user to log on to the server.

Araxi Service is responsible for starting daemons and a number of other processes, such as the Adobe Extreme Coordinator (**supra.exe**), when the Prinergy server is started. These may in turn trigger the start of other processes.

Araxi Service is able to start processes with a specific process priority as handled by Windows NT. It can start and monitor NT processes within the context of groups. For example, if a process with a particular

group number terminates unexpectedly and is going to be restarted, then other processes with the same group number are also stopped and restarted.

Araxi Service is able to monitor and restart processes that it did not start directly (that is, processes that were triggered by other processes). This feature ensures that a Prinergy component that terminates unexpectedly will automatically be restarted.

Adobe Extreme

Adobe Extreme technology is part of Prinergy Server. Adobe Extreme software components include job ticket processors (JTPs) for processing job tickets and the Extreme Coordinator (**supra.exe**).

About Job Tickets

A job ticket is a collection of information related to one or more processing steps that must be carried out in Prinergy. It includes a map or route that specifies which JTPs to go to and in what order. A job ticket can also include information about:

- which files to process
- processing options
- destinations
- printing layouts (imposition plans)

A job ticket may also contain an audit trail. This audit trail lists which JTPs have processed the job ticket and which actions have been performed on it. Since the job ticket contains all the information related to a task, processing occurs in the background without the need for operator interaction.

About Job Ticket Processors (JTPs)

A job ticket processor (JTP) is a software program that performs a specific processing step to help process a job ticket. Prinergy contains a number of JTPs, including custom JTPs created specifically for Prinergy.

There is a JTP for each kind of processing step that can be performed in the Prinergy system. Using Prinergy Administrator, you can distribute certain JTPs throughout the system. Some JTPs can be sequenced together within Prinergy process plans to automate Prinergy tasks, such as refining.

Table 1-4 on page 1-26 describes the main types of JTPs in Prinergy, which can be divided into three groups:

- *refine* JTPs, which perform steps related to converting files into safe, reliable PDF
- *output* JTPs, which perform steps related to outputting proofs or plates
- *archive* JTPs, which perform steps related to file storage

In addition to the JTPs described in the following table, there are a number of “generic” JTPs for performing minor steps, such as generating thumbnails. The Prinergy system manages the distribution of these JTPs; you can not configure them with Prinergy Administrator.

Table 1-4: Distributable job ticket processors (JTPs)

JTP Type	Description	Group
Normalize	Converts PostScript files to PDF; also does font management and font handling.	Refine
Various trappers (for example, Creo-Trap or Heidelberg-Trap)	Handle trapping in Prinergy.	Refine
Color Match	Generates data for color matching proofs to final output.	Refine
Proofing Device	Creates low-resolution output, suitable for proofing.	Output
Various high-resolution renderers (Actual JTP type names depend on which output devices you are using.)	Create high-resolution final output.	Output
Archive/Retrieve	Writes whole jobs or individual files onto archiving media. Also locates archived jobs or files on the archiving media and returns them to the job server.	Archive
Disk Purge	Removes selected jobs or files from the job server.	Archive

Extreme Coordinator (supra.exe)

Extreme Coordinator (**supra.exe**) is the central coordinator for the Extreme system. It routes messages between Extreme components, such as JTPs. On request, it provides information about the services and tasks in the system. Extreme Coordinator also plays a part in intercomponent communications by relaying messages to JTPs and other Prinergy components.

Oracle Database (Oracle80.exe)

The Oracle database is where Prinergy job information is stored. Also called the Oracle Relational Database Management System (RDBMS), it contains all the Prinergy file information, including file attributes and the history log.

Note that it does not store any file content.The database contains pointers to the input files, which can be stored on any server within the Prinergy network.

Prinergy Administrator (UADM.exe)

Prinergy Administrator (**UADM.exe**) is the software that serves as the Prinergy system administration user interface. Use Prinergy Administrator to configure and monitor your Prinergy system. You can also use Prinergy Administrator to add and remove JTPs from a server, and to shut down the system.

Prinergy Administrator is automatically installed on each server in a Prinergy system. It is configured to start automatically when the server is started and shows up as a system tray icon.

About Prinergy Workshop

Prinergy Workshop is the main client software in a Prinergy system. It is the main user interface to the Prinergy system, enabling you to:

- create, edit, and destroy jobs
- create, edit, and destroy process plans
- create, monitor, and manipulate Prinergy processes

Based on input from the user, Prinergy Workshop makes requests of Prinergy Server, which then carries out the appropriate tasks.

Prinergy Workshop is automatically installed on each server when Prinergy Server is installed. In addition, you can install Prinergy Workshop as a separate application on any number of client machines. Client machines can be Macintosh and/or Windows NT machines.

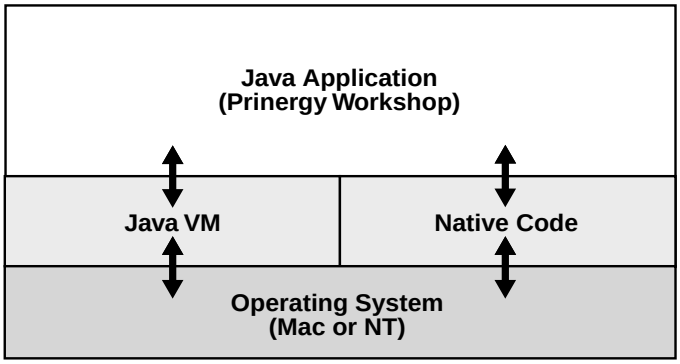
Note: Even in a single-server Prinergy system, we recommend you have at least one client machine to run Prinergy Workshop.

Most Prinergy Workshop code is written in Java, a platform-independent language that enables the software to be run on both Macintosh and PC computers. Prinergy Workshop has the same look and feel on both platforms. In addition to Java, Prinergy Workshop has some native code, principally for access to the file system, which is not well supported by Java.

In order for Prinergy Workshop to run on both platforms, a Java program runs on top of a Java Virtual Machine (VM) that provides the interface to the services of the operating system.

The Java VM is like another layer that sits on top of the client operating system. Its purpose is to make the operating system appear generic, so that the cross-platform aspect is not an issue.

On the Macintosh, the VM is the Apple Macintosh Runtime for Java (MRJ). On the PC, the VM is the Java Runtime Environment (JRE).



java_app.eps

Figure 1-2: Prinergy Workshop software architecture

How the System Works

Prinergy Server and Prinergy Workshop work together to create and process jobs. The following section provides a basic overview of how Prinergy processes jobs:

1. Prinergy Server starts when the server machine is started. Araxi Service launches various daemons and Extreme Coordinator.
2. Based on input from the user, Prinergy Workshop asks Prinergy Server to perform an action on a Prinergy job—for example, to normalize PostScript input files.
3. Daemons in Prinergy Server work together to assemble a job ticket for the requested action and submit it to Extreme Coordinator.
4. Extreme Coordinator forwards the job ticket to the appropriate JTPs.
5. JTPs perform specified steps in a sequence determined by Extreme Coordinator. As the job ticket is processed, JTPs report back to Extreme Coordinator. Extreme Coordinator is always aware of the current status of the job ticket and which JTP to contact next.
6. When the job ticket has been processed, Extreme Coordinator informs the appropriate daemons in Prinergy Server.
7. Daemons update the database to reflect the current status of the job and related files, including any new system files in the job folder.

Figure 1-3, illustrates this process.

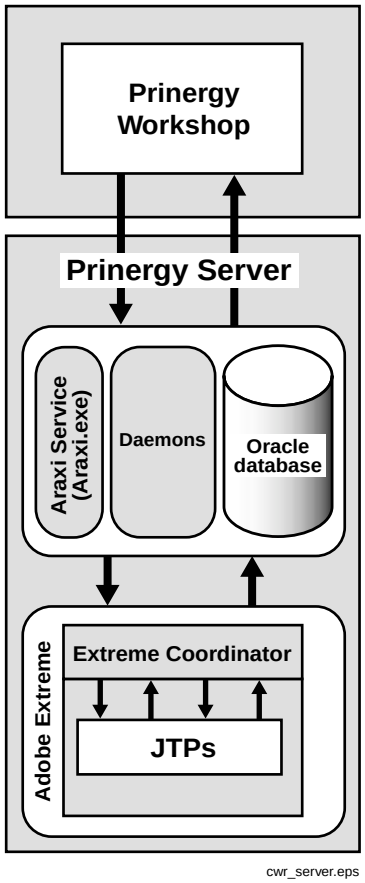


Figure 1-3: Overview of Prinergy's internal workflow

Prinergy's Distributed Architecture

As a client/server system, Prinergy lets you take advantage of distributed processing to increase productivity. Although Prinergy can work well as a single-server system, too much simultaneous demand can quickly overwhelm even the most powerful system. Therefore, you may want to utilize additional server machines so that you can distribute various Prinergy components, such as JTPs and jobs, throughout your system to increase overall performance.

Machines in a distributed Prinergy system include server machines and client machines.

Prinergy Server Machines

There are potentially three types of server machines in a distributed Prinergy system:

- the primary server
- one or more secondary servers
- one or more tertiary servers

Prinergy server machines must be running Windows NT Server 4.0.

About the Primary Server

The primary server is the main server machine in a Prinergy system. It contains all Prinergy Server components, including the Oracle database. The primary server coordinates requests from Prinergy Workshop and maintains the database.

There can be only one primary server in a Prinergy system. The first machine on which you install Prinergy Server must be designated the primary server when you install the software. This means the Prinergy installer automatically installs the Oracle database on this machine. Subsequent servers added to the system should be designated as secondary servers during Prinergy Server installation. In this case, the Oracle database will not be installed on them.

In a distributed system, the primary server coordinates client requests and maintains the database, but some tasks can be carried out on secondary servers to increase overall system performance.

Although you can distribute some Prinergy Server components to secondary servers, certain components run only on the primary server. Table 1-5 on page 1-37 provides information on which Prinergy components are specific to the primary server.

Like any server in a Prinergy system, the primary server can store jobs. However, you may want to store some or all jobs on one or more secondary or tertiary servers to increase performance on the primary server. Any server that stores jobs is also called a job server. The job server for a particular job is called the job's home server.

The primary server can also run Prinergy Workshop. A copy of this application is automatically installed when you install Prinergy Server.

About Secondary Servers

A secondary server is any server that is running Prinergy Server software, but is not the primary server—that is, it is running Prinergy Server software, but it does not store the Oracle database.

A secondary server can run some or all JTPs to facilitate distributed processing. CPU-intensive tasks, such as rendering final output, are good candidates for distribution onto secondary servers. JTPs that are run on secondary servers communicate with the primary server via the Extreme communication layer (as do all JTPs). Note that it is also possible to have multiple active instances of certain JTPs. For example, a system could have multiple instances of the Normalizer JTP in order to simultaneously process multiple jobs.

You can potentially add any number of secondary servers to your Prinergy system by installing Prinergy Server on a properly configured Windows NT 4.0 machine. A secondary server can also run Prinergy Workshop, a copy of which is automatically installed when you install Prinergy Server software.

When you install Prinergy Server on a secondary server, all Prinergy Server components are automatically installed, except the Oracle database. Each server has its own copy of Araxi Service, which is responsible for starting the Prinergy executables on that server. When processing jobs on a Prinergy system, certain daemons may be activated on one or more secondary servers in order to distribute processing.

Note that certain daemons can run only on the primary server. Table 1-5 on page 1-37 describes which servers daemons can be active on. You can control which JTPs run on a primary or secondary server. However, you cannot configure which daemons run on which servers; the distribution of active daemons is determined by the system.

Note: Like any server in a Prinergy system, a secondary server can also store jobs.

Special Types of Secondary Servers

There are two special types of secondary servers:

- archiving station
- render station

An archiving station is a secondary server that is connected to an archiving device and is running the Archive/Retrieve JTP and the PurgeDisk JTP. Like any other secondary server, the archiving station can also store jobs and run other JTPs, such as the Normalizer JTP. For more information about archiving, see *Chapter 4, Using the Prinergy Archiver System*.

A render station is a secondary server that is connected to an output device and is running a high-resolution renderer. It is generally not used to store jobs or run other types of JTPs. Instead, it is reserved for rendering files for output. For more information about configuring a render station and output devices, see *Configuring an Output Device* on page 3-31.

Tertiary Servers

A tertiary server is a Windows NT server that is part of the Prinergy network but is not running any Prinergy Server software components. It can be used to store jobs and input files.

Note: Input files can also be stored on a file server, can be any server on the system; it does not have to be a Windows NT server.

Prinergy Client Machines

A client machine is any machine that runs only Prinergy Workshop; a client machine does not execute any Prinergy Server components. Prinergy Workshop can run on both Window NT 4.0 and Macintosh O/S 8.1 or higher.

You can have any number of client machines in your Prinergy system. Multiple client machines enable multiple users to access a Prinergy system at the same time.

Note: We recommend that you have at least one client machine in your Prinergy system, in order to optimize system performance.

How Prinergy Software Components Are Distributed

Prinergy software components can be distributed on various machines in the system. Table 1-5 on page 1-37 describes the components of a Prinergy system and which type of machine(s) they can run on.

Table 1-5: Prinergy software components and possible locations

Entity or Task	Description	Primary	Secondary	Tertiary	Client Machine
Oracle database (**Oracle80.exe**)	Maintains job data.	Y			
Process Daemon (**PTaskD.exe**)	Bridges Extreme with the rest of Prinergy.	Y			
Job Daemon (**PJobD.exe**)	Communicates between the database and Prinergy Workshop to provide services for actions that modify a job.	Y	Y		
Device & Services Daemon (**PDeviceAndServiceD.exe**)	Tracks the names and locations of JTPs.	Y			
Process Plan Daemon (**PTaskTemplateD.exe**)	Tracks the contents of process plans.	Y			
Registered File Daemon (**PRegFileD.exe**)	Records files and their locations to the database.	Y			

Entity or Task	Description	Primary	Secondary	Tertiary	Client Machine
Main Directory Daemon (**PMainDirectoryD.exe**)	Maintains a phonebook-like listing of the secondary servers and jobs. Is also responsible for user authentication at logon.	Y			
Orbix Daemon (**orbixd.exe**)	Brokers requests to daemons from other daemons and Prinergy Workshop.	Y	Y		
Locator Daemon (**PLocatorD.exe**)	On request from a client machine, announces the presence of primary servers on the network.	Y			
File Daemon (**PFileD.exe**)	Tests whether files are visible to the server on which File Daemon is running.	Y	Y		
Automation Daemon (**PAutomationD.exe**)	Enables Prinergy to execute processes in a sequential, automated fashion.	Y			

Entity or Task	Description	Primary	Secondary	Tertiary	Client Machine
Spool Daemon (**PSpoolServerD.exe**)	A central repository for hot folder information and status.	Y			
HotFolder Daemon (**PHotFolderD.exe**)	Monitors hot folders that are active on the server.	Y	Y		
Font Installer Daemon (**FINS.exe**)	Lets users add a font to a job's folder, and allows the font to be converted to a RIP-ready (PDF) format.	Y			
Imposition Daemon (**PImpositionD.exe**)	Used when creating loose page proofs to determine how pages are positioned when imaged on proofing media.	Y			
Diagnostic Log Daemon (**PDiagnosticD.exe**)	Maintains a log of all informational warnings and errors for the other daemons.	Y	Y		
Diagnostic View Daemon (**diagserver.cmd**)	Reads and buffers log files written by the Diagnostic Log Daemon.	Y	Y		

Entity or Task	Description	Primary	Secondary	Tertiary	Client Machine
Araxi Service (**Araxi.exe**)	Launches daemons and other components when a server machine is started.	Y	Y		
Adobe Extreme Coordinator (**supra.exe**)	Coordinates JTPs.	Y			
JTPs	Process Adobe Extreme tasks, such as normalizing or trapping.	Y	Y		
Prinergy Administrator (**UADM.exe**)	Enables you to configure and monitor the Prinergy system.	Y	Y		
Prinergy Workshop	Main user interface to Prinergy, enabling users to create and edit jobs.	Y	Y	Y	Y
Job folders	A collection of files related to a customer print job.	Y	Y	Y	

How It Fits Together

How do all these components work together to make up a distributed Prinergy system?

The database, Araxi Service, daemons, and Adobe Extreme Coordinator reside on the primary server. Araxi Service and daemons also reside on each secondary server (though not all daemons can be executed on a secondary server). Extreme JTPs can be stored on the primary server or secondary server(s), or both. The primary server is always aware of which JTPs exist on which server(s), and is thus able to coordinate the system.

Prinergy Workshop can reside on the primary server, secondary servers, tertiary servers and client machines. Prinergy Workshop communicates with the primary server using TCP/IP, as brokered by CORBA.

Figure 1-4 on page 1-42 shows an example of a Prinergy distributed system.

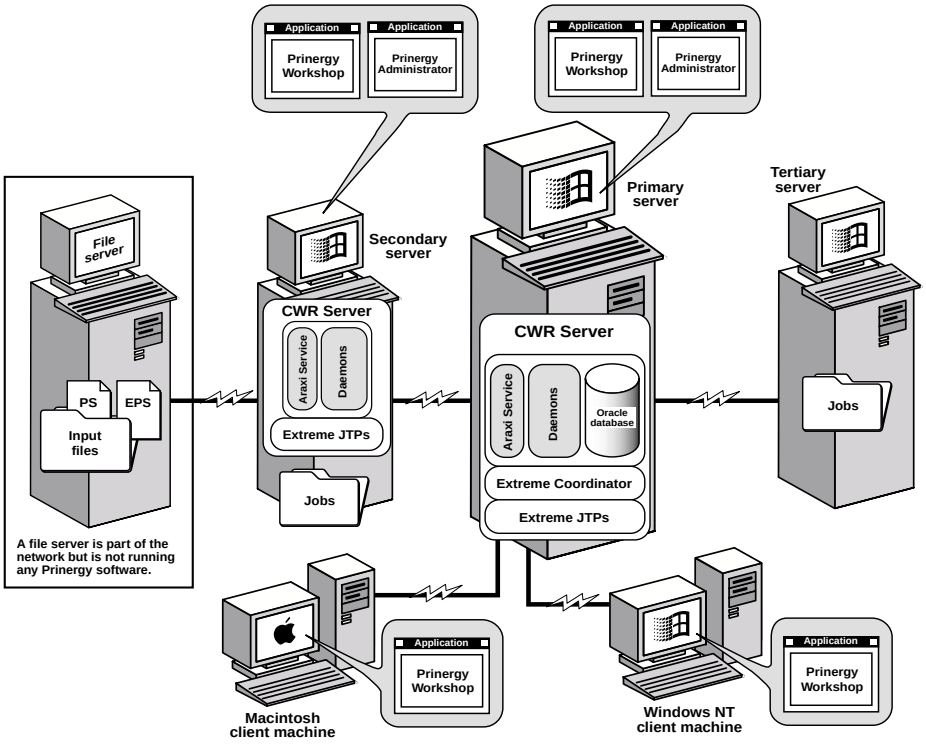


Figure 1-4: A distributed Prinergy system

Prinergy System Software Components

In addition to Prinergy Server and Prinergy Workshop, a Prinergy system includes a number of other applications that are not part of Prinergy software, but are necessary to run the system.

This section outlines the various software components that make up a Prinergy system. There are three types of software in a Prinergy system:

- *standard software*, which is automatically shipped with your Prinergy system
- *optional software*, which may be shipped with your Prinergy system
- *companion software*, which does not ship with Prinergy and is not part of the Prinergy system, but you may wish to install separately when you set up your Prinergy system

In addition, you need to be running either the Windows NT 4.0 or Mac O/S 8.1 operating system. The operating systems are not included with Prinergy.

Note: Your servers must be running Windows NT Server 4.0; Macintosh computers cannot be used as Prinergy servers.

Standard Software

The following software components are standard with Prinergy and are automatically shipped with your system:

- Prinergy Server (server software). This includes the Oracle database, Adobe Extreme components, daemons, and Prinergy Administrator. Windows NT only.
- Prinergy Workshop (client application), for managing the workflow for each job. Windows NT and Macintosh.
- Harmony, for dot gain calibration. Windows NT only.
- Prinergy Archiver software. This includes Prinergy Archiver Media Manager and the Prinergy Emulated RSM Service (ERSM). For archiving Prinergy jobs. Windows NT only.
- Adobe Acrobat, for viewing and editing PDFs. Windows NT and Macintosh.
- Internet Explorer 4.0, for viewing Help. Windows NT and Macintosh.
- Virtual Proofing System (VPS), for creating and viewing virtual proofs. Macintosh only.
- pcAnywhere, for accessing your system remotely. Windows NT only.

Optional Software

This software is optional and may be included with your Prinergy system. Contact your service representative if you wish to add any of these options.

- Legato backup software plus add-ons, for backing up your system. Windows NT only.

Companion Software

This is a list of stand-alone software applications that can be used in conjunction with Prinergy:

- CEPSLink, for Scitex CT/LW input. Windows NT only.
- Platesetter Workstation software or Print Console, for use with Creo or Heidelberg output devices. Windows NT only.
- Preps, for imposition. Windows NT and Macintosh.
- Signastation, for imposition. Windows NT and Macintosh.

For further details on these products, please refer to their respective product specifications.

For a more up-to-date list of companion software, consult your service representative.

System Software Summary

This section contains two tables that summarize Prinergy's software components at a glance:

- Table 1-6 on page 1-47 describes the various Prinergy system software components in terms of platform, type (standard, optional, or companion), and location.
- Table 1-7 on page 1-48 describes which Prinergy software is automatically installed on a server when using the Prinergy installer.

Table 1-6: Prinergy system software

Software	Platform	Type	Primary or Secondary Server	Client Machine
Prinergy Server (includes Prinergy Administrator)	Windows NT	Standard	Y	
Adobe Acrobat	Windows NT Macintosh	Standard	Y	Y
Prinergy Workshop	Windows NT Macintosh	Standard	Y	Y
Internet Explorer 4.0	Windows NT Macintosh	Standard	Y	Y
Virtual Proofing System (VPS)	Macintosh	Standard		Y
pcAnywhere	Windows NT	Standard	Y	
Prinergy Archiver software (includes Prinergy Archiver Media Manager and the ERSM)	Windows NT	Standard	Y	
Harmony	Windows NT	Standard	Y	
Oracle Backup Manager	Windows NT	Standard	Y	
Legato backup software and add-ons	Windows NT	Optional		
Preps	Windows NT Macintosh	Companion	Y	Y

Software	Platform	Type	Primary or Secondary Server	Client Machine
Print Console or Platesetter Workstation software (required if using a Creo or Heidelberg output device)	Windows NT	Companion	Y	
CEPSLink	Windows NT	Companion	Y	
Signastation	Windows NT Macintosh	Companion	Y	Y

Table 1-7: Components installed with the Prinergy installer

Prinergy Software Component	Installed on Primary Server?	Installed on Secondary Server?
Prinergy Server:		
• Oracle database	Yes	No
• daemons	Yes	Yes
• Adobe Extreme	Yes	Yes
• Prinergy Administrator	Yes	Yes
• Oracle Backup Manager	Yes	Yes
Prinergy Workshop	Yes	Yes

2

STARTING AND STOPPING PRINERGY

Included in This Chapter:

Introduction 2-2

The Prinergy System 2-2

Prinergy Server Software 2-5

Introduction

This chapter provides information on the following:

- starting up the Prinergy system
- powering down the Prinergy system
- starting Prinergy Server software using Prinergy Administrator
- stopping Prinergy Server software using Prinergy Administrator

The Prinergy System

The Prinergy system includes the primary server, secondary server(s), client machine(s), and any peripheral devices, such as proofing devices, tape devices, and output devices.

Following the proper procedures for starting and shutting down the system will help safeguard against equipment damage and data loss.

Starting Up the Prinergy System

Use the following procedure to start your Prinergy system. Starting the Prinergy system automatically starts Prinergy Server software.

Once the system is started, it does not need to be shut down unless problems occur or maintenance work needs to be done. Under normal operating conditions, the system remains on at all times.

Note: Use Prinergy Administrator to stop Prinergy Server software without powering down the system. See *Stopping Prinergy Server* on page 2-7.

To start up the Prinergy system:

1. Turn on the UPS.
2. Turn on the RAID and wait for the green light to go on.

   This can take several minutes.
3. Turn on all other peripheral devices.

   These can include the following:

   - archive device
   - tape device (for backup)
   - proofing device
   - output device
4. Turn on the primary server and monitor.

   The server starts the operating system, checks peripheral devices, and starts Prinergy Server software. This can take several minutes.
5. Once the startup on the primary server is complete, turn on the secondary server(s) and monitor(s).

   The server starts the operating system, checks peripheral devices, and starts Prinergy Server software. This can take several minutes.
6. Once the startup on the secondary server(s) is complete, turn on the client machine(s) and monitor(s).

Powering Down the Prinergy System

Follow this procedure to power down the system. You usually do not need to power down the system, unless problems occur or maintenance work needs to be done. Under normal operating conditions, the system remains on at all times.

Note: Use Prinergy Administrator to stop Prinergy Server software without powering down the system. See *Stopping Prinergy Server* on page 2-7.

To shut down the Prinergy system:

1. On each client machine, exit from Prinergy Workshop, then shutdown the machine.
2. When prompted, turn the power switch **OFF** on each client machine.
3. On each secondary server, exit any Prinergy software, then shutdown Windows NT.
4. Turn the power switch to **OFF** on each secondary server machine.
5. On the primary server, exit any Prinergy software, then shutdown Windows NT.
6. Turn the power switch to **OFF** on the primary server.
7. Turn the power switch to **OFF** on the RAID.
8. Turn the power switch to **OFF** on the UPS.
9. Turn off any peripheral devices. These can include:
   - archive device
   - tape device (for backup)
   - proofing device
   - output device

Prinergy Server Software

Prinergy Server is the server software side of a Prinergy system. It is made up of a number of components, including daemons, Araxi Service, Adobe Extreme and the Oracle database. It also includes Prinergy Administrator, the software that serves as the Prinergy system administration user interface.

For more information about Prinergy Server, see *About Prinergy Server Software* on page 1-18.

Starting Prinergy Server

Use Prinergy Administrator to start Prinergy Server software on various servers. Prinergy Administrator is installed as part of Prinergy Server and runs on primary and secondary servers.

To start Prinergy Server using Prinergy Administrator:

1. Log on to a Prinergy server as an administrator.

   You must have administrator privileges in order to user Prinergy Administrator. If you have not logged on to the system using an account with administrator privileges, you will be prompted to log on with an appropriate account when Prinergy Administrator is launched.

2. From the Windows NT **Start** menu, select **Programs**, then **Prinergy**, then **Prinergy Administrator**.

   Prinergy Administrator is displayed.

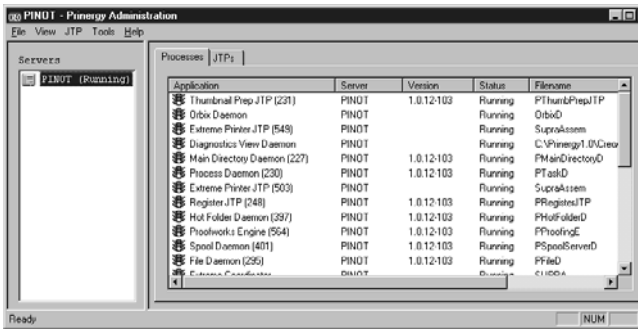


Figure 2-1: Prinergy Administrator

3. From the **Tools** menu, select **Start Prinergy**.

   The Start Prinergy dialog box is displayed.

4. In the Start Prinergy dialog box, do one of the following:

   - To start Prinergy on the most recently selected server, select the server by name.
   - To start Prinergy on all Prinergy servers in the Prinergy system, select **All Servers**.

5. Click **Start**.

   Prinergy may take a moment to start up.

   Note: Prinergy must be running on the primary server in order to process jobs. You can start Prinergy on a secondary server even if the primary server is stopped, but you will not be able to process jobs.

   For more information on using Prinergy Administrator, see the Prinergy Administrator online help.

Stopping Prinergy Server

Use Prinergy Administrator to stop Prinergy Server software on various servers without powering down the system. You may want to do this if a job seems to be hung up or the software is not responding.

Prinergy Administrator is installed as part of Prinergy Server and runs on primary and secondary servers.

To stop Prinergy Server using Prinergy Administrator:

1. Log on to a Prinergy server as an administrator.

   You must have administrator privileges in order to user Prinergy Administrator. If you have not logged on to the system using an account with administrator privileges, you will be prompted to log on with an appropriate account when Prinergy Administrator is launched.

2. From the Windows NT **Start** menu, select **Programs**, then **Prinergy**, then **Prinergy Administrator**.

   Prinergy Administrator is displayed.

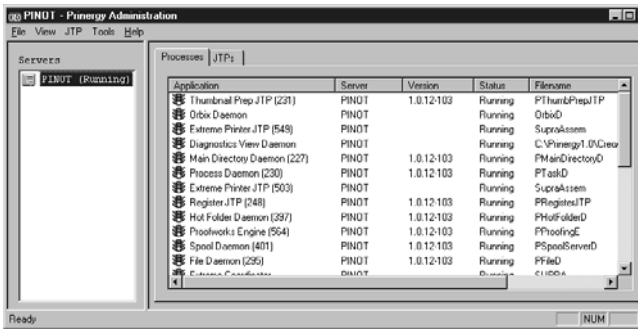


Figure 2-2: Prinergy Administrator

3. From the **Tools** menu, select **Shutdown Prinergy**.

   The Shut down Prinergy dialog box is displayed.

4. In the Shut down Prinergy dialog box, do one of the following:

   - To stop Prinergy on the most recently selected server, select the server by name.
   - To stop Prinergy on all Prinergy servers on the system, select **All Servers**.

5. In the **Reason for shutdown** box, type the reason for stopping Prinergy (optional).

   This information is logged in the NT Application Event Log for troubleshooting.

6. Click **Shut down**.

   Prinergy may take a moment to shut down. For more information on using Prinergy Administrator, see the Prinergy Administrator online help.

3

CONFIGURING A PRINERGY SYSTEM

Included in This Chapter:

Introduction 3-2

Overview of Initial Prinergy Configuration 3-4

Distributing JTPs 3-6

Setting Up User Accounts and User Groups 3-11

Adding More Storage Space 3-19

Configuring a Proofing Device 3-27

Configuring an Output Device 3-31

Introduction

This chapter provides information on configuring your Prinergy system. It begins with an overview of the configuration steps you need to perform in order to get your Prinergy system up and running.

The rest of the chapter contains detailed information on each of these steps. Use these instructions if you wish to make configuration changes to your Prinergy system.

Table 3-1, describes the various Prinergy configuration activities and the software used.

Note: Many of the configuration activities in Prinergy involve Windows NT procedures—for example, setting up user accounts. This guide does not provide information on performing NT procedures in general; rather, it outlines the Prinergy-specific information you need to know. For detailed information on Windows NT procedures, please see the Windows NT Server documentation provided by Microsoft.

Table 3-1: Prinergy configuration activities and the software used

Configuration Activity	Software Used
Distributing JTPs	Prinergy Administrator
Creating user accounts and user groups	Windows NT Server User Manager for Domains
Adding disk storage space. Includes: • adding a tertiary server • adding a job storage folder • adding an input folder	• Prinergy Administrator • Windows NT Explorer

Configuration Activity	Software Used
Configuring proofing devices	• Prinergy Workshop • Preps • Harmony
Configuring output devices	• Prinergy Workshop • Harmony • control software for output device (for example, Print Console)
Configuring the Prinergy Archiver System	Archiver Configuration Wizard (see *Configuring a Prinergy Archiver System* on page 4-12)

Overview of Initial Prinergy Configuration

Once you have installed Prinergy, you must configure your system before you can begin to process jobs and work with Prinergy.

To configure your Prinergy system after installation:

1. If you are using secondary servers, determine how you will distribute JTPs on your system, then use Prinergy Administrator to distribute JTPs.

   Distributing JTPs includes adding and removing JTPs from Prinergy servers and creating JTP pools. For more information, see *Distributing JTPs* on page 3-6.

2. Using Windows NT User Manager for Domains, create user accounts and user groups for the system.

   If you are in a domain, create these on your primary domain controller (PDC). If you are in a workgroup, you must create parallel user accounts and groups on each server in your system.

   For more information, see *Setting Up User Accounts and User Groups* on page 3-11.

3. Using Windows NT Explorer, add a new job storage folder if desired.

   For more information, see *Adding a New Job Storage Folder* on page 3-19.

4. Using Windows NT Explorer, add a new input folder if desired.

   For more information, see *Accessing Input Files on a Tertiary Server or a File Server* on page 3-22.

5. On the primary server, using Windows NT, set up RAS for remote support.

   This enables you to connect your system directly to the Prinergy technical support. For more information, consult your service representative.

6. On your primary server, configure any proofing devices you plan to use with Prinergy.

   Configuring a proofing device involves creating process plans, setting up calibration curves, and creating test proofs. For more information, see *Configuring a Proofing Device* on page 3-27.

7. On the server(s) connected to the output device(s), configure any output devices (such as a Trendsetter) you plan to use with Prinergy.

   Configuring an output device involves creating process plans, creating plate types, setting up calibration curves, and creating test plates. For more information, see *Configuring an Output Device* on page 3-31

8. Run the Prinergy Archiver Configuration Wizard to configure your archiving device.

   For more information, see *Configuring a Prinergy Archiver System* on page 4-12 (in *Chapter 4, Using the Prinergy Archiver System*).

Distributing JTPs

A JTP is a software program that performs a specific task to help process an Adobe Extreme job ticket. JTPs can be distributed on servers throughout the Prinergy system in order to facilitate loadsharing and optimize performance.

Use Prinergy Administrator to distribute JTPs on the system by "adding" and "removing" JTPs from particular servers. All JTPs are installed on each Prinergy server when you install Prinergy Server software—however, a JTP is not activated and cannot be used by the system until it has been "added" to a server. You can deactivate a JTP by using Prinergy Administrator to "remove" it from a server.

Once you have distributed your JTPs using Prinergy Administrator, use the Prinergy Process Plan editor to create Prinergy process plans. Process plans identify which JTPs on which servers should be sequenced together to automate Prinergy tasks.

For a description of each JTP, see Table 1-4 on page 1-26 in this manual. For information on creating process plans, see the Prinergy Workshop online help.

Multiple JTPs

It is possible to have multiple instances of an active JTP in a Prinergy system. For example, a system can have multiple instances of a trapper JTP in order to simultaneously process multiple jobs.

The number of instances of a JTP that you are able to run on your system depends on your hardware and licensing agreement for Prinergy.

About JTP Pools

A JTP pool is comprised of one or more similar JTPs that have been grouped together to further automate your workflow. A JTP pool can include similar JTPs—that is, JTPs that perform the same task—on one or more servers. For example, three normalize JTPs on three different Prinergy servers.

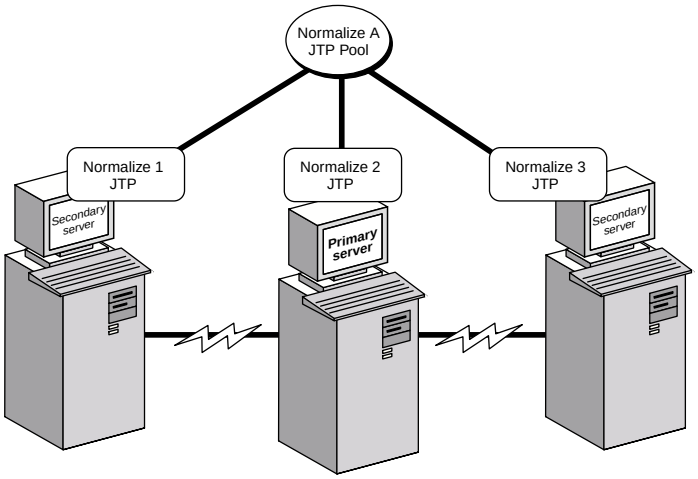


Figure 3-1: Normalize JTP pool

Note: A JTP pool cannot include different types of JTPs—for example, you cannot have an color match JTP in the same pool as a trap JTP.

Types of JTP Pools

Use Prinergy Administrator to create JTP pools. There are four types of JTP pools:

- *color match*—generates data for color matching proofs to final presses
- *normalize*—converts PostScript files to PDF; also does font management and font handling
- *trap*—handles trapping in Prinergy
- *render*—creates low-resolution output, suitable for proofing

Once you have created a JTP pool, use the Process Plan Editor to create a process plan that uses the pool, rather than a specific JTP.

Advantages of a JTP Pool

By using a JTP pool, you can direct Prinergy to automatically distribute tasks to individual JTPs, rather than having to coordinate which JTP to use. This helps you automatically process multiple jobs at the same time.

Otherwise, when you create a process plan, you direct the process plan to a specific JTP on a specific server. If you are processing multiple jobs at the same time, you may have to wait until that JTP is free for your job to continue processing.

How to Configure JTPs

Use Prinergy Administrator to configure JTPs. You can:

- add and remove JTPs
- create and delete JTP pools
- monitor which JTPs are active on which servers
- start and stop specific JTPs

Prinergy Administrator is a separate Windows NT application that also allows you to monitor your Prinergy system, as well as start and shut down the system. It is installed on each server when you install Prinergy Server software.

Detailed information on how to configure JTPs can be found in Prinergy Administrator online help.

Note: Your service representative distributed your JTPs for optimum system performance when your Prinergy system was installed and configured. Please consult your service representative before making any changes to your JTP distribution.

To access Prinergy Administrator:

1. Log on to a Prinergy server as an administrator.

   You must have administrator privileges in order to user Prinergy Administrator. If you have not logged on to the system using an account with administrator privileges, you will be prompted to log on with an appropriate account when Prinergy Administrator is launched.

2. From the Windows NT **Start** menu, select **Programs**, then **Prinergy**, then **Prinergy Administrator**.

   Prinergy Administrator is displayed. For more information on using Prinergy Administrator, see the Prinergy Administrator online help.

What's Next

If you are configuring your system for the first time, once you have distributed your JTPs, you are ready to set up user accounts and groups. See *Setting Up User Accounts and User Groups* on page 3-11.

Setting Up User Accounts and User Groups

As part of a networked Windows NT environment, Prinergy requires that you set up user accounts and groups. There are two types of networked environments—workgroups and domains. A Prinergy system can be part of either.

- A *workgroup* is a collection of computers that are grouped for sharing resources such as data and devices. In terms of networking, there is no dedicated server or hierarchy among computers. It may also be called a peer-to-peer network.
- A *domain* is a collection of computers and users that share a common database and security policy. This information is stored on a Windows NT Server primary domain controller (PDC).

The process for setting up user groups and user accounts differs depending on whether you are in a workgroup or domain. Regardless of whether you are in a workgroup or a domain, take the time to plan your user accounts and user groups. Careful planning will help make Prinergy system administration easier to manage.

This section contains useful information on how to plan your accounts and groups for Prinergy. For information on Windows NT user accounts and user groups in general, see the Windows NT Server documentation.

About User Accounts

User accounts provide each user with a unique profile with which to log on to the system and access resources. Setting up individual user accounts has a number of advantages:

- enables you to integrate security with Windows NT
- provides all users with a unique profile and personalized preferences—for example, window position and sizing in Prinergy Workshop
- lets you track operations by providing a history log of which operator performed which function

Add user accounts to user groups in order to give users access to resources and rights. If your Prinergy system is part of a domain, create user accounts on the PDC. If your Prinergy system is part of a workgroup, you will have to copy each user account to each Prinergy server in the system.



TIP: You can quickly create new user accounts with identical rights, permissions, and group memberships by creating a template account and renaming it as needed to create new users. You can also copy and rename an existing account.

For more information on Windows NT user accounts, see the Windows NT documentation.

About User Groups

A user group is a collection of user accounts. User groups let you assign permissions and rights to a group of users, as well as determine which resources the group can access.

Your security needs should determine how you organize your groups. We recommend you set up at least two groups:

- *users*—a group that can access Prinergy to create and process jobs—that is, use Prinergy Workshop only
- *administrators*—a group that can also perform Prinergy system administration tasks such as adding and removing JTPs—that is, use Prinergy Administrator and any administrative tools in Windows NT

Note: You can modify any existing Windows NT user and administrator accounts.

If your Prinergy system is part of a domain, create user groups on the PDC. If your Prinergy system is not part of a domain, you must create parallel user groups on each Prinergy server in the system.

For more information about Windows NT user groups, see the Windows NT documentation.

About the Araxi Account

When Prinergy Server is installed, there is an option to create a default account named “Araxi." This account is a member of the system administrator group and has these rights:

- can log on as a server
- acts as part of the operation system

The Araxi account is used by Araxi Service (Araxi.exe) to launch processes such as daemons. Araxi Service is a Windows NT service that launches when a Prinergy server machine is started.

Araxi Service is set to start automatically when Windows NT starts. It does not require a user to log on interactively.

If your Prinergy system is part of a domain, the Araxi account is automatically added to the database on the PDC and is available on all servers in the system.

If you are in a workgroup, make sure you do the following:

- Add the Araxi account to all NT servers in the workgroup, including tertiary servers and file servers storing input files. This enables all Prinergy Server components to have access to any necessary resources on your network.
- assign the same password to all Araxi accounts in the system. This enables the Araxi account to log on to all servers in the system.

Setting Up Accounts and Groups in a Domain

If you are using Prinergy in a domain, you can set up user accounts and user groups on the primary domain controller (PDC) once you have added your Prinergy server as a member of the domain. The PDC automatically updates all group and account information for your system.



ATTENTION:
Do not use a Prinergy server as a primary domain controller (PDC) or backup domain controller (BDC) for your system. For best results, your server should be dedicated to Prinergy, or else performance may be hindered.

The following procedure provides basic instructions for setting up user accounts and user groups for Prinergy in a domain. For detailed information on the Windows NT procedures described below, see the Windows NT Server documentation.

To set up user groups and accounts in a domain:

1. Log on to the PDC as a domain administrator.
2. Start User Manager for Domains.
3. Create user groups for Prinergy, assigning the appropriate permissions and rights.

   We recommend you create at least two groups: one for using Prinergy (for example, **Prinergy Users**), and one for performing system administration (for example, **Prinergy Admin**). Your security needs should determine how you organize your groups. For example, you may not want your Prinergy user group to have rights to add and remove JTPs.
4. Create user accounts for each user who will access Prinergy.

   We recommend you create a user account for each operator to facilitate operation tracking, individual preferences, and integrated security with Windows NT.
5. Add user accounts to the appropriate group.



TIP: You can quickly create new user accounts with identical rights, permissions, and group memberships by creating a template account and renaming it as needed to create new users. You can also copy and rename an existing account.

6. Make sure the Araxi account is part of the domain administrators group so that it can access all resources on the network, including tertiary servers and file servers for input files.

Setting Up Accounts and Groups in a Workgroup

In a workgroup environment, you must set up parallel user accounts and user groups on each Prinergy server in your system; accounts are not managed by a PDC and must be maintained on all Prinergy servers.

The following procedure provides basic instructions for setting up user accounts and user groups for Prinergy in a workgroup. For detailed information on the Windows NT procedures described below, see the Windows NT Server documentation.

Note: Take the time to record all user account and user group information, as you must recreate these parameters on each Prinergy server in your system.

To set up user groups and accounts in a workgroup:

1. Log on to the primary server as an administrator.
2. Start User Manager for Domains.
3. Create user groups for Prinergy, assigning appropriate permissions and rights.

   We recommend you create at least two local groups: one for using Prinergy (for example, **Prinergy Users**), and one for performing system administration (for example, **Prinergy Admin**). Your security needs should determine how you organize your groups. For example, you may not want your Prinergy user group to have rights for adding or removing JTPs.

4. Create user accounts for each user who will access Prinergy.

   We recommend you create a user account for each operator to facilitate operation tracking, individual preferences, and integrated security with Windows NT.

5. Add user accounts to the appropriate group.



TIP: You can quickly create new user accounts with identical rights, permissions, and group memberships by creating a template account and renaming it as needed to create new users. You can also copy and rename an existing account.

6. If you have one or more secondary servers in your Prinergy system, create parallel user accounts and user groups on each server on your Prinergy system.

7. Add the Araxi account to all NT servers in your Prinergy system, including tertiary servers and file servers storing job input files.

   This enables all Prinergy Server components to have access to any necessary resources on your network.

8. Assign the same password to all Araxi accounts in the system.

   This enables the Araxi account to log on to all servers in the system and access necessary resources.

What's Next

If you are in the process of configuring Prinergy for the first time, once you have set up your user accounts and user groups, you may want to add additional storage space for your system by adding a job storage folder or input folder. For more information, see *Adding More Storage Space* on page 3-19.

Adding More Storage Space

This section describes how to add storage space to your Prinergy system. You can expand the storage space to your system by:

- adding more job storage folders
- adding more input file folders

Adding a New Job Storage Folder

A job storage folder is the central directory (folder) on which Prinergy stores job folders. Job storage folders are automatically created in Prinergy standard shares when Prinergy is installed.

Add a new job storage folder by creating a new share on any primary, secondary, or tertiary server in your Prinergy system.

Note: For information about adding a secondary server or tertiary server to the system, see the Prinergy Administrator online help.

Note: The default name for job storage folders is **Jobs**; however, you may have specified a different name when Prinergy was installed.

You may want to add a new job storage folder if:

- you've added a new volume (drive) to a Prinergy server and want to store jobs on it
- you are running out of space on your existing job storage folder(s)

To add a new job storage folder:

1. In Windows NT Explorer, select the root level of the volume (drive) on which you want to create the new job storage folder.
2. From the **File** menu, select **Properties**.

   The Properties dialog box is displayed.
3. Click the **Sharing** tab.

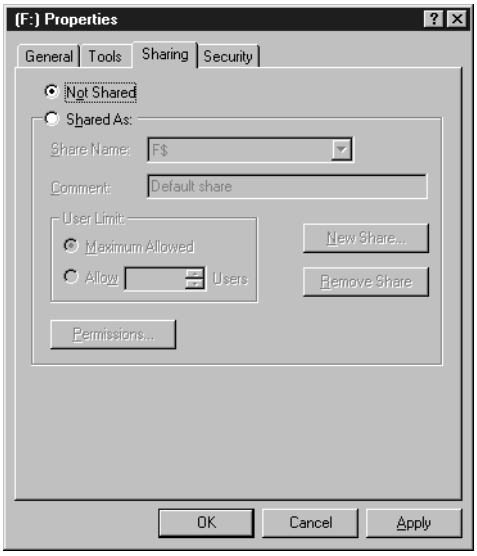


Figure 3-2: Windows NT Sharing tab

4. Do one of the following:
   - If the volume is not shared, select **Shared As**.

     The sharing options in the dialog box are now available.
   - If the volume is already shared, click **New Share**.

     The New Share dialog box is displayed.

5. In the **Share Name** box, type a share name using the following convention: **AraxiVolume_<server name>_<drive letter>**.

   For example, **AraxiVolume_server1_F**.

   Note: You must use the prefix **AraxiVolume** in your share name.

6. Click **OK**.

   A dialog box is displayed with the message that the share name may not be accessible from some MS-DOS workstations.

7. Click **Yes** to confirm that you want to use this share name.

8. In the Properties dialog box, click **Apply**, then **OK**.

   A job storage folder is created on the volume, which is now a Prinergy standard share.

   Note: The name of the folder is based on the name you identified for your job storage folders when Prinergy was installed. (The default name is **Jobs**.)

9. Create a Macintosh-accessible volume if you want this volume and the job storage folder to be available from a Macintosh workstation—for example, from a Macintosh that's running Prinergy Workshop.

   For more information, see *Creating a Macintosh-Accessible Volume* on page 3-24.

10. Restart Prinergy on all servers in the system for the changes to take effect.

    For more information on shutting down and starting Prinergy, see the Prinergy Administrator online help.

Accessing Input Files on a Tertiary Server or a File Server

This section describes how to access input files on a tertiary server or a file server. Input files contain original information for a job, such as PostScript files. They can be stored on any server on your network; they do not have to be located on a Prinergy primary or secondary server. However, the input files must be located on a volume that has appropriate sharing permissions and can be accessed by the Araxi account.

Note: A tertiary server is a Windows NT server that has no Prinergy software components, but is capable of storing Prinergy jobs. A file server can be any server in the system, including Unix, but it does not store any Prinergy jobs.

To access input files on a tertiary server or file server:

1. Ensure that the Araxi account has administrative rights on the server. If there is no Araxi account on the server, add the account and give it administrative privileges.
2. In Windows NT Explorer, select the volume on which the input files are located.
3. From the **File** menu, select **Properties**.

   The Properties dialog box is displayed.

4. Click the **Sharing** tab.

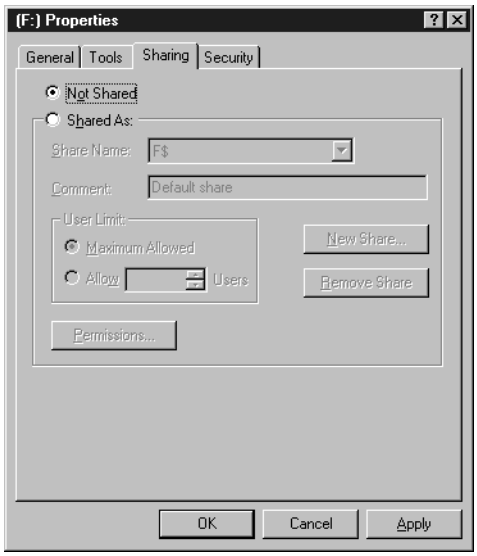


Figure 3-3: Windows NT Sharing tab

5. Select **Shared As**.

   The sharing options in the dialog box are now available.

6. Click **Permissions**.

   The Access Through Share Permissions dialog box is displayed.

7. In the **Name** box, ensure that one of the groups to which the Araxi account belongs is listed, and that it has **Full Control**.

   Note: By default, the group **Everyone** should be listed with **Full Control**. The Araxi account is part of this group.

8. When you have set the appropriate permissions, click **OK** to close the Access Through Share Permissions dialog box.

9. In the Properties dialog box, click **OK**.

   The volume is now shared.

10. Create a Macintosh-accessible volume if you want this folder to be available from a Macintosh workstation—for example from a Macintosh computer that's running Prinergy Workshop.

    For more information, see *Creating a Macintosh-Accessible Volume*.

Creating a Macintosh-Accessible Volume

You must create a Macintosh-accessible volume if you want your job storage folder or input folder to be available from a Macintosh workstation—for example, from a Macintosh that's running Prinergy Workshop.

Note: You can create Macintosh accessible volumes only on an NTFS volume.

To create a Macintosh-accessible volume:

1. From the **Start** menu, select **Run**.

   The Run command box is displayed.



Figure 3-4: Run command box

2. In the **Open** box, type `winfile`.
3. Click **OK**.

   File Manager is displayed.

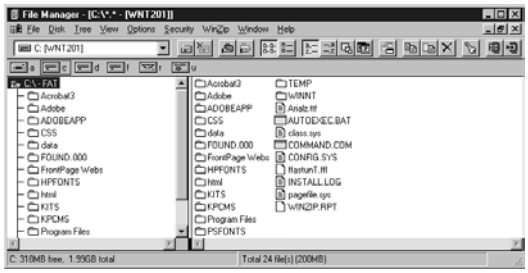


Figure 3-5: File Manager

4. From the toolbar, select the drive the folder is located on, then select the folder.

5. From the **MacFile** menu select **Create Volume**.

   The Create Macintosh-Accessible Volume dialog box is displayed. It should reflect the following settings:

   - The **Volume Names** box should automatically include the name of the folder you selected.
   - The **Path** box specifies the folder path by default.

   If these entries are blank, it is likely that this is not an NTFS volume, and you can not create a Macintosh-accessible share. You may want to create a new job storage folder on an NTFS volume.

6. In the **Volume Name** box, type a name using the following convention: **Jobs on <servername> <driveletter> Drive.**

   For example, **Jobs on Server1 F Drive**.

7. Click **OK**.

8. Exit File Manager.

Configuring a Proofing Device

You must configure your proofing devices before creating proofs in Prinergy. You can have multiple proofing devices in your Prinergy system. Configuring a proofing device involves performing a number of procedures in various applications.

Table 3-2, describes some of the procedures.

Table 3-2: Procedures involved in configuring a proofing device

Procedure	Application
Configuring default document settings for the proofing device	Windows NT
Creating a process plan group for the proofing device	Prinergy Workshop
Creating process plans	Prinergy Workshop (using the Process Plan Editor)
Calibrating color for the proofing device (optional)	*Software to be determined by user*
Calibrating dot gain for the proofing device	Harmony
Outputting test pages	Prinergy Workshop

Before You Start

You can configure a proofing device if the following prerequisites have been met.

Table 3-3: Prerequisites for configuring a proofing device

Prerequisite	Details
Proofing device is connected to a Prinergy server.	For more information about connecting specific proofing devices, see the Creo document 03-4057A-B, *Connecting Proofing Devices*.
JTPs are distributed on the Prinergy system.	For more information about distributing JTPs, see *Distributing JTPs* on page 3-6 or Prinergy Administrator online help.
Harmony is installed on the appropriate Prinergy servers.	Harmony is installed by your service representative when your Prinergy system is installed.

How to Configure a Proofing Device

Use the following procedure to configure a proofing device for use with Prinergy.

To configure a proofing device for use with Prinergy:

1. Using the Windows NT Printer Control Panel, configure the default document settings for the proofer.

   For more information, see the Windows NT documentation.

2. Start Prinergy Workshop and open the Process Plan Editor.

3. From the Process Plan Editor, create a process plan group for the proofing device.

   For more information on creating process plan groups, see the Prinergy Workshop online help.

4. Create a process plan to output an uncalibrated loose page proof.

   For more information about creating process plans, see the Prinergy Workshop online help.

   Note: Calibration settings are not available in the Process Plan Editor until you set up the calibration curves in Harmony (step 7 below). You do not need the calibration settings to create a process plan for an uncalibrated loose page proof.

5. Using the process plan you just created, output a proof of your test file.

   Make sure you label this uncalibrated test proof so that you can compare it to calibrated proofs you will generate later. For information about how to output a proof, see the Prinergy Workshop online help.

6. If desired, calibrate color for the proofing device using the color calibration software of your choice.

   For more information, see the documentation provided by your color calibration software manufacturer.

7. Using Harmony software, set up calibration curves for the proofing device you are configuring.

   You must set up calibration curves in Harmony in order for the calibration settings to be available in the Process Plan Editor. For more information about setting up calibration curves and using Harmony, see the Harmony documentation.

8. Using Prinergy Workshop's Process Plan Editor, create a process plan to output a calibrated loose page proof.

   Note that the calibration settings are now available for you to use in your process plan.

9. Using the process plan you just created, output a proof of your test file.

   Make sure your proof is labeled so that you can compare this proof to others to help you configure the proofing device.

10. Compare the uncalibrated proof with the calibrated proof.

    If you do not have the results you want, adjust your calibration curves in Harmony and continue creating new process plans and proofs until you are satisfied with the results.

Use the above procedure to configure each proofing device you want to use with Prinergy.

What's Next

If you are configuring your Prinergy system for the first time, you are now ready to configure your output device(s). See *Configuring an Output Device* on page 3-31 for more information.

Configuring an Output Device

Before you can create plates, you must configure the output devices you want to use with Prinergy. Configuring an output device involves performing a number of procedures in various applications.

Table 3-4, describes some of the procedures involved in configuring an output device.

Table 3-4: Procedures involved in configuring an output device

Procedure	Application
Creating a shared PPD storage folder	Windows NT Explorer
Creating plate types	Control software for your output device, such as: • Platesetter Workstation software • Print Console • Engine Manager
Creating PPD files and moving them to the PPD storage folder	Control software for your output device (see above)
Creating imposition plans	Preps or Signastation
Creating a process plan group for the output device	Prinergy Workshop (Process Plan Editor)
Creating process plans	Prinergy Workshop (Process Plan Editor)
Creating calibration curves	Harmony
Outputting test plates	Prinergy Workshop

Before You Start

You can configure an output device if the following prerequisites have been met.

Table 3-5: Prerequisites for configuring an output device

Prerequisite	Details
Output device is connected.	For more information on connecting the output device, see the manufacturer's documentation.
Output device control software is installed on the server connected to the output device (for example, the render station).	Your output device control software will vary according to the output device you are using. For more information about which control software to use, see *Output Device Control Software* on page 3-33. For more information on installing output device control software, see the documentation provided by the software manufacturer or contact your service representative.
HiRes Render JTP has been added to the Prinergy server connected to the output device (for example, the render station).	For more information about adding JTPs, see *Distributing JTPs* on page 3-6, or see the Prinergy Administrator online help.
Harmony is installed on the appropriate Prinergy servers.	Harmony is installed by your service representative when your Prinergy system is installed.

Output Device Control Software

You must install the appropriate control software on the server connected to the output device. This software is used to generate plate types and PPD files.

Table 3-6, lists some types of output devices and the corresponding control software.

This list is subject to change. For up-to-date information, consult your service representative.

Table 3-6: Output device control software

Output Device	Control Software
• Trendsetter Spectrum • Proofsetter Spectrum	Print Console
• Trendsetter • Trendsetter AL • Platesetter	Platesetter Workstation software
• HDPP Imagesetter	Engine Manager

What Is a Render Station?

A render station is a Prinergy secondary server that is connected to an output device and is running a high-resolution RIP. It is generally not used to store jobs or run other types of JTPs. Instead, it is reserved for rendering files for output.

How to Configure an Output Device

Use the following procedures to configure an output device for use with Prinergy.

To configure an output device for use with Prinergy:

1. On the Prinergy server connected to the output device, use Windows NT Explorer to create a shared folder in which to store PPD and PPX files generated from your output device control software when you create plate types.

   PPD files contain information about the device such as plate size, resolution, line screen, and screen angle. PPX files are a supplement to PPD files. These files are used by Preps when generating imposition plans.

   For more information on creating this folder, see *Creating a Shared PPD Storage Folder* on page 3-36.

   Note: If you want these files to be available from a Macintosh computer, you must also create a Macintosh-accessible volume. See *Creating a Macintosh-Accessible Volume* on page 3-38.

2. Using the output device control software, generate plate types for Prinergy.

   You must create new plate types in order for the plate type settings to be available in the Process Plan Editor. For more information on creating plate types, see your control software documentation.

   Your output device control software will vary according to the output device you are using. For more information, see *Output Device Control Software* on page 3-33.

3. Using your control software, create PPD and PPX files and copy them to the PPD folder.

   For more information, see *Creating PPD files for Prinergy* on page 3-40.

4. In Preps or Signastation, add the output device and set device configuration if necessary.

   For more information, see the Preps or Signastation documentation.

5. Using Preps or Signastation, create an imposition plan for the test plate you want to output.

   For more information, see the Preps or Signastation documentation.

6. In Prinergy Workshop, register the imposition plan.

   For more information, see the Prinergy Workshop online help.

7. Create a process plan group for the output device.

   You will need to configure parameters such as resolution, media type, and screening. For more information about creating process plan groups, see the Prinergy Workshop online help.

8. Test dot gain calibration by outputting uncalibrated and calibrated plates.

   For more information, see *Testing Calibration* on page 3-42.

Creating a Shared PPD Storage Folder

You must create a shared folder in which to store PPD and PPX files generated by your output device control software (for example, Platesetter Workstation software or Print Console).

Note: If you want these files to be available from a Macintosh computer—that is, you are using Prinergy Workshop on a Macintosh—you must also create a Macintosh-accessible volume.

To create a shared PPD storage folder:

1. On the Prinergy server connected to the output device, in Windows NT Explorer, select the volume on which you want to create the shared storage folder.
2. From the **File** menu, select **New**, then **Folder**.

   A new folder is created.
3. Type a name for the folder—for example **Prinergy PPDs**.
4. From the **File** menu, select **Properties**.

   The Properties dialog box is displayed.

5. Click the **Sharing** tab.

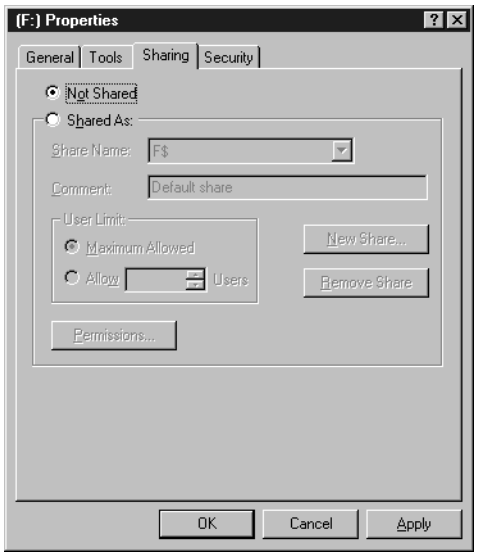


Figure 3-6: Windows NT Sharing tab

6. Select **Shared As**.

   The sharing options in the dialog ox are now available.

7. Click **Permissions**.

   The Access Through Share Permissions dialog box is displayed.

8. In the **Name** box, ensure that one of the groups to which the Araxi account belongs is listed, and that it has **Full Control**.

   Note: By default, the group **Everyone** should be listed with **Full Control**. The Araxi account is part of this group.

9. If necessary, add the Araxi account and give it full control.
10. When you have set the appropriate permissions, click **OK** to close the Access Through Share Permissions dialog box.
11. In the Properties dialog box, click **OK**.

    The folder is now shared.

12. Create a Macintosh-accessible volume if you want this folder to be available from a Macintosh workstation—for example, from a Macintosh computer that's running Prinergy Workshop.

    For more information, see the next procedure.

Creating a Macintosh-Accessible Volume

If you want your PPD files to be available from a Macintosh computer—that is, you are using Prinergy Workshop on a Macintosh—you must also create a Macintosh-accessible volume.

To create a Macintosh-accessible volume for a PPD storage folder:

Note: You can create Macintosh-accessible volumes only on an NTFS volume.

1. From the **Start** menu, select **Run**.

   The Run command box is displayed.



Figure 3-7: Run command box

2. In the **Open** box, type `winfile`.
3. Click **OK**.

   File Manager is displayed.

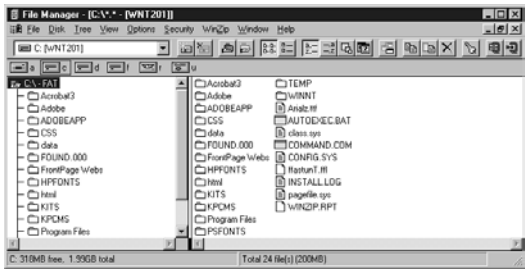


Figure 3-8: File Manager

4. From the toolbar, select the drive the folder is located on, then select the folder.

5. From the **MacFile** menu, select **Create Volume**.

   The Create Macintosh-Accessible Volume dialog box is displayed. It should have the following settings:

   - The **Volume Names** box should automatically include the name of the folder you selected.
   - The **Path** box specifies the folder path by default.

   If these entries are blank, it is likely that this is not an NTFS volume, and you cannot create a Macintosh-accessible share. You may want to create a new PPD storage folder on an NTFS volume.

6. In the **Volume Name** box, type a name using the following convention: **<servername><PPD folder>**.

   For example, **Server1 Prinergy PPDs**.

7. Click **OK**.

8. Exit File Manager.

Creating PPD files for Prinergy

Use the control software for your output device to create plate types for use with Prinergy and generate PPD and PPX files. These files must then be moved to the appropriate folders in order to be accessible to the Prinergy system.

Note: Each time you modify the output device control software—for example, create a new plate type—you must regenerate the PPD and PPX files and move them to the appropriate folder.

To create PPD and PPX files for Prinergy:

1. Using your control software (for example, Print Console), define plate types to use with Prinergy.

   For more information on creating plate types, see the control software documentation.

2. Using your output device control software, generate a PPD file.

   If you are using Print Console control software, generate this PPD file in **Landscape** mode.

   For more information on generating PPD files, see the control software documentation.

3. Save the PPD file to the PPD storage folder you created on the Prinergy server connected to the output device.

   How the files are saved varies according to which software you are using. If you are using Platesetter Workstation software, two sets of two files are saved to the folder:

   - **xxx.ppd** and **xxx.ppx**
   - **xxx-cwr.PPD** and **xxx-cwr.PPX**

   where **xxx** equals the user-defined file name.

   If you are using Print Console, only one set of files (**xxx.ppd** and **xxx.ppx**) is created.

   For more information about saving PPD files, see your control software documentation.

4. Go to the machine on which you've installed Preps or Signastation.

5. Mount the PPD storage folder you created on the Prinergy server connected to the output device.

6. Copy the PPD and PPX files from the Prinergy PPD storage folder to the Preps PPD folder.

Testing Calibration

Test that your output device is correctly configured by outputting uncalibrated and calibrated test plates, then comparing the results.

To test calibration:

1. On the server connected to the output device, start Prinergy Workshop and open the Process Plan Editor.
2. Create a process plan to output an uncalibrated plate.

   For more information about creating process plans, see the Prinergy Workshop online help.

   Note: Plate types are not available in the Process Plan Editor until you set up the plate types in your output device control software.
3. Using the process plan you just created, output an uncalibrated plate of your test file.

   For more information about outputting plates, see the Prinergy Workshop online help.
4. Using Harmony software, create calibration curves.

   For more information about using Harmony, see the Harmony documentation.
5. Create a process plan to output a calibrated plate by choosing the calibration curves you just created in Harmony.

   For more information about creating process plans, see the Prinergy Workshop online help.

6. Using the process plan you just created, output a calibrated plate of your test file.

   For more information about outputting plates, see the Prinergy Workshop online help.

7. Compare the uncalibrated plate with the calibrated plate.

   If you do not have the desired results, repeat steps 4 through 7 until you are satisfied with the results.

4

USING THE PRINERGY ARCHIVER SYSTEM

Included in This Chapter:

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Introduction to the Archiver System

This chapter provides information on how to archive, retrieve, and purge Prinergy jobs using the Prinergy Archiver system. It also provides information on installing and configuring this system.

Main Tasks of the Archiver System

The Archiver system is responsible for three main tasks:

- archiving job data
- purging job data
- retrieving job data

When a job is archived, all job files are saved to removable storage media. Metadata about the job—that is, information about job data—and how the files are linked together remains in the Oracle database on the primary server. Prinergy uses DLT tape as archiving media.

Once you have archived a job to media, you may want to purge the job's files from your server in order to free up disk space. Purging deletes selected files from the server; however, the job remains in the system because job metadata is retained in the Oracle database.

Retrieve archived files to restore a job to the system. The Oracle database works with the Archiver system to retrieve the necessary files from media and restore job data to the file system.

Archiving vs. Backup: What's the Difference?

Archiving differs from backup. Although each may use similar technology and resources, they fulfill different but equally important roles.

An archive is a potentially permanent record of a set of related files—in this case, a job—that may span several file systems on one or more machines.

For example, job files in Prinergy can be stored on multiple servers: system files for the job may be stored in a job folder on the primary server, while the input files may be stored on a file server. The Archiver extracts all the necessary files on the system, regardless of which machines they are stored on, and writes them to archive media.

In backup, a duplicate image of a complete disk partition, file system, or portion of a file system directory structure is saved for the purposes of disaster recovery—for example, in the event of a disk crash. There is no relationship between backed up files and the database. Unlike an archive, which is usually permanent, a backup is retained only until a more up-to-date record is made. For more information on backup, see *Chapter 5, Backing Up the Prinergy System*.



ATTENTION:
Prinergy Archiver does not perform any backup.

Table 4-1 on page 4-4 describes some of the key differences between an archive and a backup.

Table 4-1: Archive vs. backup features

Feature	Archive	Backup
Permanent record?	Yes	No
Job context retained?	Yes	No
Intended to protect against disaster (for example, fire, disk crash, flood)?	No	Yes

Prinergy Archiver System Components

Prinergy Archiver system consists of:

- Archiver software (which runs on a single Prinergy server)
- an archiving device (which is directly connected to that server)

There can be only one Archiver system per Prinergy system. The Prinergy server on which you are running the Archiver system can be referred to as the archiving station.

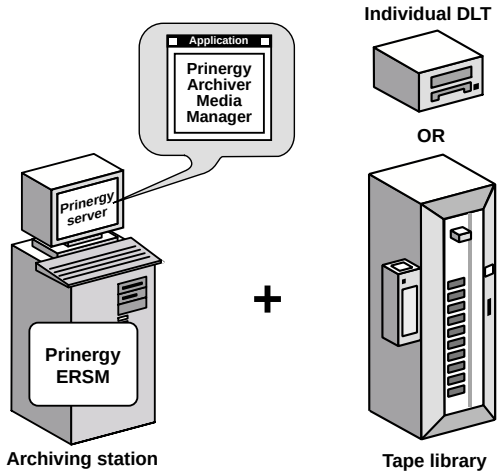


Figure 4-1: Prinergy Archiver system

About Archiver Software

Archiver software consists of the following components:

- Emulated RSM Service (ERSM)
- Prinergy Archiver Media Manager
- Archive/Retrieve JTP
- Disk Purge JTP

All four software components must be running on the same Prinergy server (the archiving station). It can be a primary or secondary server; however, it must be directly connected to the archiving device.

Emulated RSM Service (ERSM)

The ERSM is an underlying Windows NT service that drives the archiving device robotics and tracks removable storage media—in this case, DLT tapes. The ERSM fulfills requests from Prinergy Archiver Media Manager. It also fulfills requests from the Archive/Retrieve JTP and the Disk Purge JTP via process plans created in Prinergy Workshop.

Prinergy Archiver Media Manager

Prinergy Archiver Media Manager is the user interface for the ERSM. Use it to:

- manage media pools (a way of logically grouping media)
- physically manipulate media in the archiving device
- view the history and status of the ERSM
- view the location and states of media
- view the status of the archiving device

Prinergy Archiver Media Manager consists of two view panes. The left pane contains the four main archiver components, while the right pane provides a view of items related to the left pane selection.

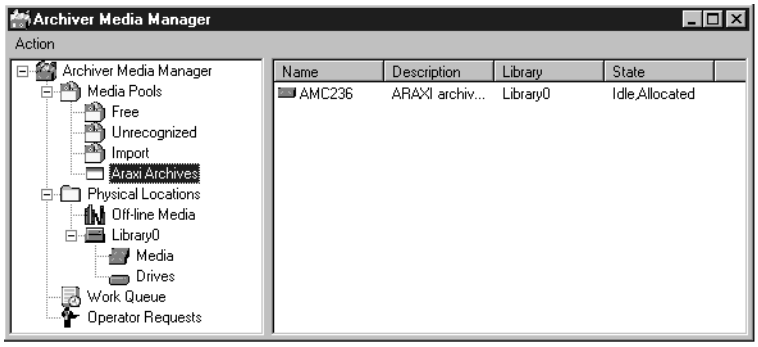


Figure 4-2: Prinergy Archiver Media Manager

Archive/Retrieve JTP

The Archive/Retrieve JTP writes whole jobs or individual files to media, as directed by a process plan. It can also read archived jobs or files from media and return them to the job's home server.

The Archive/Retrieve JTP is added to the archiving station when Prinergy Archiver software is enabled—that is, when you run the Archiver configuration wizard. Like other Prinergy JTPs, it can be added or removed using the Prinergy Administrator.

Note: The Archive/Retrieve JTP must be active on the archiving station in order to run the Archiver software.

Disk Purge JTP

The Disk Purge JTP removes a selected job or files from the job's home server as directed by a process plan. When a job or job file is purged from the system, information about the job (job metadata) is retained in the Oracle database, which allows you to retrieve the job from your archives.

The Disk Purge JTP is added to the archiving station when Prinergy Archiver software is enabled—that is, when you run the Archiver configuration wizard. Like other Prinergy JTPs, it can be added or removed from the server using Prinergy Administrator.

Note: The Disk Purge JTP must be active on the archiving station in order to run Prinergy Archiver software.

ATTENTION:
You should back up your Oracle database on a regular basis. Failure to do so may render your archives inaccessible in the event of a disk failure. For more information about backing up your database, see *Chapter 5, Backing Up the Prinergy System*.

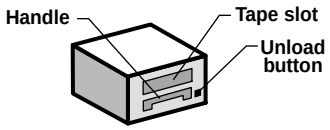
About Archiving Devices

An archiving device reads and writes Prinergy job data on to DLT tape. It must be directly connected to the Prinergy server that is running the archiving software (the archiving station).

Prinergy supports individual DLT drives and DLT tape libraries. For a list of compatible devices, consult your service representative.

Individual DLT Drive

An individual DLT drive is an archiving device with a single tape drive. It may also be called a stand-alone DLT drive. You must manually insert and remove media from the tape drive.



DLTindividual.eps

Figure 4-3: Individual DLT drive

DLT Tape Libraries

A tape library is an archiving device that contains one or more tape drives. It can store numerous DLT tapes in holding slots. Using robotics, it automatically moves media from the holding slots and loads and unloads media from its drives.

A tape library often has an inport and outport from which you load and unload media into the device. These can be combined into a single port.

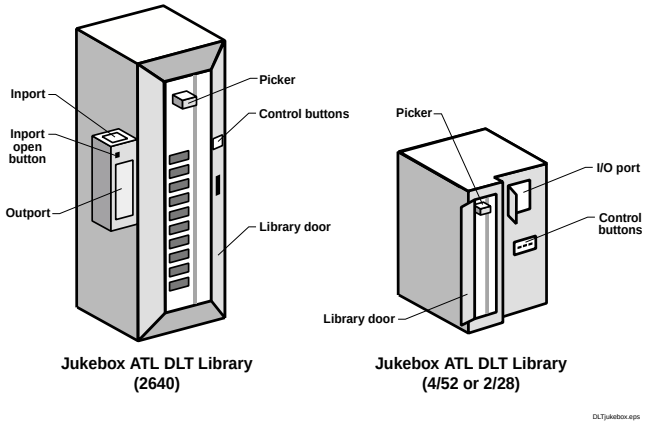


Figure 4-4: DLT tape libraries

Installing and Configuring the Archiver System

This section describes how to install and configure the Prinergy Archiver system.

Installing the Prinergy Archiver System

Prinergy Archiver software is installed on each server when your Prinergy system is installed; however, the software is not enabled until you run the Archiver Configuration Wizard.

To enable the Prinergy Archiver system:

1. Decide which Prinergy server you want to use as an archive station.

   Your archive station can be any Prinergy server.

2. Connect the archiving device to the Prinergy server you plan to use as an archive station.

   For information on how to connect your archiving device, see the manufacturer's documentation.

3. On your archive station, log on as an administrator.

4. Run the Prinergy Archiver Configuration Wizard to enable the Archiver software.

   The Configuration Wizard enables the ERSM, Prinergy Archiver Media Manager, Archive/Retrieve JTP, and Disk Purge JTP. It also configures Archiver software to use the specified archiving device.

Configuring a Prinergy Archiver System

Run the Archiver Configuration Wizard to configure your software whenever you remove or replace an archiving device from your Archiver system. The wizard configures the ERSM and updates the components in Prinergy Archiver Media Manager accordingly.

Note: You can have only one archiving device in your Prinergy system at a time. However, you can replace an existing device with a new one.

To configure Archiver software:

1. On the archiving station, log on as an administrator.
2. Run the Prinergy Archiver Configuration Wizard.

   The Configuration Wizard enables the ERSM, Prinergy Archiver Media Manager, the Archive/Retrieve JTP, and the Disk Purge JTP. It also configures the Archiver software to use the specified archiving device.

Overview of Using the Archiver System

This sections provides an overview of using the Prinergy Archiver system. The Prinergy Archiver system works with Prinergy Workshop to:

- archive job data
- purge job data
- retrieve job data

To use the Archiver system:

1. Develop an archiving strategy.

   Establishing your archiving strategy is essential for meeting your archiving requirements. For more information about developing an archiving strategy, see *Developing an Archiving Strategy* on page 4-16.

2. Use Prinergy Archiver Media Manager to set up your media pools.

   Media pools are a logical way of organizing your information onto media. Once created, they appear as options in the Process Plan Editor, enabling you to direct an archive to a specific set of media.

   For more information, see *About Media Pools* on page 4-27 and *Managing Media Pools* on page 4-31.

3. In Prinergy Workshop, modify or create a process plan to do one of the following:

   - archive job files to a specific media pool
   - purge job files from the system
   - retrieve job files

   In creating an archive process plan, you must specify a media pool to archive to. For more information about media pools, see *About Media Pools* on page 4-27 and *Managing Media Pools* on page 4-31. For more information on process plans, see the Prinergy Workshop online help.

4. If necessary, use Prinergy Archiver Media Manager to physically manage media in the archiving device.

   For more information, see *Managing Archiving Media* on page 4-44.



   ATTENTION:
   Always use Prinergy Archiver Media Manager to physically manage media; avoid manually injecting or ejecting media using the device's front panel, unless prompted to do so by the system. When you use Prinergy Archiver Media Manager the system can automatically track media. This way, the system does not have to run a device inventory, which can be time-consuming.

5. From Prinergy Workshop, run the desired process plan.

   The Archiver system will carry out the request specified by the process plan.

   For information about running process plans, see the Prinergy Workshop online help.

6. If prompted, complete any operator requests.

   Occasionally, you may be required to fulfill a request, such as injecting or ejecting media from the archiving device. Prompts to complete a request appear in three ways:

   - in Prinergy Archiver Media Manager, under **Operator Requests**
   - as a prompt message on the archive station
   - as a prompt icon in Prinergy Workshop

   For more information about operator requests, see *Monitoring Operator Requests* on page 4-59.

7. When the task is complete, remove the media from the device and store it according to your archiving strategy.

You can use Prinergy Archiver Media Manager to monitor the process at any point. For more information on monitoring the process, see *Monitoring the System* on page 4-61.

Developing an Archiving Strategy

This section describes some guidelines for developing an archiving strategy. Planning your archiving strategy in advance will help you ensure your archiving requirements are met.

There are a number of factors to consider when developing your archiving strategy:

- Which jobs will you archive, and what job components?
- How often will you archive—that is, at what point(s) in the workflow?

  For example, after proofing, after creating plates, or when the job is off press.
- How will you organize your archives?

  This includes organizing archives into media pools and determining what level of redundancy you require to protect against fire, flood, or media failure.
- How will you store your media, and for how long?

Planning Which Jobs and How Often

You should decide which jobs you plan to archive. For example, you may need to archive all jobs, or you may archive only some jobs. This will depend on your customers' requirements.

In addition, you need to decide when you will archive your jobs and how often. For example, you may choose to archive your jobs only after a job has completed its press run, or you may want to archive a job before this process. If you have a job that may go through a number of iterations, you may need to decide which revision(s) you want to archive.

Organizing Your Archives

Use application pools to help organize your archives. We recommend you consider the following:

- Determine how you will organize your application pools prior to using the Prinergy Archiver system.

  It may be difficult to reorganize the pools after jobs are archived to tape, since only media can be moved from pool to pool; you cannot move an archive from one medium to another.

- Determine which attributes are most important for grouping archives. These may also be reflected in the way jobs are grouped.

  For example, customer name, account/docket number, month/year, publication, etc.

- Consider how long you need to retain your archives. This may affect how you choose to organize your application pools.

- Create pools according to the chosen attributes and use names that contain those attributes.

  Pools cannot be nested. Therefore, the only way to organize pools is by name.

- For convenience, name pools in a way that allows for easy sorting in Prinergy Archiver Media Manager.

- Consider creating duplicate copies of your archives and keep one copy offsite to ensure your data is available in the event of an emergency, such as media failure, fire, or flood.

  In order to create duplicate tape archives, you must create a parallel set of application pools and process plans. In addition, you must update media from both pools to ensure that you have up-to-date information on both copies of your archive media.

Storing Media

Take appropriate precautions to safeguard your media and its contents. Media should be stored in a cool, dark place, away from dust and heat. Refer to the information provided by the media manufacturer.

We recommend you create a copy of your archive media to keep offsite as an added precaution. Note that in order to create a copy of your archives, you must archive your jobs to parallel application pools. For more information, see *Archives Grouped by Location (Onsite/Offsite)* on page 4-21.

You also need to determine how long you will store your archives. For example, you may need to retain your archives permanently, or you may only be required to keep them for a year.

Sample Archiving Scenarios

This section describes some sample archiving scenarios. Use them as guidelines to help develop an archiving strategy that suits your needs.

In order to best meet your needs, you may choose to develop a unique strategy that combines some or all of the following elements, as well as others not documented here.

Archives Grouped by Month

In this scenario, archives are grouped by month and the retention period is 18 months, after which time the archive media can be easily recycled.

Follow these guidelines:

- Create an application pool for each month. For example, **Jan99**, **Feb99**, **March99**.
- Each month, create a new archive process plan for the current monthly pool.
- To ensure that the correct process plan is always used—that is, jobs are archived to the current pool—delete the previous month's process plan.
- Recycle media after 18 months by moving them to the Free pool.

ATTENTION:
Assigning media to the Free pool will permanently erase all data on the media.

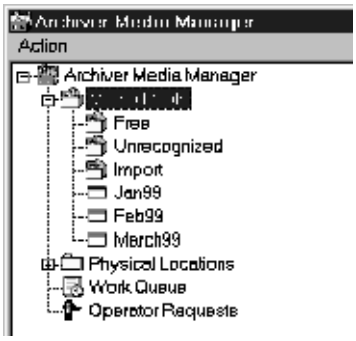


Figure 4-5: Application pools grouped by date

Archives Grouped by Customer

In this scenario, archives are grouped by customer. Note that because these archives are not organized by date, the archiving media cannot be easily recycled.

Follow these guidelines:

- Create an application pool for each customer. For example, **CustomerA**, **CustomerB**, **CustomerC**.
- Create an archive process plan for each customer pool.

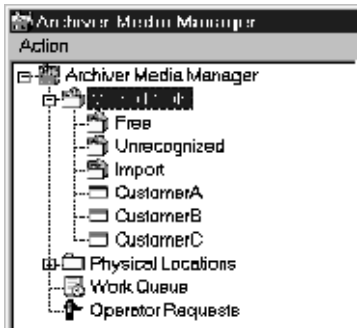


Figure 4-6: Application pools grouped by customer

Archives Grouped by Location (Onsite/Offsite)

In this scenario, a duplicate copy of the archive is created for offsite storage. Offsite storage safeguards your archives in the event of an emergency, such as fire, theft, or media failure.

Follow these guidelines:

- Create two application pools: **Onsite** and **Offsite**.
- Create an archive process plan for each pool.
- Move archive media from the **Offsite** pool to an offsite location on a regular basis—for example, weekly, monthly, when media are full, etc.

  Note: If you plan to move media only when full, we recommend keeping a small number of tapes from the **Offsite** pool in the library to ensure these media are filled quickly.

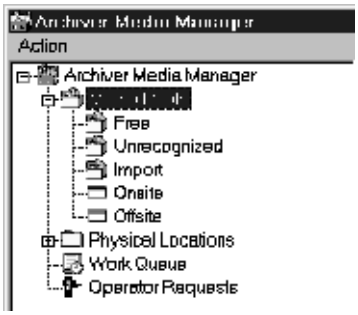


Figure 4-7: Application pools grouped by location

Archives Grouped by Month and Location

In this scenario, archives are grouped by month, with a duplicate copy being created for offsite storage.

Follow these guidelines:

- Create a pair of application pools for each month, one for onsite storage and one for offsite storage. For example, **Jan99_Onsite** and **Jan99_Offsite**.
- Each month, create two archive process plans for the current monthly pools: one for the onsite pool, and one for the offsite pool.
- Delete the process plans for the previous month to ensure jobs are archived to the current monthly pools.
- Archive each job to both current monthly pools using the appropriate process plan.
- At the end of each month, move the media from the offsite monthly pool to an offsite location.

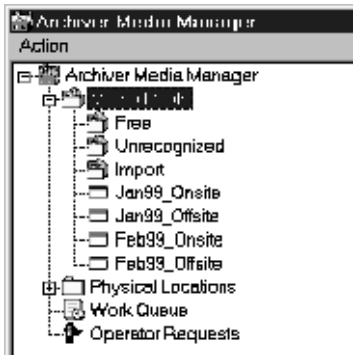


Figure 4-8: Application pools grouped by month and location

Overview of Prinergy Archiver Media Manager

This section describes how to perform general tasks in Prinergy Archiver Media Manager. Detailed information about performing specific tasks related to archiving, purging, and retrieving jobs can be found in other parts of this chapter.

Prinergy Archiver Media Manager Components

Prinergy Archiver Media Manager consists of two view panes and uses a directory structure similar to Windows NT Explorer. The left pane contains the main components of Prinergy Archiver Media Manager, while the right pane reflects the contents of the current left pane selection.

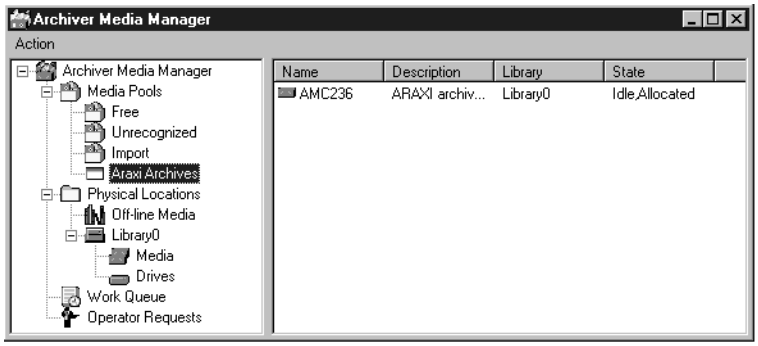


Figure 4-9: Prinergy Archiver Media Manager

Table 4-2 on page 4-24 describes the four main components of Prinergy Archiver Media Manager.

Table 4-2: Prinergy Archiver Media Manager components

Component	Description
Media Pools	A means of logically organizing archiving media.
Physical Locations	An inventory of archive media according to physical location—for example, in the library or offline.
Work Queue	A status and history of tasks in the ERSM work queue.
Operator Requests	A status and history of requests from Prinergy Workshop.

Starting Prinergy Archiver Media Manager

Start Prinergy Archiver Media Manager from the **Windows Start** menu on the Prinergy server where it is installed.

To start Prinergy Archiver Media Manager:

- From the Windows NT **Start** menu, choose **Programs>Prinergy>Archiver Media Manager**.

Using the Action Menu

Prinergy Archiver Media Manager contains a context-sensitive **Action** menu that lists all applicable commands for your current selection.

In general, you can accomplish most tasks by right-clicking on a selected item to access the context-sensitive right-click menu. Alternatively, you can select an item, then select a command from the **Action** menu.

To use the Action menu:

1. Select the item you want to perform an action on—for example, a media pool.

   The **Action** menu lists all applicable commands for your current selection.

2. From the **Action** menu, select the task you want to perform.

   Detailed information about various Prinergy Archiver Media Manager tasks are described in later sections of this chapter.

Setting View Preferences

You can choose how information is displayed in Prinergy Archiver Media Manager.

To set view preferences:

1. Right-click anywhere in Prinergy Archiver Media Manager.
2. From the right-click menu, select **View**, then choose one of the following:

   - **Large**
   - **Small**
   - **List**
   - **Detail**

   Experiment to see which option best suits your needs. Your selection is reflected in the right pane; it does not affect the left pane view.

Sorting Information in the Right Pane

You can sort information in the right pane by column when in the **Detail** view.

To sort information in the right pane:

- Click the column header you want to sort by.

  Toggle the column header to sort information in either ascending or descending order.

Refreshing the Screen

Prinergy Archiver Media Manager dynamically refreshes the screen. However, you may occasionally wish to manually refresh the screen if you are unsure whether or not the contents are current.

To refresh the screen:

- Right-click anywhere in Prinergy Archiver Media Manager, then select **Refresh**.

  OR:

- Press `F5`.

Closing Prinergy Archiver Media Manager

You can close Prinergy Archiver Media Manager if you are not using it. Prinergy Archiver Media Manager does not need to be open in order to run archive, purge, or retrieve process plans.

Note: If you have closed Prinergy Archiver Media Manager and are prompted by the system to manipulate media in the archiving device, you will need to start Prinergy Archiver Media Manager again.

To close Prinergy Archiver Media Manager:

- Click the **X** in the top-right corner of the Archiver Media Manager.

About Media Pools

A media pool is a logical group of archive media. There are two types of media pools:

- *system pools*—are built into the ERSM and are a means of organizing which medium is available to write to.
- *application pools*—are defined by you to organize which data is archived to what medium. A medium that has been used for archiving jobs in your Prinergy system will belong to one or more application pools.

How the ERSM Identifies Media

When a medium is injected (inserted) into an archiving device, the ERSM automatically assigns it to one of the above pools by reading the identification header on the medium.

If a medium has been previously used in an archiving system, the archiving software will have written a header on the medium that identifies which pool it belongs to.

If the medium has not yet been used by an archiving system, or if the header is not recognizable, it is assigned to one of the three system pools:

- Free—for a medium containing a "Free" header.
- Unrecognized—for a medium that is blank or has an unrecognized header.
- Import—for a medium containing a header that is new to the system.

The following section describes system pools in detail.

System Pools

There are three system pools:

- Free pool
- Unrecognized pool
- Import pool

About the Free Pool

The Free pool contains blank, prepared media—that is, media that have a "free media label" header. The ERSM writes a "free media label" header on a medium when it is moved to the Free pool. Media in the Free pool can be used as a source of new media to write to.

A medium is not automatically assigned to the Free pool; you must move it to the Free pool from another pool.



ATTENTION:
Assigning media to the Free pool will permanently erase all data on the media.

About the Unrecognized Pool

The Unrecognized pool contains media that do not have a recognizable header, and thus are not recognized by the system.

For example, if you insert a brand new tape—that is, a medium that contains no data and no header—it is assigned to the Unrecognized pool. A medium that contains data but does not include a recognizable header is also assigned to the Unrecognized pool.

In order to make a medium from the Unrecognized pool available for archiving, you must first move it to the Free pool. Moving it to the Free pool prompts the ERSM to write an identification header on the medium. Once a medium is in the Free pool, you can move it to an application pool.

A medium in the Unrecognized pool is not remembered by the system once it has been ejected from the archiving device. This is because it does not have a readable header.



ATTENTION:
Assigning media to the Free pool will permanently erase all data on the media.

About the Import Pool

The Import pool contains media that are recognized by the Archiving software, but are not part of your Prinergy system's current archive library. The following types of media appear in the Import pool:

- Prinergy tapes from another Prinergy system
- NT backup tapes
- PlateMaster tapes

You can move a medium in the Import pool to the Free pool, where it is available to be written to as needed.

You can also move a medium in the Import pool directly to an application pool; you do not need to assign it to the Free pool first. For example, you could do this for Platemaster or NTBackup tapes.

Note: If you assign Import Pool media directly to an application pool, the data on the media is retained.



ATTENTION:
Assigning media to the Free pool will permanently erase all data on the media.

Application Pools

Application pools are user-defined pools that contain media that have been used to archive jobs in your Prinergy system.

Use application pools to logically organize archived jobs—for example, you can create application pools to organize jobs by month or by client. When you archive a job, you must specify in the archive process plan which application pool to write to.

You can create any number of application pools in order to organize your archives. Your archiving strategy will determine how many application pools you create, and how to organize them. For more information about developing an archiving strategy, see *Developing an Archiving Strategy* on page 4-16.

Note: An application pool can contain an unlimited number of media. Media assigned to an application pool remain part of that pool, even if offline—that is, not currently in the archiving device.

Managing Media Pools

This section describes the procedures for managing media pools using Prinergy Archiver Media Manager.

Note that a medium can belong to only one media pool at a time. For example, a DLT tape that belongs to the Free pool cannot also belong to an application pool.

Moving Media to the Free Pool

You can move media to the Free pool from any media pool. When a medium is assigned to the Free pool, the ERSM writes an identification header on the medium.

There are a number of reasons why you might want to move media to the Free pool:

- to prepare media from the Unrecognized pool for archiving. A medium in this pool must first be moved to the Free pool before it can be moved to an application pool.

  Note: Blank media automatically appear in the Unrecognized pool.

- to erase media from the Import pool or an application pool, to make them available to be used by application pools that have been configured to automatically take a medium from the Free pool as needed. For more information, see *Allocating Media From the Free Pool* on page 4-36.

  Note: A medium from an application pool must be in an available state in order for you to drag it to the Free pool. This means that it is not currently allocated to archive a job.



ATTENTION:
Assigning media to the Free pool will erase all data on the media.

To assign a medium to the Free pool:

- From the right pane, drag the selected medium directly to the Free pool.

Creating an Application Pool

Use application pools to organize your media. You can create any number of application pools. Once you have created an application pool, it is available in Prinergy Workshop's Process Plan Editor.

Prior to using the Prinergy Archiver system, we recommend you determine how you will set up your application pools. It may be difficult to reorganize the pools after jobs are archived to media, since only media can be moved from pool to pool; you cannot move an archive from one medium to another.

You may want to follow these guidelines:

- Determine which attributes are most important for grouping archives—for example, customer name, account/docket number, month/year, publication, etc.
- Create pools according to the chosen attributes and use names that contain those attributes.

  Note: Pools cannot be nested. Therefore, the only way to organize pools is by name.

- For convenience, name pools in a manner that allows for easy sorting in Prinergy Archiver Media Manager.

For more information on strategies for creating application pools, see *Developing an Archiving Strategy* on page 4-16.

To create an application pool:

1. In Prinergy Archiver Media Manager, right-click on **Media Pools**.

   The right-click menu is displayed.

2. From the right-click menu, select **Create Media Pool**.

   The Create Media Pool dialog box is displayed.

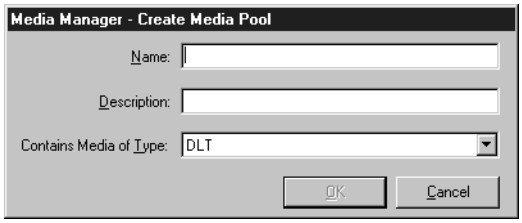


Figure 4-10: Create Media Pool dialog box

3. Do the following:
   - In the **Name** box, type a name for the application pool.
   - In the **Description** box, type a description of the application pool.
   - In the **Contains Media of Type** box, select **DLT**.
4. Click **OK**.

   The application pool you just created appears within the **Media Pools** directory, and you can now assign media to that pool.

Renaming an Application Pool

You can rename application pools. If you rename an application pool, you will have to update any corresponding process plans.

Note: You cannot rename any of the system pools.

To rename an application pool:

1. Right-click on the application pool you want to rename.

   The right-click menu is displayed.

2. From the right-click menu, select **Set Name**.

   The Media Manager - Set Name dialog box is displayed.



Figure 4-11: Media Manager - Set Name dialog box

3. In the **Pool Name** box, type a name for the application pool, then click **OK**.
4. In Prinergy Workshop, update any corresponding process plans that write to this pool.

   You may also want to rename these process plans.

   For more information on working with process plans, see the Prinergy Workshop online help.

Setting an Application Pool Description

You can set the description for any application pool.

Note: You cannot set the description for any of the system pools.

To set an application pool description:

1. Right-click on the application pool for which you want to set a description.

   The right-click menu is displayed.

2. From the right-click menu, select **Set Description**.

   The Media Manager - Set Description dialog box is displayed.



Figure 4-12: Media Manager - Set Description dialog box

3. In the **Pool Description** box, type a description for the application pool, then click **OK**.

Moving a Medium to an Application Pool

You can move media to an application pool from the following pools:

- Free pool
- Import pool
- any application pool

Note: A medium from the Unrecognized pool must first be assigned to the Free pool before it can be assigned to an application pool. For more information about assigning media to the Free pool, see *Moving Media to the Free Pool* on page 4-31.

To assign a medium to an application pool:

- Drag the selected medium to the desired application pool.

Allocating Media From the Free Pool

Prior to archiving a job, the ERSM allocates media to write the job to. The ERSM can allocate media from two possible locations:

- from within the specified application pool
- from the Free pool (if the application pool is configured accordingly)

The specified application pool is the pool you specified in the job's archive process plan.

You can configure an application pool to allocate media from the Free pool when there is no media available in the application pool. In this case, the media will automatically be assigned to the application pool as needed.

Note: The ERSM is responsible for allocating media; media are not automatically allocated when they are assigned to a particular application pool.

To allocate media to an application pool from the Free pool:

1. Right-click the application pool you want to configure.

   The right-click menu is displayed.

2. From the right-click menu, select **Allocate From Free**.

   An online medium from the Free pool will automatically be assigned to this application pool when a new medium is required for the pool.

Deallocating a Medium From an Application Pool

You can deallocate a medium from an application pool by using the right-click menu. Depending on how your application pool is configured, there are two possible destinations for a deallocated medium:

- The medium is deallocated and left in its current application pool. It is therefore available to be allocated and overwritten.
- The medium is deallocated and moved to the Free pool. It is therefore available.

To deallocate a medium to its current application pool:

1. Right-click on the application pool to which the medium belongs.

   The right-click menu is displayed.

2. From the right-click menu, deselect **Deallocate To Free**.

   This option is deselected when there is no check mark beside it.

3. In the right pane, right-click on the medium

   The right-click menu is displayed.

4. Select **Deallocate**.

   The medium is deallocated to the current application pool and is available to be overwritten.

To deallocate a medium to the Free Pool:

1. Right-click on the application pool to which the medium belongs.

   The right-click menu is displayed.

2. From the right-click menu, select **Deallocate To Free**.

   This option is selected when a check mark appears beside it.

3. In the right pane, right-click on the medium.

   The right-click menu is displayed.

4. Select **Deallocate**.

   The medium is deallocated to the Free pool.

Deleting an Application Pool

You can delete an application pool if there are no media assigned to that pool.

Note: You can not delete any of the system pools.

To delete an application pool:

1. From the application pool you want to delete, move all media to a new pool.

   You cannot delete an application pool that has media in it.

2. Right-click on the application pool you want to delete.

   The right-click menu is displayed.

3. From the right-click menu, select **Delete**.

   A dialog box is displayed with the message **Are you sure you want to remove media pool <your selection>**?



Figure 4-13: Deleting an application pool

4. Click **OK**.

   The application pool is now deleted.

Viewing the Contents of a Media Pool

You can view the contents of a selected media pool in the right pane of Prinergy Archiver Media Manager. Table 4-3 describes the right-pane information displayed when a media pool is selected.

Table 4-3: Right-pane information for media pools

Field	Description
Name	Name of medium.
Description	Summary of the medium contents.
Library	The physical library the medium is in.
State	Describes two things: • physical state of the medium relative to the tape drive(s) (for example, Mounted, Idle) • allocation state of the medium (for example, Available, Allocated) For a detailed definition of various media states, see Table 4-8 on page 4-47.

To view the contents of a media pool:

- Select the media pool for which you want to view the contents.

  The right pane displays all media in the selected media pool.

Quick Reference Table

Table 4-4: Media pool commands quick reference table

To...	Do this...
Create an application pool.	Right-click on **Media Pools**, then select **Create Media Pool**.
Rename an application pool.	Right-click on selected media pool, then select **Set Name**.
Set a description for an application pool.	Right-click on selected media pool, then select **Set Description**.
Delete an application pool.	Right-click on the application pool you want to delete, then select **Delete**.
Automatically allocate new media to an application pool from the Free pool when no media are available in the application pool.	Right-click on the application pool you want to allocate media to, then select **Allocate From Free**.
Allocate freed media from an application pool to the Free pool.	Right-click on the application pool you want to allocate media from, then select **Deallocate To Free**.
Move media from one pool to another.	Drag the media to a new pool. Note that moving media to the Free pool erases all data on the media.
View the contents of a media pool.	In the left pane, select the media pool you want to view. The right pane reflects the contents of that pool.

Handling Archiving Media

This section contains information on the general care and handling of archiving media.

Labeling Media

To prepare a medium for use in the Archiver system, you should first make sure it is clearly labeled with a unique name. This should be the same name you give the medium once you inject it in the Archiver system. This makes it easier to keep track of your archives and will help prevent you from accidently overwriting media.

(For more information about injecting and naming media, see *Managing Archiving Media* on page 4-44.)

Labeling Strategies

There are two ways to label media:

- By hand. This option requires that you devise your own naming strategy, and is available only for individual DLT drives.
- Using printed barcode labels. If your archive device has a barcode reader, you must use a barcode system.

Should you choose to label your media by hand, make sure your naming strategy:

- is readily extensible—that is, allows you add media to the archive without running out of names
- uses names of 64 characters or less

A barcode system involves labeling media with pre-printed barcoded labels with alphanumeric names. You can obtain barcodes from your tape manufacturer.

Tape libraries come with a barcode reader that scans media loaded in the archiving device, then transmits the information to the ERSM. The ERSM then assigns a name to the media based on the bar code.

Advantages of a Barcode System

We recommend you use a barcode system to label your media, even if your archiving device does not have a barcode reader. This has a number of advantages:

- Most tape libraries have a barcode reader. This can save you the step of naming media in the Archiver system and ensures that the labels on the media match the system name.
- If you are using an individual DLT device, you can easily upgrade your existing archives should you decide later to get a tape library with a barcode reader.
- You do not have to devise your own naming strategy. Barcodes provide an unlimited expansion path.

Handling Media

Handle your media with care to guard against damage and data loss. Your media manufacturer provides guidelines on the safe handling of media.

Managing Archiving Media

Use Prinergy Archiver Media Manager to manage your media. Prinergy Archiver Media Manager provides a means of viewing an inventory of your current medium library, as well as physically managing media in the archiving device.

Viewing Physical Locations

The Physical Locations component of Prinergy Archiver Media Manager lets you physically manage media in the archiving device, and view media according to its physical location.

Table 4-5 describes the Physical Locations components. When a component is selected, the right pane reflects the selection's contents. For example, if **Off-line Media** is selected, the right pane shows all the media that are currently offline—that is, not in the archiving device.

Table 4-5: Physical Locations components described

Component	Description
Off-line Media	Provides a view of media that are part of your archive but are not currently in the archiving device.
Library	Provides views of media currently in the archiving device. There are two views: • Media—when selected, provides a list of all media in the archiving device. • Drives—when selected, provides a list of drives in the archiving device.

Viewing the Contents of a Physical Location

The contents of a physical location appear in the right-pane when a location is selected.

To view the contents of a physical location:

1. Expand the **Physical Locations** folder.
2. Select one of the following components:
   - **Off-line media**—to view media that is part of the archive but not currently in the archiving device
   - **Media**—to view all media in the archiving device
   - **Drives**—to view the archiving device drives

   The contents appear in the right pane.

Table 4-6 and Table 4-7 on page 4-46 describe the right-pane information displayed for each location.

Table 4-6: Right-pane information for Off-line Media & Library>Media

Fields for Off-line Media & Library>Media	Description
Name	System name for medium.
Description	Description of medium status.
Media Pool	Name of media pool medium belongs to.
State	Describes two things: • the physical state of the medium relative to the tape drive (for example, Mounted, Idle) • allocation state of the medium (for example, Available, Allocated) Table 4-8 on page 4-47 gives a detailed description of media state definitions.

Table 4-7: Right-pane information for Library>Drives

Drive Fields	Description
Name	System name of the drive.
Description	User-defined name of the drive.
State	Describes the state of the drive—for example, “loaded” or “dismounted.” Table 4-9 on page 4-47 gives a detailed description of drive state definitions.
Loaded Media	The name of the medium in the drive.

Table 4-8: Media state definitions

Media State	Definition
Idle	Medium is in holding slot, or is offline.
Mounted	Medium is in the tape drive.
Import	Medium is in the Import pool.
Foreign	Medium is in the Unrecognized pool.
Unprepared	Medium is in the process of being prepared for the Free pool.
Available	Medium is available to be allocated.
Allocated	Medium is allocated to an application pool.
Decommissioned	Medium is no longer available to be written to or read from.
Completed	Medium is no longer available to be written to, but still may be read from.

Table 4-9: Drive state definitions

Drive State	Definition
Loaded	Medium is mounted in the drive and is ready to be read from or written to.
Dismounted	There is no medium in the drive.
Dismountable	Medium is loaded in the drive, but will be dismounted shortly.

Updating the Inventory

You may occasionally want to ask Prinergy Archiver Media Manager to update the inventory of the archiving device.

Perform this step if Prinergy Archiver Media Manager does not appear to accurately reflect the contents of the archiving device. For example, you will have to do an inventory if you use the front panel controls on the archiving device to eject media.

In general, you should rarely have to do a manual inventory, provided you use Prinergy Archiver Media Manager to manage media in the tape device. This way, the system is able to keep an accurate inventory of media.

Note: You should avoid doing a manual inventory, particularly if you are using a large tape library, as the process can be time-consuming.

To do a manual inventory of the archiving system:

1. Under Physical Locations, right-click on any of the following:
   - **Library**
   - **Media**
   - **Drives**

   The right-click menu is displayed.
2. From the right-click menu, select **Inventory**.

Managing Media in the Archiving Device

Use right-click menus in Prinergy Archiver Media Manager to physically manage media in the archiving device. You can perform the following commands.

Table 4-10: Library right-click menu commands

Command	Does this...
Inject	Loads a medium into the archiving device. • If using an individual DLT, loads the medium directly into the drive. • If using a tape library, loads the medium into a holding slot where it is available to be mounted.
Inventory	Scans the archiving device to create an up-to-date inventory of all media in the device and their current status.

Table 4-11: Media right-click menu commands

Command	Does this...
Eject	Removes a selected medium from the archiving device.
Rename	Enables you to rename a selected medium.
Mount	If using a tape library, loads a medium into the tape drive so that the medium can be analyzed.
Dismount	If using a tape library, removes a medium from the current drive.

ATTENTION:
Always use Prinergy Archiver Media Manager to physically manage media; avoid manually injecting or ejecting media using the device's front panel, unless prompted to do so by the system. When you use Prinergy Archiver Media Manager, the system can automatically track media. The system does not have to run a device inventory, which can be time-consuming.

Managing Media When Using an Individual DLT Drive

An individual DLT drive is an archiving device with a single drive. You must manually load and unload media from the device.

Injecting a Medium

Injecting a medium loads it directly into the tape drive of an individual DLT drive, where it is then mounted and ready to be written to.

Note: Always use the **Inject** command to load a medium into an archiving device. This allows the system to automatically track all media.

To inject a medium into an individual DLT drive:

1. Under **Physical Locations**, right-click on your drive.

   The right-click menu is displayed.

2. From the right-click menu, select **Inject**.

   The system may take a moment to process this request.

3. When prompted by the system, insert a medium into the drive.

Ejecting a Medium

Ejecting a medium unloads it from the tape drive of an individual DLT device.

Note: Always use the **Eject** command to eject a medium from an archiving device. This allows the system to automatically track all media.

To eject a medium from an individual DLT drive:

1. Under **Physical Locations**, select **Media**.

   A list of media is displayed in the right pane.

2. In the right pane, right-click the medium you want to eject.

   The right-click menu is displayed.

3. From the right-click menu, select **Eject**.

   The system dismounts the tape and ejects it from the drive.

4. When prompted by the system, remove the medium from the archiving device.

Naming a Medium

All media have a unique system name. When you inject a new medium into an archiving device, the ERSM assigns a system name based on the current date and time. This is the name that appears in Prinergy Archiver Media Manager.

We recommend you give all media a custom system name to make tracking easier. Prior to injecting a medium into the archiving device, you should physically label the medium with a unique name. Use this name as your system name. This will help you easily identify media.

We recommend using a barcode system to label your media. This allows you to easily upgrade your archives should you choose to later use a tape library. It also provides you with a naming system. For more information about labeling media and using a barcode system, see *Labeling Media* on page 4-42.

To name a medium:

1. Right-click on the medium you want to name.

   The right-click menu is displayed.

2. From the right-click menu, select **Rename**.

   The Rename dialog box is displayed.

3. In the **Medium Name** box, type a new name for the medium, then click **OK**.

Renaming a Medium

You can rename a medium at any time. Should you rename a medium, it is a good idea to make sure you also update the medium's label. Renaming media does not affect the media contents.

To rename a medium:

1. Right-click on the medium you want to rename.

   The right-click menu is displayed.

2. From the right-click menu, select **Rename**.

   The Rename dialog box is displayed.

3. In the **Medium Name** box, type a new name for the medium, then click **OK**.

Preparing an Unavailable Medium in the Free Pool

Occasionally, you may need to prepare a medium in the Free pool if it is in an unprepared state. This step transfers an unprepared medium to an available state so that it is ready to be allocated to an application pool.

For more information about media pools, see *About Media Pools* on page 4-27 and *Managing Media Pools* on page 4-31.

Note: The right pane indicates the state of the selected medium.

To prepare an unavailable medium in the Free pool:

1. Right-click the unprepared medium.

   The right-click menu is displayed.

2. From the right-click menu, select **Prepare**.

   The selected medium becomes available for allocation.

Managing Media When Using a Tape Library

A tape library is an archiving device with one or more tape drives. It can store numerous DLT tapes in holding slots. Using robotics, it automatically moves media from the holding slots and loads and unloads media from its drives.

A tape library often has an inport and outport from which you load and unload media into the device. These can be combined into a single port.

Injecting a Medium

Injecting a medium loads it from an inport to an available holding slot in the tape library, where it is available to be mounted.

Note: Always use the **Inject** command to load a medium into an archiving device. This allows the system to automatically track all media.

To inject a medium into a tape library:

1. Under **Physical Locations**, right-click on your library.

   The right-click menu is displayed.

2. From the right-click menu, select **Inject**.

   The system may take a moment to process this request.

3. When prompted by the system, insert a medium into the tape library.

Ejecting a Medium

Ejecting a medium unloads it from the tape library. Media must be dismounted before they can be ejected.

Note: Always use the **Eject** command to eject a medium from an archiving device. This allows the system to automatically track all media.

To eject a medium from a tape library:

1. Under **Physical Locations**, select **Media**.

   The right pane displays a list of media.

2. In the right pane, right-click on the medium you want to eject.

   The right-click menu is displayed.

3. From the right-click menu, select **Eject**.

   The system dismounts the tape and ejects it from the drive.

4. When prompted by the system, remove the medium from the archiving device.

Mounting a Medium

Mounting a medium loads it from a holding slot into a tape drive so that it can be read.

To mount a medium in a tape library:

1. Under **Physical Locations**, select **Media**.

   The right pane displays a list of media.

2. In the right pane, right-click on the medium you want to mount.

   The right-click menu is displayed.

3. From the right-click menu, select **Mount**.

Dismounting a Medium

Dismounting a medium unloads it from a tape drive into a holding slot.

To dismount a medium in a tape library:

1. Under **Physical Locations**, select **Drives**.

   The right pane displayed a list of drives.

2. In the right pane, right-click on the drive from which you want to dismount the medium.

3. From the right-click menu, select **Dismount**.

Naming a Medium

All media have a unique system name. This is the name that appears in Prinergy Archiver Media Manager. When you inject new media into a tape library, one of two things will occur:

- If your tape library has a barcode reader and the medium has been appropriately labeled, the barcode is automatically used as the system name.
- If your tape library does not have a barcode reader, or you have not labeled the medium with a barcode, the date and time are automatically used as the system name.

We recommend you give all media a custom system name to make tracking easier. Prior to injecting a medium into an archiving device, you should physically label the medium with a unique name. Use this name as your system name. This will help you easily identify media.

Note: We recommend using a barcode system to label your media. This allows you to easily upgrade your archives should you choose to later use a tape library. It also provides you with a naming system. For more information about labeling media and using a barcode system, see *Labeling Media* on page 4-42.

To name a medium:

1. Right-click on the medium you want to name.

   The right-click menu is displayed.

2. From the right-click menu, select **Rename**.

   The Rename dialog box is displayed.

3. In the **Medium Name** box, type a new name for the medium, then click **OK**.

Renaming a Medium

You can rename a medium at anytime. Should you rename a medium, make sure you also update the medium's label. Renaming media does not affect media contents.

To rename a medium:

1. Right-click on the medium you want to rename.

   The right-click menu is displayed.

2. From the right-click menu, select **Rename**.

   The Rename dialog box is displayed.

3. In the **Medium Name** box, type a new name for the medium, then click **OK**.

Preparing an Unavailable Medium in the Free Pool

Occasionally, you may need to prepare a medium in the Free pool if it in an unprepared state. This step transfers an unprepared medium to an available state so that it is ready to be allocated to an application pool.

For more information about media pools, see *About Media Pools* on page 4-27 and *Managing Media Pools* on page 4-31.

Note: The right pane indicates the state of selected media.

To prepare an unavailable medium in the Free pool:

1. Right-click the unprepared medium.

   The right-click menu is displayed.

2. From the right-click menu, select **Prepare**.

   The selected medium becomes available for allocation.

Monitoring Operator Requests

This section describes how to monitor operator requests from the Archiver system. Occasionally, you may be required to carry out a request in order for the Archiver to complete a task.

Table 4-12 describes these requests.

Table 4-12: Prinergy Archiver operator requests

Operator request	Appears when...
Please Insert tape XXXNNN into the library.	A retrieve request or task requires a tape that is offline.
Please insert a new blank tape into the library.	An archive request or task cannot be completed with any of the tapes that have been used to date.

Where Do Operator Requests Appear?

Prompts to complete an operator request appear in three ways:

- in Prinergy Archiver Media Manager, under **Operator Requests**
- as a prompt message on the archiving station
- as a prompt icon in Prinergy Workshop

If the Archiver appears to be taking a long time to complete a task, check in any of these places to see if you must perform an operator request before the Archiver can proceed.

Requests in Prinergy Archiver Media Manager

You can view the status and history of operator requests from the Operator Requests component of Prinergy Archiver Media Manager.

To view operator requests in Prinergy Archiver Media Manager:

- In Prinergy Archiver Media Manager, select **Operator Requests**.

  A list of operator requests is displayed in the right pane.

Requests As Prompt Messages

Operator requests from the Archiver appear as prompt messages on the archiving station; they do not appear on other Prinergy servers. When carrying out an Archiver task, you may want to occasionally check the archiving station to see if there are any operator requests to perform.

Requests From Prinergy Workshop

Operator requests from the Archiver appear as prompt icons in Prinergy Workshop on any Prinergy server or client machine in the system. For more information on viewing prompt icons, see the Prinergy Workshop online help.

Monitoring the System

This section describes how to monitor the status and history of tasks requested of the Archiver system.

Use the Prinergy Archiver Media Manager Work Queue to view the status and history of various tasks requested of the Archiver system.

To view the Archiver Work Queue:

- From Prinergy Archiver Media Manager, select **Work Queue**.

  The Work Queue displays a list of all Archiver tasks undertaken since the Archiver software last started, to a maximum of 20.

Table 4-13 on page 4-62 describes the fields displayed in the Work Queue right pane. Table 4-14 on page 4-62 and Table 4-15 on page 4-63 describe possible field entries.

Table 4-13: Work Queue right-pane fields

Field Name	Description
State	Current state of the task—for example, “Completed.” For a detailed description of possible task states, see Table 4-14.
Operation	Type of operation requested—for example, “Eject.” For a detailed description of possible operations, see Table 4-15 on page 4-63.
Description	The physical location where the task is being performed—for example, a library or specific medium.
Time Queued	When the task was initiated.
Time Completed	When the task stopped.

Table 4-14: Work Queue task state descriptions

Work Queue Task State	Descriptions
Queued	Task is queued.
Processing	Task is being processed.
Completed	Task was successfully completed.
Failed	Task was not successfully completed.
Waiting	Task has stopped and is waiting for an event to happen before it can continue—for example, a mount request when a drive is already in use will pause the request until the drive is dismounted.
Canceled	Task has been canceled by the user.

Table 4-15: Work Queue operation descriptions

Type of Operation	Description
Update OMID	Identification header on the medium is being updated.
Identify Medium	Read the identification header and classify it.
Disable Library	Disable the archiving device.
Enable Library	Enable the archiving device.
Disable Medium	Disable the medium.
Enable Medium	Enable the medium.
Disable Drive	Disable the drive.
Enable Drive	Enable the drive.
Eject	Eject the medium from the archiving device.
Inject	Load a medium into the archiving device.
Inventory	Re-evaluate the contents of the archiving device.
Mount	Load a medium into a drive.
Dismount	Unload the medium from a drive.
Remove	Remove a specified task from the work queue.

Canceling Tasks

This section describes how to cancel a task that has been requested of the Archiver software.

Cancel tasks by using the right-click menu on selected tasks in the Archive Media Manager Work Queue.

To cancel an Archiver task from Prinergy Archiver Media Manager:

1. In Prinergy Archiver Media Manager, select **Work Queue**.

   A list of tasks is displayed in the right pane.

2. Right-click on the task you want to cancel.

   The right-click menu is displayed.

   The right-click menu is displayed.

3. From the right-click menu, select **Cancel**.

   The Prinergy ERSM attempts to cancel the task.

Note: Although the right-click menu is always available on a selected task, not all tasks can be canceled by Prinergy Archiver Media Manager. Whether a task can be canceled can not be determined until the Prinergy ERSM attempts to cancel the task.

5

BACKING UP THE PRINERGY SYSTEM

Included in This Chapter:

Overview 5-2

Prinergy Backup Options 5-3

Developing a Backup Strategy 5-7

Using the Basic Backup Option 5-17

Using the Automatic Offline Backup Option 5-21

Using the Automatic Online Backup Option 5-25

Using Oracle Backup Manager 5-28

Configuring a "Successful Backup" Command File 5-43

Using Legato Networker Software 5-52

Running a Restore Test 5-92

Recovering Your System 5-92

Overview

This chapter describes the backup options available with Prinergy and provides information on how to back up your system using each of these three options.

What Is Backup?

Backup involves saving a copy of a complete disk partition, file system, or portion of a file system directory structure for the purposes of disaster recovery—for example, in the event of a disk crash. In backing up your Prinergy server, you must create a backup copy of your database. You may also want to back up your Prinergy server(s) system drive(s) in order to preserve system configuration settings.

Backup differs from archiving. In archiving, only the files related to a specific job are saved; the system itself is not backed up. For more information about archiving, see *Chapter 4, Using the Prinergy Archiver System*.

Why Is Backup Important?

It is essential that data is regularly backed up onto tape. This is the best way to minimize data loss or damage caused by problems such as disk failures, power outages, and virus infections. We recommend you back up your system each day to ensure maximum data recovery in the event of failure.

In addition, you should run regular restore tests to ensure that your backup files will be available in the event of an emergency. For more information about running a restore test, see *Running a Restore Test* on page 5-92.

Prinergy Backup Options

Prinergy offers three backup options:

- Basic Backup
- Automatic Offline Backup
- Automatic Online Backup

The Basic and Automatic Offline Backup options provide offline backup solutions for Prinergy. This means you must stop running Prinergy Server in order to perform a backup.

The Automatic Online Backup option provides you with an online backup solution, which means you can perform backups while Prinergy Server is still running.

The following sections describe each backup option. Your service representative will help you decide which backup option is best suited to your production environment.

All three backup options include Oracle Backup Manager software. This software can be configured to save the database to a designated hard disk at a scheduled time.



ATTENTION:
Regardless of which backup option you use, we recommend you run regular restore tests to ensure your backup files will be available in the event of an emergency. For information on running a restore test, see *Running a Restore Test* on page 5-92.

Table 5-1 on page 5-4 describes each backup option's key features.

Table 5-1: Backup option features

Backup Option	Does this...	Includes...
Basic Backup	• Stops Prinergy Server and restarts it after backup. • Backs up the database to a local disk.	• Oracle Backup Manager software *Note: You must provide your own backup software and tape device.*
Automatic Offline Backup	• Stops Prinergy Server and restarts it after backup. • Backs up the database to a local disk. • Writes the backup database to tape. • Backs up a maximum of four Prinergy servers to tape.	• Oracle Backup Manager software • Legato NetWorker Workgroup Edition backup software • DLT tape device
Automatic Online Backup	• Backs up the database to tape. • Backs up a maximum of ten Prinergy servers to tape.	• Oracle Backup Manager software • Legato NetWorker Network Edition backup software • Legato BusinesSuite Module for NetWorker add-on • DLT tape device

Basic Backup Option

Basic Backup is the default backup option for Prinergy. It provides a means of performing scheduled offline backups of your Prinergy database onto a local disk using Oracle Backup Manager.

With this option, the backup database is not automatically saved to tape. You must provide your own backup software package in order to copy the backup database to tape for offsite storage. (Alternatively, you can use Windows NT Backup, the built-in NT backup option.)

You must also provide your own tape device for writing data to tape.

For more information about the Basic Backup option, see *Using the Basic Backup Option* on page 5-17.

Automatic Offline Backup Option

The Automatic Offline Backup option provides a means of performing offline backups of your Prinergy system onto disk and tape.

The Automatic Offline Backup will create a scheduled offline backup of the Oracle database onto a local disk using Oracle Backup Manager.

In addition, the following are backed up onto tape using Legato NetWorker Workgroup Edition backup software:

- the backup database
- system drives of up to four Prinergy servers (the primary server plus three secondary servers)

This software is provided with your Prinergy system and is configured by your service representative. Your Prinergy system also includes a tape device for writing data to media.

For more information about the Automatic Offline Backup option, see *Using the Automatic Offline Backup Option* on page 5-21.

Automatic Online Backup Option

The Automatic Online Backup option provides a means of performing online backups of your Prinergy system onto disk and tape. With this option, Prinergy Server does not have to be stopped in order to perform a backup; the system can continue to be used as normal and the backup is not affected by open files.

The Automatic Online Backup will create a scheduled online backup of the following onto tape using Legato NetWorker Network Edition backup software with the BusinesSuite Module for NetWorker:

- Oracle database
- system drives of up to ten Prinergy servers (the primary server plus nine secondary servers)

This software is provided with your Prinergy system and is configured by your service representative. Your Prinergy system also includes a tape device for writing data to media.

For more information about the Automatic Online Backup option, see *Using the Automatic Online Backup Option* on page 5-25.

Developing a Backup Strategy

Regardless of the backup option you choose, you should develop a backup plan in order to safeguard your data and minimize downtime in the event of an error. In developing your plan, consider the following:

- What data will you back up?
- What backup schedule will you follow?
- How will you handle and store tapes?

Deciding What to Back Up

You need to decide what to back up. Use the following table as a guideline.

Table 5-2: Prinergy data to be backed up

Type of Server	Essential	Optional
Primary server	• Oracle database • System drives (generally **C** and **D**) • Windows NT registry • Repair disk (if available)	Job folder(s) *See warnings on next page.*
Secondary server	• System drives (generally **C** and **D**) • Windows NT registry • Repair disk (if available)	Job folder(s) *See warnings on next page.*
Tertiary server	None	Job folder(s) *See warnings on next page.*

ATTENTION:
Backing up job folders may be time-consuming and use significant tape space. If you back up your job folders, carefully monitor the tape capacity to ensure there is sufficient space to complete the backup. If the tape becomes full, the backup will fail. For more information on monitoring tape space, see *Checking Tape Capacity* on page 5-84.

ATTENTION:
If you choose to back up your job folder(s), do so only when the system is offline. If you back up job data while the system is online, open files will not be backed up.

Planning a Backup Schedule

You need to determine a regular schedule for backup. This includes planning how often you will back up your system, what time of day, and what backup mode you will use.

Frequency and Time of Day

We recommend you back up your system daily. This ensures you have the most accurate and up-to-date data available in the event of an emergency.

You must also plan what time of day you will perform your backup. For example, if you have selected the basic backup option and will perform a daily offline backup, you must reserve time for your Prinergy system to be shut down each day. Depending on the amount of data you are backing up and the tape space available, you may need to schedule your backup to occur when someone is onsite to insert new tapes as needed during the backup.

Backup Modes

You must decide what backup mode(s) you will implement, and in what combination. There are three backup modes:

- full backup
- differential backup
- incremental backup

A full backup backs up your entire database, plus any other components you've specified. This ensures that your saved data is complete and accurate. However, it uses the most tape space and can be a time-consuming process. It may not be necessary if you have made little or no changes to your system.

A differential backup backs up everything that has changed since the last full backup. For example, if your last full backup was on Sunday, a differential backup made on Tuesday will backup *all* changes made since Sunday, even if a differential backup was also done on Monday. This means you need only the Sunday and Tuesday tape to restore the system. A differential backup may use up significant tape space if numerous changes are made daily.

An incremental backup backs up everything that has changed since the last incremental backup. For example if your last full backup was done on Sunday, and you do an incremental backup on Monday and on Tuesday, the Tuesday backup will back up only those changes made since Monday. This means you need all three tapes to restore your system. An incremental backup uses the least amount of tape space and takes less time for back up; however, it can be more complicated when recovering the system.

Table 5-3 on page 5-10 describes some of the advantages and disadvantages of each mode.

Table 5-3: Backup mode comparison

Backup Mode	Advantages	Disadvantages
Full Backup	• Fastest recovery time • Only one tape needed for recovery • Data is most up-to-date	• Slowest backup time • Uses most tape space • May be redundant if few changes are made to system
Differential Backup	• Fast recovery time • Only two tapes needed for recovery	• Backup may be time-consuming if frequent changes are made • May use significant tape space
Incremental backup	• Fastest backup time • Uses least tape space	• Recovery time can be slow • Many tapes may be needed for recovery

We recommend you perform full system backups daily to ensure the most accurate and up-to-date records. Alternatively, you can alternate full backups with differential backups—for example, do a full backup every Sunday with differential backups in between. For detailed examples of these strategies, see *Sample Backup Strategies* on page 5-12.

In general we do not recommend using incremental backups, as the recovery process is more complicated and may be dependent on numerous tapes.

Handling and Storing Tapes

It is essential that you have a strategy in place for handling and storing your backup tapes. This will help ensure that your most recent data is always available in the event of an emergency. We recommend these guidelines:

- Clearly label your tapes.

  This will ensure that you use the correct tape.

- Alternate tapes on a daily basis.

  For example, you could use a different tape for each day of the week. If you needed to restore your system on a Wednesday, use the previous day's tape to obtain the most recent data.

- Be sure to remove your backup tapes from the tape device at the end of each backup.

  This will prevent you from overwriting your most recent backup.

- Keep backup tapes for a designated period of time before overwriting them.

  This ensures that a clean backup is still available if an undetected corruption occurs in the system.

- Keep an offsite copy of your backup.

  This safeguards your backup data in the event of an emergency such as fire or theft.

Sample Backup Strategies

This section describes two sample backup strategies:

- Daily Full Backup Schedule (**DailyFull**)
- Sunday Full/Daily Differential Backup Schedule (**SFullDailyDiff**)

You may wish to use one of these strategies, or make appropriate modifications to best suit your needs.

Daily Full Backup Schedule (DailyFull)

In this strategy, you perform a full backup of the Oracle database and the system drives onto tape each day.

Table 5-4 on page 5-13 describes tape usage for this backup strategy. Some guidelines to follow:

1. Use two tapes per month, alternating them on a daily basis.
2. Label tapes as follows, relabeling weekly:
   - First tape—**<Server><Year><Month><Week>.001**. For example, **Primary2000Jan2.001**
   - Second tape—**<Server><Year><Month><Week>.002**. For example **Primary2000Jan2.002**

   For more information about labeling tapes, see *Labeling Tapes* on page 5-77 and *Sample Tape Labeling Strategies* on page 5-80.
3. Once a month, put aside one of the existing tapes as designated monthly backup and introduce a new tape.

   The example in Table 5-4 on page 5-13 suggests you use the last Friday of each month.

4. Store the monthly backup tape offsite for a predetermined time—for example, one year.

   This ensures you have a full backup no later than one month old, in the event of undetected corruption in your system, tape damage, or disaster such as fire.

5. Recycle the monthly tape after one year, or quarterly if you prefer.

Table 5-4: Tape usage for Daily Full backup schedule

Week	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1,	Use tape .001	Use tape .002	Use tape .001	Use tape .002	Use tape .001	Use tape .002	Use tape .001
Week 2, 3...	Use prev. Sat. tape	Use prev. Sun. tape	Use prev. Mon. tape	Use prev. Tues. tape	Use prev. Wed. tape	Use prev. Thurs. tape	Use prev. Fri. tape
Last week of month	Same as above	Same as above	Same as above	Same as above	Keep tape for 1 year	Same as above	Use new tape

This strategy requires:

- 2 tapes for daily backups. Tapes to be reused on alternate days.
- 5 or 11 tapes for monthly backup—5 if tapes are reused quarterly, 11 if tapes are used yearly.

In total, you require 7 or 13 tapes.

Sunday Full/Daily Differential Backup Schedule (SFullDailyDiff)

In this strategy, you perform a full backup of the Oracle database and the system drives onto tape once a week, and a differential backup on other days of the week.

Note: In this example, Sunday is designated for the full backup, but you may wish choose a different day. In general, choose the least busy production day.

Table 5-5 on page 5-15 describes tape usage for this backup strategy. Some guidelines to follow:

1. Use seven tapes per week—one for the Sunday full backup (this is rotated on weekly basis), six for the other days of the week.
2. Label tapes as follows, relabeling each month as necessary:
   - First full backup (this is renamed every two weeks)**—<Server><Year><Month>Sun.001,** then **<server><year><month>Sun.003**. For example, **Primary2000JanSun.001.**
   - Second full backup (this is renamed every two weeks)**—<Server><Year><Month>Sun.002,** then **<server><year><month>Sun.004**. For example, **Primary2000JanSun.002**.
   - Differential backup**—<Server><Year><Month><Day>.00 <numeric value between 2–7>**. For example **Primary2000JanMon.002, Primary2000JanTue.003, Primary2000JanWed.004.**

   For more information about labeling tapes, see *Labeling Tapes* on page 5-77 and *Sample Tape Labeling Strategies* on page 5-80.

3. Each week, at the end of full backup, put aside the full backup tape as the weekly backup and introduce a new tape.
4. Store the weekly backup tape offsite.

   This ensures you have a full backup that is no later than one week old, in the event of undetected corruption in your system, tape damage, or disaster such as fire.
5. You can alternate between two tapes for your weekly backup.

   For example, use **Primary2000JanSun.001** one week, then **Primary2000JanSun.002** the next.

Table 5-5: Tape usage for Sunday Full/Daily Differential backup schedule

Week	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1, 3...	Use Mon. tape	Use Tues. tape	Use Wed. tape	Use Thurs tape	Use Fri. tape	Use Sat. tape	Use first Sun. tape
Week 2, 4, 6...	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Use second Sun. tape

This strategy requires:

- 6 tapes for daily differential backups. Tapes to be reused each week.
- 2 tapes for weekly full backup. Tapes to be reused every two weeks.

In total, 8 tapes are required.

Advantages and Disadvantages

Table 5-6 on page 5-16 compares some of the advantages and disadvantages of the above strategies.

Table 5-6: Sample backup strategy comparison

Backup Strategy	Advantages	Disadvantages
Daily Full Backup	• Suitable for a Prinergy system with a single server • Simple to manage (fewer tapes to deal with) • Restore can be done off one tape • No need to clone volume • If one tape fails, previous day's tape can be used to restore volume	• Longer backup time • Uses the most tape space • High risk due to daily tape wear and tear
Sunday Full/Daily Differential Backup	• Suitable for large, multi-server configuration • Faster backup time • Uses less tape space • Full backup tape is redundant if volume is cloned • Lower risk because of reduced daily tape wear and tear	• More tapes to manage • Restore requires two tapes • May lose up to one week's worth of data if full backup tape is damaged or corrupted

Using the Basic Backup Option

This section describes the Basic Backup option and procedures.

The Basic Backup option provides a means of backing up your Prinergy database onto a local disk.

Your Prinergy system includes Oracle Backup Manager software, which can be configured to perform a daily scheduled offline backup of the Prinergy database onto a specified local disk. (An offline backup means Prinergy Server is stopped in order to perform a backup.)

With the Basic Backup, data is not automatically saved to tape. You must choose your own backup software package in order to copy the backup database to tape for offsite storage. You must also provide your own tape device for writing data to tape.

Note: If you do not wish to purchase a backup software package, you can use Windows NT Backup, the built-in Windows NT backup option.



ATTENTION:
In order for a backup to be effective, you should save your backup data to tape. This will safeguard your data in the event of disk failure.

Configuring a Basic Backup

Your service representative will work with you to configure your system for backup.

To configure your system for Basic Backup:

1. Plan a backup strategy.

   This involves determining what information you will back up, how you will handle and store your tapes, what software package you will use to write the backup database to tape, and which tape device to use. For more information on planning a backup strategy, see *Developing a Backup Strategy* on page 5-7.

2. Configure Oracle Backup Manager to back up your database to a local drive at a regularly scheduled time, as per your backup strategy.

   For more information see *Using Oracle Backup Manager* on page 5-28.

3. Configure the “successful backup” command file.

   For more information, see *Configuring a "Successful Backup" Command File* on page 5-43.

4. Connect the tape device you will be using.

   You must provide your own tape device. If you are unsure about which tape devices are compatible with Prinergy, consult your service representative. For information on connecting your tape device, see the manufacturer’s documentation.

5. Install and configure your backup software to automatically write the backup database from the local disk to the tape device, and to back up the system drives of your Prinergy servers to tape.

   Your service representative may be able to assist you with this. You must provide your own backup software. We recommend you install the backup software on the **D** drive of the primary server.

   Note: You may choose to use the Windows NT Backup software to back up the database to tape.

Performing a Basic Backup

You can perform a Basic Backup once your Prinergy system, backup software, and tape device have been configured according to your backup plan.

Once your Prinergy system has been configured for backup, your main responsibility is to ensure that the backups are successfully completed as scheduled, and that backup tapes are handled and stored according to your strategy.

The following section describes how to perform a basic backup.

To perform a Basic Backup:

1. Ensure all tasks on the system will be completed by the time the scheduled backup will occur.

   The Prinergy system must be offline in order to perform a Basic Backup. Your system has been configured to automatically stop running Prinergy Server prior to performing a backup.

   If a task is not completed when Prinergy Server stops running, any work done prior to the shutdown is saved, but you will have to restart the current task after the backup is done.

2. Ensure there is sufficient tape space available in the tape device to store the data about to be backed up.

   If there is insufficient space available, the backup will fail. For information about managing tapes in your tape device, see the documentation provided by the device's manufacturer.

3. Insert new tapes as needed.

   You may need to insert new tape(s) if the data you are attempting to back up does not fit on the tape in the device.

4. When the backup is done, remove the backup tapes and store them according to your backup plan.

   We recommend you keep an offsite copy of recent backup tapes to safeguard them in the event of an emergency, such as theft or fire.



ATTENTION:
We recommend you run regular restore tests to ensure your backup data will be available in the event of an emergency. For more, information, see *Running a Restore Test* on page 5-92.

Using the Automatic Offline Backup Option

This section describes the Automatic Offline Backup option and related procedures.

The Automatic Offline Backup option provides a means of performing offline backups of your Prinergy system onto disk and tape. This means Prinergy Server must be stopped in order to perform a backup.

The Automatic Offline Backup enables you to:

- create a scheduled offline backup of the Oracle database onto a local disk
- write the backup database to tape using Legato NetWorker Workgroup Edition backup software
- back up the system drives of up to four Prinergy servers (the primary server plus three secondary servers)

As part of the Automatic Offline Backup option, your Prinergy system includes:

- Oracle Backup Manager software, which can be configured to perform a daily scheduled offline backup of the Prinergy database onto a specified local disk
- Legato NetWorker Workgroup Edition backup software
- a tape device for writing data to media

Configuring an Automatic Offline Backup

Your service representative will work with you to configure your Prinergy system for Automatic Offline Backup.

To configure the system for Automatic Offline Backup:

1. Plan a backup strategy.

   This involves determining what information you will back up, how often you will back up your system, and how you will handle and store your tapes. For more information on planning a backup strategy, see *Developing a Backup Strategy* on page 5-7.

2. Configure your system to back up your database to a local drive at a regularly scheduled time, as per your backup strategy.

   For more information, see *Using Oracle Backup Manager* on page 5-28.

3. Connect the tape device you will be using.

   Your service representative will perform this step for you.

4. Install and configure Legato NetWorker Workgroup Edition to automatically write the backup database and Prinergy server system drives to the tape device.

   Your service representative will configure this for you. Should you wish to change any of these settings, see *Using Legato Networker Software* on page 5-52.

Performing an Automatic Offline Backup

You can perform an Automatic Offline Backup once your Prinergy system, Legato Network Workgroup Edition software, and tape device have been configured according to your backup strategy.

Once your Prinergy system has been configured for backup, your main responsibility is to ensure that the backups are successfully completed as scheduled, and that backup tapes are handled and stored according to your plan.

To perform an Automatic Offline Backup:

1. Ensure that all tasks on the system will be completed by the time the scheduled backup will occur.

   The Prinergy system must be offline in order to perform a backup. Your system has been configured to automatically stop running Prinergy Server prior to performing a backup.

   If a task is not completed when Prinergy Server stops running, any work done prior to the shutdown is saved, but you will have to restart the current task after the backup is done.

2. Ensure that there is sufficient tape space available in the tape device to store the data about to be backed up.

   If there is insufficient space available, the backup will fail. For information about checking tape capacity, see *Checking Tape Capacity* on page 5-84.

3. Insert new tapes as needed.

   You may need to insert new tape(s) if the data you are attempting to back up does not fit on the tape in the device. For more information, see *Inserting and Mounting Tapes* on page 5-73 and *Unmounting and Ejecting Tapes* on page 5-75.

4. When the backup is complete, remove the backup tapes and store them according to your backup plan.

   We recommend you keep an offsite copy of recent backup tapes to safeguard them in the event of an emergency, such as theft or fire.



ATTENTION:
We recommend you run regular restore tests to ensure that your backup files will be available in the event of an emergency. For information on running a restore test, see *Running a Restore Test* on page 5-92.

Using the Automatic Online Backup Option

This section describes the Automatic Online Backup option features and procedures.

The Automatic Online Backup option provides a solution for performing online backups of your Prinergy system onto tape—that is, backups can occur while the system is running.

The Automatic Online Backup enables you to do the following:

- create a scheduled online backup of the Oracle database onto tape using Legato NetWorker Network Edition backup software with the BusinesSuite Module for NetWorker add-on
- back up the system drives of up to ten Prinergy servers (the primary server plus nine secondary servers)

As part of the Automatic Online Backup option, your Prinergy system includes:

- Oracle Backup Manager software, which can be configured to perform a daily scheduled backup of the Prinergy database to a specified location
- Legato NetWorker Network Edition backup software
- Legato BusinesSuite Module for NetWorker add-on, which enables you to back up the database directly onto tape
- a tape device for writing data to media

Configuring an Automatic Online Backup

Your service representative will work with you to configure your Prinergy system for Automatic Online Backup.

To configure the system for Automatic Online Backup:

1. Plan a backup strategy.

   This involves determining what information you will back up, how often you will back up your system, and which tape device you will use. For more information on planning a backup strategy, see *Developing a Backup Strategy* on page 5-7.

2. Connect the tape device you will be using.

   Your service representative will perform this step for you.

3. Configure your system to back up your database directly to tape at a regularly scheduled time, as per your backup strategy.

   For more information, see *Using Oracle Backup Manager* on page 5-28.

4. Configure the “successful backup” command file.

   For more information, see *Configuring a "Successful Backup" Command File* on page 5-43.

5. Install and configure Legato NetWorker Workgroup Edition plus add-ons to automatically write the database and selected server machines to tape.

   Your service representative will configure this for you. Should you wish to change any of the settings, see *Using Legato Networker Software* on page 5-52.

Performing an Automatic Online Backup

You can perform an Automatic Online Backup once your Prinergy system, Legato Networker, and tape device have been configured according to your backup plan.

Once your Prinergy system has been configured for backup, your main responsibility is to ensure that the backups are successfully completed as scheduled, and that backup tapes are handled and stored according to your plan.

To perform an Automatic Online Backup:

1. Ensure there is sufficient tape space available in the tape device to store the data about to be backed up.

   If there is insufficient space, the backup will fail. For information about checking tape capacity, see *Checking Tape Capacity* on page 5-84.

2. Insert new tapes as needed.

   You may need to insert new tape(s) if the data you are attempting to back up does not fit on the tape in the device.For more information, see *Inserting and Mounting Tapes* on page 5-73 and *Unmounting and Ejecting Tapes* on page 5-75.

3. When the backup is complete, remove the backup tapes and store them according to your backup plan.

   We recommend you keep an offsite copy of recent backup tapes to safeguard them in the event of an emergency, such as theft or fire.



ATTENTION:
We recommend you run regular restore tests to ensure that your backup files will be available in the event of an emergency. For information on running a restore test, see *Running a Restore Test* on page 5-92.

Using Oracle Backup Manager

This section describes how to use Oracle Backup Manager software. Oracle Backup Manager software is used to configure and schedule backups of the Oracle database to disk or tape. It is included with your Prinergy system.

Starting Oracle Backup Manager

Oracle Backup Manager is launched from the Windows NT Command Prompt window.

To start Oracle Backup Manager:

1. On the primary server, click the **Start** button, then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type `ORACLEBACKUP MANAGER`, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.

Exiting Oracle Backup Manager

Exit Oracle Backup Manager using a typed command.

To exit Oracle Backup Manager:

1. At the **Araxi_OracleMgr>** prompt, type `EXIT`.
2. Press ENTER.

   Oracle Backup Manager exits.

Oracle Backup Manager Backup Settings

Oracle Backup Manager backup settings are displayed in a Command Prompt window. Table 5-7 describes the parameters.

Items marked with an asterisk (*) can be edited using the **Alter** command in Oracle Backup Manager. For more information about editing these parameters, see *Editing Backup Settings* on page 5-32.

Note: Unless otherwise indicated, typed commands in Oracle Backup Manager are not case-sensitive. In this document, commands are shown in uppercase letters to aid readability.

Table 5-7: Oracle Backup Manager backup parameters

Backup Parameter	Identifies...
*FULL_BACKUP_INTERVAL	Number of days between full backups of the database. The recommended setting is `0`, for a daily full backup.
*BACKUP_START_HOUR (applicable to scheduled backups)	Time of day a scheduled backup should start, using a 24-hour clock. For example, a value of `16` indicates 4:00 p.m.
*INCR_BACKUP_INTERVAL	Number of days between incremental database backups.
*BACKUP_SUCCESS_COMMAND_ WARNING	Number of seconds to wait for BACKUP_SUCCESS_FILE before generating a warning.
*BACKUPS_ENABLED	Whether the database will be backed up (`YES` or `NO`).

Backup Parameter	Identifies...
*SHUTDOWN_TO_BACKUP	Whether Prinergy will shutdown when doing a backup of the database (YES or NO). For example, this will be set to NO for the Automatic Online Backup option.
*BACKUP_DESTINATION	Target destination for the backup database.
BACKUP_SUCCESS_COMMAND_FILE	Command file executed when the database backup is successfully completed. For example, the command file may copy the backup database to tape.
ORACLE_ARCHIVEMODE	Identifies the Oracle database log mode (should be set to ARCHIVELOG).
ORACLE_SID	Identifies the Oracle instance being backed up (there is only one instance in Prinergy).
BACKUP_LOG_FILE_MAX_SIZE	Maximum size of the backup log file.
BACKUP_FAILURE_COMMAND_FILE	Command file executed when the backup fails. For example, the command file may send an email notice to the backup administrator.
BACKUP_LOG_FILE	Location of the backup log file, which tracks all backup activity.

Viewing Backup Settings

You can view the Oracle Backup Manager backup settings.

To view Oracle Backup Manager backup settings:

1. On the primary server, click the **Start** button, then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type ORACLEBACKUPMANAGER, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.
4. Type SHOW BACKUPCONFIG, then press ENTER.

   The current Oracle Backup Manager backup settings are displayed.

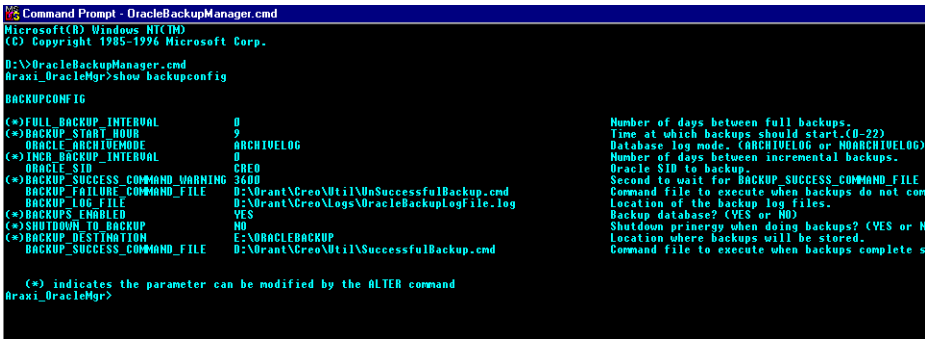


Figure 5-1: Oracle Backup Manager backup settings

Editing Backup Settings

Use the **Alter** command in Oracle Backup Manager to specify backup settings according to your backup strategy. Table 5-8 on page 5-33 describes which parameters you can edit the settings for.

To edit backup settings:

1. On the primary server, click the **Start** button, then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type `ORACLEBACKUPMANAGER`, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.
4. To edit a backup setting, type the following:

   `ALTER <BACKUP SETTING> = <NEW VALUE>`, then press ENTER.

   Table 5-8 on page 5-33 describes the editable parameters. For information on recommended settings, see *Recommended Settings for Automatic Offline Backup Option* on page 5-34 or *Recommended Settings for Automatic Online Backup Option* on page 5-35.



Important:
You must include spaces exactly as shown. For example, `ALTER BACKUP_START_HOUR = 3` **(to schedule backup to start at 3 a.m.)**

Table 5-8: Editable parameters in Oracle Backup Manager

Editable Parameter	Indicates...
FULL_BACKUP_INTERVAL	Days between full backups. A value of `0` means a full backup is done daily. This is the recommended setting.
BACKUP_START_HOUR	Time at which the backup starts, in military time. You can enter a value between 0–22, where `16` = 4 p.m. **Note:** The value `23` (11 p.m.) is not available, as this time is reserved for the Oracle Backup Manager scheduler.
INCR_BACKUP_INTERVAL	Days between incremental backups. Set this to `0`, as incremental backups of the database are not recommended.
BACKUP_SUCCESS_ COMMAND_WARNING	Number of seconds to wait for BACKUP_SUCCESS_FILE before generating a warning. The default setting is `3600` (1 hour).
BACKUPS_ENABLED	Whether the database will be backed up (`YES` or `NO`). **Note:** This does not stop the Oracle Backup Manager schedule; it does prevent scheduled backups from running.
SHUTDOWN_TO_BACKUP	Whether Prinergy will shutdown when doing backup
BACKUP_DESTINATION	Destination for the Oracle database backup files.

Recommended Settings for Automatic Offline Backup Option

The following table describes the recommended Oracle Backup Manager Settings for the Automatic Offline Backup option. For information about editing settings, see *Editing Backup Settings* on page 5-32.

Table 5-9: Recommended Oracle Backup Manager settings for Automatic Offline Backup

Backup Parameter	Recommended Setting
FULL_BACKUP_INTERVAL	Set at `0` for daily full backup. This is the recommended setting.
BACKUP_START_HOUR	Base your setting on: • the most convenient time to shut down the system • the hours personnel are onsite (if tape must be manually changed during backup).
INCR_BACKUP_INTERVAL	Set to 0. *Note: Incremental backups are not recommended.*
BACKUP_SUCCESS_COMMAND_WARNING	The default setting is `3600 seconds` (1 hour). Change as desired.
BACKUPS_ENABLED	Set to `YES`.
SHUTDOWN_TO_BACKUP	Set to `YES`.
BACKUP_DESTINATION	Set to `E:\ORACLEBACKUP`.
ORACLE_ARCHIVEMODE	Should be set to `ARCHIVELOG`. If not, contact your service representative.

Recommended Settings for Automatic Online Backup Option

The following table describes the recommended Oracle Backup Manager Settings for the Automatic Online Backup option. For information about editing settings, see *Editing Backup Settings* on page 5-32.

Table 5-10: Recommended Oracle Backup Manager settings for Automatic Online Backup

Backup Parameter	Recommended Setting
FULL_BACKUP_INTERVAL	Set at `0` for daily full backup. This is the recommended setting.
BACKUP_START_HOUR	Base your setting on: • the least busy production time • the hours personnel are onsite (if tape must be manually changed during backup).
INCR_BACKUP_INTERVAL	Set at `0`. *Note: Incremental backups are not recommended.*
BACKUP_SUCCESS_COMMAND_WARNING	The default is `3600 seconds` (1 hour). Change as desired.
BACKUPS_ENABLED	Set to `YES`.
SHUTDOWN_TO_BACKUP	Set to `NO`.
BACKUP_DESTINATION	Set to the name of the Prinergy primary server where the Legato NetWorker Server software is installed.
ORACLE_ARCHIVEMODE	Should be set to `ARCHIVELOG`. If not, contact your service representative.

Backing Up the Database on Request

You can perform a full backup of the database on request.

To back up the database on request:

1. On the primary server, click the **Start** button, and then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type ORACLEBACKUPMANAGER, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.
4. Type BACKUP DATABASE, then press ENTER.

   Oracle Backup Manager does a full backup of the database.

Starting and Stopping the Oracle Backup Manager Scheduler

You can start or stop the Oracle Backup Manager scheduler. The Oracle Backup Manager scheduler is automatically started each time Prinergy is started.

By default, the Oracle Backup Manager scheduler runs each night at 23:00 hr to determine the backup requirements, then schedules the backup to start at the time specified under BACKUP_START_HOUR.

Note: You can change the time that the backup starts. For more information, see *Editing Backup Settings* on page 5-32.

To start or stop the Oracle Backup Manager scheduler:

1. On the primary server, click the **Start** button, then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type `ORACLEBACKUPMANAGER`, then press ENTER.

   The **Araxi_OracleMgr>** prompt appears.
4. Do one of the following:
   - To stop the Oracle Backup Manager scheduler, type `BACKUP STOP`.
   - To start the Oracle Backup Manager scheduler, type `BACKUP START`.
5. Press ENTER.

Note: The Oracle Backup Manager scheduler is restarted every time Prinergy is restarted. If you are using the Basic Backup or Automatic Offline Backup option, be aware that Prinergy is automatically restarted at the end of each backup. To prevent the backup from occurring (and the scheduler from restarting), you must disable the backup by going to the **Araxi_OracleMgr>** prompt and typing `ALTER BACKUPS_ENABLED = NO`.

Viewing Backup History

You can view the backup history.

To view the backup history:

1. On the primary server, click the **Start** button, then point to **Programs**.
2. Click **Command Prompt**.

   The Command Prompt window is displayed.
3. Type ORACLEBACKUPMANAGER, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.
4. Type SHOW BACKUPTIMES, then press ENTER.

   Oracle Backup Manager displays the start and finish times for the last full and incremental backups.

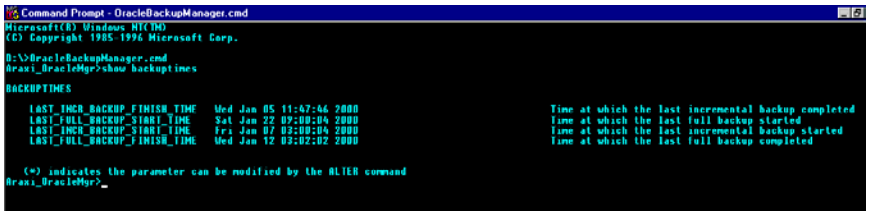


Figure 5-2: Oracle Backup Manager backup history

Restoring the Oracle Database from the Backup

Use Oracle Backup Manager to restore the Oracle database from the backup database.

To restore the Oracle database:

1. Make sure the latest backup files are unzipped and stored in the location Oracle Backup Manager wrote the files to—for example, **E:\ORACLEBACKUP**.

   If you are working with a differential or incremental backup, the last full backup, plus any subsequent backups, must be available from this location.

2. On the primary server, click the **Start** button, then point to **Programs**.

3. Click **Command Prompt**.

   The Command Prompt window is displayed.

4. Type `ORACLEBACKUPMANAGER`, then press ENTER.

   The **Araxi_OracleMgr>** prompt is displayed.

5. Type `RESTORE`, then press ENTER.

   The database is restored.

Oracle Backup Manager Quick Reference Table

Table 5-11: Oracle Backup Manager quick reference table

To...	Do this...
Start Oracle Backup Manager	In the Windows NT Command prompt, type: `ORACLEBACKUPMANAGER` then press ENTER.
View backup history and Oracle Backup Manager settings	At the **Araxi_OracleMgr>** prompt, type: `SHOW` then press ENTER.
View backup history	At the **Araxi_OracleMgr>** prompt, type: `SHOW BACKUPTIMES` then press ENTER.
View Oracle Backup Manager settings	At the **Araxi_OracleMgr>** prompt, type: `SHOW BACKUPCONFIG` then press ENTER.
Set the days between full backups	At the **Araxi_OracleMgr>** prompt, type: `ALTER FULL_BACKUP_INTERVAL = <number of days>` then press ENTER.
Set the backup start hour	At the **Araxi_OracleMgr>** prompt, type: `ALTER BACKUP_START_HOUR = <numeric value between 0 - 22 hrs>` then press ENTER.

To...	Do this...
Set days between incremental backups	At the **Araxi_OracleMgr>** prompt, type: `ALTER INCR_BACKUP_INTERVAL = <number of days>` then press ENTER.
Set number of seconds to wait for BACKUP_SUCCESS_FILE before generating warning	At the **Araxi_OracleMgr>** prompt, type: `ALTER BACKUP_SUCCESS_COMMAND_WARNING = <number of seconds>` then press ENTER.
Enable and disable database backup	At the **Araxi_OracleMgr>** prompt, type: `ALTER BACKUPS_ENABLED = <YES or NO>` then press ENTER.
Set Prinergy to shutdown during backup	At the **Araxi_OracleMgr>** prompt, type: `ALTER SHUTDOWN_TO_BACKUP = <YES or NO>` then press ENTER.
Set the destination for the Oracle backup	At the **Araxi_OracleMgr>** prompt, type: `ALTER BACKUP_DESTINATION = <E:\ORACLEBACKUP for offline OR Legato server for online>` then press ENTER.

To...	Do this...
Manually perform a full backup of the Oracle database	At the **Araxi_OracleMgr>** prompt, type: `BACKUP DATABASE` then press ENTER.
Start the Oracle Backup Manager scheduler	At the **Araxi_OracleMgr>** prompt, type: `BACKUP START` then press ENTER.
Stop the Oracle Backup Manager scheduler	At the **Araxi_OracleMgr>** prompt, type: `BACKUP STOP` then press ENTER.
Restore the last Oracle database backup	At the **Araxi_OracleMgr>** prompt, type: `RESTORE` then press ENTER.
Exit Oracle Backup Manager	At the **Araxi_OracleMgr>** prompt, type: `EXIT` then press ENTER.

Configuring a "Successful Backup" Command File

The “successful backup” command file is a command file that is executed when a backup is successfully completed. This command file can be configured to trigger the following actions:

- write the backup database from disk to tape
- back up specified system drives to tape

By default, Oracle Backup Manager executes the command file named **SuccessfulBackup.cmd**. This command file generally resides on the **D:\ORANT\Creo\Util** directory and appears in the Oracle Backup Manager settings window under the setting BACKUP_SUCCESS_COMMAND_FILE.

Note: This directory may be on another drive, depending on how your Prinergy system was installed.

You must configure the “successful backup” command file in order to ensure that your backup database is written to tape, and to trigger system drive backups. The procedure varies according to your backup option.

Configuring for Basic Backup

If you are using the Basic Backup option, there are two ways to configure the command file, depending on which backup software you are using.

Using Windows NT Backup

To configure the command file when using Windows NT Backup:

1. In Windows NT Explorer, go to the directory **D:\ORANT\Creo\Util**.

   Note: This directory may be on another drive, depending on how your Prinergy system was installed.

2. Select the file named **SuccessfulBackup.cmd** and rename it **SuccessfulBackup.default.offline.cmd**.

   This ensures that the settings of your original command file are available should you require them later.

3. From the **Start** menu, select **Accessories>Programs>Notepad**.

   Notepad is launched.

4. From the **File** menu, select **Open**.

   The Open dialog box is displayed.

5. Open the following file:

   D:\ORANT\Creo\Util\SuccessfulBackup.NTBackup.offline.cmd

6. Verify that the file contains the following information, making changes as necessary:

   - `NET STOP OracleStartCREO`
   - `NET STOP OracleServiceCREO`
   - `NET STOP OracleTNSListener80`
   - `NTBACKUP backup c: d: E:\OracleBackup /B /D "Araxi System Drives" /t normal /l d:\backup.log /V`
   - `NET START OracleTNSListener80`
   - `NET START OracleStartCREO`
   - `NET START OracleServiceCREO`

   These command lines ensure that your backup database is written to tape and that system drive backups are triggered.

   Note: If you have saved your backup database to a location other than the **E** drive, edit the command line that begins with `NTBACKUP backup c: d: E:\OracleBackup` to read `NTBACKUP backup c: d: <drive>:\OracleBackup`.

7. From the **File** menu, select **Save As**.

   The Save As dialog box is displayed.

8. In the **File name** box, type `SuccessfulBackup.cmd`, then click **Save**.

   This file will now be used as the "successful backup" command file.

Using Other Backup Software

To configure the command file when using other backup software:

1. Using Windows NT Explorer, go to the directory **D:\ORANT\Creo\Util**.

   Note: This directory may be on another drive, depending on how your Prinergy system was installed.

2. Select the file named **SuccessfulBackup.cmd** and rename it **SuccessfulBackup.default.offline.cmd**.

   This ensures that the settings of your original command file are available should you require them later.

3. From the **Start** menu, select **Accessories>Programs>Notepad**.

   Notepad is launched.

4. From the **File** menu, select **Open**.

   The Open dialog box is displayed.

5. Open the following file:

   D:\ORANT\Creo\Util\SuccessfulBackup.NTBackup.offline.cmd

6. Verify that the file contains the following information, making changes as necessary:

   - `NET STOP OracleStartCREO`
   - `NET STOP OracleServiceCREO`
   - `NET STOP OracleTNSListener80`
   - `NTBACKUP backup c: d: E:\OracleBackup /B /D "Araxi System Drives" /t normal /l d:\backup.log /V`
   - `NET START OracleTNSListener80`
   - `NET START OracleStartCREO`
   - `NET START OracleServiceCREO`

   These command lines ensure that your backup database is written to tape and that system drive backups are triggered.

7. Change this command line:

   ```
   NTBACKUP backup c: d: E:\OracleBackup /B
   /D "Araxi System Drives" /t normal /l
   d:\backup.log /V
   ```

   to this:

   ```
   <your backup software> <command line
   options required to backup C:, D:,
   E:\Oracle backup, and the NT registry>
   ```

   For details on configuring command line options, see your backup software documentation.

   Note: If you have saved your backup database to a location other than the **E** drive, you will have to change the section `E:\OracleBackup` to `<drive>:\OracleBackup`.

8. From the **File** menu, select **Save As**.

   The Save As dialog box is displayed.

9. In the **File name** box, type `SuccessfulBackup.cmd`, then click **Save**.

   This file will now be used as the "successful backup" command file.

Configuring for Automatic Offline Backup

You must rename a number of preconfigured files to ensure the correct file is executed.

To configure the command file when using Automatic Offline Backup:

1. In Windows NT Explorer, go to the directory **D:\ORANT\Creo\Util**.

   Note: This directory may be on another drive, depending on how your Prinergy system was installed.

2. Select the file named **SuccessfulBackup.cmd** and rename it as **SuccessfulBackup.default.offline.cmd**.

   This ensures that the settings of your original command file are available should you require them later.

3. Select the file named **SuccessfulBackup.Legato.offline.cmd**.

   This file has been configured for the Automatic Offline Backup option.

4. Rename the file to **SuccessfulBackup.cmd**.

5. Verify that the file contains the following information, making changes as necessary:

   - `NET STOP OracleStartCREO`
   - `NET STOP OracleServiceCREO`
   - `NET STOP OracleTNSListener80`
   - `D:\win32app\nsr\bin\savegrp -G AraxiGroup`
   - `NET START OracleTNSListener80`
   - `NET START OracleStartCREO`
   - `NET START OracleServiceCREO`

   These command lines ensure that your backup database is written to tape and that system drive backups are triggered.

6. From the **File** menu, select **Save**.

   This file will now be used as the “successful backup” command file.

Configuring for Automatic Online Backup

You must rename a number of preconfigured files to ensure the correct file is executed.

To configure the command file when using Automatic Online Backup:

1. In Windows NT Explorer, go to the directory **D:\ORANT\Creo\Util**.

   Note: This directory may be on another drive, depending on how your Prinergy system was installed.

2. Select the file named **SuccessfulBackup.cmd**.

3. Rename it as **SuccessfulBackup.Default.offline.cmd**.

   This ensures the settings of your original command file are available should you require them later.

4. Select the file named **SuccessfulBackup.Legato.online.cmd.**

   This file has been configured for the Automatic Online Backup option.

5. Rename the file to **SuccessfulBackup.cmd.**

   This file will now be used as the “successful backup” command file.

6. Verify that the file contains the following information, making changes as necessary:

   - `D:\win32app\nsr\bin\savegrp -G AraxiGroup`

   This command line ensures that your backup database is written to tape and that system drive backups are triggered.

7. From the **File** menu, select **Save**.

   This file will now be used as the “successful backup” command file.

Using Legato Networker Software

This section describes some basic procedures for using Legato Networker software with Prinergy.

It also includes instructions for the two sample backup strategies—Daily Full Backup (**DailyFull**) and Sunday Full/Daily Differential (**SFullDailyDiff**).

About Legato NetWorker

Legato NetWorker is the backup software included with the Automatic Offline Backup option and Automatic Online Backup option. It enables you to back up your database and system drives onto tape.

There are some important concepts to understand about Legato NetWorker software:

NetWorker Administrator—The main software used to configure and manage backup with Legato NetWorker.

Client—A client is a machine being backed up by Legato NetWorker. In this case, a Prinergy server.

Group—A group is a set of Legato clients. **AraxiGroup** is the group to which all the Prinergy servers should belong.

Schedule—A set of parameters that determines backup frequency and mode. Create a schedule in NetWorker Administrator and apply to clients and groups.

Save set—The set of data being backed up. Apply a save set when you configure a client.

Index—A guide to the data backed up as part of a save set. You can view indexes in the **Indexes** right-pane window of NetWorker Administrator.

Volume—A volume is any tape that is part of the Legato backup system. Any tape labeled for use with Legato is called a volume and can be monitored in the **Volumes** right-pane window of NetWorker Administrator.

Starting NetWorker Administrator

Legato NetWorker Administrator is the main software used to configure and manage backup with Legato.

To start NetWorker Administrator:

- From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

  The NetWorker Administrator window opens.

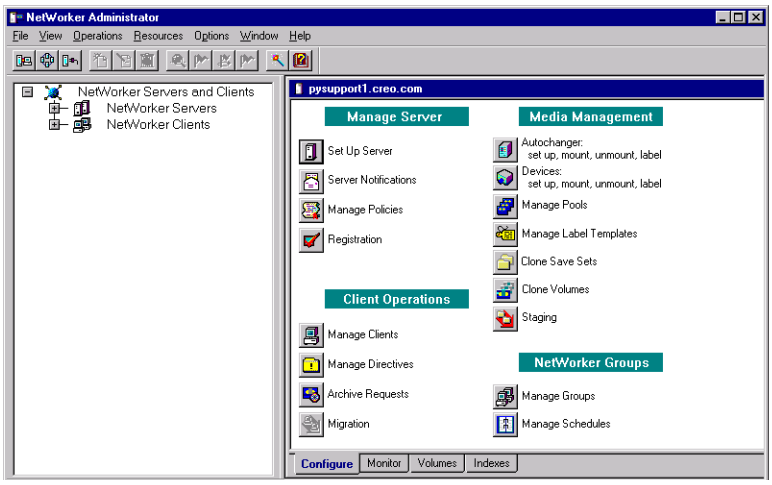


Figure 5-3: NetWorker Administrator window

Viewing Hidden Attributes

In order to configure clients and groups, you need to set the NetWorker Administrator options to display hidden attributes. This shows the full range of options in various dialog boxes.

To view hidden attributes:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. From the **Options** menu, select **Customize**.

   The Customize dialog box opens.

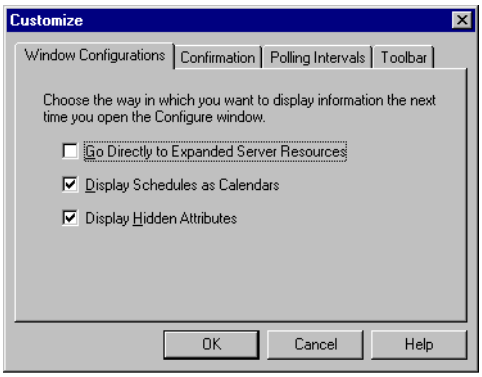


Figure 5-4: Customize dialog box

3. Select **Display Hidden Attributes**, then click **OK**.

   Networker Administrator now displays the full range of configurable options.

Creating a Networker Schedule

Create a new Legato schedule for each backup strategy you wish to use. You can create a number of schedules with various settings. Schedules can then be assigned to individual clients, or to **AraxiGroup**.

Note: For detailed instructions for creating schedules for **DailyFull** and **SFullDailyDiff**, see *Schedule for Daily Full Backup* on page 5-59 and *Schedule for Sunday Full/Daily Differential Backup* on page 5-60.

To create a backup schedule:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

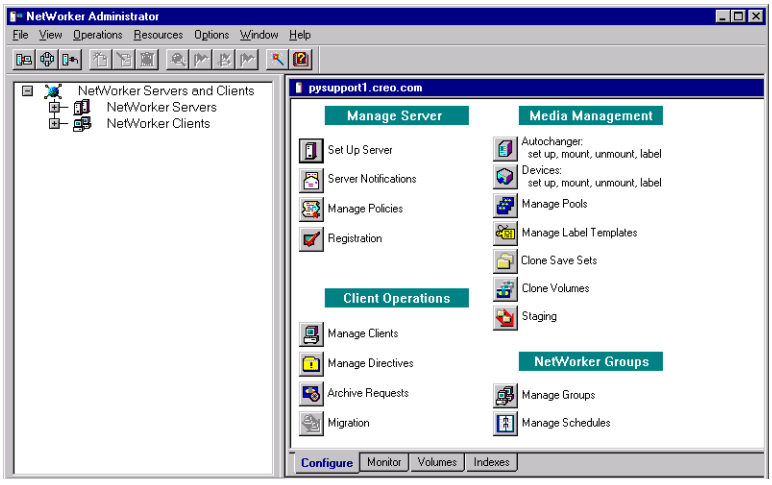


Figure 5-5: NetWorker Administrator Configure window



3. Under **Network Groups**, click the **Manage Schedules** button.

   The Schedules window opens.

4. Right-click on **Schedules**, then choose **Create** from the right-click menu.

   The Create Schedule dialog box opens.

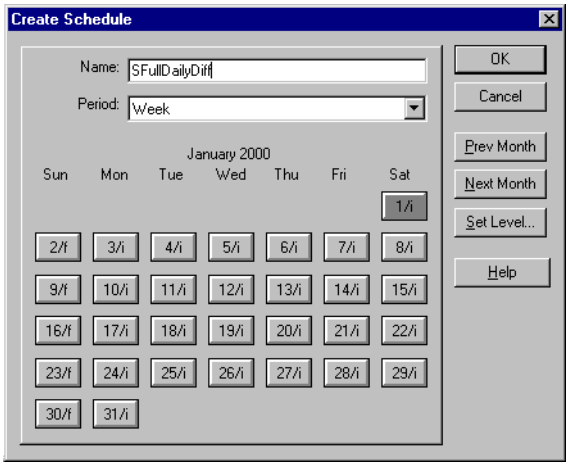


Figure 5-6: Create Schedule dialog box

5. In the **Name** box, type a name for the schedule.

   For example, type `SFullDailyDiff` if you are creating a schedule for a Sunday Full/Daily Differential backup strategy.

6. From the **Period** box, choose one of the following options:

   - **Week**—This groups settings by the day of the week. For example, changes applied to any Sunday will be applied to all Sundays. This is the recommended setting.
   - **Month**—This groups settings by the day of the month. For example, changes applied to the fifth day of a month will be applied to the fifth day of all months.

7. To set the level of backup, select the day you want to apply the changes to, then click the **Set Level** button.

   The Set Level dialog box opens.

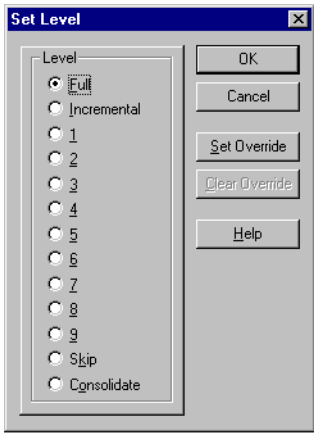


Figure 5-7: Set Level dialog box

8. In the **Level** box, select a level of backup:

   Full—performs a full backup.

   Incremental—performs an incremental backup (not recommended).

   Numeric values—performs a differential backup. Select **1** to perform a differential backup.

9. Click **OK**.

   The Set Level dialog box closes.

   Note: Changes are applied according to your **Period** setting.

10. In the **Create schedule** dialog box, click **OK**.

    The new schedule is added to Legato NetWorker and can be assigned to a client or group. For more information about assigning schedules, see *Configuring a Client* on page 5-67 or *Assigning a NetWorker Schedule to a Group* on page 5-70.

Schedule for Daily Full Backup

If you are using the Daily Full backup schedule (**DailyFull**), set the schedule as follows:

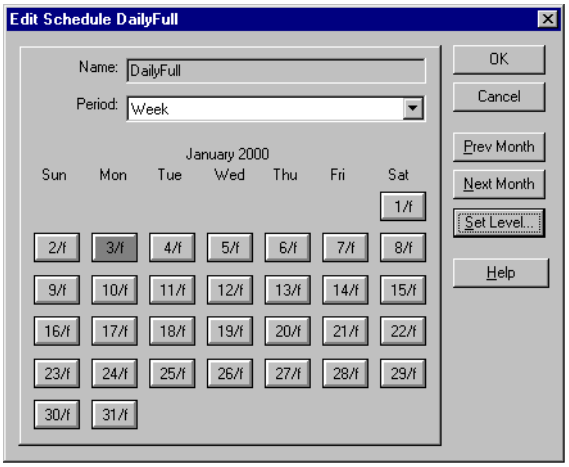


Figure 5-8: Settings for DailyFull backup schedule

For information on creating a schedule, see *Creating a Networker Schedule* on page 5-55. For more information on the Daily Full backup schedule, see *Sample Backup Strategies* on page 5-12.

Schedule for Sunday Full/Daily Differential Backup

If you are using the Sunday Full/Daily Differential (**SFullDailyDiff**) backup schedule, set the schedule as follows:

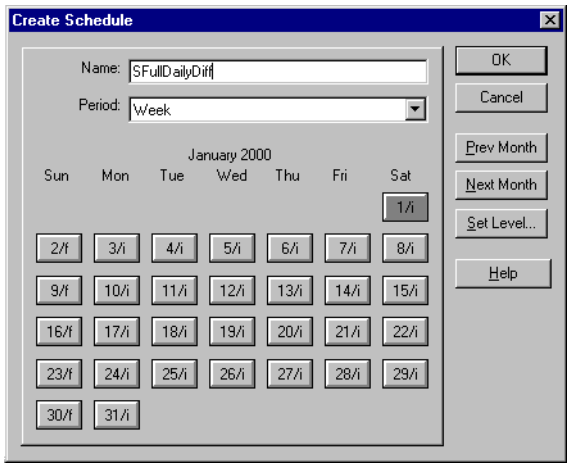


Figure 5-9: Settings for SFullDailyDiff backup schedule

For information on creating a schedule, see *Creating a Networker Schedule* on page 5-55. For more information on the Daily Full backup schedule, see *Sample Backup Strategies* on page 5-12.

Managing Legato NetWorker Clients

This section describes how to add and configure NetWorker clients. In Legato NetWorker, a client is the machine that is being backed up—for example, the primary server.

Adding a Client

Use the NetWorker Wizard to add a client to NetWorker. Add any new Prinergy servers as Legato NetWorker clients belonging to the AraxiGroup group.



ATTENTION:
Perform this and all other Legato NetWorker administration tasks on the Legato NetWorker server machine—do not perform this task on the Legato NetWorker client machine.

To add a client:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.



2. Click the NetWorker Wizard button located along the top row of NetWorker Administrator window.

   The Welcome to the Wizard dialog box opens.

3. Click **Next**.

   The Who Administers your system dialog box opens.

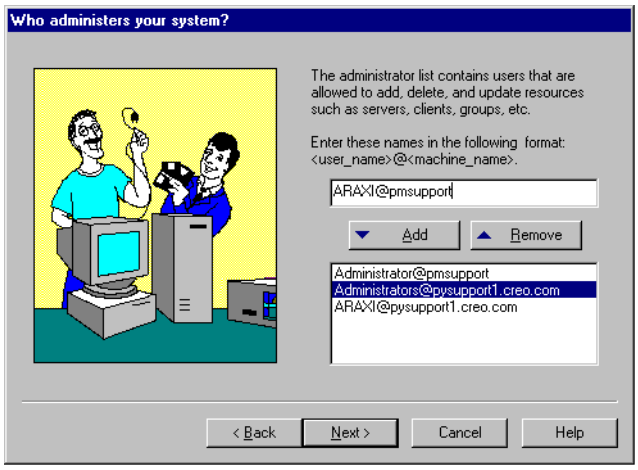


Figure 5-10: Who administers your system dialog box

4. In the **Enter these names...** box:

   - Type `ARAXI@<newclient>`, then click **Add**
   - Type `Administrator@<newclient>`, then click **Add**

     where `<newclient>` is the name of the client you are adding.

5. Click **Next**.

   The Saving your files manually dialog box opens.

6. Under **Would you like to have this option available to users?** select **Yes**, then click **Next**.

   The First step is complete dialog box opens.

7. Click **Next**.

   The Creating new clients dialog box opens.

8. Under **Would you like to create a new client?** select **Yes**, then click **Next**.

   The Setting up the client dialog box opens.

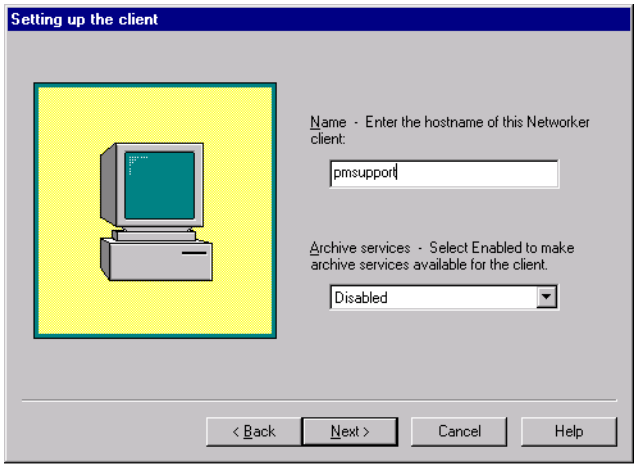


Figure 5-11: Setting up the client dialog box

9. In the **Name** box, type the name of new client you used in step 4, then click **Next**.

   The Understanding groups dialog box opens.

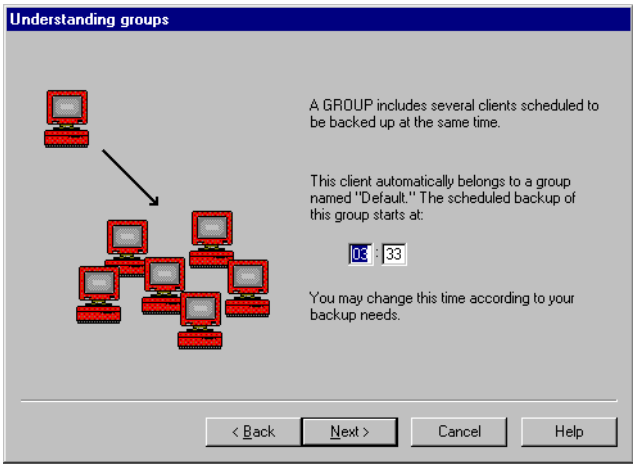


Figure 5-12: Understanding groups dialog box

10. Type a time for backup, then click **Next**.

    The Creating more groups dialog box opens.

11. Under **Would you like to create more groups?** select **No**, then click **Next**.

    The Assigning a client to groups dialog box opens.

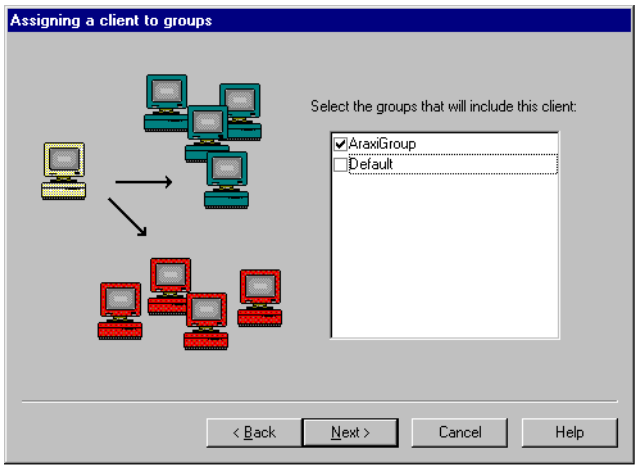


Figure 5-13: Assigning a client to groups dialog box

12. In the **Select the groups that will include this client** box:
    - Select **AraxiGroup**
    - Deselect **Default**
13. Click **Next**.

    The Creating new clients dialog box opens, with your new client displayed in the list of clients.
14. Do one of the following:
    - Select **Yes** to create a new client and return to step 4.

      OR
    - Select **No** if you are finished adding clients.

15. Click **Next**.

    The Second step is complete dialog box opens.

16. Click **Next**.

    The Configuring the media dialog box opens.

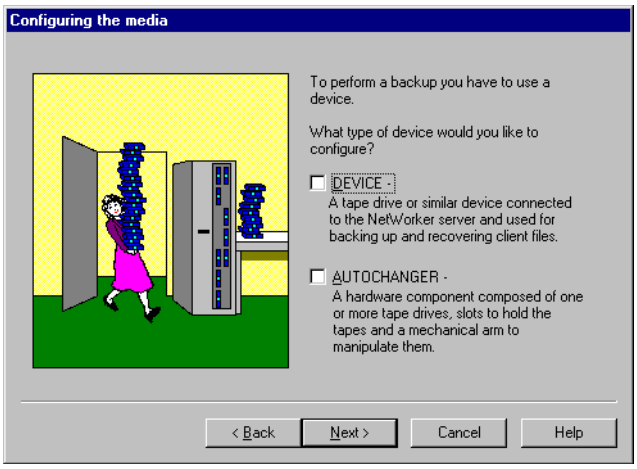


Figure 5-14: Configuring the media dialog box

17. In the **What type of device would you like to configure?** box, deselect both **Device** and **Autochanger**, then click **Next**.

    The Task is complete! dialog box opens.

18. Click **Finish**.

    The client is added.

Configuring a Client

This section describes how to configure a client. Configuring a client includes assigning a save set. A save set is the set of data assigned to be backed up—for example, the Oracle backup, the **C** drive, **D** drive, and the NT Registry.

Note: Any settings you apply to a client override settings applied to the group it belongs to.

To configure a NetWorker client:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

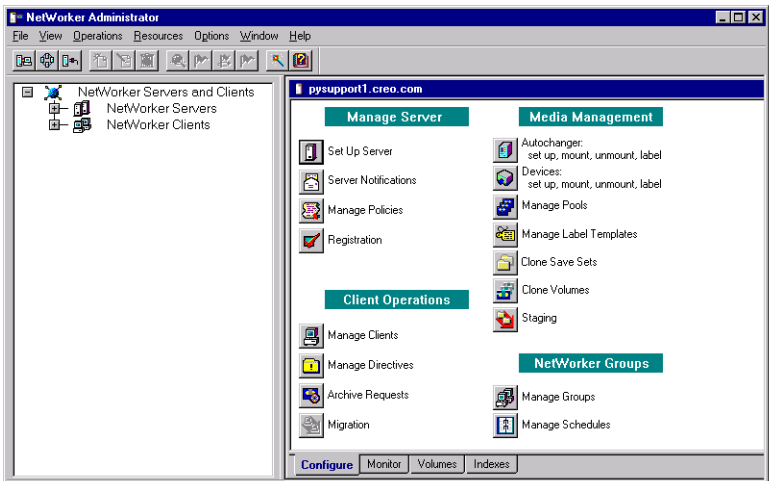


Figure 5-15: NetWorker Administrator Configure window



3. Under **Client Operations**, click the **Manage Clients** button.

   The Clients window opens.

4. Click on the **Clients** icon to expand the list of clients.

5. Right-click the Prinergy server you want to assign the save set to, then select **Edit** from the right-click menu.

   Note: The Edit Client dialog box opens. If the Edit Client dialog box does not display all of the parameters shown below, you need to turn on the hidden attributes. See *Viewing Hidden Attributes* on page 5-54.

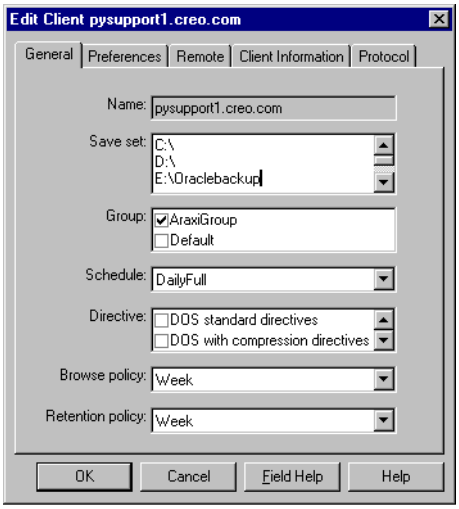


Figure 5-16: Edit Client dialog box

6. In the **Save set** box, type the following:
   - `C:\`—backs up everything on the C drive
   - `D:\`—backs up everything on the D drive
   - `REGISTRY:\`—backs up the registry key
   - `<drive>:\ORACLEBACKUP`—backs up the backup Oracle database done by the Oracle Backup Manager (primary server only)

     Note: The `<drive>` location is where the Oracle Backup Manager writes the backup Oracle database.
   - `REPAIRDISK:\`—backs up the server repair disk, if available



ATTENTION:
We recommend you back up all of the above to help ensure full system recovery if required.

7. In the remaining boxes, do the following:
   - In the **Group** box, select **AraxiGroup.**
   - In the **Schedule** box, select a NetWorker schedule—for example, **DailyFull**.
   - In the **Browse** policy box, select **Week**.
   - In the **Retention** policy box, select **Week**.

     Browse policy specifies how far back Legato NetWorker displays the history of all backed up files. Retention policy specifies how long this data is protected from automatic recycling.

   Note: Any settings you apply to a client override settings applied to the group it belongs to.

8. Click **OK**.

   The client is configured.

Assigning a NetWorker Schedule to a Group

You can assign a schedule to a NetWorker group. A group is a collection of clients—for example, **AraxiGroup** contains all the Prinergy servers and is created by your service representative when Legato NetWorker is installed.

ATTENTION:
Settings applied to a client override settings made to the group it belongs to.

To assign a NetWorker schedule to group:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

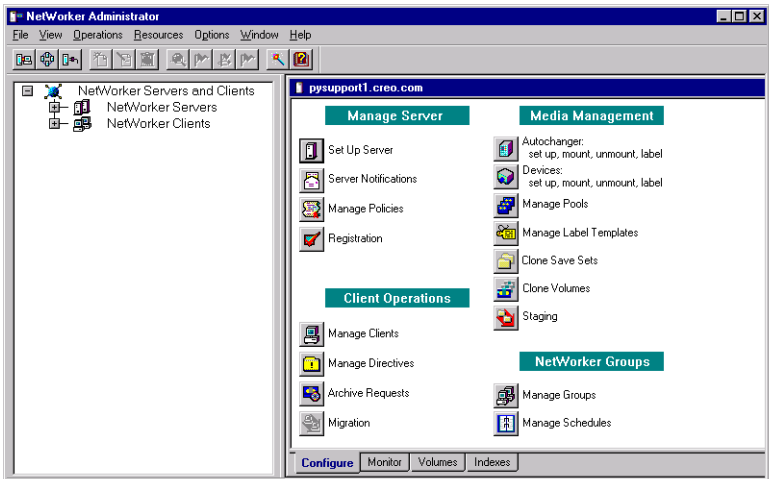


Figure 5-17: NetWorker Administrator Configure window



3. Under Group Operations, click the Manage Groups button.

   The Groups window opens.

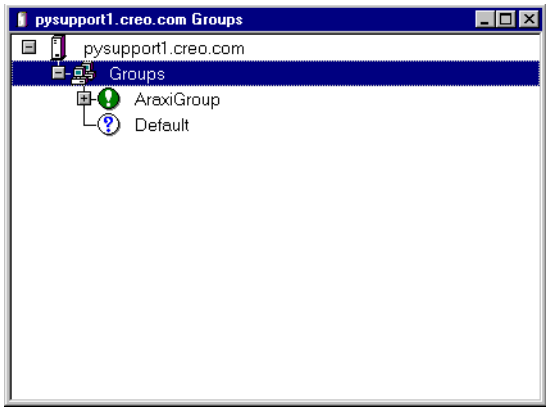


Figure 5-18: Groups window

4. Expand the Groups icon, then right-click the **AraxiGroups** icon.

5. From the right-click menu select **Edit**.

   The Edit Group Araxi Group dialog box opens.

   Note: If the Edit Group dialog box does not display all of the parameters shown below, turn on the hidden attributes. See *Viewing Hidden Attributes* on page 5-54.

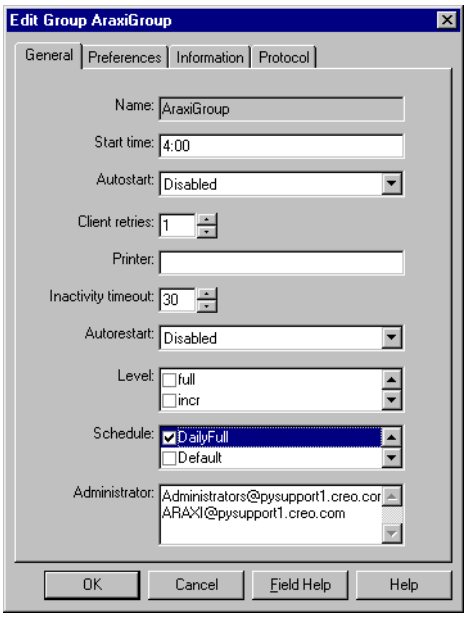


Figure 5-19: Edit Group dialog box

6. In the **Schedule** box, select the NetWorker schedule you want to apply to the group—for example, **DailyFull.**
7. Click **OK**.

Managing Tapes

This section describes how manage tapes in Legato NetWorker. Legato NetWorker refers to all tapes as volumes and any tapes you have labeled appear in the NetWorker **Volumes** right-pane window.

Inserting and Mounting Tapes

Once you've inserted a tape in the tape device, you must instruct NetWorker Administrator to mount the tape before it can be read.

To insert and mount a backup tape:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

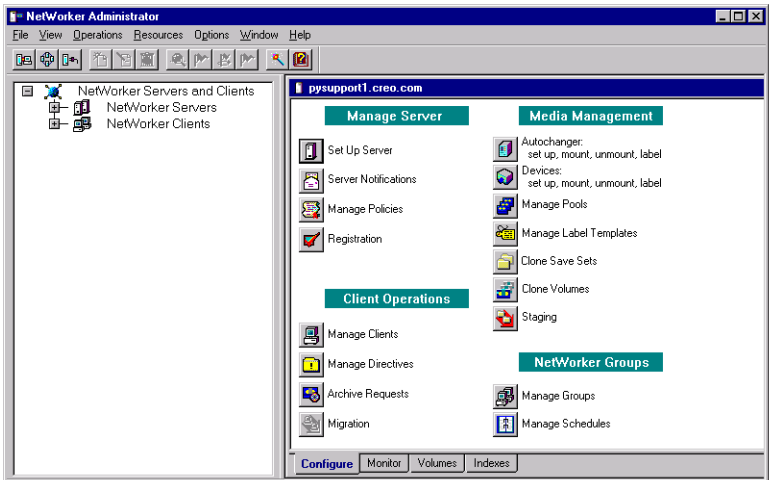


Figure 5-20: NetWorker Administrator Configure window



3. Under **Media Management**, click the **Devices** button.

   The Devices window opens.

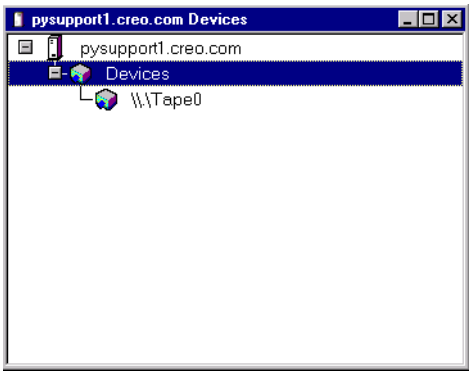


Figure 5-21: Devices window

4. Right-click on the backup tape device, then select **Operations** from the right-click menu.

   The Device Operations dialog box opens.

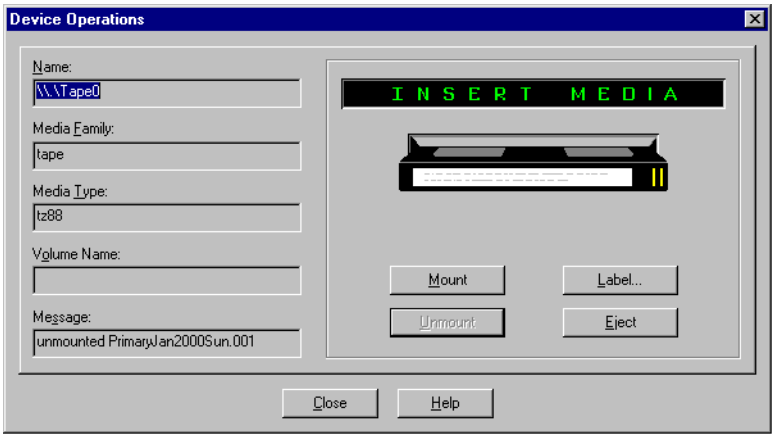


Figure 5-22: Device Operations dialog box

5. Insert the tape you want to label in the backup tape device drive, then click the **Mount** button.

   The device takes a few moments to mount the tape.

Unmounting and Ejecting Tapes

In order to eject a tape from the tape device, you must instruct NetWorker Administrator to first unmount the tape.

To unmount and eject a backup tape:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

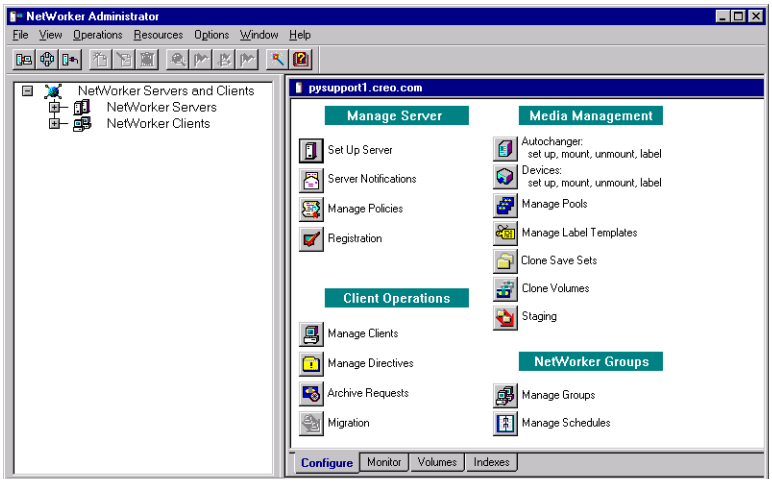


Figure 5-23: NetWorker Administrator Configure window



3. Under **Media Management**, click the **Devices** button.

   The Devices window opens.

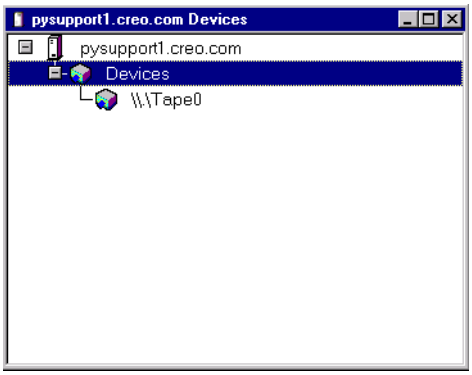


Figure 5-24: Devices window

4. Right-click on the backup tape device, then select **Operations**.

   The Device Operations dialog box opens.

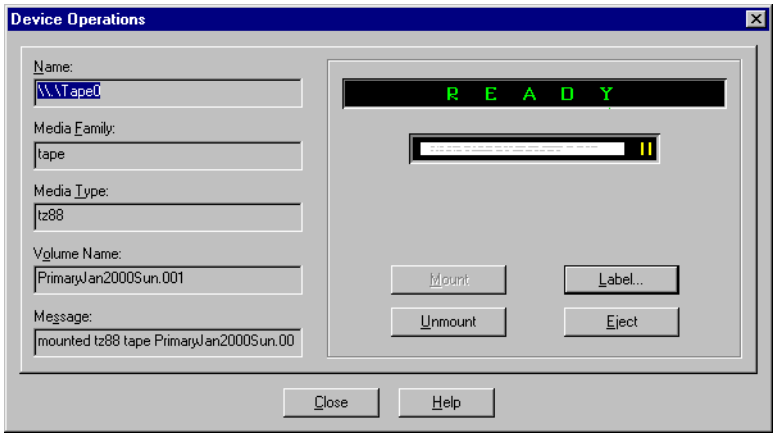


Figure 5-25: Device Operations dialog box

5. Click the **Unmount** button.

   The device takes a few moments to unmount the tape.

6. Click the **Eject** button.

   You can now safely remove the tape from the device.

Labeling Tapes

Label new tapes in Legato NetWorker so the program can identify them. We recommend you also physically label the tapes with the Legato name for easy management.

To label a backup tape:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Configure** tab.

   The Configure right-pane window opens.

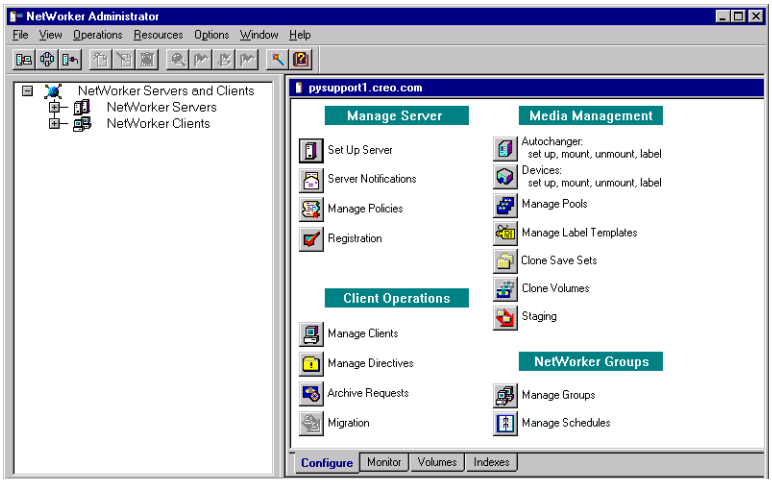


Figure 5-26: NetWorker Administrator Configure window



3. Under **Media Management**, click the **Devices** button.

   The Devices window opens.

4. Right-click on the backup tape device, then select **Operations** from the right-click menu.

   The Device Operations dialog box opens.

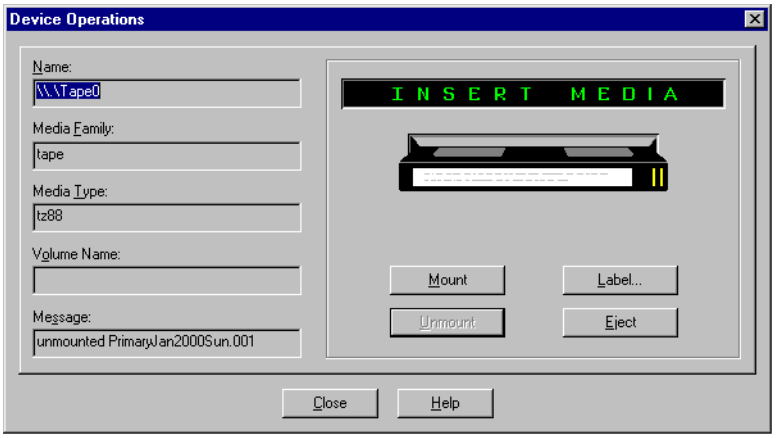


Figure 5-27: Device Operations dialog box

5. Insert the tape you want to label in the backup tape device drive, then click the **Mount** button.

   The device takes a few moments to mount the tape.

6. When the status box says **READY**, click the **Label** button.

   The Label dialog box opens.

ATTENTION:
Labeling a tape overwrites any existing data on the tape. Ensure you've inserted the correct tape.

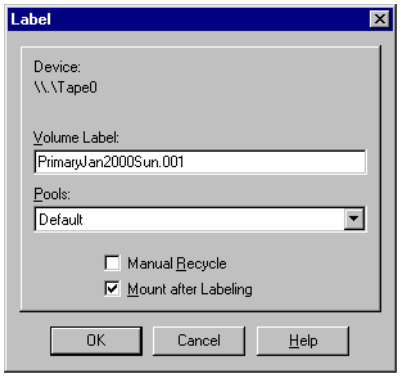


Figure 5-28: Label dialog box

7. Do the following:
   - In the **Volume Label** box, type a name for the tape.

     Plan a naming strategy in advance. For sample naming strategies, see *Sample Tape Labeling Strategies* on page 5-80.
   - In the **Pools** box, select **Default**.
   - Deselect **Manual Recycle**.
   - Select **Mount after Labeling**.
8. Click **OK**.

   The tape is now labeled and ready for writing. It will appear as a volume on the **Volumes** window.

Sample Tape Labeling Strategies

This section describes the recommended tape labeling strategies if you are using either of the two sample schedules: **DailyFull** or **SFullDailyDiff**.

Table 5-12 describes the tape labeling strategies for the **DailyFull** backup schedule. Relabel tapes as necessary, according to changes in the date.

On the last Friday of every month, move the tape offsite and introduce a new tape. For more information about tape usage for this schedule, see Table 5-4 on page 5-13.

Table 5-12: Tape naming strategy for DailyFull backup schedule

Week	Tape One	Tape Two
1	<server><year><month>Week1.001 For example, Server1999DecWeek1.001	<server><year><month>Week1.002
2	<server><year><month>Week2.001	<server><year><month>Week2.002
3	<server><year><month>Week3.001	<server><year><month>Week3.002
4	<server><year><month>Week4.001	<server><year><month>Week4.002

Table 5-13 on page 5-81 describes the tape naming strategy for the **SFullDailyDiff** backup schedule. Relabel tapes as necessary, according to changes in the date. There are two Sunday tapes, which are rotated on a weekly basis and renamed every two weeks. For more information about tape usage for this schedule, see Table 5-5 on page 5-15.

Table 5-13: Tape naming strategy for SFullDailyDiff backup schedule

Week	Sunday Tapes	Daily Tapes
1	<server><year><month>Sun.001 For example, Server1999DecSun.001 At the end of the week, this tape is taken offsite. It will eventually return as <server><year><month>Sun.003	<server><year><month>Mon.002 <server><year><month>Tues.003 <server><year><month>Wed.004 <server><year><month>Thu.005 <server><year><month>Fri.006 <server><year><month>Sat.007
2	<server><year><month>Sun.002 At the end of the week, this tape is taken offsite. It will eventually return as <server><year><month>Sun.004	Reuse above tapes.
3	Bring back <server><year><month>Sun.001 and relabel it <server><year><month>Sun.003	Reuse above tapes.
4	Bring back <server><year><month>Sun.002 and relabel it <server><year><month>Sun.004	Reuse above tapes.

Removing a Volume from Legato NetWorker

You can remove outdated volumes—that is, tapes that are labeled in Legato NetWorker but are no longer in active use.

We recommend you remove outdated volumes on a regular basis in order to keep system administration as simple as possible. How often you remove volumes depends on your backup strategy.

If you are using one of the two sample backup schedules, remove these volumes in the first week of each new month:

Table 5-14: NetWorker volumes to remove in first week of each new month

Strategy	Remove	Retain
DailyFull	The 6 volumes created in Weeks 1–3.	The 2 volumes used in Week 4.
SFullDailyDiff	All volumes EXCEPT Sunday volume used in Week 4.	Sunday volume used in Week 4.

ATTENTION:
Removing a volume erases all history of data sets saved on the volume—therefore, data stored on the volume can no longer be recovered.

To remove a volume:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Volumes** tab.

   The Volumes right-pane window is displayed.

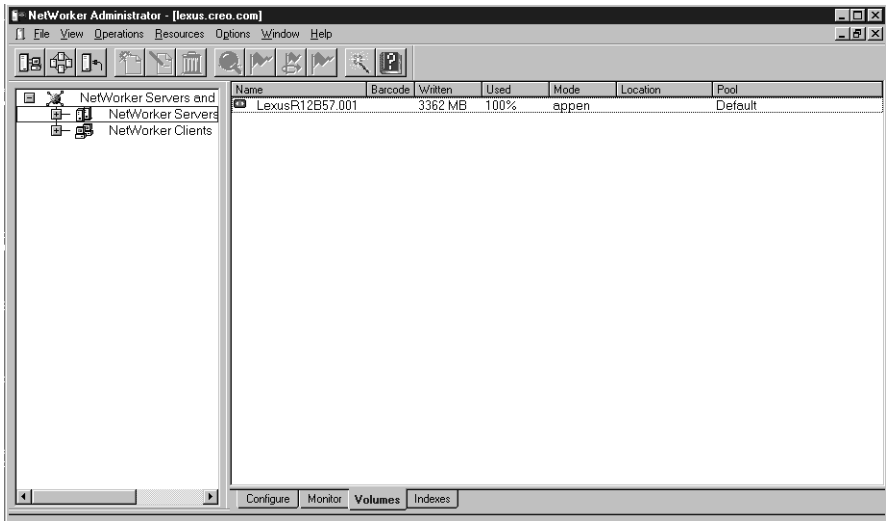


Figure 5-29: NetWorker Administrator Volumes window

3. Right-click on the volume you want to remove, then choose **Remove Volume** from the right-click menu.

   The Remove Volume dialog box opens.

4. Select **File and Media Entries**, then click **OK**.

   The volume is removed, and data stored on the volume can no longer be recovered.

Checking Tape Capacity

Before initiating a backup, you should the check the tape capacity to ensure there is enough space for the backup. If there is insufficient space, you may need to insert a new tape part way through the backup to complete the operation.

Note: If you are using the Basic Backup option, see your backup software's documentation for information on checking tape capacity.

To check tape capacity:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Volumes** tab.

   The Volumes right-pane window is displayed.

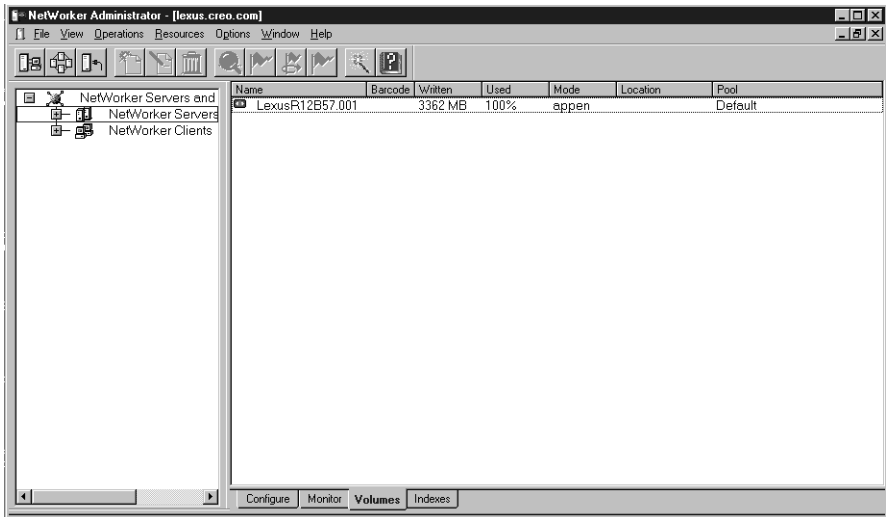


Figure 5-30: NetWorker Administrator Volumes window

3. Look at the right pane to see how much space is left on the tape in the tape device:
   - **Written** indicates tape space uses in MB
   - **Used** indicates the percentage of tape used
4. If the **Used** column exceeds **90%**, replace the tape with a new one to ensure there is enough space to complete the backup.

Viewing Tape Contents

You can view the contents of a tape (volume) in Legato NetWorker to ensure the correct data has been backed up. Tape contents are displayed in terms the save sets stored on the tape.

Note: The save set applied to the client determines what data is backed up. For more information about save sets, see *Configuring a Client* on page 5-67.

To view tape contents:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Volumes** tab.

   The Volumes right-pane window is displayed.

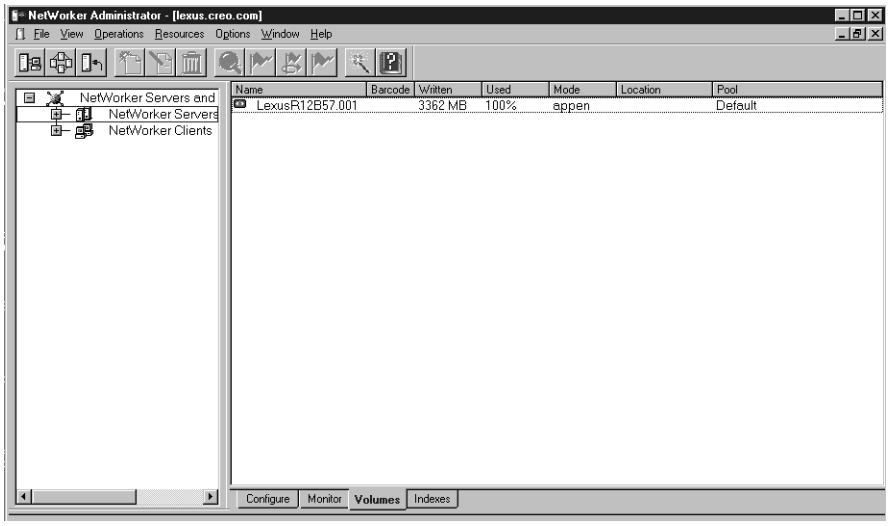


Figure 5-31: NetWorker Administrator Volumes window

3. Double-click the tape (volume) you want to see the contents of.

   The Volume Save Sets dialog box opens, describing the contents of the tape.

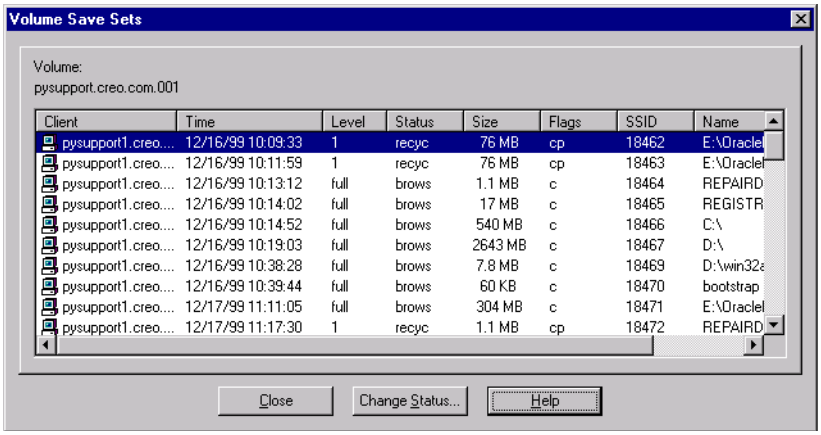


Figure 5-32: Volume Save Sets dialog box

4. For a detailed description of each field, click the **Help** button on the dialog box.

Viewing Save Set Indexes

A save set index is a guide to all the components of a save set for a particular client.

To view a save set index:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window opens.

2. Click the **Indexes** tab.

   The Index right-pane window opens.

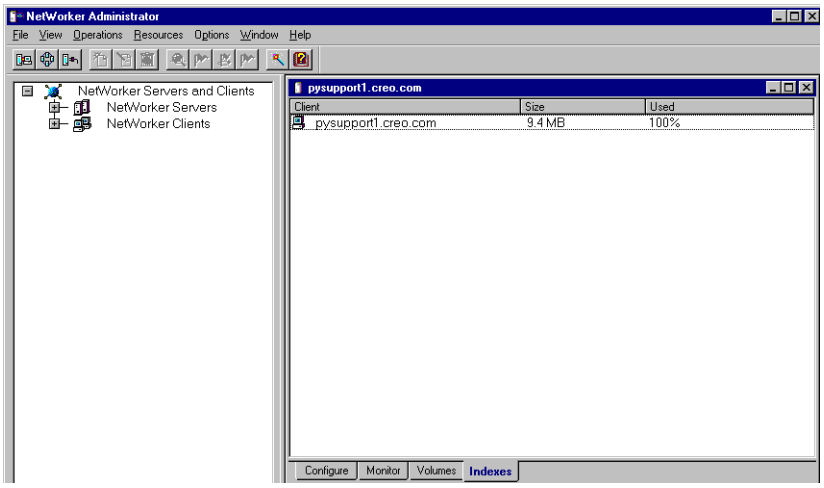


Figure 5-33: NetWorker Administrator Indexes window

3. Double-click the client you want to see the index for.

   The Index Save Sets dialog box opens.

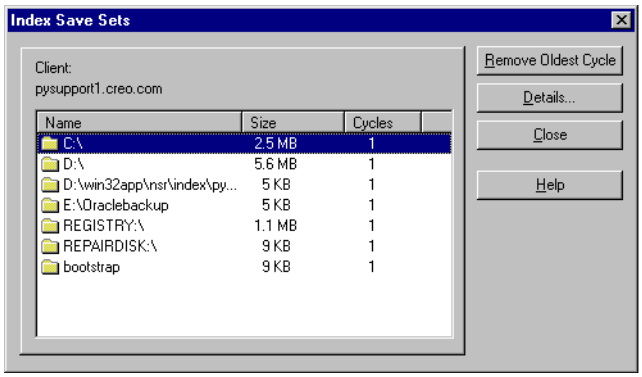


Figure 5-34: Index Save Sets dialog box

4. For more information about the fields in the Index Save Sets dialog box, click the **Help** button.

Monitoring Backup Status

You should monitor the status of your backup to ensure it was completed successfully.

Note: If you are using the Basic Backup option, see your backup software's documentation for information on monitoring the backup.

To monitor backup status using Legato NetWorker:

1. From the **Start** menu, select **Programs**>**NetWorker Group**>**NetWorker Administrator**.

   The NetWorker Administrator window appears.

2. Click the **Monitor** tab.

   The Monitor right-pane window is displayed.

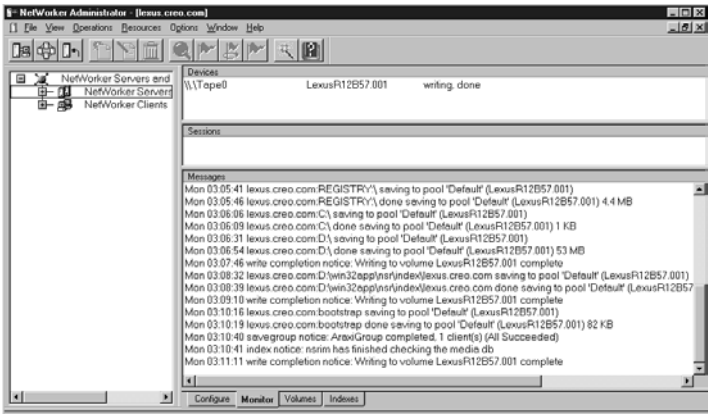


Figure 5-35: NetWorker Administrator Monitor window

3. Look in the right-pane window under **Messages** to see a detailed summary of recent backup activities and ensure that the backup was successfully completed.

   This is an example of a successful backup message:

   ```
   "Wed 04:14:27 savegroup notice:
   AraxiGroup completed 3 client(s) (All
   Succeeded)"
   ```

Cleaning the Tape Drive

We recommend you clean your tape drive as recommended by the manufacturer. Generally, you can clean your drive by using a cleaning tape that comes with the tape device. Please see your tape device manufacturer's documentation for more details.

Running a Restore Test

It is important to run regular restore tests in order to ensure that you have the appropriate data available, and that it can be read, should you need to recover your system.

Do the following to ensure you have the appropriate data available:

- Monitor the status of your backup using your backup software to ensure the backup was successful.

  See *Managing Tapes* on page 5-73 for information on monitoring the status of your backup.

- Ensure you have backed up all necessary components.

  See *Deciding What to Back Up* on page 5-7 for a description of the components required to recover your system.

- Run a restore test to ensure the backup data can be read.

  Consult your service representative for information on running a restore test.

Recovering Your System

Your service representative will work with you to recover your system; you do not need to recover your system yourself.

In order for your system to be recovered, you must have a number of components successfully backed up. The more complete and up-to-date your backup is, the easier it is to recover your system in the event of a system failure.

For a description of the components that should be backed up, see *Deciding What to Back Up* on page 5-7.

GLOSSARY

add a JTP — To activate or enable a JTP on a particular server, using Prinergy Administrator. A JTP cannot be used by the system unless it is added to one or more servers. See also *remove a JTP*.

administrator privileges — A level of Windows NT privileges that enables a user to set up and manage user and group accounts, assign passwords and permissions, and use Windows NT administrative tools. Administrator privileges can be associated with the Administrator user or a member of the Administrators group.

Adobe Acrobat — A desktop application that lets you create and edit documents in Adobe's Portable Document Format (PDF).

Adobe Extreme — A high-end production-printing architecture that provides some of the core technology for Prinergy. This includes support for PDF and Portable Job Ticket Format (PJTF), and an underlying communications structure.

Adobe Extreme components include Job Ticket Processors (JTPs) and the Extreme Coordinator (supra.exe).

Adobe Extreme Coordinator — See *Extreme Coordinator (supra.exe)*.

application pool In the Prinergy Archiver system, it is a user-defined media pool that is used to organize which data is archived to which media. Media that have been used to archive Prinergy jobs will belong to one or more application pools.

Araxi Service An NT service launched automatically by the Windows NT operating system when NT is started. It is responsible for starting daemons and other processes, such as Adobe Extreme Coordinator (supra.exe) when Prinergy is started. It can also monitor and restart processes it did not start directly (that is, processes that were started by other processes).

archive (noun) A potentially permanent record of a set of related files—in this case, a job—that may span several file systems on one or more machines. Compare to *backup (noun)*.

archive (verb) To write a job or related files to media for permanent storage. Files are saved in context, while job metadata is retained in the Prinergy database, enabling you to retrieve the job to the system. See also *retrieve* and *purge*. Compare to *back up (verb)*.

Archiver software See *Prinergy Archiver software*.

Archiver system See *Prinergy Archiver system*.

archiving device A device that reads and writes Prinergy job data on to DLT tape. Prinergy supports individual DLT drives and DLT tape libraries.

archiving station The Prinergy server that is running Archiver software and is connected directly to the archiving device.

back up (verb) To save a copy of a complete disk partition, file system, or portion of a file system directory structure for the purpose of disaster recovery—for example, in the event of a disk crash. Compare to *archive (verb)*.

backup (noun) A copy of a complete disk partition, file system, or portion of a file system directory structure saved for the purpose of disaster recovery—for example, in the event of a disk crash. Compare to *archive (noun)*.

backup domain controller (BDC) In a Windows NT Server domain, a computer running Windows NT Server that receives a copy of the domain's directory database, which contains all account and security policy information for the domain. The copy is synchronized with the master copy of the primary domain controller (PDC). See also *primary domain controller (PDC)*.

barcode system A system for labelling archiving media using pre-printed barcode labels with alphanumeric names. Tape libraries come equipped with a barcode reader that scans a medium when it is loaded into the library, then transmits information to the ERSM. Barcode labels can be obtained from the media manufacturer.

calibration curve A curve that graphically represents the percentage at which to adjust an original PostScript tint during screening to produce the target output.

Creo's Harmony product derives calibration curves based on the target and initial curves you build. Calibration curves can be edited directly.

client machine See *Prinergy workstation*.

client software Software that makes a request of server software in order to complete a task. In Prinergy, the main client software is Prinergy Workshop. See also *server software*.

client/server architecture A software environment in which client software (such as Prinergy Workshop) makes a request of server software (such as Prinergy Server). The server software initiates the requested service, then sends back the relevant information to the client software.

color match (verb) To keep color consistency when converting one color space to another—for example, from RGB to CMYK. Prinergy uses ICC profiles to map to LAB, a device-independent color space. An ICC target is used to map to a device space when a file is ready for output. This maintains color consistency between the color model and output devices.

companion software Stand-alone software applications that can be used in conjunction with Prinergy—for example, Preps, CEPSLink, and Signastation. See also *optional software* and *standard software*.

CORBA Stands for Common Object Request Broker Architecture. CORBA is platform-and hardware-independent and allows applications to communicate with one another, regardless of where they are located or who designed them. Prinergy uses CORBA for some internal communications.

CT/LW A file format developed by Scitex where contone images (CT) are separated from the line work (LW). A third file (called the layout file) is used to position the CT images within the linework.

daemon A software process on a server machine that runs behind the scenes to perform specific tasks. It has no user interface, and you do not interact directly with daemon. Instead, you can make requests through Prinergy Workshop.

destroy To permanently delete a job and all references to it from the Prinergy system. Compare to *purge*.

differential backup A backup that contains all components that have changed since the last full backup was made. For example, if the last full backup was created on Sunday, a differential backup made on Tuesday will contain all changes made since Sunday, even if a differential backup was also done on Monday. You need only the Sunday and Tuesday tapes to restore the system. See also *incremental backup* and *full backup*.

digital master A PDF file created by Prinergy is a digital master because it is a complete, reliable entity. Only page description information is contained in the PDF page. Proofs, films, or plates are made from the same PDF file by selecting an appropriate output process plan.

disaster recovery The process of restoring the Windows NT operating system, application software (Prinergy), and user data (Prinergy database) after a system component failure, such as a disk failure.

disk partition A portion of a physical disk that functions as though it were a physically separate unit.

dismount When using a tape library for archiving, removes a medium (tape) from the current drive.

distributed system	A system in which software processing is performed on several different computers to distribute the workload. Prinergy is a distributed system.
DLT	Stands for Digital Linear Tape. It is the media used for Prinergy archiving.
domain	A collection of computers and users that share a common database and security policy, which are stored on a primary domain controller (PDC). Compare to *workgroup*.
eject	To remove a selected medium from an archiving device.
Emulated RSM Service (ERSM)	Part of the Archiver system software, it is the underlying NT service that drives the archiving device robotics and tracks removable storage media (DLT tapes). It fulfills requests from Prinergy Archiver Media Manager and from archive, retrieve, and purge process plans created in Prinergy Workshop.
Encapsulated PostScript (EPS)	EPS is a subset of the PostScript language. It allows images to be described in a format that can be imported into other documents.
EPS file	Stands for Encapsulated PostScript file. EPS files are used to describe a graphic image using PostScript language.
Extreme	See *Adobe Extreme*.
Extreme Coordinator (supra.exe)	The central coordinator for the Adobe Extreme system. It routes messages between Extreme components, such as JTPs, and provides information about services and tasks in the system.

file optimization The process of checking and optimizing resources in PDF files. It optimizes the PDF to create a predictable digital master. Processing is done by the Optimizer JTP (a generic JTP).

file server A computer that is connected to the Prinergy system via the network, but is not running any Prinergy software components. It is used to store input files for Prinergy jobs and can be a Unix or Windows NT machine.

Free pool In the Prinergy Archiver system, a media pool that contains blank, unprepared archiving media. Media in the Free pool can be used as a source of new media to write to.

The Free pool is a system pool and cannot be deleted or renamed.

full backup A complete backup of all components specified for backup, even if no changes have been made to the system since the last backup. See also *differential backup* and *incremental backup*.

generic JTP A JTP that performs a minor task, such as generating thumbnails. The Prinergy system manages the distribution of these JTPs; you can not configure them with Prinergy Administrator.

Harmony Creo's calibration software that creates dot gain calibration curves by matching the characteristics of the press sheet to a proof or printed sample. It is standard Prinergy software.

home server The job server for a particular Prinergy job. When you create a job, you are required to select a job server on which your job will be stored.

hot folder A file that is monitored for incoming files as a trigger for an automatic operation. The application that processes the files checks the folder location on a regular basis, then automatically processes files found there.

Import pool In the Prinergy Archiver system, a media pool that contains media that are recognized by the system, but are not part of the Prinergy system's current archive—for example, Prinergy archive tapes from another Prinergy system, or Platemaster tapes. Media from the Import pool can be moved to the Free pool, or to an application pool.

The Import pool is a system pool and cannot be deleted or renamed.

imposition A means of arranging a number of pages on the front and back of a press sheet to ensure correct order after the printed sheet is folded.

incremental backup A backup of all components that have changed since the last incremental backup. For example, if the last full backup was created on Sunday, and you create an incremental backup on Monday and on Tuesday, the Tuesday backup will contain only those changes made since Monday. All three tapes are required to restore the system. See also *differential backup* and *full backup*.

index In Legato NetWorker, a guide to the data backed up as part of a save set. You can view indexes in the **Indexes** right-pane window of NetWorker administrator.

individual DLT drive An archiving device with a single tape drive. It may also be called a stand-alone DLT drive. You must manually insert and remove media from the tape drive. Compare to *tape library*.

inject To load a medium into an archiving device. If using an individual DLT device, the medium is loaded directly into the drive. If using a tape library, the medium is loaded into a holding slot, where it is available to be mounted.

input file A file that contains page content. For example, a file that is created by printing a customer's application file, such as a QuarkXPress file, to a PostScript file.

Java A platform-independent programming language developed by Sun Microsystems.

job The unit used to organize work. A job typically, but not necessarily, corresponds to all the components of one publication. When you create a job, Prinergy creates a job folder and entries in the database for tracking of the job.

job folder A folder (or directory) on a Prinergy server that stores all the system files for a job. In addition, the job folder may include any input files from your customer. Job folders are stored in a central directory and may include any number of subfolders to help organize job information.

job metadata Information about job data (content).

job server A Prinergy server on which job folders are stored. See also *home server*.

job ticket In Adobe Extreme, a collection of information related to one or more processing steps that must be carried out in Prinergy. It includes a map or route that specifies which JTPs to go to and in what order. It can also include information about which files to process, processing options, destinations, and imposition plans.

job ticket processor (JTP) A software program that performs a specific processing step to help process an Extreme job ticket. Configure JTPs using Prinergy Administrator.

JTP pool One or more similar JTPs that have been grouped together to further automate the Prinergy workflow. A JTP pool lets you direct Prinergy to automatically distribute tasks to individual JTPs, rather than having to coordinate which JTP to use. This helps you automatically process multiple jobs at the same time.

Legato client A machine being backed up by Legato NetWorker. In the case of Prinergy, this would be a Prinergy server.

Legato group A set of Legato NetWorker clients. AraxiGroup is the group to which all Prinergy servers should belong. It is created by your service representative when Legato NetWorker is installed.

Legato NetWorker Backup software that enables you to backup your database and system drives to tape. It includes NetWorker Administrator, the main software used to configure and manage backup with Legato NetWorker.

loose page proof The output of a refined page or pages to a proofer (like a laser printer, color copier), including Creo's Virtual Proofing System (VPS).

Macintosh-accessible volume	Storage space on a server used for folders and files of Macintosh users. A Macintosh-accessible volume is equivalent to a shared directory for Windows users.
media	Materials, such as paper or film, that are used to produce hard copy.
media pool	In the Prinergy Archiver system, a logical group of archive media. Prinergy has two types of media pools: system pools and application pools. See also *system pool* and *application pool*.
middleware	Software that is used as a subcomponent to tie other software together.
mount	In the Prinergy Archiver system, to load a medium into the tape drive of a tape library so it can be analyzed.
multicast	Communication between a single sender and multiple receivers on a network.
normalize	A step in the refining process that creates PDF pages from input files. The resulting PDF files contain refined pages. Options in the normalize process are: OPI, image optimization, and font handling.
offline media	Archive media that is not currently in the archive device.
optional software	Software applications that are optional and may be included with your Prinergy system—for example, Legato backup software. See also *standard software* and *companion software*.
Oracle Backup Manager	Software used to configure and schedule backups of the Oracle database to disk or tape. It is included with the Prinergy system.

Oracle database Located on the primary server, the Oracle database stores Prinergy job information. It contains all Prinergy file information, including file attributes and the history log; it does not store any content. The database is installed when Prinergy Server is installed on the primary server. There is only one Oracle database per Prinergy system.

Orbix An implementation of CORBA. It is used as part of Prinergy's internal communications structure.

PDF Stands for Portable Document Format. PDF is a reliable file format for storing line art, images, and text (including all required fonts) for pages. PDF files do not contain device-specific settings such as imaging resolution or duplex options.

peer-to-peer network See *workgroup*.

Portable Document Format See *PDF*.

Portable Job Ticket Format (PJTF) Adobe's Portable Job Ticket Format (PJTF) contains descriptions of device-specific settings, and describes the desired output style for one or more pages from PDF files. See also *job ticket*.

PostScript A page description language developed by Adobe Systems. It is used to describe type and visual elements so that they can be output on devices with PostScript interpreters.

PostScript file A file written in a page description language created from a native application file.

PPD file A file that contains information about an output device, such as plate size, resolution, line screen, and screen angle. A PPD file is generated by output device control software, such as Print Console. It is used by imposition software such as Preps when generating imposition plans. See also *PPX file*.

PPX file A supplement to a PPD file.

Preps Imposition software created by ScenicSoft.

primary domain controller (PDC) In a Windows NT Server domain, a computer running Windows NT Server that authenticates domain logons and maintains a directory database for a domain. The PDC tracks changes made to accounts of all computers on a domain. There can be only one PDC. See also *backup domain controller (BDC)*.

primary server The main server machine in a Prinergy system. It contains all Prinergy Server components, including the Oracle database. The primary server coordinates requests from Prinergy Workshop and maintains the database.

In a distributed system, the primary server coordinates client requests and maintains the database, but some tasks can be carried out on secondary servers to increase overall system performance. There is only one primary server in a Prinergy system.

Prinergy Administrator (UADM.exe) The software that serves as the Prinergy system administration user interface. Use it to configure JTPs, add and remove servers, start and stop the Prinergy Server, and monitor the system. It is installed as part of Prinergy Server and runs on primary and secondary servers. Available for Windows NT only.

Prinergy Archiver Media Manager The main user interface for the Prinergy Archiver system. Use it to manage media and media pools, view the status of the archiving device, and view the history and status of the ERSM.

Prinergy Archiver software Software that coordinates the archiving functions of Prinergy. It consists of the Emulated RSM service (ERSM), Prinergy Archiver Media Manager, the Archive/Retrieve JTP, and the Disk Purge JTP.

Prinergy Archiver system Consists of Archiver software (which is running on a single Prinergy server) and an archiving device (which is directly connected to that server).

Prinergy server (hardware) A Windows NT server machine running Prinergy Server software. May be a primary or secondary server. Compare to *Prinergy Server (software)*.

Prinergy Server (software) The server software side of a Prinergy system. It is made up of a number of components, including daemons, Araxi Service, Adobe Extreme, Oracle database, and Prinergy Administrator. These components can be distributed on multiple server machines. Compare to *Prinergy server machine (hardware)*.

Prinergy system A system of networked computers that includes at least one Windows NT server machine that is running Prinergy Server (the primary server), as well as one Macintosh or Windows NT workstation that is running Prinergy Workshop (the client machine). A Prinergy system may also include any number of secondary servers and additional client machines.

A site can have multiple Prinergy systems.

Prinergy Workshop The client application that provides the main user interface to the Prinergy system. From Prinergy Workshop, you can manage the workflow for each job. Within Prinergy Workshop, you can access the Job Finder, Job Manager, Queue Manager, Process Plan Editor, Global and Per-Job Font Converters, Adobe Acrobat, and Global and Per-Job Color Space Editors.

Prinergy workstation A computer that is running Prinergy Workshop; it is not running any Prinergy Server components. It can also be called a client machine.

A Prinergy workstation can be a Windows NT computer or a Macintosh computer.

process plan A file containing a collection of options and parameters that tell Prinergy how to perform a task. Because settings are predefined, using process plans provides consistent results. There are three types of process plans: refine, output, and archive/retrieve/purge. Process plans are created and saved using the Process Plan Editor.

Process Plan Editor The tool used to create, modify, and manage process plans. The Process Plan Editor can be accessed from the Tools menu on the Job Finder and Job Manager in Prinergy Workshop.

purge To delete selected job files from a Prinergy server; however, the job remains in the system because job metadata is retained in the Oracle database. Purging is done after a job has been successfully archived. Compare to *destroy*. See also *archive (verb)* and *retrieve*.

remove a JTP To disable or deactivate a JTP on a particular server, using Prinergy Administrator. See also *add a JTP*.

render station A secondary server that is connected to an output device and is running a high-resolution renderer JTP. It is generally not used to store jobs or run other types of JTPs. Instead, it is reserved for rendering files for output.

renderer The software component that rasterizes and screens PDF input files.

retrieve To bring back to the Prinergy system files that were previously archived to media. In Prinergy, retrieving instructions are set in the retrieve process plan. See also *archive* and *purge*.

RIP Raster image processor. A software application that converts PostScript data into raster (bitmap) data.

PDF workflow, as it is applied in Prinergy, utilizes a two-phase RIP process: interpretation and rendering. Interpretation happens as part of the refine process when the input file is normalized to PDF. Rendering, which converts the PDF file to raster data, happens as part of the output process.

save set In Legato NetWorker, the set of data being backed up. For example, the Oracle database, system drives, and the Windows NT Registry.

schedule In Legato NetWorker, a set of parameters that determines backup frequency and mode. Apply schedules to Legato NetWorker clients or groups.

secondary server Any Prinergy server in a Prinergy system that is not the primary server—that is, it is running Prinergy Server software but does not store the Oracle database. Secondary servers can run some JTPs to facilitate distributed processing. A Prinergy system can include multiple secondary servers. See also *render station* and *archiving station*.

server (harder) See *server machine*.

server (software) In a client/server architecture, such as Prinergy, server software (such as Prinergy Server) carries out requests made by client software (such as Prinergy Workshop), then sends relevant information back to the client software.

server machine A computer that provides some service for other computers connected to it via a network. In Prinergy, there are three types of servers: the primary server and secondary server(s) (which, collectively, are referred to as Prinergy servers), and file servers. See also *primary server, secondary server, Prinergy server,* and *file server.*

Signastation Imposition software created by Heidelberg.

software process A Prinergy Server software component that performs a specific task. You can monitor the status of Prinergy processes in the Processes window of Prinergy Administrator. Software processes include daemons, JTPs, and Araxi Service.

stand-alone DLT See *individual DLT drive*.

standard share In Windows NT, a share is any resource on a server that is available to network users. A standard share is a share created automatically by Prinergy when it is installed—for example, a job storage folders.

standard software Software components that are standard with Prinergy and are automatically shipped with each Prinergy system—for example, Prinergy Server, Prinergy Workshop, and Adobe Acrobat. See also *companion software* and *optional software*.

system See *Prinergy system*.

system pool In the Prinergy Archiver system, a media pool that is built into the ERSM and is a means of organizing which media are available to write to. There are three system pools: *Free pool*, *Import pool*, and *Unrecognized pool*.

You can not rename or delete a system pool.

tape library An archiving device that contains one or more tape drives. It can store numerous DLT tapes in holding slots and uses robotics to move media between holding slots and drives.

tertiary server A Windows NT server that is connected to the Prinergy system via the network, but is not running any Prinergy software components. It is used to store job folders and/or input files for Prinergy jobs.

thumbnail A very low-resolution sample image of a page or signature displayed within Prinergy Workshop.

trap (verb) A printing technique in which adjacent printed colors are slightly overlapped to ensure that white space does not appear between the colors. Trapping parameters can be specified in the original application program or in the refine process plan.

Unrecognized pool In the Prinergy Archiver system, a media pool that contains media that do not have a recognizable header and thus are not recognized by the system—for example, a brand new DLT tape. Media in the Unrecognized pool must be first moved to the Free pool before it is available for archiving.

The Unrecognized pool is a system pool and cannot be deleted or renamed.

user account In Windows NT, an account that provides a user with a unique profile with which to log on to the system and access resources.

user group In Windows NT, a collection of user accounts. User groups let you assign permissions and rights to a group of users, as well as determine which resources the group can access.

volume (Legato NetWorker) In Legato NetWorker, any tape that is part of the Legato backup system. Any tape labeled for use with Legato is called a volume and can be monitored in the **Volumes** right-pane window of NetWorker Administrator. Compare to *volume (Windows NT)*.

volume (Windows NT) A partition or collection of partitions that have been formatted for use by a file system. See also *Macintosh-accessible volume*. Compare to *volume (Legato NetWorker)*.

workgroup A collection of computers that are grouped for sharing resources such as data and devices. In terms of networking, there is no dedicated server or hierarchy among computers. May also be called a peer-to-peer network. Compare to *domain*.

Workshop See *Prinergy Workshop*.

workstation See *Prinergy Workstation*.

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