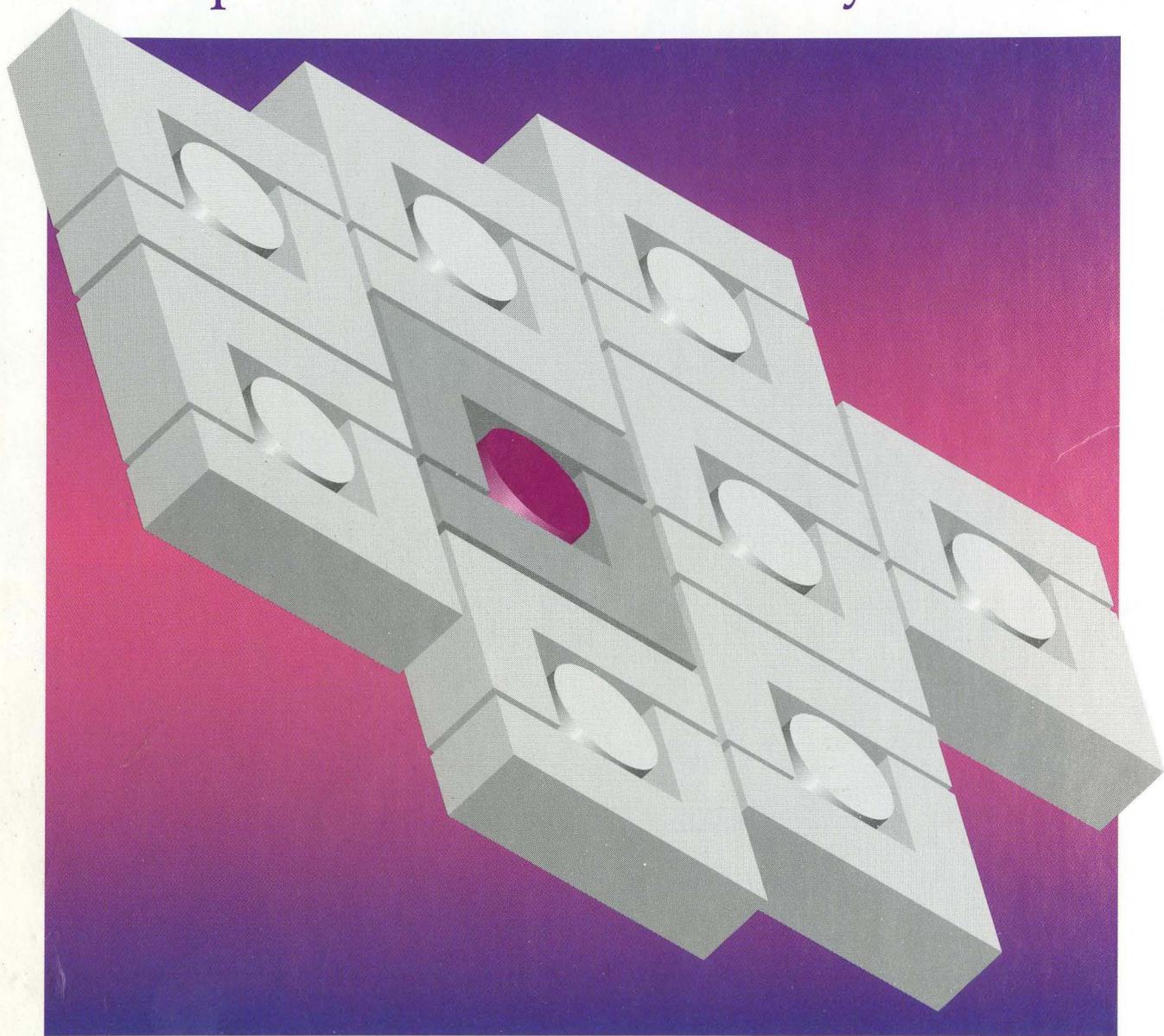


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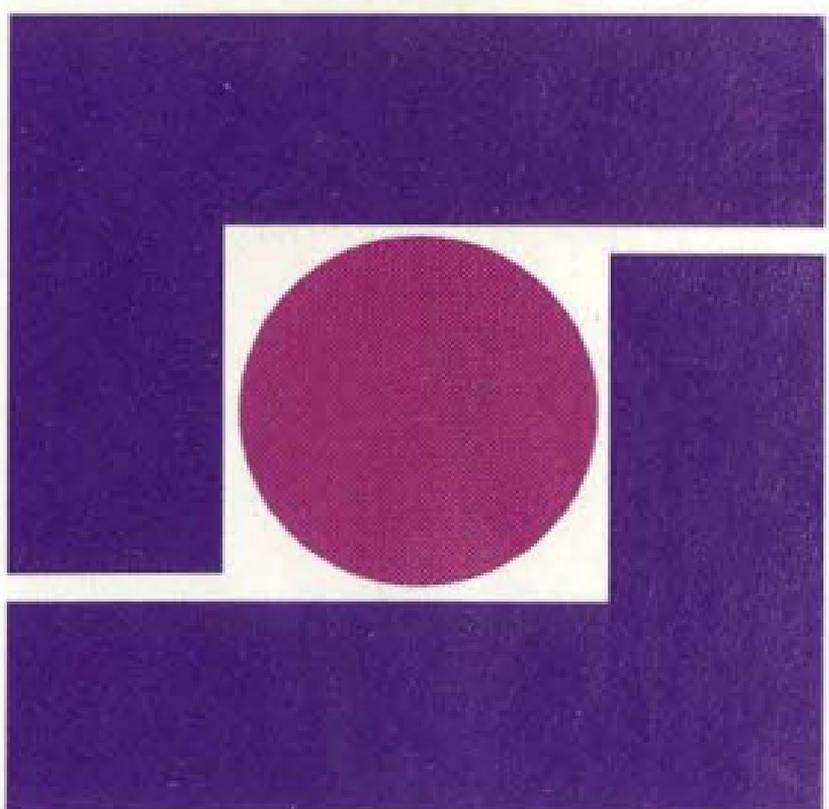
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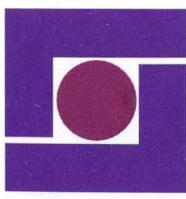
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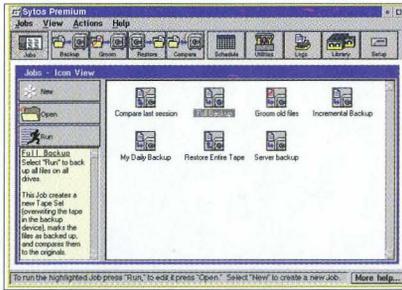
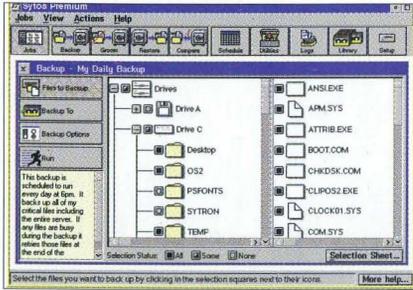


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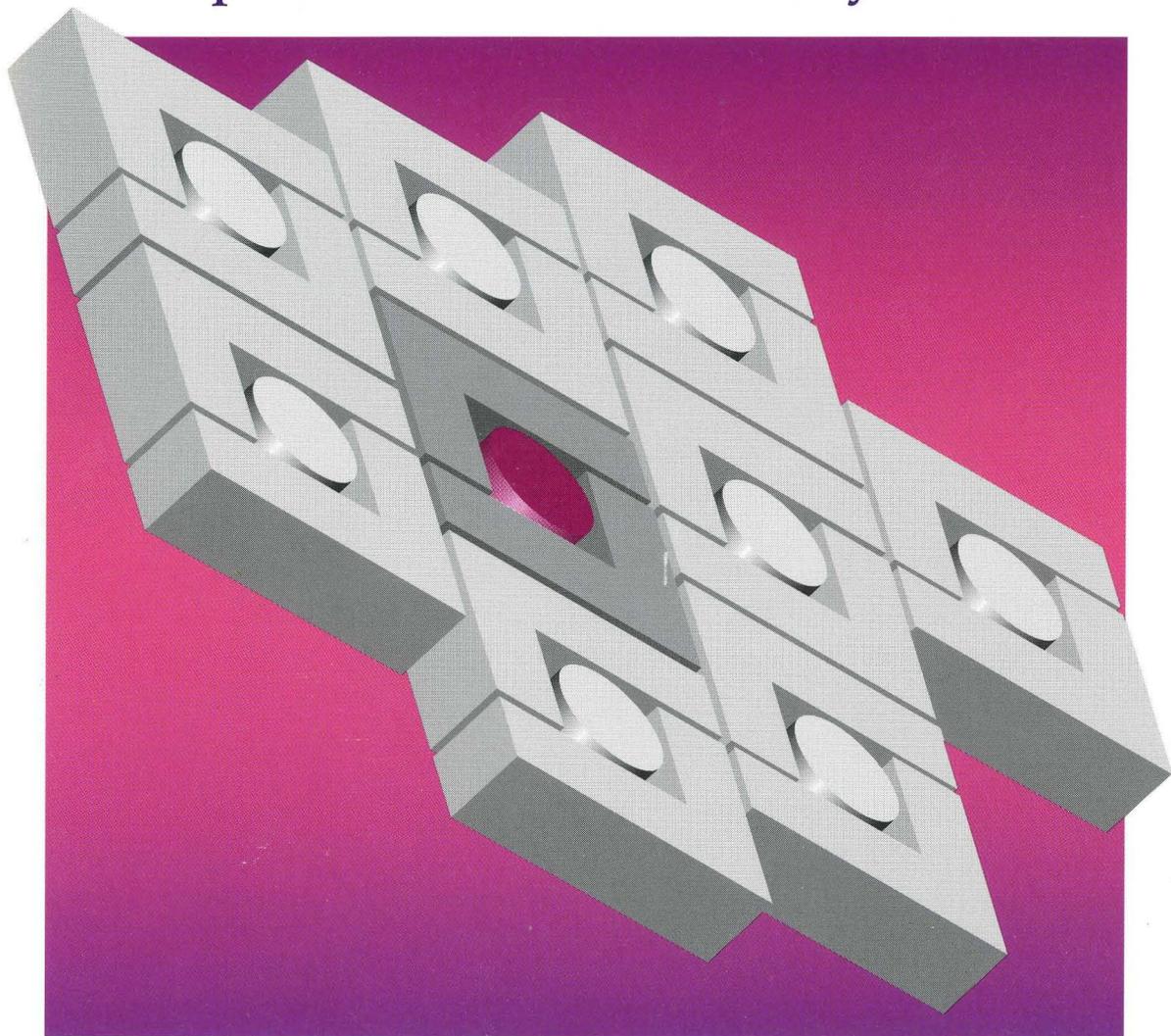
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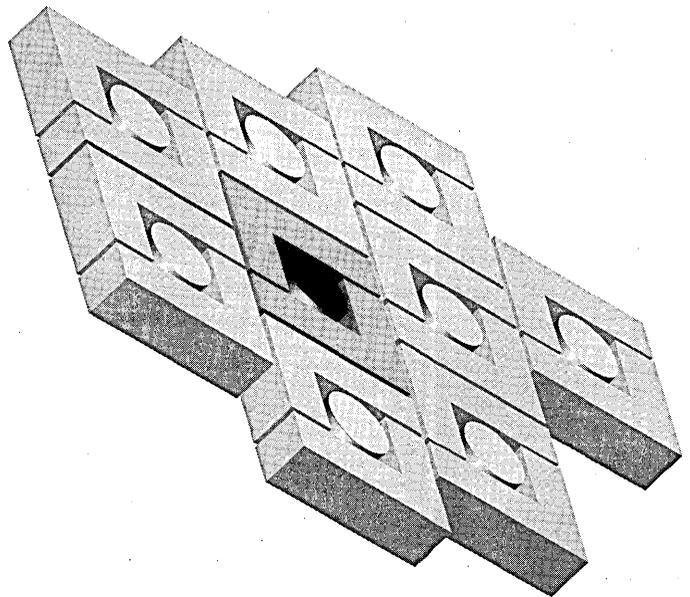


User's Guide

Sytos Premium[™]

Backup and Disaster Recovery for OS/2

User's Guide



Sytron[®]

First Edition (August 1994)

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Contents

PART I - GETTING STARTED

1 Introducing Sytos Premium

Overview	1-1
Intended Audience	1-1
Benefits.....	1-1
How to Use this Guide	1-2
Key Features.....	1-4
Key Terms.....	1-4
OS/2 Tasks.....	1-5
Guide Conventions	1-6
Concepts	1-6
Scheduling.....	1-6
Planning Backup Strategies	1-6
Overwrite and Append Tape	1-7
Attended and Unattended Backups	1-7
Jobs	1-7
Getting Help	1-8

2 Installing Sytos Premium

Overview	2-1
Registering Your Software.....	2-2
Verifying System Requirements.....	2-2
Protecting Your Sytos Premium Software	2-3
Reviewing the README File.....	2-3
Installing Hardware	2-4
SCSI Devices Support	2-4

Installing Non-SCSI Device Drivers	2-4
Common Settings for Non-SCSI Devices	2-5
Changing Non-SCSI Device Settings	2-5
Installing a Backup Device on a Micro Channel System	2-7
Installing Sytos Premium	2-8
Using the Install Utility	2-8
Selecting Devices During Installation.....	2-9
Modifying CONFIG.SYS after Installing Sytos Premium.....	2-11
Installing Under IBM OS/2 2.x.....	2-11
The Sytos Premium Directory.....	2-12
Installing on a Network.....	2-12
Selecting Network Drives Before Installation.....	2-13
Re-Installing Sytos Premium	2-14
Upgrading from SY-TOS or Sytos Plus	2-15
Recording Device Settings.....	2-15
Upgrading from Sytos Plus	2-15
Recording Non-SCSI Device Settings.....	2-16
Starting Sytos Premium	2-16
Setting Up Disaster Recovery	2-19
When to Run Setup	2-19
Before Running Setup	2-19
Creating the Rebound Diskette Set	2-20
Running Setup.....	2-21
3 Setting Up Sytos Premium	
Overview	3-1
Setting Up Backup Devices.....	3-2
The Setup Menu.....	3-3

Adding Backup Devices	3-4
Configuring Backup Devices.....	3-5
Configuring SCSI Devices	3-6
Configuring Cascaded Devices and Autoloaders.....	3-7
Configuring QIC Devices.....	3-9
Configuring Diskette Devices.....	3-11
Configuring Removable Devices	3-13
Configuring Fixed Logical Devices.....	3-14
Deleting Backup Devices.....	3-16
Setting Preferences for the Sytos Premium Environment.....	3-17
4 To Back Up Immediately	
Overview.....	4-1
Running a Full Backup.....	4-2
5 Navigating within Sytos Premium	
Overview.....	5-1
Window Elements.....	5-2
Making Selections	5-3
Using a Keyboard and Mouse	5-3
Using the Tool Bar	5-4
Using the Menu Bar	5-5
Navigating the Directory Tree.....	5-6
Selecting Data from the Directory Tree.....	5-7
Expanding the Directory Tree	5-7
Collapsing the Directory Tree	5-9
Using the View Menu	5-9

PART II - USING SYTOS PREMIUM

6 Managing Jobs

Overview.....	6-1
Using the Jobs Window	6-2
Using the Jobs Menu	6-3
Creating Jobs	6-4
Opening Jobs	6-6
Deleting Jobs.....	6-6
Running Jobs	6-6
Importing Jobs.....	6-8
Exporting Jobs	6-9
Viewing Job Settings.....	6-10
Printing a Job List.....	6-10
Setting Double-Click Action	6-11

7 Backing Up Data

Overview.....	7-1
Creating a Backup Job	7-2
Using the Backup Menu	7-3
Selecting Files To Back Up.....	7-4
Using the Directory Tree.....	7-5
Using the Selection Sheet	7-6
Editing the Selection Sheet	7-6
Inserting and Deleting Rules.....	7-7
Editing Selection Sheet Rules	7-8
Selection Sheet Examples	7-9
Selecting a Backup Device	7-11

Appending To or Overwriting a Tape	7-12
Selecting Tape Options	7-12
Selecting Backup Options.....	7-15
Choosing a Backup Method	7-15
Running a Backup Job	7-20
Saving a Backup Job	7-20
Previewing a Backup Job	7-21
Estimating the Tapes Needed	7-22
Running a Backup Job	7-22
Viewing the Backup Status Window	7-22
Reviewing the Backup Log	7-24
Labeling Your Tapes.....	7-25
8 Grooming Data	
Overview.....	8-1
Creating a Groom Job	8-3
Using the Groom Menu.....	8-4
Selecting Files to Groom	8-5
Files That Should Not Be Groomed.....	8-6
Using the Directory Tree.....	8-6
Using the Selection Sheet.....	8-7
Editing the Selection Sheet	8-7
Inserting and Deleting Rules.....	8-8
Editing Selection Sheet Rules	8-9
Selecting a Backup Device	8-10
Appending To or Overwriting a Tape	8-12
Selecting Tape Options	8-12
Selecting Groom Options.....	8-15

Choosing a Backup Method	8-15
Running a Groom Job	8-18
Saving a Groom Job	8-18
Previewing a Groom Job	8-19
Estimating Tapes Needed	8-20
Viewing the Groom Status Window	8-20
Reviewing Groom Log	8-22
Labeling Your Tape	8-23
9 Restoring Data	
Overview	9-1
Transferring Files Between HPFS and FAT File Systems	9-1
Creating a Restore Job	9-3
Using the Restore Menu	9-4
Selecting a Backup Device and Backup Sessions	9-5
Selecting Files to Restore	9-7
Using the Directory Tree	9-8
Using the Selection Sheet	9-8
Editing the Selection Sheet	9-9
Inserting and Deleting Rules	9-10
Editing Selection Sheet Rules	9-11
Selection Sheet Examples	9-12
Selecting Restore Options	9-14
Selecting a Destination	9-15
Using the Redirection Sheet	9-15
Redirecting HPFS and FAT Files	9-15
Editing the Redirection Sheet	9-16
Inserting and Deleting Rules	9-17

Editing Redirection Sheet Rules	9-18
Entering Pathnames.....	9-19
Redirection Sheet Examples	9-19
Restore Options	9-21
Running a Restore Job.....	9-23
Saving a Restore Job	9-23
Previewing a Restore Job.....	9-23
Running a Restore Job.....	9-24
Viewing the Restore Status Window	9-24
Reviewing the Restore Log.....	9-26
10 Comparing Data	
Overview.....	10-1
Creating a Compare Job.....	10-3
Using the Compare Menu.....	10-4
Selecting a Backup Device and Backup Sessions	10-5
Selecting Files to Compare	10-7
Using the Directory Tree	10-8
Using the Selection Sheet	10-8
Editing the Selection Sheet	10-9
Inserting and Deleting Rules.....	10-10
Editing Selection Sheet Rules	10-10
Selecting Compare Options	10-12
Selecting a Destination.....	10-13
Comparing Redirected Files	10-13
Running a Compare Job.....	10-15
Saving a Compare Job	10-15
Previewing a Compare Job.....	10-15

Running a Compare Job.....	10-16
Viewing the Compare Status Window	10-16
Reviewing the Compare Log	10-18
11 Disaster Recovery	
Overview.....	11-1
How Rebound Works.....	11-2
Recovering the System.....	11-4
Running Recovery.....	11-5
Restoring OS/2 Systems Without Rebound.....	11-8
Restoring Network Servers	11-9
12 Scheduling	
Overview.....	12-1
Scheduling Events	12-2
Viewing the Calendar	12-3
Viewing Events.....	12-3
Checking for the Next Scheduled Event.....	12-4
Adding Events to the Calendar	12-5
Setting Up Events	12-6
Choosing Default Settings for Unattended Jobs.....	12-10
Editing Events.....	12-12
Deleting Events.....	12-12
Configuring the Schedule	12-13
Activating the Schedule.....	12-16
Scheduling Several Events in One Day.....	12-17
13 Using Tape Utilities	
Overview	13-1

Using the Utilities Window	13-2
Using the Utilities Menu	13-3
Identifying Tapes.....	13-4
Viewing Tape Details	13-5
Viewing Tape Directories	13-8
Preparing Tapes in Advance	13-9
Creating Tape Sets.....	13-10
14 Managing Logs	
Overview	14-1
Using the Logs Window	14-2
Using the Logs Menu	14-3
Using the View Menu	14-3
Sorting Logs.....	14-4
Viewing Logs	14-4
Deleting Logs.....	14-6
Printing Logs.....	14-6
15 Using the Library	
Overview.....	15-1
Using the Library Window	15-2
Using the Library Menu	15-3
Using the View Menu	15-3
Viewing Tape Set Details	15-4
Viewing Tape Set Directories	15-6
Adding Tape Sets to the Library.....	15-7
Deleting Tape Sets from the Library.....	15-8

APPENDICES

A Network Considerations

Overview	A-1
Running Sytos Premium on a Network	A-2
Networks Supported by Sytos Premium	A-2
Backing Up Network Files	A-3
Selecting Files for Backup	A-3
Backing up Busy Files.....	A-3
Retrying Busy Files	A-3
Sending Broadcast Message During Backup	A-4
Backing Up User and Group Security Information	A-5
Restoring Files	A-5
Restoring User and Group Security Information	A-5
Restoring Access Privilege (NET.ACC)	A-6
Transferring Files from Servers Using LAN Manager 1.0	A-7
Redirecting Files.....	A-7

B Troubleshooting

Overview	B-1
Using the Sytos Premium Log to Troubleshoot	B-2
Reviewing the Log.....	B-3
Choosing a Device Driver During Install	B-3
Selecting a Backup Device Model Number.....	B-3
Checking Device Settings.....	B-4
Problems After Installing Sytos Premium	B-6
Backup Device Problems While Running Sytos Premium	B-9
Problems While Running Sytos Premium	B-15

Problems Appending a Backup or Restoring with QFA B-18
Slow Performance and Apparent System Locks..... B-21
List of Error and Warning Messages..... B-23
Rebound Error Messages B-28

C Backup Strategies

Overview..... C-1

Protecting Against Disaster C-2

Weekly Full Backups Using Two Tapes..... C-2

Daily Full Backups Using Two Tapes..... C-3

Incremental Backups Using Two Tapes C-4

Comparing Strategies..... C-6

Devising Backup Strategies C-7

Basics of a Good Strategy..... C-7

Implementing a Monitoring Strategy..... C-8

Choosing Media..... C-8

Archiving Files C-9

Weekly Full Backups Using Four Tapes C-9

Quarterly Full Backups Using Four Tapes C-10

Comparing Strategies for Archiving..... C-12

D Taking Care of Your Media

E Upgrading to Sytos Premium 2.0

Overview..... E-1

Using Sytos Premium Terminology E-1

Using Sytos Premium Tasks E-2

F Technical Support

G Installing Sytos Premium Under OS/2 1.3 LADDR

Overview..... **G-1**
 Installing a LADDR Driver While Installing Sytos Premium..... G-2
 Adding a LADDR Driver after Installation G-3

H Installing Under OS/2 1.2 and IBM 1.3

Overview..... **H-1**
 IBM SCSI HOST Adapters H-1
 Adaptec SCSI Host Adapter H-2

I Sample Sytos Premium Jobs

Overview..... **I-1**
Using Sample Jobs..... **I-2**
Default Settings **I-3**
 Settings For Backup I-3
 Restore Options I-4

J Running Sytos Premium from the Command Line

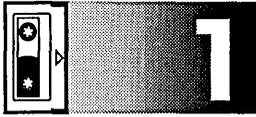
Overview..... **J-1**
Using Text Files for Selection Sheets and Redirection Sheets **J-5**
 Creating a Selection Sheet File J-5
 Sample Selection Sheet J-6
 Using a Selection Sheet File..... J-6
 Creating a Redirection Sheet File J-7
 Sample Redirection Sheet File J-7
 Using a Redirection Sheet J-8

Glossary

Index

Part I: Getting Started





Introducing Sytos Premium

Overview

Introduction

Welcome to Sytos Premium®. Sytos Premium provides you with a complete backup system that is fast, reliable, and easy to use. By working with many operating systems and hardware configurations, and by including unique ways to automate operations and distribute files, Sytos Premium offers all the power and versatility you need for backing up and protecting your files.

Intended Audience

This guide is intended for anyone who wants to back up and restore data on a PC or network. You should have a working knowledge of OS/2.

Benefits

Sytos Premium lets you perform the following tasks:

- Back up, groom, restore, compare, and distribute your files
- Use or modify the sample operations (called "Jobs") included with Sytos Premium
- Schedule Jobs and other files to run automatically
- Retry backing up files that are currently in use in a network environment
- Customize Jobs using software compression, Quick File Access, and password protection
- Preview a Job before running it
- Back up High Performance File System (HPFS) files
- Run Backup Jobs in the background

- Recover OS/2 operating system and data files in one automated process
-

How to Use this Guide

This guide provides step-by-step instructions for Sytos Premium tasks and contains the following chapters:

Chapter 1: Introducing Sytos Premium explains concepts and conventions used in this guide.

Chapter 2: Installing Sytos Premium explains how to install Sytos Premium and choose a device driver for your backup device. It also explains how to set up Rebound, Sytos Premium's disaster recovery utility.

Chapter 3: Setting Up Sytos Premium explains how to add and configure a backup device, and select preferences for the Sytos Premium environment.

Chapter 4: To Back Up Immediately provides step-by-step instructions to immediately back up your data.

Chapter 5: Navigating Within Sytos Premium describes the Sytos Premium user interface and Directory Tree.

Chapter 6: Managing Jobs explains how to use the Jobs window to manage existing Jobs and create new Jobs.

Chapter 7: Backing Up Data explains how to back up data to a backup device.

Chapter 8: Grooming Data explains how to groom data from your workstation to tape.

Chapter 9: Restoring Data explains how to restore data to a workstation.

Chapter 10: Comparing Data explains how to verify data integrity.

Chapter 11: Disaster Recovery explains how to perform a complete recovery of your data if you lose all data due to a disk crash.

Chapter 12: Scheduling explains how to run Sytos Premium Jobs and other programs at specified times.

Chapter 13: Using Tape Utilities explains how to view and maintain tapes.

Chapter 14: Managing Logs explains how to view, print, and delete Logs.

Chapter 15: Using the Library explains how to view Tape Set and Backup Session information that is stored in the Library.

Appendix A: Network Considerations explains how to run Sytos Premium in a networking environment.

Appendix B: Troubleshooting tells you how to deal with common Sytos Premium error messages.

Appendix C: Backup Strategies provides you with strategies for backing up your files.

Appendix D: Taking Care of Your Media explains how to maintain and protect your tapes and diskettes.

Appendix E: Upgrading to Sytos Premium v2.0 explains the updated Sytos Premium terminology, menus, and screens.

Appendix F: Technical Support describes how to communicate with Sytron's Technical Support Department.

Appendix G: Installing Sytos Premium Under OS/2 1.3 LADDR explains how to install Sytos Premium under Microsoft's OS/2 1.3 Layered Device Driver Architecture (LADDR) environment.

Appendix H: Installing Sytos Premium Under OS/2 v1.2 and v1.3 explains how to install Sytos Premium under OS/2 v1.2 and IBM v1.3.

Appendix I: Sample Sytos Premium Jobs describes the sample Sytos Premium Jobs.

Appendix J: Running Sytos Premium From the Command Line explains how to run Sytos Premium from the OS/2 command line and within command files.

Glossary defines terms related to Sytos Premium operations.

Key Features

Sytos Premium provides the following key features:

- **Quick File Access (QFA)** speeds up file retrieval time during selected Restore and Compare Jobs.

NOTE: Not all backup devices support QFA.

- **Software Error Correction Code (ECC)** helps recover files from tapes damaged after a successful backup.
- **Software Compression** condenses the data so more can fit on the tape.

NOTE: Not all backup devices support Software Compression.

- **Schedule** runs Sytos Premium Jobs and other programs at specified times.
- **Disaster Recovery** restores the OS/2 operating system on a workstation or network.

Key Terms

The following list of terms describes concepts mentioned in this User's Guide. Brief descriptions of those concepts are provided to help answer any questions you might have when installing Sytos Premium.

NOTE: Some terms in this version of Sytos Premium may differ from terms used in previous versions. Refer to Appendix E: Upgrading to Sytos Premium v2.0 for a revised list of Sytos Premium terms.

- **Backup Device.** The unit that houses the backup tape (or other backup media) to which files are copied by Sytos Premium. Backup devices include tape drives, diskette drives, optical, and fixed disk drives.
- **Backup Session.** The files copied to tape during one Backup or Groom Job.
- **Configuration Settings.** The DMA Channel, Interrupt (IRQ) Channel, and Address are specific settings on the backup device.
- **Device Driver.** Software that controls a backup device such as a tape drive.
- **Jobs.** The Sytos Premium operations that back up, groom, restore, or compare files. Each Job contains lists of specified

files, a selected backup device, and options that you specify for customization.

There are four types of Sytos Premium Jobs: Backup, Groom, Restore, and Compare.

- **Tape Set.** One or more related Backup Sessions including appended Backup Sessions. A Tape Set can span multiple tapes or diskettes.
-

OS/2 Tasks

This guide assumes that you know how to complete key tasks with the OS/2 operating system, for example:

- Starting and running applications,
- Working with files and directories,
- Making selections from menus and windows, and moving and sizing windows,
- Switching between programs,
- Getting online help.

Refer to your operating system manuals or *OS/2 Online Command Reference* for details about these or other OS/2-specific topics.

Guide Conventions

Description

The following are conventions used throughout this guide:

Convention	Description
Bold	Used to emphasize menu options.
Buttons	Used to indicate button selections in a Sytos Premium window.
Tables	Used to indicate sequential instructions for completing a Sytos Premium operation.
NOTE:	Used to provide helpful information.
TIP:	Used to provide helpful instructions.
CAUTION:	Used to indicate important information that is necessary to prevent serious mistakes.

Concepts

Description

The following concepts are important to your understanding of Sytos Premium.

Scheduling

The Scheduling function enables a Sytos Premium Job or other file (for example, a batch or executable file) to run automatically at a specified time. You can run a Schedule once, daily, only on business days, weekly, or monthly.

Planning Backup Strategies

Backup Strategies protect your workstation against disaster by systematically backing up your data. You can run Full Backups to back up your entire system and Incremental Backups to back up all files that have been changed or created since your last Full or Incremental Backup. Run Differential Backups to back up only those files that have been changed or created since your last Full Backup, without saving intermediate versions of files.

Overwrite and Append Tape

Overwrite existing tape creates a new Tape Set during a Backup or Groom Job (you can also create a new tape set in advance by clicking on **Create tape...** in the Utilities window or selecting **Create tape...** from the **Utilities** menu). **Append to existing tape** adds a Backup Session to an existing Tape Set during a Backup or Groom Job. Several Backup Sessions can be appended to a single Tape Set.

Attended and Unattended Backups

Attended Backups are performed while you are at the system and able to answer Sytos Premium prompts when required. Unattended Backups are performed when no one is present at the system to answer Sytos Premium prompts as the Job progresses. An Unattended Backup uses default responses to let Sytos Premium continue.

Jobs

Jobs include the parameters needed to back up, groom, restore, and compare your files. You can use options described in *Chapters 7 through 10* with one or more of the following Jobs:

- **Backup** copies your files to a backup device.
- **Groom** copies your files to a backup device, compares the backup data and then, if the compare is successful, deletes the originals.
- **Restore** copies backed-up files from a backup device (usually to your fixed disk).
- **Compare** ensures that the copied files from a Backup are identical to the originals.

Getting Help

Description

Help for Sytos Premium is available in the online Help facility, in *Appendix B: Troubleshooting*, and from Sytron Technical Support.

Online help is available by using the following methods:

Help Type	Function
F1	F1 is available from all windows. Pressing F1 displays a help window for the currently active window.
Help line	The Help line is available in most windows. It displays a description of the highlighted item.
H elp Menu	The H elp menu is always available. It opens the Help window where you can select the desired topic from the provided list. Refer to <i>Chapter 5: Navigating Within Sytos Premium</i> for a description of each H elp menu command.
H elp	H elp is available for error messages and dialog boxes.

NOTE: If Sytos Premium is in the process of erasing or formatting tape, or processing a large file, there may be a delay in displaying a screen after you choose **H**elp or **C**ancel.

Getting Additional Help

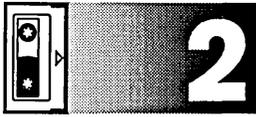
Appendix B: Troubleshooting provides a description of common problems, their symptoms and solutions, and a list of Error Messages.

You can call the following numbers for additional support:

Sytron Technical Support number:	U.S.A. + (508) 898-0193
Fax:	U.S.A. + (508) 898-2677
Sytron BBS number:	U.S.A. + (508) 898-2608
On demand FAX retrieval system:	U.S.A. + (508) 898-0001
CompuServe:	To locate the Sytron section, type GO SYTRON

To access Sytron on the BBS, set your modem settings to 8-N-1 (8 Bits, 1 Stop Bit, No Parity). Refer to *Appendix F: Technical Support* when calling Technical Support.

NOTES:



Installing Sytos Premium

Overview

Introduction

This chapter explains how to install Sytos Premium and choose a device driver for your backup device. Also provided is information for re-installing Sytos Premium or upgrading from Sytos Plus.

Before installing Sytos Premium, you should register your software, verify system requirements, protect your Sytos Premium software, review the README file, and install your hardware.

In this Chapter

This chapter provides the following information:

Topic	See Page
Installing Hardware	2-4
Installing Sytos Premium	2-8
Modifying CONFIG.SYS after Installing Sytos Premium	2-11
The Sytos Premium Directory	2-12
Installing on a Network	2-12
Re-Installing Sytos Premium	2-14

Upgrading from SY-TOS or Sytos Plus	2-15
Starting Sytos Premium	2-16
Setting Up Disaster Recovery	2-19

Registering Your Software

Registering your software with Sytron Corporation entitles you to full technical support and advance notice on product updates and enhancements. To register, fill out and mail or fax the registration card provided with Sytos Premium.

Verifying System Requirements

Ensure your workstation meets the following minimum requirements before installing Sytos Premium:

NOTE: *References to OS/2 in this guide refer to both the IBM and Microsoft versions.*

- OS/2 version 1.2 or later (IBM, Microsoft, or compatible).

Under IBM OS/2 2.0, you must install the IBM Corrective Service Facility XR06055 (OS/2 2.0 Service Pack) for Sytos Premium to run properly. To verify that you are running this version, type SYSLEVEL at the system prompt and check that the current CSD Level for the OS/2 base operating system is set at 6055 or higher. Contact your IBM vendor or refer to the OS/2 documentation for information on obtaining the IBM Corrective Service Facility.

Sytos Premium runs under the following network environments:

- IBM LAN Server version 1.2 or later.
- Microsoft LAN Manager version 2.0 or later.
- Under LAN Server 3.0, you must install the LAN Server 3.0 update from IBM, reference number APAR #IC05170 or higher, to restore file attributes using Sytos Premium.

Sytos Premium requires the following minimum hardware:

- An IBM Personal Computer, an IBM Personal System/2, a COMPAQ Personal Computer, or compatible.

- A fixed disk with at least 2.5 MB available to install Sytos Premium. Additional disk space is needed for Library and Log files, or additional device drivers.
- 1 MB of RAM in addition to that required by the operating system.
- A mouse (optional).
- A backup device (for example, a tape drive or diskette drive).

NOTE: *Rebound, the Disaster Recovery utility, does not support all backup devices.*

Protecting Your Sytos Premium Software

To ensure that you always have a working copy of Sytos Premium, follow these steps:

Step	Action
1	Use the OS/2 DISKCOPY command to copy your diskettes. Refer to your OS/2 documentation for instructions.
2	Label the copies with the information found on the Sytos Premium diskettes (for example, the product code printed on the diskette label).
3	Store the originals in a safe place.
4	Use the copies to install Sytos Premium.

Reviewing the README File



The README file contains updated information not included in this User's Guide. You can print the README file and keep it with the User's Guide for future reference.

To view and print the README file, follow these steps:

Step	Action
1	Place the Install diskette into the drive.
2	Type the letter that represents the drive at the command prompt and press Enter .

3	To read the file, type E README.TXT at the command prompt, and press Enter . To print the file, type PRINT README.TXT at the command prompt, and press Enter .
---	--

Installing Hardware

Description

Before installing Sytos Premium, check the configuration settings for your backup device. If your backup device includes a diagnostic program, run it first to ensure your backup device is working correctly, and to confirm the settings.

SCSI Devices Support

If you are installing a SCSI device, refer to the manufacturer's documentation for installation instructions, and check the following:

- The SCSI host adapter is properly installed.
- The SCSI device is terminated properly, and the settings do not conflict with other devices that are installed on your system.

Skip the following sections on configuring device drivers, and go to "Installing Sytos Premium," in this chapter.

Installing Non-SCSI Device Drivers

Your backup device has default configuration settings that can be used for most system setups. However, you may need to modify the settings for your backup device if the settings are used by another device on your system, or if your system requires a special configuration.

For example, if your tape controller was shipped with the settings of DMA 1, IRQ 3, and Address 300, and your network card is already using any of these settings, you must change the tape controller settings before you can use Sytos Premium with the backup device. If two or more devices on your system use identical configuration settings, Sytos Premium hangs.

NOTE: *Network card settings for LAN Manager can be found in the file C:\LANMAN\PROTOCOL.INI; however, your system may use a different method to specify network card settings.*

Common Settings for Non-SCSI Devices

Table 2-1 provides examples of DMA, Interrupt, and Address settings commonly used by other devices. You can enter your system settings in the blank column of this table.

NOTE: The configuration utilities used to set up devices on PS/2 systems with Micro Channel Architecture tell you if there is a conflict with the hardware settings. Run Auto Configure to change the settings.

Please note the following when reviewing the chart:

- Although IRQ 6 is used by the diskette drive, in most cases it can still be used by Sytos Premium backup devices, except when running Setup from Rebound.
- IRQ 4 and IRQ 3 are commonly assigned to a serial device such as a serial printer, modem, or mouse.
- IRQ 7 and IRQ 5 are commonly assigned to a local parallel printer.

Blank fields in the "Common Hardware Configuration" table signify that there is not a common device specifically assigned those settings. However, your system may have a special configuration that uses these settings.

Changing Non-SCSI Device Settings

Whenever you change the switches or jumpers on the backup device controller card, you must re-configure your backup device. Refer to *Chapter 3: Setting Up Sytos Premium*.

		PC AT & 386 ATs	EISA	Your System
DMA	1	Sound Cards		
	2	Diskette Drive		
	3			
IRQ	2			
	3	Serial Port 2 (COM2)		
	4	Serial Port 1 (COM1)		
	5	Parallel Port (LPT2)		
	6	Diskette Drive		
	7	Parallel Port (LPT1)		
Address (hex)	1F0-1F8	Fixed Disk		
	200-20F	Game Controller		
	278-27F	Parallel Port (LPT1)		
	2F8-2FF	Serial Port 2 (COM2)		
	378-37F	Parallel Port (LPT1)		
	3B0-3BF	Monochrome adapter		
	3D0-3DF	Color/graphics adapter		
	3F0-3F7	Diskette Drive		
3F8-3FF	Serial Port 1 (COM1)			
Free Addresses	1F9-1FF, 210-277, 280-2F7, 300-377, 380-3AF, 3C0-3CF, 3E0-3EF			

Table 2-1. Common Hardware Configurations

Installing a Backup Device on a Micro Channel System

If you use a Micro Channel (MC) system (for example, a PS/2) with a backup device, ensure that your backup device is configured properly before installing Sytos Premium. Follow these steps:

Step	Action
1	Shut down your system and install your tape system.
2	Reboot your system using the system's reference diskette. If you have a later model PS/2, the reference program may be built in, rather than residing on a separate diskette.
3	Select the Copy an Option Diskette command from the Main Menu. Use the Sytos Premium Install diskette as the Option Diskette.
4	Follow the instructions on screen to copy the files needed to run your backup device; these files are the Adapter Definition Files (ADF) which are located on the Sytos Premium Install diskette. Do not use the ADF file from the Option diskette that you received with your tape system's adapter or any ADF file you may have received with SY-TOS, if you used SY-TOS in the past.
5	Select Set Configuration from the Main Menu to complete the process.
6	If you have a SCSI adapter on an IBM controller board, select View Configuration to check the settings.
7	Remove the Reference Diskette and press Enter to reboot your system. <i>NOTE: You should back up your Reference Diskette after Sytos Premium is installed.</i>
8	Install Sytos Premium. Your backup device is now configured to work with Sytos Premium.

Installing Sytos Premium

Description

Before installing Sytos Premium, ensure that your backup device is set up properly as described in the previous section.

NOTE: *If your backup device requires a SCSI host adapter, ensure that the host adapter controller is properly installed before you install Sytos Premium.*

Using the Install Utility

The Sytos Premium installation utility (INSTALL.EXE) copies the contents of the Sytos Premium diskettes to your fixed disk. The Installation utility also performs the following tasks:

- Lets you specify a disk and directory where to place the files
- Creates sample Jobs for common operations that you can use immediately after installing Sytos Premium
- Lets you assign a default Tape Set name and a default backup device to the sample Jobs
- Adds a Sytos Premium Group to the Desktop Manager if you want. You can add or change the Sytos Premium Group later
- Installs only the device drivers you choose
- Installs the adapter driver, if you choose yes. Sytos Premium modifies CONFIG.SYS, if your backup device uses a SCSI host adapter and the adapter driver is included with your version of Sytos Premium

NOTE: *If the adapter driver is not included with your version of Sytos Premium, or if you choose not to let Sytos Premium automatically modify CONFIG.SYS, you must add the appropriate information to CONFIG.SYS later. Refer to "Modifying CONFIG.SYS After Installing Sytos Premium," in this chapter.*

If you have any problems during installation, refer to *Appendix B: Troubleshooting*. If your system has special requirements, you can modify the configuration settings of your selected backup device after installation.

Beginning Installation

Sytos Premium must be installed on a fixed disk.

To install Sytos Premium, follow these steps:

Step	Action
1	Place the first Sytos Premium diskette into the drive.
2	Open OS/2 Window or OS/2 Full Screen .
3	Type the letter representing the drive at the command prompt and press (Enter) .
4	At the command prompt type INSTALL and press (Enter) . Follow the instructions provided by the installation program to install Sytos Premium. If you want to add a backup device or re-configure an installed backup device after installing Sytos Premium, refer to <i>Chapter 3: Setting Up Sytos Premium</i> for information about adding and configuring backup devices.
5	After installing Sytos Premium, set up Rebound, the disaster recovery utility for recovering your OS/2 operating system after hard disk failures or changes. Refer to "Setting Up Disaster Recovery" in this chapter for more information. NOTE: <i>If you do not run Setup before a disaster, Rebound cannot recover your system.</i>

NOTE: *After making changes to CONFIG.SYS, reboot your system for the changes to take effect. You must completely install Sytos Premium before setting up Rebound.*

Selecting Devices During Installation

While installing Sytos Premium, you can choose from a list of supported devices that are compatible with the version of OS/2 you are using.

Many device driver names include one of the following extensions:

- **AHA** for devices that use Adaptec Host Adapters
- **AT** for devices that use non-Micro Channel systems
- **IBM** for SCSI devices under IBM OS/2 2.x, and for devices with IBM SCSI cards prior to OS/2 2.0
- **LDR** for devices used in the Microsoft LADDR environment (Microsoft OS/2 v1.3)
- **MC** for devices used with Micro Channel systems

CAUTION: *Installing the wrong device driver for your environment can cause problems when running Sytos Premium.*

Table 2-2 lists the format of device driver names and the operating systems under which they are compatible.

Operating System	Device Driver Name Format		Non-SCSI
	Non-IBM SCSI	IBM SCSI	Device Drivers
OS/2 1.2x IBM OS/2 1.3 <i>Refer to Appendix H for installation instructions.</i>	(Driver-Name) AHA Sytos Premium supports only Adaptec 154x and 164x.	(Driver-Name) IBM	(Driver-Name) AT (Driver-Name) MC
MS v1.3(LADDR) <i>Refer to Appendix G for installation instructions.</i>	(Driver-Name) LDR	(Driver-Name) LDR	(Driver-Name) AT (Driver-Name) MC
IBM OS/2 v2.x	(Driver-Name)	(Driver-Name)	(Driver-Name) AT (Driver-Name) MC

Table 2-2. Device Driver Names

Modifying CONFIG.SYS after Installing Sytos Premium

Description

If the device driver for your SCSI device was not installed by Sytos Premium, or if you did not let Sytos Premium automatically update your CONFIG.SYS file, you must modify CONFIG.SYS. Refer to "Installing Under IBM OS/2 v2.x" in this section, *Appendix G: Installing Under OS/2 1.3 LADDR* or *Appendix H: Installing Sytos Premium Under OS/2 v1.2 and IBM v1.3*, for information specific to your operating system.

Installing Under IBM OS/2 v2.x

Under IBM OS/2 v2.x, Sytos Premium uses the OS/2 SCSI Driver (DMD) and appropriate Adapter Device Driver (ADD) for your host adapter.

The following two lines should appear in your CONFIG.SYS file:

```
BASEDEV=[ADD-name].ADD  
BASEDEV=OS2SCSI.DMD
```

where [ADD-name].ADD corresponds to the name of your SCSI Adapter Device Driver, and OS2SCSI.DMD is the IBM SCSI driver.

If the lines are not in CONFIG.SYS, refer to your IBM OS/2 2.x documentation to install them.

The Sytos Premium Directory

Description

Sytos Premium creates a default directory called \SYPLUS during installation for the Sytos Premium files. You can change this name during installation.

NOTE: Do not alter any of the Sytos Premium files, or Sytos Premium cannot continue to operate.

The \SYPLUS directory includes:

- SYPLUS.EXE - the program executable file
- README.TXT - text-based information file
- SYFILES - a subdirectory containing some of the necessary files for Sytos Premium to operate

The \SYPLUS\SYFILES directory includes five subdirectories:

- \SYFILES\SYDEF - Default Jobs
- \SYFILES\SYJRN - Logs files
- \SYFILES\SYLIB - Library files
- \SYFILES\SYLOG - Logical format files
- \SYFILES\SYMAC - Jobs

Installing on a Network

Description

This section contains information you should review before installing Sytos Premium in a network environment. Refer to *Appendix A: Network Considerations* for additional information. Please consult your network system supervisor before installing Sytos Premium.

NOTE: You can run Sytos Premium only from the system to which the backup device is attached.

Ensure that the backup device settings (for example, DMA) are not used by the network adapter card or other cards in your system.

Sytos Premium cannot operate properly when backup device settings conflict with other settings.

To change the backup settings for non-SCSI devices, follow these steps:

Step	Action
1	Click on Setup on the tool bar or select Setup from the Actions menu to open the Setup window.
2	Highlight the backup device.
3	Click on Configure... .
4	Change the Sytos Premium settings for the DMA Channel, IRQ (Interrupt), and Address (Hex) to match the settings on the backup device adapter card. <i>NOTE: Try the DMA 3, Interrupt 5 combination (if it is available for your card). You usually do not need to change the Address. You cannot change the settings for SCSI devices.</i>

Selecting Network Drives Before Installation

Default Jobs include all drives that are visible to Sytos Premium during installation. For example, if you are logged onto a network, the default Job includes network drives and local drives.

Before installing Sytos Premium on a LAN Server or LAN Manager workstation or server, log on to the servers you want to back up (so the sample Jobs are set up properly) and connect to the shares you want to back up (with the NET USE command). Refer to *Appendix A: Network Considerations* for more information.

If you have made any changes to the network configuration, including remapping any network drives after you have installed Sytos Premium, you must change your default Job to reflect the change in drives. Refer to *Chapter 7: Backing Up Data* for information about selecting files for backup.

Re-Installing Sytos Premium

Description

If you are re-installing Sytos Premium, perform these tasks:

- Remove the old Sytos Premium device drivers section from CONFIG.SYS.
- If you are re-installing to the same directory and do not want your old Tape Sets, delete the contents of the SYFILES\SYLIB directory before re-installing.
- If you want to keep your sample Jobs, rename the sample Jobs.

When you re-install Sytos Premium, the sample Jobs created during the previous installation are overwritten. If you modified the sample Jobs, but did not save them with new names, rename them before re-installing Sytos Premium to preserve them with your changes.

To re-install Sytos Premium, follow these steps:

Step	Action
1	Open Sytos Premium.
2	Rename your sample Jobs, if you have changed the Jobs and want to keep them.
3	Record your backup device's configuration settings.
4	Exit Sytos Premium.
5	Place the Sytos Premium Install diskette into the drive.
6	Open OS/2 Window or OS/2 Full Screen .
7	Type the letter representing the drive and press Enter .
8	At the command prompt, type INSTALL and press Enter to install Sytos Premium.
9	After the installation program completes, add and configure your backup device using the configuration settings you recorded in Step 3. Refer to <i>Chapter 3: Setting Up Sytos Premium</i> for information about adding and configuring backup devices.

Upgrading from SY-TOS or Sytos Plus

Upgrading from SY-TOS

When upgrading from SY-TOS or Sytos Plus, you can use the same backup device that you are currently using. Sytos Premium can read tapes created using SY-TOS File Backup.

Recording Device Settings

If you plan to use your current backup device, record the existing settings. You need these settings to reconfigure the device after upgrading. To record the existing settings, follow these steps:

Step	Action
1	At the system prompt, change to the directory where SY-TOS is installed and type: STCONFIG Press Enter . The ST-CONFIG window appears.
2	Select Configure from the command bar. Record the DMA, Interrupt, and Address settings in the SYSTEM CONFIGURATION window.
3	When you are finished, select Exit to exit the ST-CONFIG window.
4	After installing Sytos Premium, reconfigure your backup device, using instructions in <i>Chapter 3: Setting Up Sytos Premium</i> .

Upgrading from Sytos Plus

When upgrading from Sytos Plus, you can use the same backup device you are currently using, and you can save any sample jobs that you have modified to use again. After upgrading, you are still able to read backup tapes created with Sytos Plus.

When upgrading from Sytos Plus, your logs are not affected.

NOTE: Sytos Premium cannot read the Sytos Plus Library. If you want to keep your Sytos Plus Library, install Sytos Premium into a new directory, not the directory containing Sytos Plus, and use Sytos Plus to read the

Sytos Plus Library files. Or use the Library window in Sytos Premium to add the Sytos Plus Tape Sets to your Sytos Premium Library.

Recording Non-SCSI Device Settings

If you plan to use the same non-SCSI backup device when you upgrade, record the backup device settings and use those settings when you reconfigure the backup device. To change the settings for a non-SCSI backup device, follow these steps:

Step	Action
1	Start Sytos Plus by typing the following from the directory where Sytos Plus is installed: SYPLUS and press Enter .
2	Select Backup device setup... from the Utilities menu.
3	Select your current backup device and choose Edit .
4	Record the DMA, Interrupt, and Address settings, and the driver name that you are using.
5	Exit Sytos Plus.
6	Install Sytos Premium, using instructions in this chapter.
7	Reconfigure your backup device, using the settings you just recorded, and the instructions in <i>Chapter 3: Setting Up Sytos Premium</i> .

Starting Sytos Premium

Description

Before you start Sytos Premium, exit all active programs and run the Disk Information- CHKDSK command. The CHKDSK command gives you a status report including the number of files on your disk, the amount of disk space in use, and any errors within the file system. Correct any problems before running Sytos Premium so that your backup copies do not contain damaged files. Refer to your operating system user's guide for more information.

There are several ways to run Sytos Premium: from any directory, interactively from the command line prompt, as a desktop icon, as part of a batch file, or as a scheduled Job.

Run Options	Action
Run from the command line prompt	<p>To run Sytos Premium from the operating system command prompt (and begin using the sample Jobs created during installation), type the following from the disk and directory where Sytos Premium is installed:</p> <p>SYPLUS</p> <p>To run Sytos Premium from any directory, modify the "SET PATH" statement in your CONFIG.SYS file (or STARTUP.COM, if present) to include the disk and directory where Sytos Premium resides.</p> <p>For example, OS/2 creates the following line in the CONFIG.SYS during installation:</p> <p>SET PATH=C:\OS2;C:\OS2\SYSTEM;C:\OS2\INSTALL;C\;</p> <p>After adding C:\SYPLUS; to the PATH statement, the new line is:</p> <p>SET PATH=C:\OS2;C:\OS2\SYSTEM;C:\OS2\INSTALL;C\;C:\SYPLUS;</p>
Run a scheduled event from the command line prompt	<p>To run a scheduled event in Sytos Premium from the command line, type the following line at the command prompt:</p> <p>Start SYPLUS /I</p> <p>If you do not include the "Start" statement, you cannot return to the command prompt.</p>
Run from the OS/2 Desktop	<p>To run Sytos Premium from the OS/2 Desktop, double-click on the application icon or highlight the icon and press Enter.</p> <p>NOTE: If you double-click on a Sample Job in the Sytos Premium group, the Job runs. To view Sytos Premium Sample Jobs, open Sytos Premium and use the Jobs menu commands to view the Job. Refer to Chapter 6: Managing Jobs for more information.</p>

Run Options	Action
<p>Run as part of a command file</p>	<p>Depending on your backup strategy, you can include a specific Sytos Premium Job within a command (CMD) file. When the batch file is executed, Sytos Premium is invoked and a Job that you specify is run.</p> <p>To run a Sytos Premium Job (Full Backup, for example) from a batch file in unattended mode, you must include the following statement within the file:</p> <p>SYPLUS "FULL BACKUP"</p> <p>NOTE: SYPLUS runs Sytos Premium; the information in quotes is the name of the Job that you want to run. Ensure that you enclose the Job name in quotes. The name does not need to be typed in upper case.</p>
<p>Run as a Scheduled Job</p>	<p>The Sytos Premium Schedule lets you set up Jobs or other files (for example, batch or executable files) to run at specific times. This feature is described in detail in <i>Chapter 12: Scheduling</i>.</p>

Setting Up Disaster Recovery

Description

Sytos Premium includes Sytos Rebound, the disaster recovery utility for recovering your OS/2 operating system after hard disk failures or changes. This section explains how to set up Rebound.

CAUTION: You must set up Rebound before a disaster occurs; otherwise Rebound cannot recover your system. Run Setup after you install Sytos Premium.

When to Run Setup

Run Setup at the following times:

- After you install Sytos Premium.
- Any time you add or change device drivers that modify CONFIG.SYS and require a system reboot. This rule applies to all device drivers, not just Sytos Premium drivers.
- Any time you upgrade OS/2 to a new version. Run Setup after the new version is installed and a Full system backup has been completed.

NOTE: Plan to run Setup and test the Rebound diskette set at a time when you can shut down the system or the server. Shutdown is a necessary step when testing your Rebound diskette set.

Before Running Setup

Before running Setup, perform the following tasks:

- Determine the number of OS/2 versions running on your system.

NOTE: This section explains how to set up systems running one version of OS/2. If you are running multiple versions of OS/2, create a Full Backup and Rebound diskette set for each OS/2 version on your system and test each diskette set.

- Identify the system to be Setup.

NOTE: If you are responsible for restoring numerous systems, write the serial number or name of the system on the Rebound diskette labels. This step makes it easy to identify the correct Rebound diskette if you need to recover that system.

- Run a Full Backup with Compare to the backup device that you are setting up.
- Create a Rebound diskette set.

Creating the Rebound Diskette Set

To create the Rebound diskette set, follow these steps:

Step	Action
1	<p>Create an Assistant diskette. DISKCOPY the appropriate diskette from the OS/2 Installation Diskette Set for the version of OS/2 that you are running:</p> <p>IBM OS/2 v2.x: Diskette 1 (second diskette in set) OS/2 (all other versions): Use the first diskette in the set.</p> <p>Place the Assistant sticker on the copied diskette and keep the diskette(s) on hand during Setup and Recovery.</p> <p><i>NOTE: If OS/2 v2.x was installed from a CD ROM, you need to create the first two installation diskettes to use as the Startup and Assistant diskettes with Rebound. Do not use the original diskettes for Setup. Refer to the instructions that came with the OS/2 Compact Disk. The first diskette you create is the Startup diskette; the second diskette is the Assistant.</i></p>
2	<p>If you are running OS/2 2.x, create a Startup diskette. DISKCOPY the Install diskette in the OS/2 Installation Diskette Set (first diskette in the set).</p> <p>Label the copied diskette as your Startup diskette and keep the diskette on hand during Setup and Recovery.</p>

3	<p>Create the Spare diskette by copying the following files located on the hard drive to the appropriate directory on the Spare diskette:</p> <p>FORMAT.COM (located under the OS/2 directory) UHPFS.DLL (located under the DLL subdirectory of OS/2) FDISK.EXE for OS/2 v2.x (located under the OS/2 directory) FDISK.COM for OS/2 v1.3 (from DOS)</p> <p>Write the names of the copied files on the Spare diskette label. Keep this diskette with the Rebound diskette set.</p>
---	--

Running Setup

To set up your system against disaster, follow these steps:

Step	Action
1	Open the OS/2 Full Screen or a full-size OS/2 window .
2	<p>Insert the Rebound diskette into the drive and type:</p> <p style="padding-left: 40px;">[drive:] REBOUND</p> <p>where [drive:] is the drive containing the Rebound diskette.</p> <p>The main menu appears. Choose <input type="button" value="OK"/> to continue.</p>
3	<p>Select (S)etup from the main menu. Rebound begins copying files.</p> <p>NOTE: <i>If there is more than one Sytos Premium driver in CONFIG.SYS, Rebound prompts you to select the Sytos Premium driver to be used later during Recovery. Select the driver for the backup device that you used for your Full backup.</i></p> <p>CAUTION: <i>The Sytos Premium driver you select at this time is the device driver to be used during Recovery; it must be the same device driver used to create backups. If it is not the same, Rebound cannot recover the system.</i></p>
4	Enter your name when prompted by Rebound. This allows you to identify the Rebound diskette with your specific system or server.

5	<p>When prompted, insert the Assistant diskette and press OK. Rebound modifies the Assistant diskette and prompts you to re-insert the Rebound diskette. Re-insert the Rebound diskette and select OK to test the Rebound diskette set that Setup created.</p> <p>NOTE: When selecting a drive, choose the A: drive. The A: drive is your boot drive.</p> <p>CAUTION: Always run this test to ensure that Rebound is set up properly.</p>
6	<p>Remove the Rebound diskette and shut down the system.</p>
7	<p>Determine which version of OS/2 is running and reboot the system by following either Step A or B:</p> <p>A. OS/2 v2.0 or greater: Insert the Startup diskette and boot the system. When prompted to insert the next diskette, insert the Assistant diskette. The OS/2 prompt appears.</p> <p>B. OS/2 pre-v2.0: Insert the Assistant diskette and boot the system. The system prompt appears.</p>
8	<p>Insert the tape containing your Full Backup into the backup device.</p>
9	<p>At the system prompt, insert the Rebound diskette into the drive and type:</p> <p style="padding-left: 40px;">[drive:] REBOUND</p> <p>where [drive:] is the drive containing the Rebound diskette.</p> <p>The test runs automatically and displays a message upon completion. Store your Rebound diskette set in an easily accessible and safe place.</p> <p>NOTE: On some monochrome monitors, the screen may go blank during Recovery. If this occurs, press Esc. To avoid this problem, add the following parameter:</p> <p>[drive:]REBOUND/EGAMONO</p>

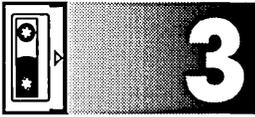
Know Your Hard Drive Configuration

You must partition and format your OS/2 drives before running Recovery. Record your hard drive settings in the following table and refer to this information during Recovery:

System Name:		
Backup Device:		
Version of OS/2:		
<i>TIP: To determine your OS/2 version, boot your system and enter: VER.</i>		
<i>TIP: For a list of partition sizes, insert the Assistant diskette and enter: TYPE [drive:]\DSKCFG.TXT</i>		
Partition:	Size in MB:	Type: (HPFS, FAT, or DOS)

Table 2-3. Hard Drive Settings

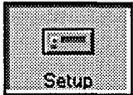
NOTES:



Setting Up Sytos Premium

Overview

Introduction



For Additional Information

In this Chapter

This chapter explains how to add, configure, and delete backup devices in Sytos Premium. It also explains how to select tape and security preferences.

Refer to *Chapter 2: Installing Sytos Premium* for information about selecting backup devices when installing Sytos Premium.

This chapter includes the following major topics:

Topic	See Page
Setting Up Backup Devices	3-2
Adding Backup Devices	3-4
Configuring Backup Devices	3-5
Setting Preferences for the Sytos Premium Environment	3-17

Setting Up Backup Devices

Description

During installation you select backup devices that must be configured before using Sytos Premium. The Setup window, as shown in Figure 3-1, lets you add, configure, and delete backup devices. Click on **Setup** on the tool bar or select **Setup** from the **Actions** menu to open the Setup window.

Click on **New...** to add a new backup device.

Highlight a backup device and click on **Configure...** to change the settings for backup devices.

Highlight a backup device and click on **Delete** to delete backup devices.

Click on **Preferences...** for the Sytos Premium environment.

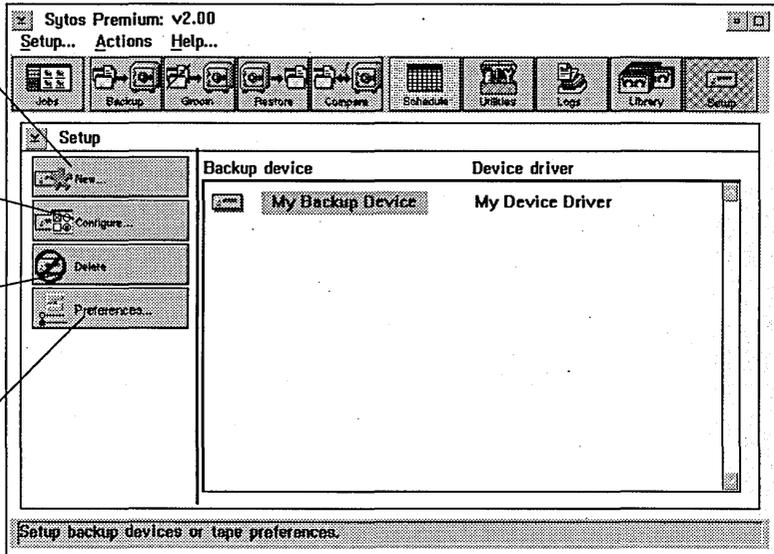


Figure 3-1. Setup

The Setup Menu

Setup...	
New device...	Ins
Configure device...	Enter
Delete device	Del
Preferences...	
Exit	Alt+F4

The **Setup** menu appears on the menu bar when you open the Setup window. You can select the following commands from the **Setup** menu:

New device... opens the Add New Backup Device window where you select a backup device to add to Sytos Premium.

Configure device... opens a window for configuring the highlighted backup device.

Delete device removes the highlighted backup device from Sytos Premium.

Preferences... opens the Preferences window where you set preferences for the Sytos Premium environment.

Exit lets you leave Sytos Premium.

Adding Backup Devices

Description



The New Backup Device window, as shown in Figure 3-2, lets you select the device driver for the backup device that you want to add to Sytos Premium. The window displays a list of device drivers that you copied to the "Working Directory" during installation. This window also lets you add drivers from a driver diskette to the "Working Directory."

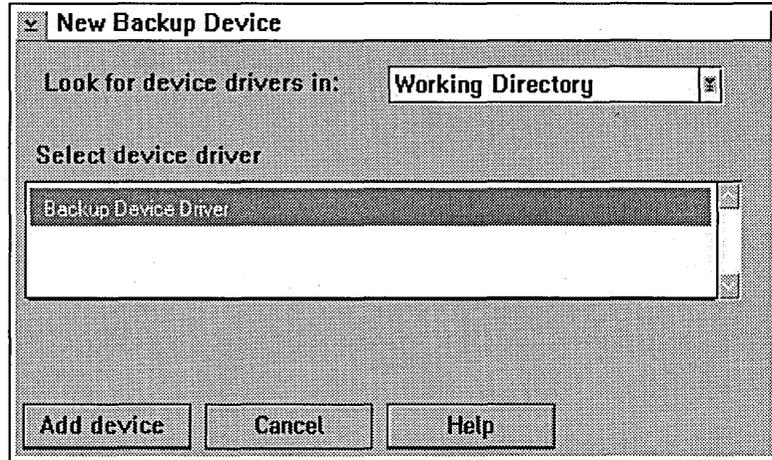


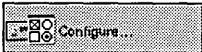
Figure 3-2. New Backup Device

To add a backup device, follow these steps:

Step	Action
1	Click on New... or select New device... from the Setup menu to open the New Backup Device window.
2	<p>If you are adding a device driver from a drive, select the drive containing the driver. Select the driver and click on Add device to add the driver to the "Working Directory."</p> <p>The default drive setting, "Working Directory," refers to the directory on your hard drive containing your backup device drivers.</p>
3	<p>Select a device driver from the list and click on Add device to add the backup device to Sytos Premium.</p> <p>NOTE: Sytos Premium adds lines to your CONFIG.SYS file for some controllers. If the Controller window appears, select the controller that you are using with your backup device to let Sytos Premium add the appropriate lines to your CONFIG.SYS file. Reboot your computer to let changes to your CONFIG.SYS take effect.</p> <p>If you need to manually add lines to your CONFIG.SYS file, the Backup Device Installation Instructions window opens. This window provides instructions for adding the appropriate lines to your CONFIG.SYS file. Add the lines to your CONFIG.SYS and reboot your computer.</p>
4	Configure your backup device as described in "Configuring Backup Devices" in this chapter.

Configuring Backup Devices

Description



The setup windows let you configure new backup devices or re-configure existing backup devices. A customized setup window appears depending on the type of backup device you are configuring.

Configuring SCSI Devices

When you configure SCSI devices, the Setup SCSI Backup Device window opens, as shown in Figure 3-3, and displays the following settings:

- **Backup device name** provides a personalized name for your backup device. Sytos Premium displays the driver name as the default setting. You can leave the default setting or enter a different name.
- **Tape format** lets you select Sytos Plus format or SY-TOS 3.x Restore format. Do not select SY-TOS 3.x Restore format unless you want to read SY-TOS tapes.
- **Cascading devices...** displays if you are configuring cascaded backup devices.

or

Autoloader slots... displays if you are configuring an autoloader.

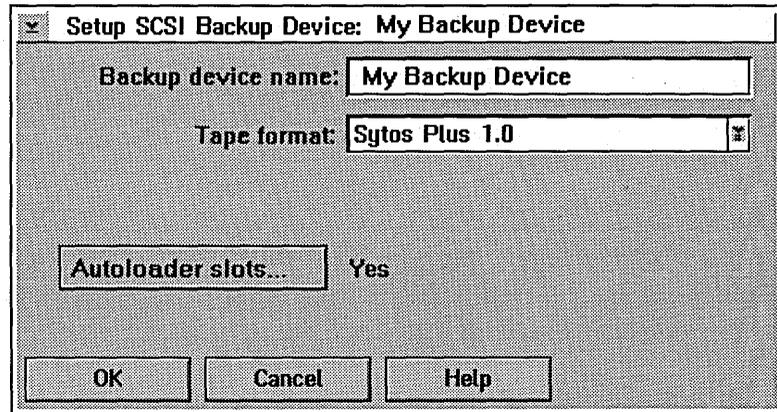


Figure 3-3. Setup SCSI Backup Device

To configure a SCSI device, follow these steps:

Step	Action
1	Highlight the backup device in the Setup window and click on Configure... or select Configure device from the Setup menu. The Setup SCSI Backup Device window opens.
2	The Backup device name edit field displays a default name for the backup device. You can keep the default name or enter a different name.
3	The Tape format drop-down listbox displays Sytos Plus 1.0 format. Do not select SY-TOS 3.x Restore format unless you want to read SY-TOS tapes.
4	To configure cascaded devices, click on Cascading devices... -or- To configure an autoloader, click on Autoloader slots... Refer to "Configuring Cascaded Devices and Autoloaders," in this chapter for more information.
5	Click on OK .

Configuring Cascaded Devices and Autoloaders

To configure cascaded devices or autoloader slots as a backup device, follow these steps:

Step	Action
1	Click on Cascading devices... or Autoloader slots... in the Setup SCSI Backup Device window. If you clicked on Cascading devices... , the Cascading Devices window opens. If you clicked on Autoloader slots... , the Autoloader Slots window opens, as shown in Figure 3-4.

2	<p>Select the positions that you want to configure as a backup device. By default, all slots are selected, indicated by a check next to each position. To clear a selection, click on the position.</p> <p>NOTE: If you are using an autoloader, you must insert a magazine into the autoloader before configuring the backup device.</p>
3	<p>Click on OK to return to the Setup SCSI Backup Device window. If you selected more than one position, a “Yes” displays next to Cascading devices... or Autoloader slots....</p> <p>NOTE: If you select only one position for your backup device, a “No” displays next to Cascading devices... or Autoloader slots....</p>
4	<p>Click on OK to accept the settings for the backup device.</p> <p>NOTE: The backup device name refers to the positions that you configured as a backup device.</p>

NOTE: You can also configure cascaded devices or autoloader slots into multiple backup devices. For example, you can configure positions 1 through 4 as Backup Device 1 and positions 5 through 8 as Backup Device 2.

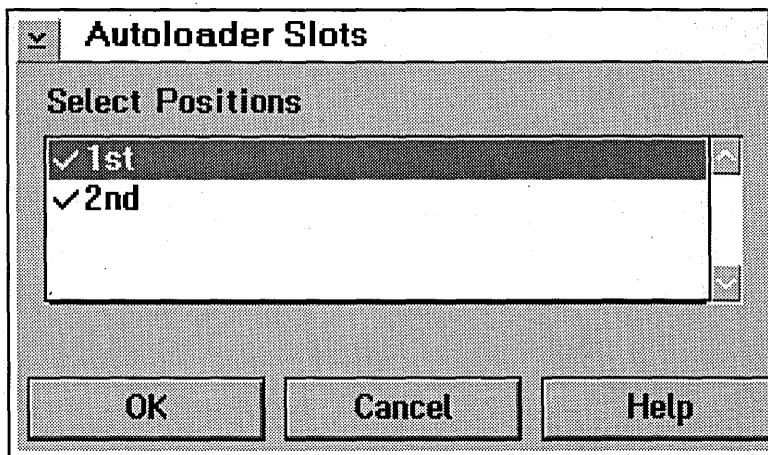


Figure 3-4. Autoloader Slots

Configuring QIC Devices

If you are configuring a non-SCSI, Quarter Inch Cartridge device, the Setup QIC Device window opens, as shown in Figure 3-5, and displays the following settings:

- **Backup device name** provides a personalized name for your backup device. Sytos Premium displays the driver name as the default setting. You can leave the default setting or enter a different name.
- **Tape format** lets you select Sytos Plus format or SY-TOS 3.x Restore format. Do not select SY-TOS 3.x Restore format unless you want to read SY-TOS tapes.
- **DMA channel, Interrupt (IRQ), I/O Address settings** specify the settings for backup devices. The settings should match exactly the hardware settings used when installing the backup device.

Setup QIC Device: My Backup Device

Backup device name: My Backup Device

Tape format: Sytos Plus 1.0

DMA: 1

Interrupt (IRQ): 5

I/O Address: 300h

OK Cancel Help

Figure 3-5. Setup QIC Device

To configure a non-SCSI device, follow these steps:

Step	Action
1	<p>Highlight the backup device in the Setup window and click on <input type="button" value="Configure..."/> or select Configure device from the Setup menu. The Setup QIC Device window opens.</p>
2	<p>The Backup device name edit field displays a default name for the backup device. You can keep the default name or enter a different name.</p>
3	<p>The Tape format drop-down listbox displays Sytos Plus 1.0 format.</p> <p>Do not select SY-TOS 3.x Restore format unless you want to read SY-TOS tapes.</p>
4	<p>Select DMA, IRQ (IRQ), and I/O Address settings in the drop-down listboxes.</p> <p>NOTE: <i>Your backup device was shipped with default configuration settings that you should use when configuring your backup device in Sytos Premium. Refer to your backup device documentation for the default settings. If for any reason you changed the switches or jumpers on the backup device controller card, use the new settings when configuring your device. Refer to Chapter 2: Installing Sytos Premium for more information.</i></p>
5	<p>Click on <input type="button" value="OK"/>.</p>

Configuring Diskette Devices

If you are configuring a diskette device, the Setup Diskette Device window opens, as shown in Figure 3-6, and displays the following settings:

- **Backup device name** provides a personalized name for your backup device. Sytos Premium displays the driver name as the default setting. You can leave the default setting or enter a different name.
- **Tape format** selects Sytos Plus 1.0 format.
- **Drives** names the drives you want to associate with the backup device.
- **Density** specifies the settings available for your diskettes.

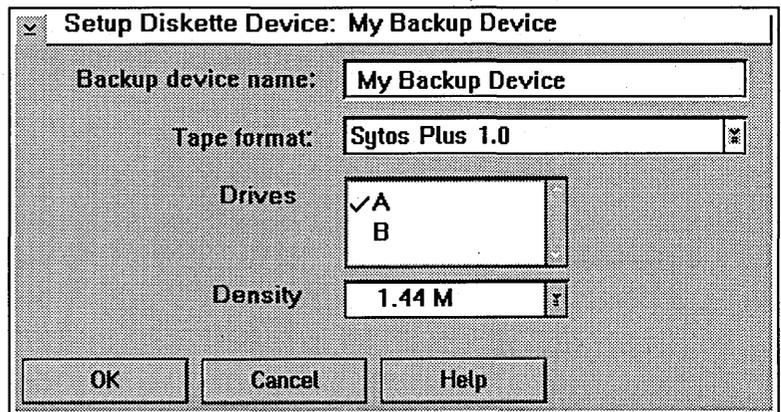


Figure 3-6. Setup Diskette Device

When using a diskette device with Sytos Premium, the following conditions apply:

- If you are backing up files to diskettes, you must use Sytos Premium to view the backed-up files. Operating system commands such as "DIR" do not display the files.
- Diskettes must be unformatted or formatted to the density that you specified for the backup device.

***Note:** If 360KB (5-1/4 inch) diskettes are formatted in a 1.2MB drive, problems can occur if they are read from another 1.2MB drive.*

- You can configure two diskette drives of the same density as a single backup device.

To configure diskette drives, follow these steps:

Step	Action
1	Highlight the backup device in the Setup window and click on <input type="button" value="Configure..."/> or select Configure device from the Setup menu. The Setup Diskette Device window opens.
2	The Backup device name edit field displays a default name for the backup device. You can keep the default name or enter a different name.
3	Click on the drives that you want to configure as your backup device in the Drives window. Selected drives are marked with a check.
4	Select a density in the Density drop-down listbox for the highlighted drive. <i>NOTE: If you select two or more drives for the backup device, you must select a single density for both drives.</i>
5	Click on <input type="button" value="OK"/> .

Configuring Removable Devices

If you are configuring a removable logical device, the Setup Removable Device window opens, as shown in Figure 3-7, and displays the following settings:

- **Backup device name** provides a personalized name for your backup device. Sytos Premium displays the driver name as the default setting. You can leave the default setting or enter a different name.
- **Tape format** selects Sytos Plus 1.0 format.
- **Drives** names the drives you want to associate with the backup device.

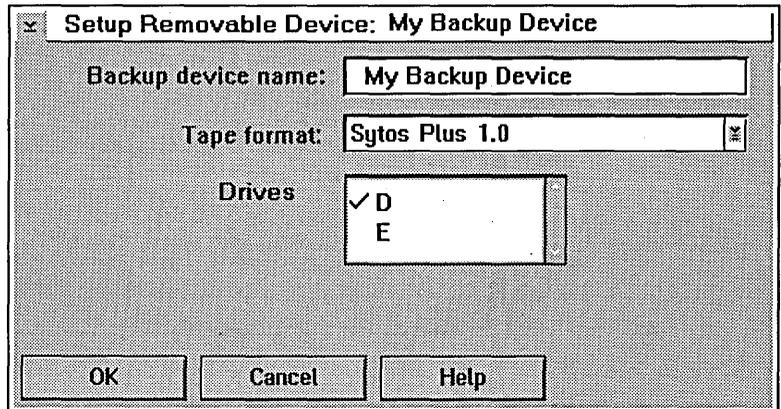


Figure 3-7. Setup Removable Device

To configure removable logical devices, follow these steps:

Step	Action
1	Highlight the backup device in the Setup window and click on Configure... or select Configure device from the Setup menu. The Setup Removable Device window opens.
2	The Backup device name edit field displays a default name for the backup device. You can keep the default name or enter a different name.
3	Click on the drives that you want to configure as your backup device in the Drives window. Selected drives are marked with a check.
4	Click on OK .

Configuring Fixed Logical Devices

If you are configuring a Fixed Logical Device, the Setup Fixed Disk Device window opens, as shown in Figure 3-8, and displays the following settings:

- **Backup device name** provides a personalized name for your backup device. Sytos Premium displays the driver name as the default setting. You can leave the default setting or enter a different name.
- **Tape format** selects Sytos Plus 1.0 format.
- **Drives** names the drives you want to associate with the backup device.
- **Allocated space** shows the allocated backup space for each configured device in a fixed logical setup.

To be used as a backup device for Sytos Premium, a fixed logical device must be accessible through the operating system and have an assigned drive number. Fixed devices can include local drives or rewritable optical drives. A rewritable optical drive must have formatted media inserted.

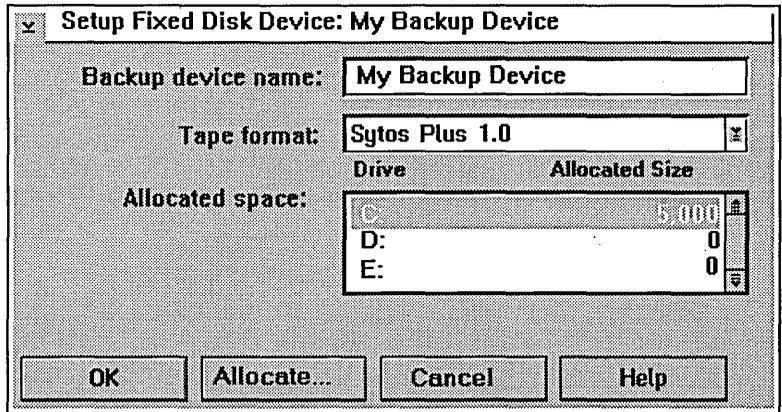


Figure 3-8. Setup Fixed Disk Device

To configure a fixed logical device, follow these steps:

Step	Action
1	Highlight the backup device in the Setup window and click on Configure... or select Configure device from the Setup menu. The Setup Fixed Disk Device window opens.
2	The Backup device name edit field displays a default name for the backup device. You can keep the default name or enter a different name.
3	Highlight a drive and click on Allocate... to open the Allocate Space window.
4	Enter a pathname in the edit field by typing a pathname -or- clicking on Browse... . The Browse window opens where you can scan the Directory Tree for a pathname. Click on OK to select a pathname. NOTE: When re-configuring a previously specified drive, you can allocate a different amount of disk space, but you cannot modify the existing pathname.
5	Enter a size in bytes to specify the amount of disk space you want to allocate.

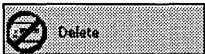
6	Click on Allocate . Allocated space in the Setup Fixed Disk Device window shows the settings.
7	Repeat steps 3 through 6 for each drive that you want to allocate space.
8	Click on OK . CAUTION: <i>Keep a record of each drive and pathname that you configure, and the space allocated on each drive. If you are using more than one drive for a single device, keep a record of the order in which you added the drives.</i> <i>You need this information if you want to restore from this device, and the device is no longer configured.</i>

NOTE: *You can use several drives as a single fixed logical device for a Job. The drives do not have to be the same type or capacity.*

The total amount of space that you allocate on the drives must be enough for the number of files to be included in a Job. If your Job runs out of space, you cannot complete the Job or insert a new tape.

Deleting Backup Devices

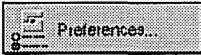
Click on **Delete** or select **Delete device** from the **Setup** menu to delete the highlighted backup device.



CAUTION: *If you delete a backup device that is a fixed device, your data becomes inaccessible.*

Setting Preferences for the Sytos Premium Environment

Description



The Preferences window lets you set up the Sytos Premium environment. Click on **Preferences...** or select **Preferences** from the **Setup** menu to open the Preferences window, as shown in Figure 3-9.

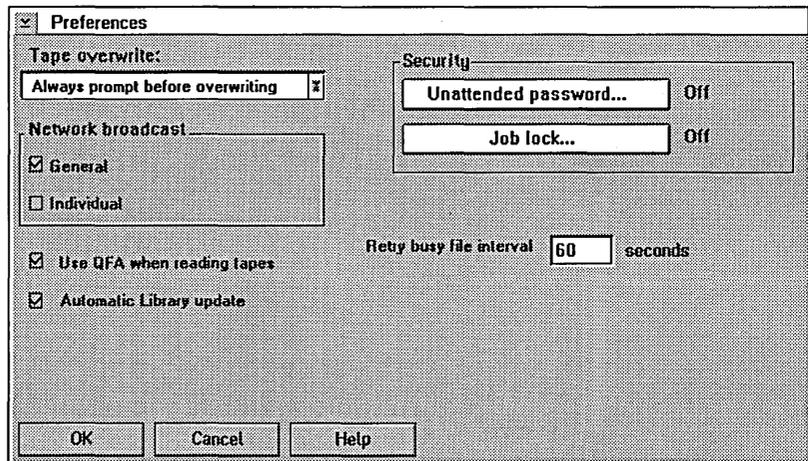


Figure 3-9. Preferences

To set preferences, follow these steps:

Step	Action
1	Select options. Refer to the following table for information about Preference options.
2	Click on OK .

The following table describes the available Preference options:

Option	Description
Tape overwrite	<p>Lets you select the prompt that Sytos Premium displays before overwriting a tape. You can select one of the following prompts:</p> <p>Always prompt before overwriting asks whether you want to overwrite the tape or replace it with another tape. This setting is the default.</p> <p>Prompt only if same tape format prompts you only if the tape format for the Tape Set matches the format you selected for your backup device (for example, a Sytos Plus tape and a backup device with Sytos Plus format).</p> <p>Prompt only if different tape format prompts you only if the tape format for the Tape Set does not match the format chosen for your backup device (for example, a SY-TOS tape and a backup device with Sytos Plus format).</p> <p>Overwrite without prompting overwrites the tape without prompting you.</p> <p>NOTE: <i>The tape overwrite default for diskettes is Prompt only if different tape format.</i></p>

<p>Network broadcast</p>	<p>Sets options for sending messages to network users before and during Backup Jobs. You can select one, both, or neither of the following options:</p> <p>General sends a warning to all LAN Server or LANManager users that a Backup Job is about to start and asks all users to close files. A final message tells users that the Job has completed.</p> <p>Individual sends a warning to users who have open files on a server during a Backup Job if the Retry Busy Files option is set.</p>
<p>Use QFA when reading tapes</p>	<p>Lets you determine whether or not Sytos Premium uses QFA to restore and compare tapes that support and use the QFA feature. If QFA is present but the QFA directory has become damaged, the files are restored or compared from the backup tape sequentially.</p>
<p>Automatic Library update</p>	<p>Lets you determine whether or not the Backup Sessions you create are recorded in the Library. If you select this option you always have a record of created Tape Sets.</p> <p>Do not select this option if you are transferring tapes to another system and do not need Tape Set information, or if you need to save disk space.</p>

<p>Unattended password...</p>	<p>Opens the Unattended Password window, as shown in Figure 3-10, where you can assign a default password for unattended Jobs with Password selected as a tape option. This preference affects only the Jobs where Password is selected.</p> <p>To assign a password for unattended Jobs, follow these steps:</p> <ol style="list-style-type: none">1. Click on Use password for unattended Jobs to specify a default password for unattended Jobs.2. Enter a password into the Password edit field.3. Confirm the password by entering the password in the Confirm Password edit field.4. Click on Set password. <p>If you do not select this option, Sytos Premium does not assign a password to unattended Jobs, even if you selected the password option when you created the Job.</p>
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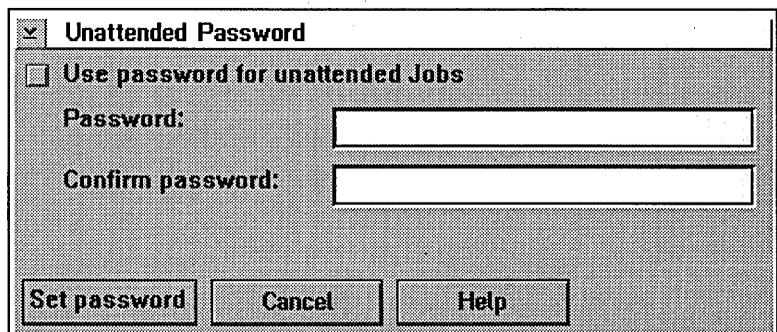


Figure 3-10. Unattended Password

<p>Job lock...</p>	<p>Opens the Job Lock window, as shown in Figure 3-11, where you specify a default password that when assigned to a Job excludes anyone who does not know the password from writing to the Job. Select this feature to prevent accidental or unauthorized changes to Jobs.</p> <p>To set the Job Lock, follow these steps:</p> <ol style="list-style-type: none"> 1. Click on Only allow previewing and running of Jobs to specify a password. 2. Enter a password into the Password edit field. 3. Confirm the password by entering the password in the Confirm Password edit field. 4. Click on Set lock.
<p>Retry busy file interval</p>	<p>For Jobs where Retry Busy Files is selected, the Retry Interval specifies the amount of time that Sytos Premium waits before trying to backup files that are busy. The default is 60 seconds. To change the default, enter the new time in the edit box.</p>

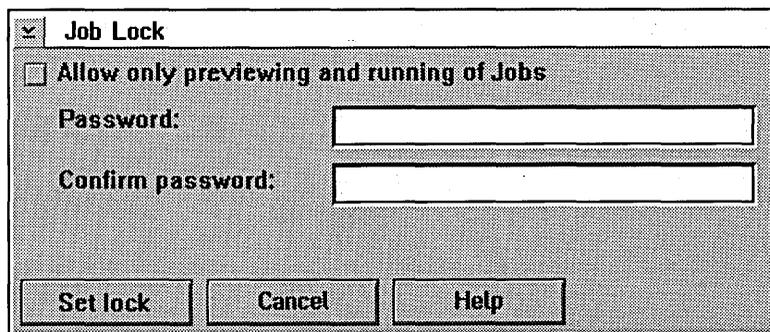
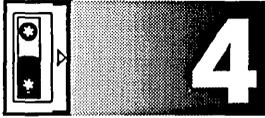


Figure 3-11. Job Lock

NOTES:



To Back Up Immediately

Overview

Introduction

This chapter provides step-by-step instructions to back up your files immediately using sample Jobs provided by Sytos Premium.

For Additional Information

At a later time, you can create a Backup Job that is customized to your needs. Refer to these chapters for additional information:

- *Chapter 7: Backing Up Data*, for step-by-step instructions to create a Backup Job.
- *Appendix C: Backup Strategies*, for file backup strategies.

Running a Full Backup

To run the sample Full Backup Job, follow these steps:

Step	Action
1	Insert a tape into the default backup device.
2	<p>Start Sytos Premium. Double-click on the Sytos Premium icon in the Sytos Premium group (if you defined a group when installing Sytos Premium).</p> <p>-or-</p> <p>Type the following at your operating system prompt:</p> <p>SYPLUS</p> <p>and press Enter. The Jobs window opens, as shown in Figure 4-1.</p> <p>NOTE: You can run the sample Full Backup Job without viewing its Job settings by double-clicking on the Full Backup Job icon in the Sytos Premium group.</p>
3	<p>Select Full Backup in the Jobs window. The Description box shows a description for the sample Full Backup Job.</p> <p>TIP: Select View settings from the Jobs menu to view the Job's options and settings.</p> <p>Full Backup backs up all files on your local hard drive to the default backup device, and then compares them to ensure that they are identical to the original files. Refer to <i>Appendix I: Sample Sytos Premium Jobs</i> for a description of the option settings for the sample Full Backup Job and the other sample Jobs.</p> <p>NOTE: If you set Double-click action to "Run" in the Jobs menu, you can run the Job by double-clicking on the icon.</p>

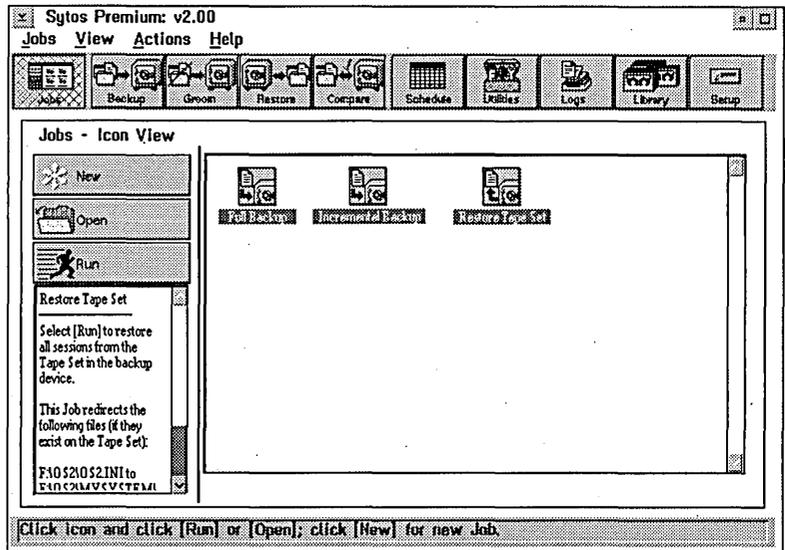


Figure 4-1. Jobs

4	Click on Run to run the Backup Job. The Backup Status window appears, as shown in Figure 4-2.
5	<p>After the Job runs, click on Open Log... in the Status window. The Log for the Backup Job appears. Review the Log for the completed Job to ensure that all files have been backed up as specified.</p> <p>Click on Print... to print the Log. When you are finished reviewing the Log, click on Close to close the Log.</p>

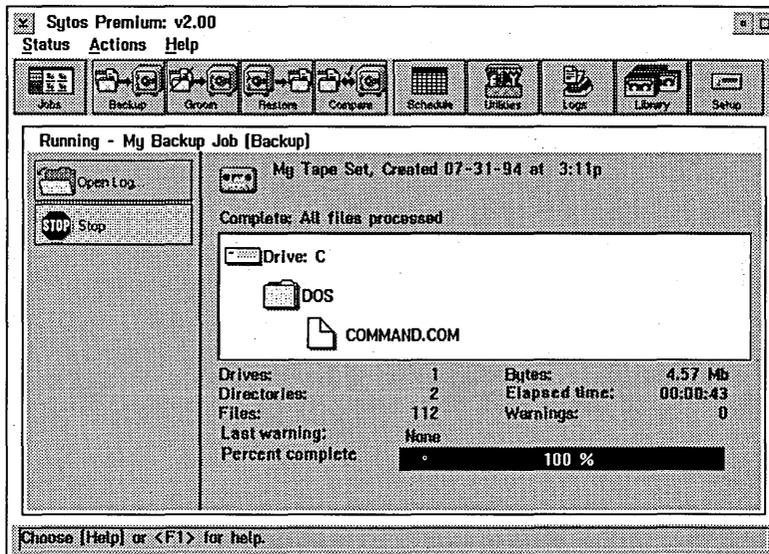
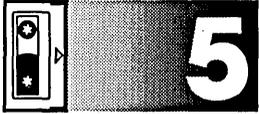


Figure 4-2. Backup Status



Navigating Within Sytos Premium

Overview

Introduction

This chapter explains the Sytos Premium windows, including the tool bar, menu bar, Job icons, and Directory Tree. When you start Sytos Premium, the Jobs window opens. You can move to all other Sytos Premium windows using the tool bar and menu bar.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Window Elements	5-2
Making Selections	5-3
Using the Tool Bar	5-4
Using the Menu Bar	5-5
Navigating the Directory Tree	5-6

Window Elements

Description

The Sytos Premium window elements, as shown in Figure 5-1, are available in all major windows. The following window elements let you work within Sytos Premium:

System Menu lets you quickly exit Sytos Premium.

Application Title Bar displays the title of the application.

Window Title Bar displays the title of the window.

Minimize/Maximize buttons enlarge the active application window to fill the entire screen or shrink the window to an icon.

Menu Bar displays pull-down menus for each Sytos Premium window. The **Actions** and **Help** menus are available from all windows. Additional menu items are available when you change windows.

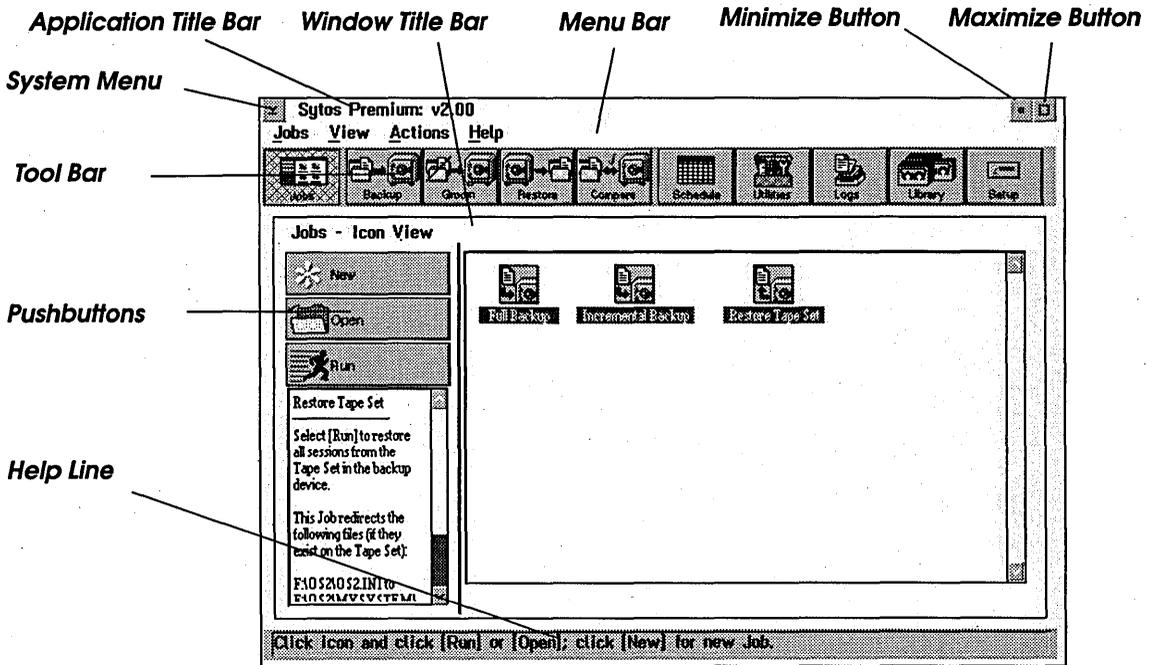


Figure 5-1. Sytos Premium Window Elements

Tool bar appears below the menu bar and lets you select Sytos Premium operations by clicking on the buttons.

Pushbuttons let you quickly select Sytos Premium operations for each window.

Help line provides a brief description about the highlighted item.

Making Selections

Description

As you work in Sytos Premium you can choose options and make selections.

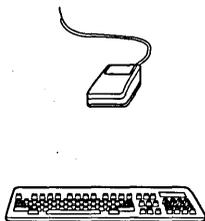
You have the following six methods to select items from windows:

- **Checkbox.** A control that consists of a square box and option text. You can select as many checkboxes as needed. When a checkbox has a checkmark within it, the option is selected.
- **Radio Button.** A round button that appears in a dialog box. You can select only one item from a list of radio buttons.
- **Pushbutton.** A button that executes an immediate action.
- **Edit Field.** A box in which you type or edit information.
- **Listbox.** A box that displays choices you can highlight for selection.
- **Dialog Box.** A window in which you provide required information to allow Sytos Premium to continue with your request.

Using a Keyboard and Mouse

You can use a keyboard and a mouse, together or separately, to make selections.

To select items for operation, follow these steps:



Step	Purpose	Action
1	Highlight the item you want	Use the arrow keys (↑ ↓ ← →) or Tab or Use the mouse to click on the item.
2	Select the item	Press Spacebar once or Click the mouse.

To move forward and backward between different sections of a window, use **Tab** and **Shift Tab** (hold the Shift key down, while pressing Tab) or use the arrow keys.

Using the Tool Bar

Description

You can use the Sytos Premium tool bar, as shown in Figure 5-2, to select frequently used Sytos Premium operations by clicking on the desired button.

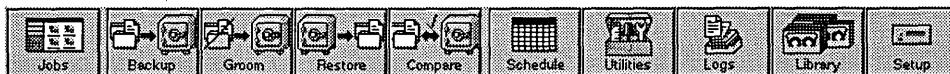


Figure 5-2. Tool Bar

Jobs opens the Jobs window where you can open or run any existing Jobs, or create a new Job.

Backup opens the Backup window where you can create and run a Backup Job.

Groom opens the Groom window where you can create and run a Groom Job.

Restore opens the Restore window where you can create and run a Restore Job.

Compare opens the Compare window where you can create and run a Compare Job.

Schedule opens the Schedule window where you set up Sytos Premium Jobs and other programs to run at specified times.

Utilities opens the Utilities window where you can perform various operations on tapes such as view, re-tension, and erase.

Logs opens the Logs window where you can view, print, and delete Logs.

Library opens the Library window where you can view, add, and delete Tape Sets.

Setup opens the Setup window where you can add, configure, or delete backup devices. You can also set preferences for the Sytos Premium environment.

Using the Menu Bar

Description

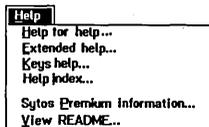
The **A**ctions and **H**elp menus are always available from the menu bar. Other menu items change depending on which window is open. For example, when the Backup window is open, the **B**ackup menu is available. Also, some menus, such as the **V**iew menu, are available in several windows, but offer different commands in each window.

Actions Menu



The **A**ctions menu lets you select the same operations as the tool bar. Refer to "Using The Tool Bar" in this chapter for a description of the **A**ctions menu commands.

Help Menu



You can select the following Sytos Premium operations from the **Help** menu:

Help for help... provides instructions for using on-line Help.

Extended help... provides context-sensitive help about the highlighted item.

Keys help... shows you how to use the keyboard to move around windows and make selections with the function keys.

Help index... lists all the topics, in alphabetical order, for which help is available.

Sytos Premium information... provides information about this version of Sytos Premium.

View README... lets you read the README file.

Navigating the Directory Tree

Description

The Directory Tree displays your workstation, network, or the data on your backup tape, as shown in Figure 5-3. You can expand or collapse the Directory Tree to make file selection easy. The Directory Tree lets you select data for Sytos Premium Jobs by clicking on the selection box next to the item you want.

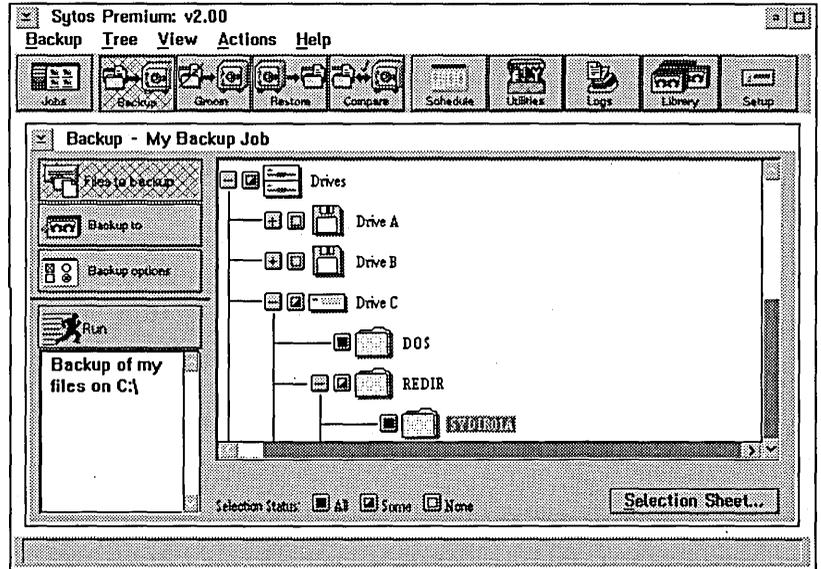


Figure 5-3. Directory Tree

Selecting Data from the Directory Tree

Next to displayed files, directories, and drives in the Directory Tree is a selection box that shows whether items are selected, partially selected, or not selected.



All indicates that the item is selected. To select data for a Sytos Premium Job, click the selection box next to the item so that the square is entirely filled.



None indicates that the item is not selected. To exclude data from a Sytos Premium Job, click the selection box next to the item so that the square is not filled.



Some indicates that the item is partially selected. To partially select an item, expand the Directory Tree to display the item and its sub-level directories. Select some sub-level files and directories. You cannot partially select files.

Expanding the Directory Tree

When you select files for a Job, Sytos Premium displays a Directory Tree down to the drives level. From this level, you can select all or no data in a drive for a Job. To select directories, subdirectories, and files in a drive, you must expand the Directory Tree.

A plus sign  next to a drive or directory indicates the drive or directory contains directories, subdirectories or files that are not displayed. A minus sign  indicates the item's sub-levels are displayed.

To expand the Directory Tree as shown in Figure 5-4, follow one of these methods:

- Click on  next to the item to display the next level under the item.

*You can select
Expand one level
from the Tree menu
or click on  to
display the next
level.*

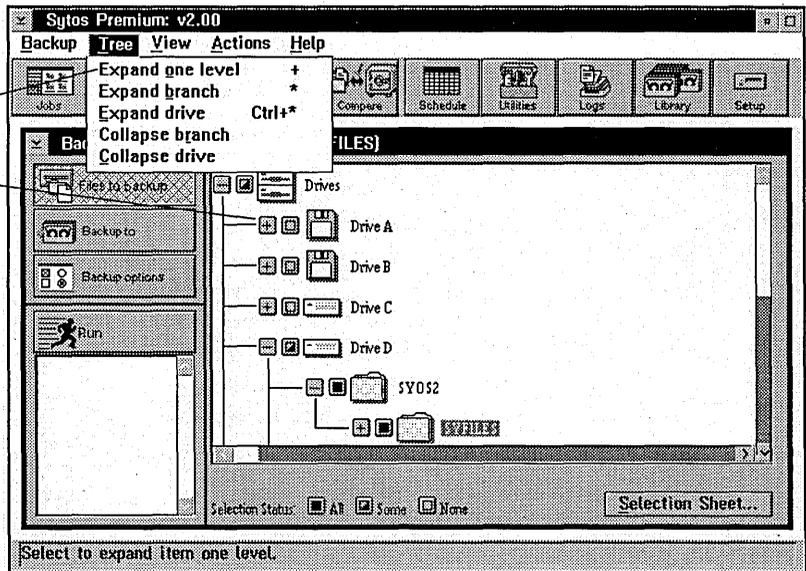


Figure 5-4. Expanding the Directory Tree

- Highlight the Directory Tree item, then select the desired command from the **T**ree menu:

Expand one level expands the selected item to the next level.

Expand branch expands the entire branch for the selected item.

Expand drive expands the Directory Tree to display directories, subdirectories, and files for the drive.

Collapsing the Directory Tree

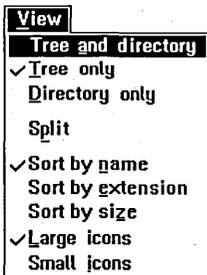
You can collapse any expanded branch of the Directory Tree by following one of these methods:

- Click on next to an item to close levels under the item.
- Highlight the Directory Tree item, then select the desired command from the **T**ree menu:

Collapse branch closes each level below the highlighted item.

Collapse drive closes the Directory Tree so that only the drive is displayed.

Using the View Menu



The **V**iew menu commands let you change the Directory Tree's appearance, as shown in Figure 5-5. The **V**iew menu in the Backup, Groom, Restore, and Compare windows offers the following commands:

Tree and directory displays the Directory Tree and the files in the selected directory.

Tree only displays only the Directory Tree.

Directory only displays only the files in the current directory.

Split lets you use the arrow keys to move the border between the Directory Tree window and the Files window. You can also use the mouse to click and drag the border.

Sort by name displays files in alphabetical order.

Sort by extension displays files by extension, for example, all “.doc” files are grouped together.

Sort by size displays files in order of size, smallest to largest.

Large icons displays enlarged icons.

Small icons displays small icons to see more items on the list.

*The **V**iew menu lets you change the window to show the Directory Tree, the files, or the Directory Tree and the files.*

*The **V**iew menu lets you display files in alphabetical order, by extension, or size.*

*You can use the mouse or the **S**plit command to move the border between the Directory Tree and Files windows.*

*The **V**iew menu lets you change the size of the icons.*

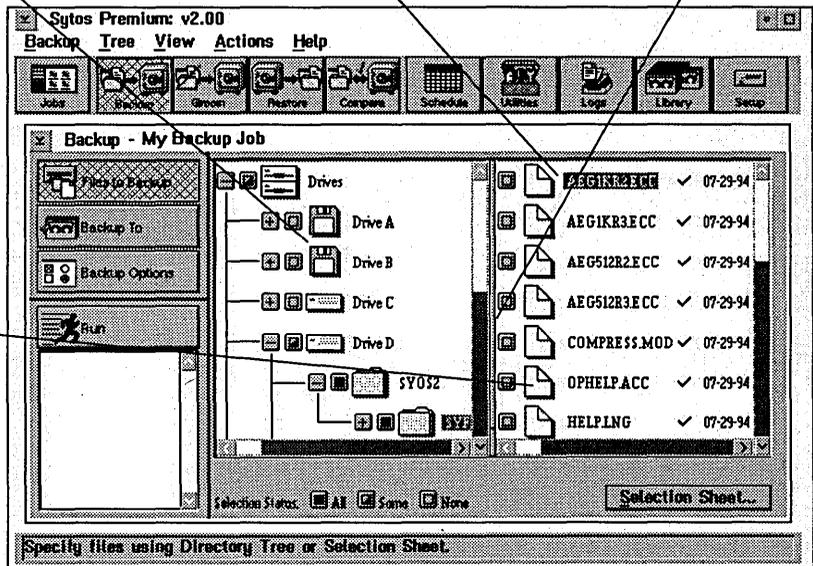
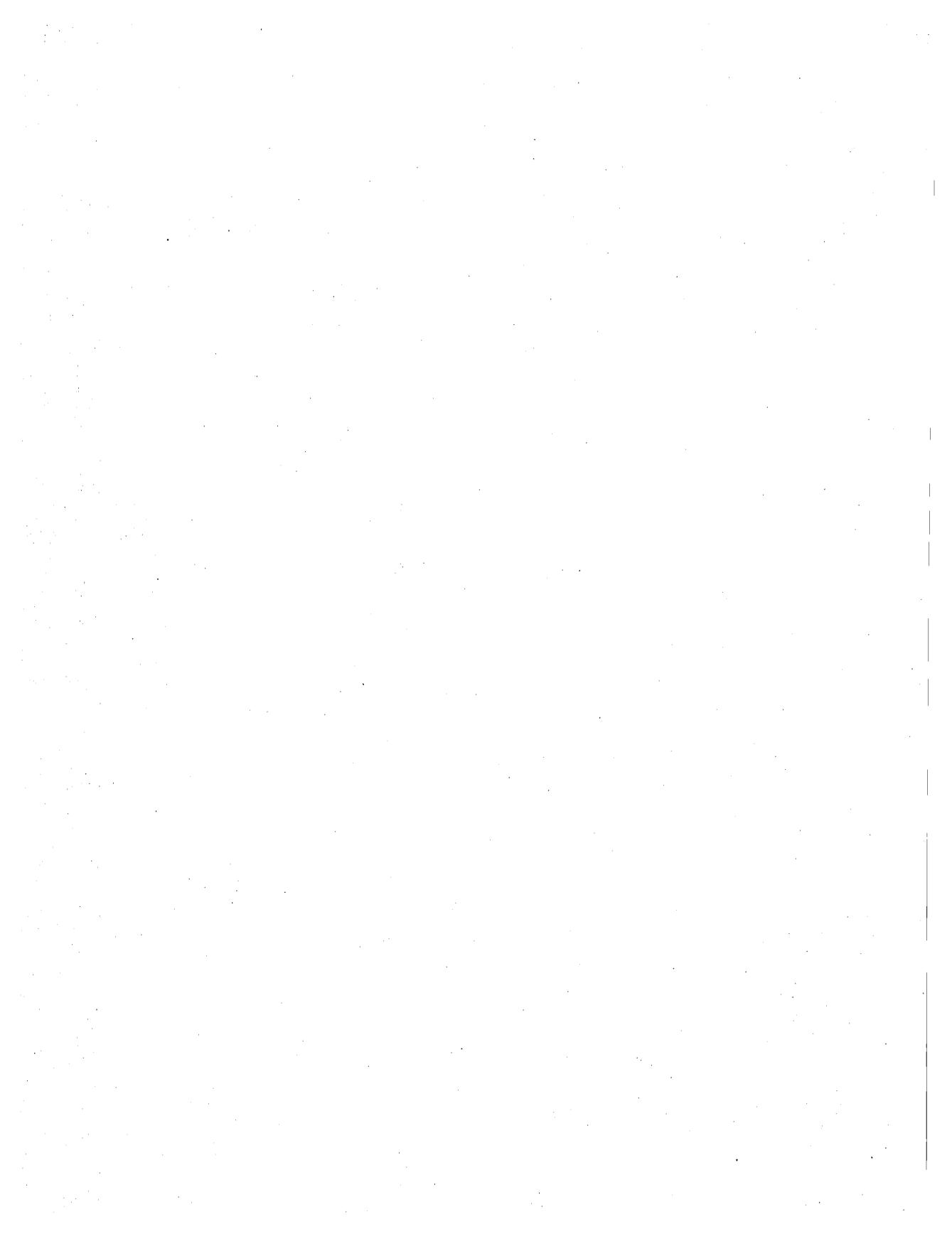
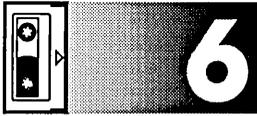


Figure 5-5. Using the View Menu

Part II : Using Sytos Premium





Managing Jobs

Overview

Introduction



This chapter explains how to manage your Sytos Premium Jobs using the Jobs window and menu. You can use the Jobs window to open and run an existing Job, or you can create a new Job. The **Jobs** menu lets you review Job settings, print a list of Jobs, and import, export, and delete Jobs.

For Additional Information

Refer to these chapters for additional information:

Chapter 7: Backing Up Data for instructions on creating and running a Backup Job.

Chapter 8: Grooming Data for instructions on creating and running a Groom Job.

Chapter 9: Restoring Data for instructions on creating and running a Restore Job.

Chapter 10: Comparing Data for instructions on creating and running a Compare Job.

In This Chapter

This chapter includes the following major topics:

Topic	See Page
Using the Jobs Window	6-2
Creating Jobs	6-4

Opening Jobs	6-6
Deleting Jobs	6-6
Running Jobs	6-6
Importing Jobs	6-8
Exporting Jobs	6-9
Viewing Job Settings	6-10
Printing a Job List	6-11
Setting Double-Click Action	6-11

Using the Jobs Window

Description

When you start Sytos Premium, the Jobs window opens, as shown in Figure 6-1. You can edit, run, and create Jobs using the pushbuttons and menu commands in this window. To open the Jobs window from other windows, click on **J**obs or select **J**obs from the **A**ctions menu.

TIP: To run a Job by double-clicking on the Job, set **Double-click action** from the **J**obs menu to **Run.** The default setting is **Open.** Refer to "Setting Double-click Action" in this chapter for more information.

Click on **New...** to create a new Job.

Highlight a Job icon and click on **Open** to open an existing Job.

Highlight a Job icon and click on **Run** to run an existing Job.

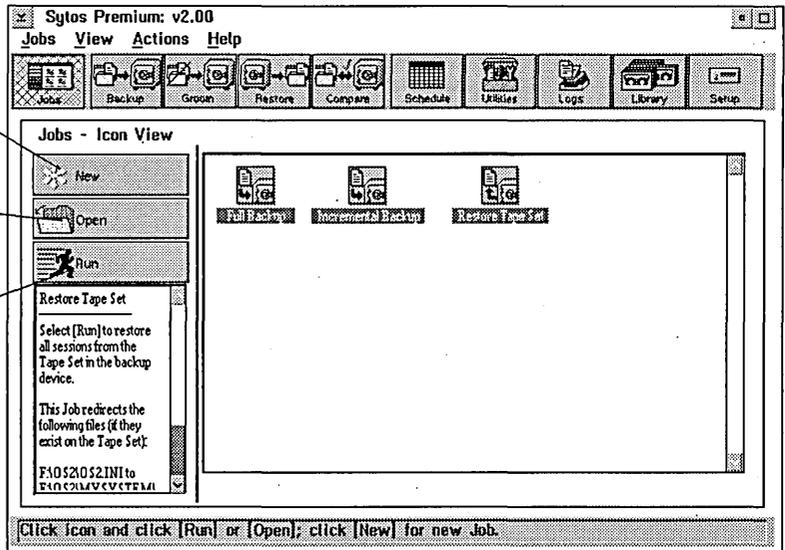
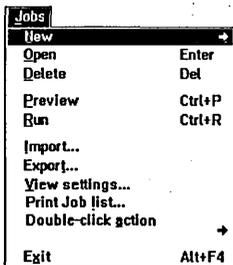


Figure 6-1. Jobs

Using the Jobs Menu



The **J**obs menu appears on the menu bar when you open the Jobs window. This menu provides additional commands for managing Jobs. You can select the following commands from the **J**obs menu:

New shows a cascading menu where you can select **B**ackup, **G**room, **R**estore, and **C**ompare to create a Job.

Open opens the corresponding job window for the highlighted Job.

Delete removes the highlighted Job from Sytos Premium.

Preview provides statistics about the highlighted Job before you actually run the Job.

Run starts the highlighted Job.

Import... copies Jobs to your system from another system that uses Sytos Premium.

Export... copies Jobs to a drive so that they can be used by another system running Sytos Premium.

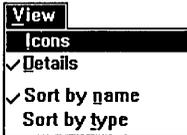
View settings... shows the name, description, options, and settings of the highlighted Job.

Print Job list... sends a list of Sytos Premium Jobs to a printer or text file.

Double-click action lets you set double-click action to "**Run**," or "**Open**." The default setting is "**Open**."

Exit lets you leave Sytos Premium.

View Menu



The **View** menu lets you customize the Jobs window:

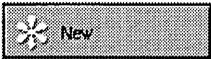
Icons shows the Icons view in the Jobs window.

Details shows the Details view in the Jobs window.

Sort by name displays Jobs alphabetically in the Jobs window.

Sort by type displays Jobs by type in the Jobs window.

Creating Jobs



To create a new Job, use one of the following methods:

- Click on **Backup**, **Groom**, **Restore**, or **Compare** on the tool bar.
- Click on **New** on the Jobs window to open the Create New Job window, as shown in Figure 6-2. Select the type of job that you want to create and click on **Create**.
- Select **New** from the **Jobs** menu to show a cascading menu. Select the type of job that you want to create.

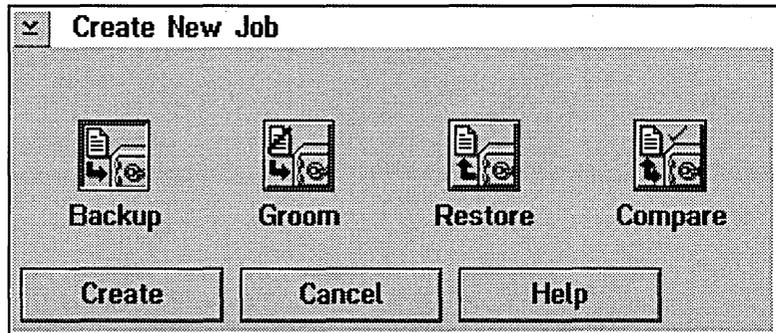
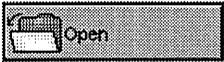


Figure 6-2. Create New Job

To create a Job using the Create New Job window, follow these steps:

Step	Action
1	Click on New to open the Create New Job window.
2	Select Backup, Groom, Restore, or Compare.
3	Click on Create to open the Backup, Groom, Restore, or Compare window.

Opening Jobs



To open an existing Job, follow these steps:

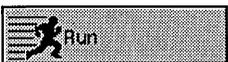
Step	Action
1	Select the Job that you want to open.
2	Click on Open or select Open from the Jobs menu. The job window opens. <i>NOTE: If Double-click action in the Jobs menu is set to "Open," you can double-click on a Job to open the Job.</i>

Deleting Jobs

To delete a Job, follow these steps:

Step	Action
1	Select the Job that you want to delete.
2	Select Delete from the Jobs menu. A window appears asking you to confirm that you want to delete the Job. Click on OK to delete the Job.

Running Jobs



To run a Job, follow this step:

Step	Action
1	Select the Job that you want to run.

- 2 Click on **[Run]** or select **Run** from the **Jobs** menu. The Status window opens, as shown in Figure 6-3.

NOTE: If **Double-click action** in the **Jobs** menu is set to **"Run,"** you can double-click on a Job icon to run the Job.

TIP: Before running a Job, you can use **Preview** to view the Job's statistics without actually running the Job. **Preview** tells you the number of files that the Job processes and the space needed. A Status window and a Log provide information about the Job. To preview a Job, highlight the Job icon and select **Preview** from the **Jobs** menu.

Click on **[Open Log...]** to see more information about the Job in progress. Click on **[Stop]** to stop the running Job.
- 3 When the Job completes, Sytos Premium displays a final status message. Click on **[OK]** to close the prompt and return to the Status window.

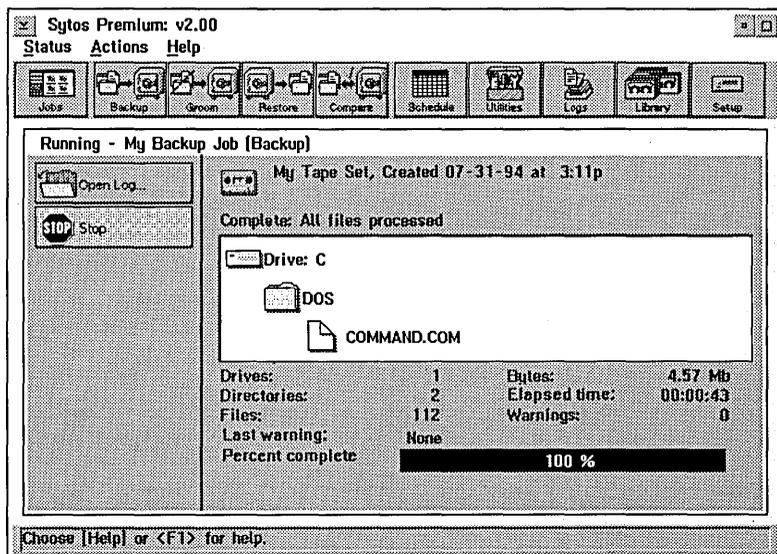


Figure 6-3. Status

Importing Jobs

To import a Job to your system, follow these steps:

Step	Action
1	Select Import... from the Jobs menu. The Import Jobs window appears, as shown in Figure 6-4.
2	Select the drive containing the Jobs you want to copy. The Select Jobs to import field displays a list of Jobs on the drive.
3	Select the Jobs that you want to import and click on Import .

NOTE: After importing a Job, check its settings (filenames, backup device name, and options) to ensure that the settings apply to your system. To edit a Job, refer to the *Backup, Groom, Restore, and Compare* chapters for more information.

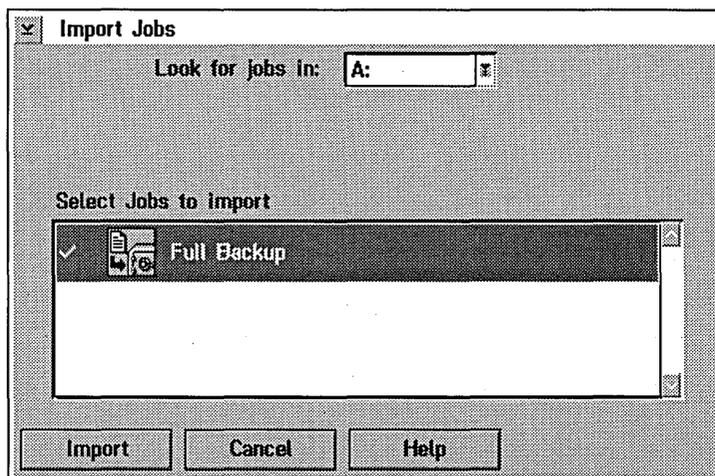


Figure 6-4. Import Jobs

Exporting Jobs

To copy Jobs from your system to other systems running Sytos Premium, follow these steps:

Step	Action
1	Select Export... from the Jobs menu. The Export Jobs window appears, as shown in Figure 6-5.
2	Select the drive to which you want to copy the Jobs. The Select Jobs to export field displays a list of Jobs on the drive.
3	Select the Jobs that you want to export and click on Export to export the Jobs.

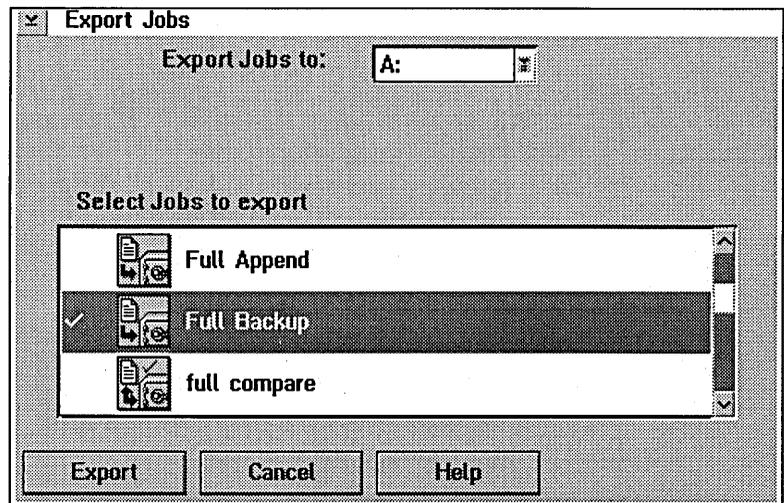


Figure 6-5. Export Jobs

Viewing Job Settings

To view the Job settings file, follow these steps:

Step	Action
1	Select the Job in the Jobs window that you want to view.
2	<p>Select View settings... from the Jobs menu. The View Job window opens.</p> <p>The name, description, and creation date of the Job are displayed. If you are viewing a Backup or Groom Job, the Selection Sheet settings, backup device, tape options, and Backup Session options are shown. The restore options are shown for Restore and Compare Jobs.</p> <p>Click on Print... to print the list. Click on Close to close the window.</p>

Printing a Job List

To print the Job list, follow these steps:

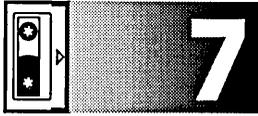
Step	Action
1	Select Print Job list... from the J obs menu.
2	<p>Click on A text file, The printer, or both options. Selected options are marked by a check.</p> <p>The pathname edit field shows where a text file is sent. You can send the file to a different location by typing a new pathname into the edit field.</p>
3	Click on OK to print the list.

Setting Double-Click Action

To set double-click action in the Jobs window, follow these steps:

Step	Action
1	Select Double-click action from the J obs menu. A cascade menu appears.
2	Select " O pen" from the cascade menu to use double-click action to open Jobs. -or- Select " R un" from the cascade menu to use double-click action to run Jobs.

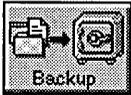
NOTES:



Backing Up Data

Overview

Introduction



This chapter explains how to create, edit, and run a Backup Job. A Backup Job copies your files to a backup device for safekeeping. You can back up your files using a sample Job, or you can create a new Job. Creating a Backup Job involves selecting files, a backup device, and options.

For Additional Information

Refer to these chapters for additional information:

- *Chapter 4: To Back Up Immediately*, for step-by-step instructions to quickly back up your files using a sample Backup Job.
 - *Appendix C: Backup Strategies*, for file backup strategies using Sytos Premium.
-

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Creating a Backup Job	7-2
Selecting Files to Back Up	7-4
Selecting a Backup Device	7-11

Selecting Backup Options	7-15
Running a Backup Job	7-20

Creating a Backup Job

Description

The Backup window, as shown in Figure 7-1, lets you create, edit, and run Backup Jobs. Click on **Backup** on the tool bar to display the Backup window.

Click on **Backup** to open the Backup window.

Click on **Files to backup** to select files for the Backup Job.

Click on **Backup to** to select a backup device and tape options.

Click on **Backup options** to select options for the Backup Job.

Click on **Run** to run the Backup Job.

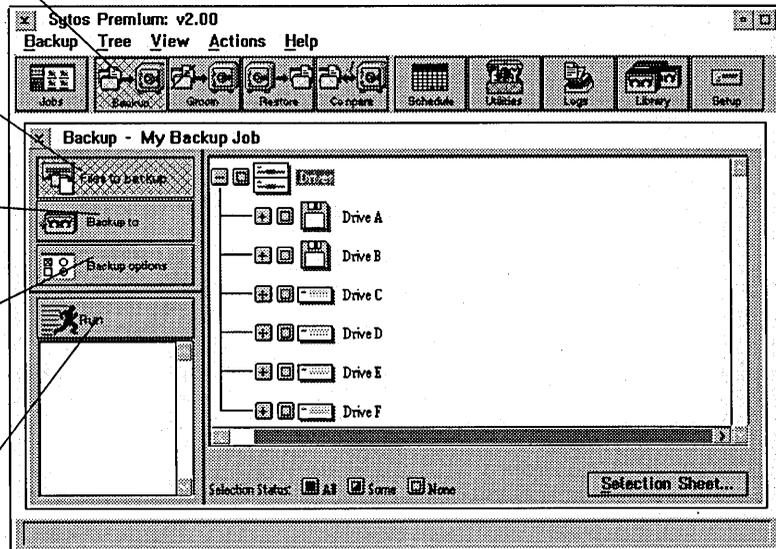


Figure 7-1. Backup

To create and run a customized Backup Job, follow these steps:

Step	Action
1	Click on Files to backup to select files for the Backup Job. Select drives, directories, and files from the Directory Tree by clicking the Selection Status box. You can also click on Selection Sheet... to specify files using wildcards or date ranges. Refer to "Selecting Files to Back Up" in this chapter for more information.
2	Click on Backup to to select a backup device and tape options for the Backup Job. Refer to "Selecting a Backup Device" in this chapter for more information.
3	Click on Backup options to select a backup method (for example, a Full Backup) and options for the Backup Job. Refer to "Selecting Backup Options" in this chapter for more information.
4	Click on Run to run the current Backup Job. Refer to "Running a Backup Job" for more information.

Using the Backup Menu

Backup	
Save	Ctrl+S
Save as...	
✓ Files to backup	
Backup to	
Backup options	
Preview	Ctrl+P
Run	Ctrl+R
Exit	Alt+F4

The **Backup** menu appears on the menu bar when you open the Backup window, and provides additional commands for Backup Jobs. You can select the following commands from the **Backup** menu:

Save saves edits to an existing Backup Job under the current name.

Save as... lets you assign a new name and description to a Backup Job. Use this command to create a new Backup Job from edits to a default Backup Job.

Files to backup lets you select files for the Backup Job using the Directory Tree or Selection Sheet.

Backup to lets you select a backup device and tape options for the Backup Job.

Backup options lets you select backup options for the Backup Job.

Preview provides statistics about the current Backup Job before you actually run the Job. Preview tells you the number of files that are

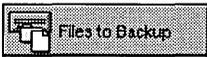
backed up by the Backup Job. Run a Preview to estimate the tapes you need for the Job.

Run starts the current Backup Job.

Exit lets you leave Sytos Premium.

Selecting Files To Back Up

Description



Click on **Files to backup** in the Backup window to display the Directory Tree as shown in Figure 7-2. You can select files for backup using the Directory Tree or Selection Sheet.

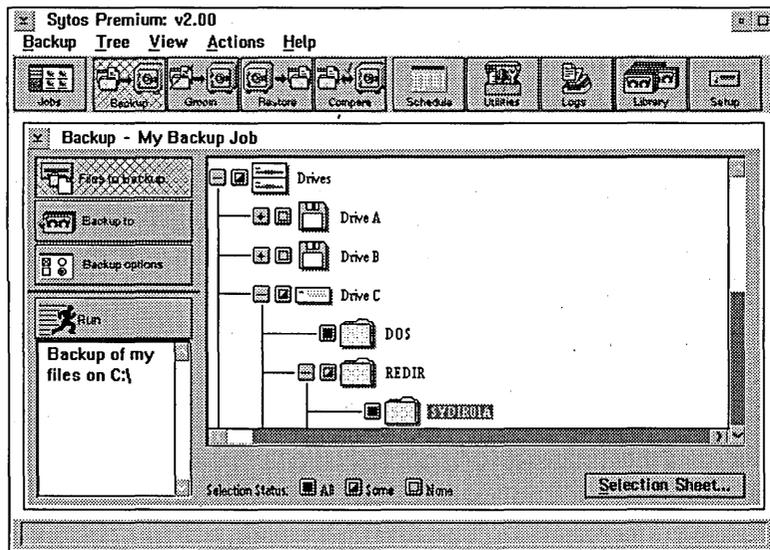


Figure 7-2. Directory Tree

Using the Directory Tree

When you click on **Files to backup**, a Directory Tree displaying the entire system appears. The following selection boxes show current selections for backup:



All. All files on the listed drive or directory are selected for a backup.



Some. Specific files on the listed drive or directory are selected for a backup.



None. No files on the listed drive or directory are currently selected.

To select files for backup, follow these steps:

Step	Action
1	Click on the plus sign  and the minus sign  next to displayed drives, directories, and files to expand or collapse the Directory Tree to a level from which you can make selections. You can also use the Tree and View menu commands to change the Directory Tree display. Refer to <i>Chapter 5: Navigating Within Sytos Premium</i> for instructions on using the Directory Tree.
2	Click the selection box next to files, directories, and drives to All to select files, directories, and drives for backup. To clear the selection box, click on it again.

Using the Selection Sheet

A Selection Sheet, as shown in Figure 7-3, lets you select files and subdirectories using wildcards (* and ?), by date ranges, and by archive bits. Archive bits let you select only files that have changed since the last Backup Job.

When you choose files from the Directory Tree, Sytos Premium builds a Selection Sheet in the background. By clicking on **Selection Sheet...**, you can view or edit the Selection Sheet for your Backup Job.

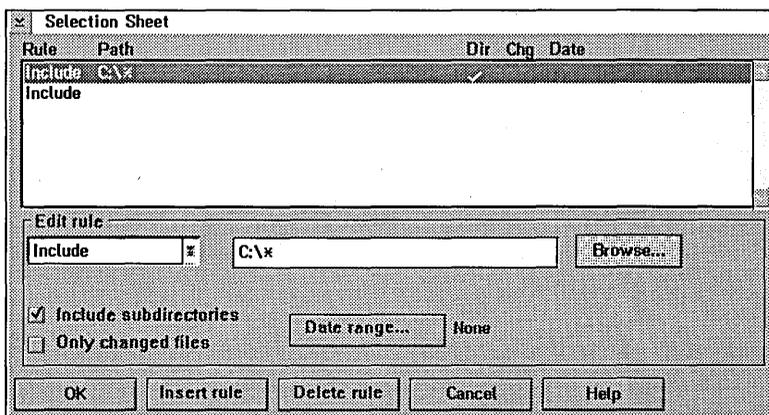


Figure 7-3. Selection Sheet

Editing the Selection Sheet

Use **Insert rule** to add a new rule above the highlighted one and **Delete rule** to delete the highlighted rule. Use the Edit rule group box to edit the highlighted rule.

To edit a Selection Sheet, follow these steps:

Step	Action
1	Click on Selection Sheet... to display the Selection Sheet with its current file selections. Each line on the sheet represents one rule.
2	Edit the Selection Sheet by inserting, deleting, and editing rules. Refer to "Inserting and Deleting Rules" and "Editing Selection Sheet Rules" in this section for more information.

3	Click on OK to accept the Selection Sheet.
---	---

NOTE: A Selection Sheet is read from top to bottom, and a rule inserted in the middle of the sheet may be affected by a rule below it. Insert new rules at the bottom of the Selection Sheet.

Inserting and Deleting Rules

To insert a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight a rule above which you want to insert a new rule.
2	Click on Insert rule to insert a blank rule above the highlighted rule.
3	<p>Enter a pathname into the pathname edit field that identifies the data to be backed up. The inserted rule displays the current pathname.</p> <p>You can type the pathname into the field.</p> <p style="text-align: center;">-or-</p> <p>Click on Browse... to open the Browse window where you scan the Directory Tree for directories and files to back up. When the edit field displays the pathname you want to select, click on OK. The inserted rule displays the pathname.</p>

To delete a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight the rule that you want to delete.
2	Click on Delete rule to delete the highlighted rule.

Editing Selection Sheet Rules

To edit an existing rule, follow these steps:

Step	Action
1	Highlight the rule to display the rule's pathname in the pathname edit field.
2	Select options in the Edit rule group box to edit the highlighted rule or change the rule by typing directly in the pathname edit field.

The Edit Rule group box contains the following fields and options:

Option	Description
Include/Exclude	Lets you include or exclude files specified by the pathname in the pathname edit field.
Pathname edit field	Lets you specify a pathname for a rule that you want to insert, delete, or edit. You can type the pathname into the field or click on Browse... to scan the Directory Tree for a pathname.
Include subdirectories	Includes all subdirectories of the specified path.
Only changed files	Includes only files of the specified pathname that have changed since the last backup.

<p><input type="button" value="Date range..."/></p>	<p>Opens the Date Range window where you select a date range for including/excluding files. Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. This option is the default setting. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on <input type="button" value="OK"/> to accept the date range selections and return to the Selection Sheet.</p>
---	--

Selection Sheet Examples

The following examples show file selections and their corresponding rules on the Selection Sheet:

Example 1: Include all files from the C: drive.

Your Selection Sheet rule:

Rule	Path	Dir	Chg	Date
Include	C:*	√		

Example 2: Include only changed files from the C: drive.

Your Selection Sheet rule:

Rule	Path	Dir	Chg	Date
Include	C:*	√	√	

Example 3: Include all files from the C: drive, except Accounts files.

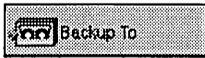
Your Selection Sheet rules:

Rule	Path	Dir	Chg	Date
Include	C:*	√		
Exclude	C:\ACCOUNTS*	√		

NOTE: The Selection Sheet is read from top to bottom. If you put a rule in the middle of the sheet, it can be affected by rules below it. In Example 3, if you insert the rule "Include C:*" below the rule excluding C:\ACCOUNTS*, Sytos Premium backs up all files in C:.

Selecting a Backup Device

Description



If you configured more than one backup device, you can choose a backup device by clicking on **Backup to**. Figure 7-4 shows the window where you choose a backup device.

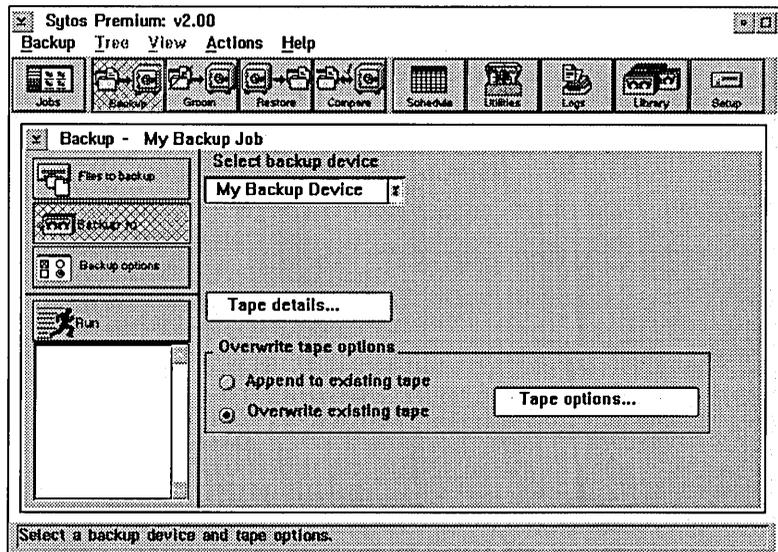


Figure 7-4. Backup To

Selecting a Backup Device

If you have only one backup device, Sytos Premium automatically selects it. If you have more than one backup device, follow these steps to select a different device:

Step	Action
1	Select a backup device in the Select backup device drop-down listbox.

2	<p>To confirm that the tape you want is in the backup device, click on Tape details.... The Tape Details window displays information about the tape and the Backup Sessions on the tape. Click on Sessions>> for information about the Backup Sessions, or click on OK to exit the Tape Details window. The tape's name, tape number, and creation date are displayed next to Tape details....</p>
---	--

Appending to or Overwriting a Tape

You can append to or overwrite a tape by choosing one of the following options:

- **Append to existing tape** adds the Backup Session to an existing tape using option settings specified when the tape was created. When you choose Append, **Tape options...** is not selectable and you cannot change the current tape options.
- **Overwrite existing tape** replaces all Backup Sessions on tape, if any exist.

Selecting Tape Options

Click on **Tape options...** to open the Tape Options window as shown in Figure 7-5.

The following table lists available tape options:

Option	Description
Tape name	Lets you give the tape a personalized name for recognizing the contents quickly.
Description	Lets you describe the tape so that it identifies the system that created it. If the tape is moved away from the original system, you can determine which system the files belong to by clicking on Details in the Utilities window.

Tape Options

Tape name:

Description:

Password

QFA - Quick file access

ECC - Error correction code

Figure 7-5. Tape Options

Option	Description
<p>Password</p>	<p>Lets you assign the tape a password for security purposes. Sytos Premium prompts you for the password when you run the Backup Job.</p> <p>CAUTION: <i>Without the password, you cannot restore or compare the files, and you cannot append other Backup Sessions to the Tape Set.</i></p> <p>TIP: <i>You should write-protect your tape even if it is password-protected, as a password does not prevent tapes from being erased or overwritten.</i></p>

Option	Description
<p>QFA-Quick file access</p>	<p>Enables Sytos Premium to find specific stored files quickly. When QFA is enabled, Sytos Premium records information during backup about each file's location on the tape. This information is stored in a special "directory" on the tape. Sytos Premium refers to the directory to quickly locate files during Restore or Compare Jobs.</p> <p>This option is useful for increasing performance when restoring or comparing single files. However, because the QFA option records information on the tape, it reduces the number of files you can back up to your tape.</p> <p>If you select QFA, you cannot select Software compression as a backup option.</p> <p><i>TIP: QFA is useful when using high-capacity tape or backup devices, such as DAT drives.</i></p> <p><i>NOTE: QFA is not available for all devices.</i></p>
<p>ECC-Error correction code</p>	<p>Records special information on the tape to assist with restoring files if the tape becomes damaged after a successful Backup. Although recording this information takes up more space on your backup tape, it is beneficial if that tape ever becomes damaged.</p> <p><i>NOTE: You cannot clear this option.</i></p>

Selecting Backup Options

Description

Click on **Backup options** to select options for the Backup Job.

Figure 7-6 shows the window where you select backup options.

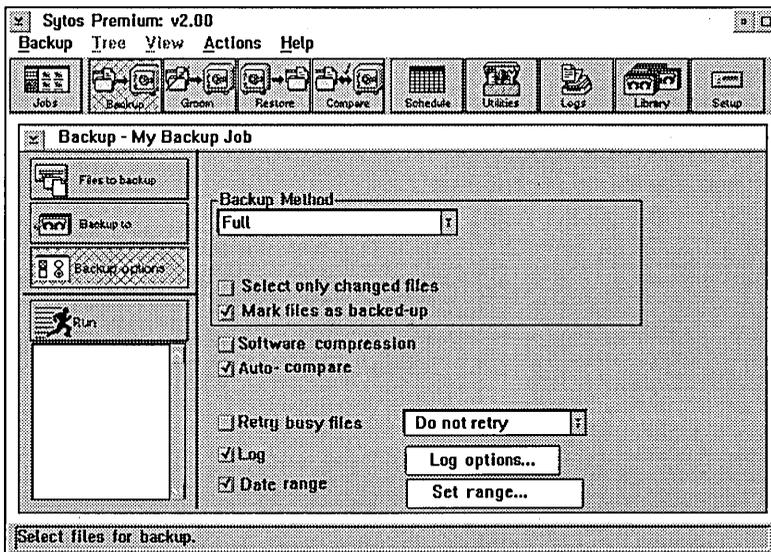
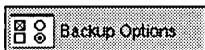


Figure 7-6. Backup Options

Choosing a Backup Method

When you select files for backup using the Directory Tree or the Selection Sheet you define a backup method for your Backup Job. The Backup Method group box displays the selected backup type. You can select a new backup type in the Backup Method drop-down listbox. Sytos Premium automatically selects or clears **Select only changed files** and **Mark files as backed-up** to match the selected backup type.

NOTE: The Backup Method drop-down listbox displays the backup type defined by your Selection Sheet. If you change the backup type in the listbox, your Selection Sheet is also changed.

When the listbox displays **Selection Sheet**, your Selection Sheet defines a backup type that does not match a Full, Incremental, Differential, or Copy backup type. If you clear **Selection Sheet** from the listbox, your Selection Sheet settings are deleted and cannot be recovered by re-selecting **Selection Sheet**.

You can select the following backup types:

- **Full** backs up all files selected, whether or not they have changed since the last backup. Sytos Premium sets the following options:
 - Select only changed files**
 - Mark files as backed-up**

- **Incremental** backs up only the files that have changed since the most recent Full or Incremental backup. Sytos Premium sets the following options:
 - Select only changed files**
 - Mark files as backed-up**

- **Differential** backs up all files that have changed since the most recent Full Backup. Sytos Premium sets the following options:
 - Select only changed files**
 - Mark files as backed-up**

- **Copy** backs up all selected files without changing the source files. Sytos Premium sets the following options:
 - Select only changed files**
 - Mark files as backed-up**

Refer to *Appendix C: Backup Strategies* for strategies using the backup types.

The following options are available for a Backup Job:

Option	Description
<p>Software compression</p>	<p>Compresses the data on your backup tape, which reduces the size of your backup.</p> <p>When Software compression is selected, Sytos Premium places primary emphasis on data compression and secondary emphasis on the time required to perform a backup.</p> <p>If you select Software compression, you cannot select QFA as a tape option.</p> <p>NOTE: Some backup devices provide hardware compression. In these cases, this option is not selectable.</p>
<p>Auto-compare</p>	<p>Automatically performs a Compare Job after the Backup to check that your backed-up files are identical to the source files.</p> <p>TIP: If the files on tape do not match the files on disk after the Compare, you either do not have a good Backup or the files changed during the Backup. Rerun the Job with Auto-compare selected to ensure it completes successfully.</p> <p>NOTE: If you want to Compare an unattended Backup Job that spans multiple tapes, run a separate Compare Job after the Backup Job. Refer to Chapter 10: Comparing Data for information about creating and running Compare Jobs.</p>

Option	Description
<p>Retry busy files</p>	<p>Attempts once more at the end of a backup to back up busy files. If the file is still busy during the retry, the file is skipped and recorded in the Log as not backed-up. This option is useful if you work in a networking or multi-tasking environment.</p> <p>Use the listbox to choose from the following options to retry files:</p> <ul style="list-style-type: none"> - Do not retry. Skips busy files. This option is the default. - Until. Attempts to back up files until a specified time of day. - Until no longer busy. Retries busy files until they are no longer open. - For. Tries to back up busy files within a specified amount of time.
<p>Log</p>	<p>Creates a record of what happened when you ran the Backup Job, including a list of Job, Log, and Selection Sheet settings, and a description of any problems that occurred. Sytos Premium saves the Log in a text file on your drive.</p>
<p>Log options...</p>	<p>Opens the Log Options window, as shown Figure 7-7. You can use the Log Options window to customize your Log with the following Log Options.</p> <p>Send Log to printer. Sends the Log to the default printer.</p> <p>List all files in Log. Includes a complete list of all processed files in the Log.</p> <p>TIP: You should create a Log for all Jobs and review the Log after running a Job.</p>
<p>Date range</p>	<p>Lets you select a date range for including/excluding files.</p>

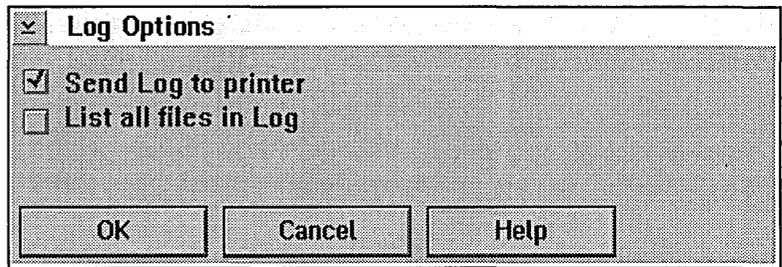


Figure 7-7. Log Options

Option	Description
<p>Set range...</p>	<p>Opens the Date Range window. Selection Sheet is displayed if you selected a date range on the Selection Sheet. If you select a new date range as a backup option, your date range selection from the Selection Sheet is overwritten.</p> <p>Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on OK to accept the date range selections.</p>

Running a Backup Job

Description



You can run a Backup Job immediately, or preview the Backup Job before it runs. To schedule the Job to run later, refer to *Chapter 12: Scheduling*.

Saving a Backup Job

You can save the settings for a newly created or modified Backup Job using the following commands from the **Backup** menu:

- **Save** saves edits to an existing Job under the current name.
- **Save as...** lets you assign a new name and description to a Job. Use this command to create a new Job from edits to a default Job.

***TIP:** If you are setting up a complex Job, you may want to save your work periodically.*

To save a Backup Job, follow these steps:

Step	Action
1	Select Save from the Backup menu to save edits made to an existing Job under the current name. -or- Select Save as... from the Backup menu to assign a new name and description to a Job. Figure 7-8 shows the Save Job window.
2	Enter a name and description for the new Job.
3	Click on Save to save the Job.

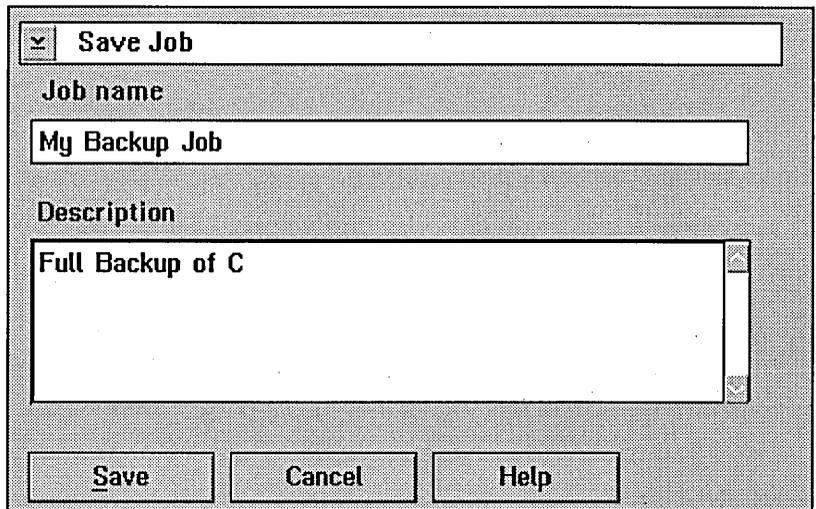


Figure 7-8. Save Job

Previewing a Backup Job

Preview provides statistics about the highlighted Job before you actually run the Job. This option does not affect files or their attributes in any way.

Preview tells you the number of files that Sytos Premium attempts to back up, and the space needed, so you can estimate the number of tapes you need for the Job.

Since files are not actually processed, **Preview** does not tell you if files are busy or damaged during the Backup Job.

To preview a Backup Job, follow these steps:

Step	Action
1	<p>Select Preview from the Backup menu to start previewing the Job. The Status window opens. Refer to "Viewing the Backup Status Window" for information about the Backup Status window.</p> <p>You can click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Job.</p>

2	When the Preview is complete, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Status window.
---	---

Estimating the Tapes Needed

You can estimate the number of tapes or diskettes Sytos Premium needs during a Backup Job by previewing your Job. This step tells you the total size of the files that are processed. You can then compare this size to the capacity of your tape and estimate the number of tapes or diskettes that you need.

Running a Backup Job

To run your Backup Job, follow these steps:

Step	Action
1	Click on Run from the Backup window or select Run from the Backup menu. The Backup Status window appears. You can click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Backup Job.
2	When the Job completes, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Backup Status window.

Viewing the Backup Status Window

During **Preview** and **Run**, the Backup Status window appears, as shown in Figure 7-9. This window provides detailed information about the Backup Job in progress.

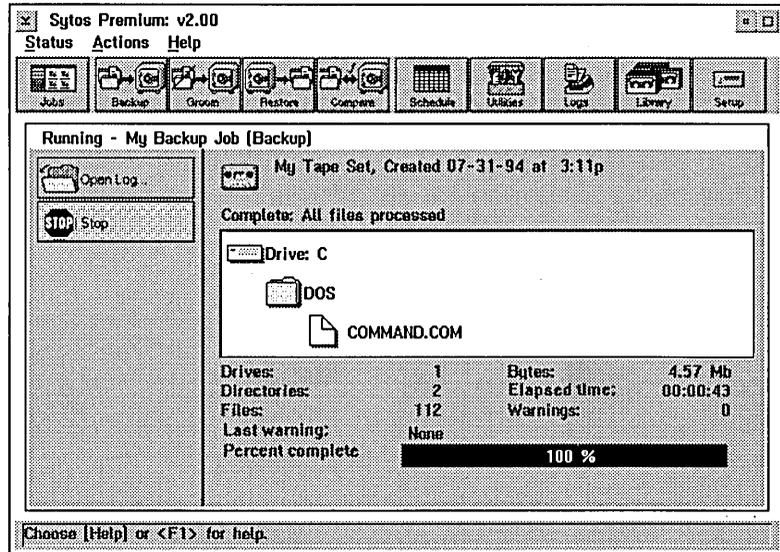


Figure 7-9. Backup Status

The following table describes the Backup Status window elements:

Item	Description
Title bar	Displays either "Previewing" or "Running," the name of the Backup Job, and the Job type (Backup).
Tape Set information	Displays the Tape Set name, creation date, and time.
Status Line	Summarizes the progress of the Backup Job (for example, "Rewinding tape" and "Complete: All files processed").
Files window	Displays the Directory Tree and the files as they are backed up.

The Status window's lower section displays the number of drives, directories, files, and bytes that have been backed up. It displays the last warning message and the number of warnings the Backup Job has received. It also shows the time that the Job has been processing

(including time spent on tape preparation or replacement of tape), and the percentage complete for the Backup Job.

The following table describes the Backup Status window pushbuttons:

Pushbutton	Description
<input type="button" value="Open Log..."/>	Lets you review the Log of the completed Backup Job.
<input type="button" value="Stop"/>	Lets you stop a running Backup Job. A message box appears and asks you to confirm that you want to stop the backup. Click on <input type="button" value="OK"/> to stop the backup.

Reviewing the Backup Log

After you run a Backup Job, review its Log. The Log lets you review a completed Backup Job and possible error messages for unsuccessful Jobs. You can create a hardcopy printout that lists the files processed by the Job by selecting **List all files in Log** and **Send Log to printer** as Log options for the Job. The printout can accompany the backed-up files and provide a complete file listing of the contents of the tape.

Once you review the Log and are satisfied that the Backup Job has completed successfully, you can delete the Log.

***TIP:** If a Backup Job is not successful, the information in the Log can help determine any errors. Rerun the Job after you correct the problem.*

To review the Log, follow these steps:

Step	Action
1	<p>Click on <input type="button" value="Open Log..."/> in the Status window. The Log for the completed Backup Job appears.</p> <p>To open the Log from other windows, select Logs from the Actions menu or click on <input type="button" value="Logs"/> on the tool bar. Refer to <i>Chapter 14: Managing Logs</i> for more information about viewing Logs.</p>
2	<p>Click on <input type="button" value="Print..."/> to print the Log, or click on <input type="button" value="Close"/> to close the Log.</p>

Labeling Your Tapes

Always clearly label your tape with the following information:

- Tape name
- Creation date and time
- Tape sequence number

Tape sequence number is important for Jobs that require several tapes. This information lets you quickly and easily determine which is the correct tape when Sytos Premium prompts you to insert the next tape during a Compare or Restore Job.

If you insert tapes out of sequence, Sytos Premium prompts you for the correct one. This feature lets Sytos Premium process the files completely. However, if the correct tape is damaged or lost you can proceed out of sequence.

NOTES:

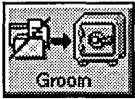


8

Grooming Data

Overview

Introduction



This chapter explains how to create, edit, and run a Groom Job. Creating a Groom Job involves selecting files, a backup device, and options.

A Groom Job lets you transfer files to a backup device by copying selected files to tape, comparing the backed-up files with the original files, and deleting the original files. If the Backup or Compare Job does not complete successfully, the Groom Job cancels before deleting the original files.

TIP: Before running a Groom Job, run a Full Backup Job with **Auto-compare** and **Log** selected. After the backup, review the Log to ensure the Backup Job successfully copied the specified files. The Backup Job provides a second copy of the files that are copied and deleted during the Groom Job.

For Additional Information

Refer to the following chapter for additional information:

- *Appendix C: Backup Strategies*, for examples of file backup strategies.

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Creating a Groom Job	8-3
Selecting Files to Groom	8-5
Selecting a Backup Device	8-10
Selecting Groom Options	8-15
Running a Groom Job	8-18

Creating a Groom Job

Description

The Groom window, as shown in Figure 8-1, lets you create, edit, and run Groom Jobs. Click on **Groom** on the tool bar to display the Groom window.

Click on **Files to groom** to select files for the Groom Job.

Click on **Groom to** to select a backup device and tape options.

Click on **Groom options** to select options for the Groom Job.

Click on **Run** to run the Groom Job.

Click on **Groom** to open the Groom window.

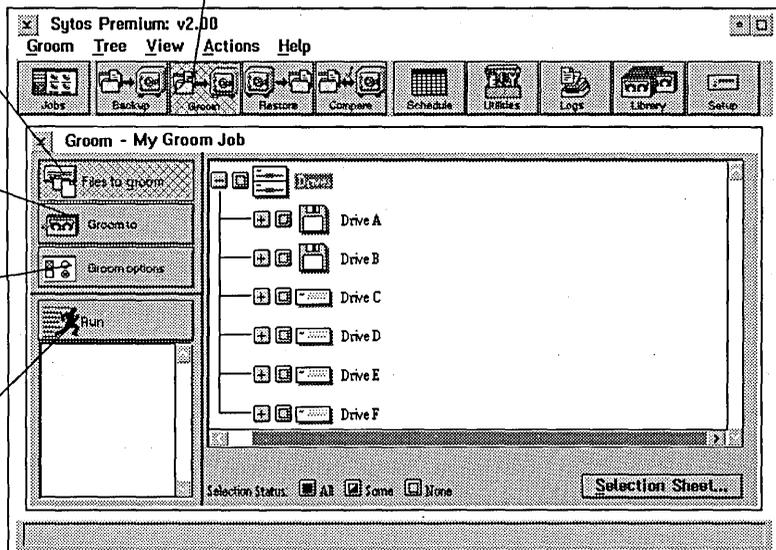


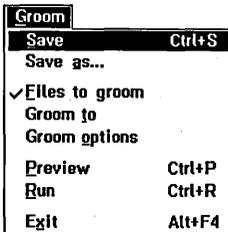
Figure 8-1. Groom

To create and run a customized Groom Job, follow these steps:

Step	Action
1	Click on Files to groom to select files for the Groom Job. Select drives, directories, and files from the Directory Tree by clicking the Selection Status box. You can also click on Selection Sheet... to specify files using wildcards or date ranges. Refer to "Selecting Files to Groom" in this chapter for more information.
2	Click on Groom to to select a backup device and tape options for the Groom Job. Refer to "Selecting a Backup Device" in this chapter for more information.
3	Click on Groom options to select options for the Groom Job. Refer to "Selecting Groom Options" in this chapter for more information.
4	Click on Run to run the current Groom Job. Refer to "Running a Groom Job" for more information.

Using the Groom Menu

The **Groom** menu appears on the menu bar when you open the Groom window and provides additional commands for Groom Jobs. You can select the following commands from the **Groom** menu:



Save saves edits to an existing Groom Job under the current name.

Save as... lets you assign a new name and description to a Groom Job. Use this command to create a new Groom Job from edits to a default Groom Job.

Files to groom lets you select files for the Groom Job using the Directory Tree or Selection Sheet.

Groom to lets you select a backup device and tape options for the Groom Job.

Groom options lets you select Groom options for the Groom Job.

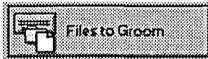
Preview provides statistics about the current Groom Job before you actually run the Job. Preview tells you the number of files that are groomed by the Groom Job. You can run a Preview to estimate the tapes you need for the Job.

Run starts the current Groom Job.

Exit lets you leave Sytos Premium.

Selecting Files to Groom

Description



Click on **Files to groom** to display the Directory Tree as shown in Figure 8-2. You can select files to groom using the Directory Tree or Selection Sheet.

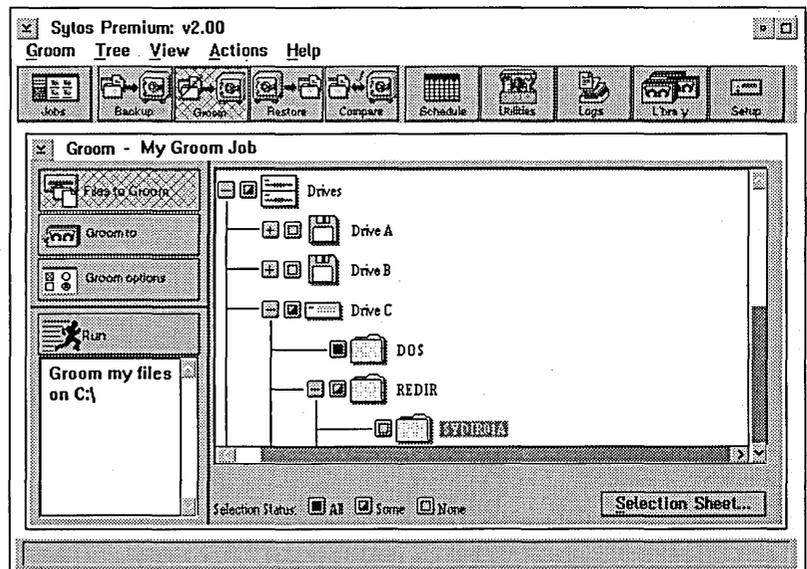


Figure 8-2. Directory Tree

Files that Should Not Be Groomed

Files that should never be groomed are:

- **Operating system files.** Your system cannot run correctly without the following system files:
 - "OS2.KRN"
 - "OS2.LDR"
 - "OSI2_2.0_D" if on a FAT OS/2 2.0 boot drive
 - "OSI2 2.0 Desktop" if on an HPFS OS/2 2.0 boot drive
 - "DESKTOP" if on OS/2 2.1 or 2.11 boot drives (FAT or HPFS)The OS2 directory and subdirectories
- **Sytos Premium files.** These files cannot be groomed, even if you specify them.

NOTE: A Groom Job does not delete your directory structure. To delete directories you no longer need, use the appropriate operating system commands or utilities.

Using the Directory Tree

When you click on **[Files to groom]**, a Directory Tree displaying the entire system appears. The following Selection Boxes show current selections for the Groom Job:



All. All files on the listed drive or directory are selected for the Groom Job.



Some. Specific files on the listed drive or directory are selected for the Groom Job.



None. No files on the listed drive or directory are currently selected for the Groom Job.

To select files for a Groom Job, follow these steps:

Step	Action
1	Click on the plus sign + and the minus sign - next to displayed drives, directories, and files to expand or collapse the Directory Tree to a level from which you can make selections. You can also use the Tree and View menu commands to change the Directory Tree display. Refer to <i>Chapter 5: Navigating Within Sytos Premium</i> for instructions on using the Directory Tree.

- | | |
|---|---|
| 2 | Click the selection box next to files, directories, and drives to All to select files, directories, and drives for the Groom Job. To clear the selection box, click on it again. |
|---|---|

Using the Selection Sheet

A Selection Sheet, as shown in Figure 8-3, lets you select files and subdirectories using wildcards (* and ?), by date ranges, and by archive bit. Archive bits let you select only files that have changed since the last Backup Job.

When you choose files from the Directory Tree, Sytos Premium builds a Selection Sheet in the background. By clicking on **Selection Sheet...**, you can view or edit this Selection Sheet for your Groom Job.

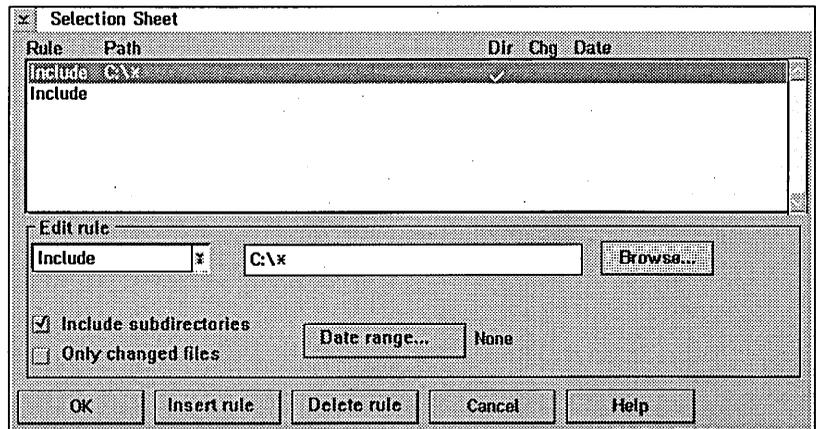


Figure 8-3. Selection Sheet

Editing the Selection Sheet

Use **Insert rule** to add a new rule above the highlighted one, and **Delete rule** to delete the highlighted rule. Use the Edit rule group box to edit the highlighted rule.

To edit a Selection Sheet, follow these steps:

Step	Action
1	Click on Selection Sheet... to display the Selection Sheet with its current file selections. Each line on the sheet represents one rule.
2	Edit the Selection Sheet by inserting, deleting, and editing rules. Refer to "Inserting and Deleting Rules" and "Editing Selection Sheet Rules" later in this section for more information.
3	Click on OK to accept the Selection Sheet.

NOTE: A Selection Sheet is read from top to bottom, and a rule inserted in the middle of the sheet may be affected by a rule below it. Insert new rules at the bottom of the Selection Sheet.

Inserting and Deleting Rules

To insert a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight a rule above which you want to insert a new rule.
2	Click on Insert rule to insert a blank rule above the highlighted rule.
3	<p>Enter a path into the pathname edit field that identifies the data to be groomed. The inserted rule displays the current pathname.</p> <p>You can type the pathname into the field.</p> <p>-or-</p> <p>Click on Browse... to open the Browse window where you scan the Directory Tree for directories and files to groom. When the edit field displays the path you want to select, click on OK. The inserted rule displays the pathname.</p>

To delete a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight the rule that you want to delete.
2	Click on Delete rule to delete the highlighted rule.

Editing Selection Sheet Rules

To edit an existing rule, follow these steps:

Step	Action
1	Highlight the rule to display the rule's path in the pathname edit field.
2	Select options in the Edit rule group box to edit the highlighted rule or change the rule by typing directly in the pathname edit field.

The Edit Rule group box contains the following fields and options:

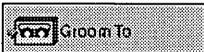
Option	Description
Include/Exclude	Lets you include or exclude files specified by the pathname in the pathname edit field for the Groom Job.
Pathname edit field	Lets you specify a pathname for a rule to insert, delete, or edit. You can type the pathname into the field or click on Browse... to scan the Directory Tree for a pathname.
Include subdirectories	Includes all subdirectories of the specified path.
Only changed files	Includes only files of the specified path that have changed since the last backup.

<p><input type="button" value="Date range..."/></p>	<p>Opens the Date Range window where you select a date range for including/excluding files. Select one Date Range option for including files:</p> <ul style="list-style-type: none">• Is any date includes all files. This is the default setting.• Is includes only the files on the specified date.• Is on or before includes only those files created on or before the specified date.• Is on or after includes only those files created on or after the specified date.• Is between specifies a date range for including files. <p>Click on <input type="button" value="OK"/> to accept the date range selections and return to the Selection Sheet.</p>
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Selecting a Backup Device

Description

If you configured more than one backup device, you can choose a backup device for the Groom Job by clicking on . Figure 8-4 shows the window where you select a backup device.



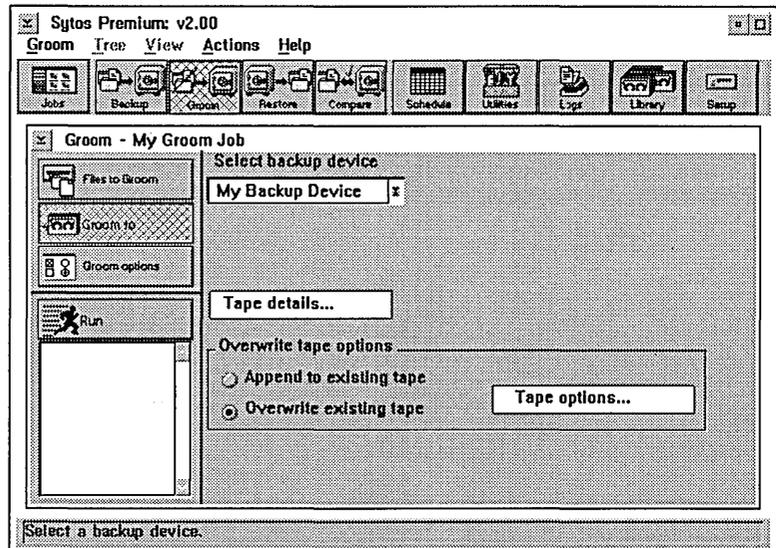


Figure 8-4. Groom To

Selecting a Backup Device

If you have only one backup device, Sytos Premium automatically selects it. If you have more than one backup device, follow these steps to select a different device:

Step	Action
1	Click on Groom to from the Groom window.
2	Select a backup device in the Select backup device drop-down listbox.
3	To confirm that the tape you want is in the backup device, click on Tape details... . The Tape Details window displays information about the tape and the Backup Sessions on the tape. Click on Sessions>> for more Backup Session information or OK to exit the Tape Details window. The tape's name, tape number, and creation date are displayed next to Tape details... .

Appending to or Overwriting a Tape

You can append to or overwrite a tape by choosing one of the following options:

- **Append to existing tape** adds the Backup Session to an existing tape using options specified when the tape was created. When you choose Append, **Tape options...** is not selectable and you cannot change the current tape options.
- **Overwrite existing tape** replaces all Backup Sessions on tape, if any exist.

Selecting Tape Options

Click on **Tape options...** to open the Tape Options window, as shown in Figure 8-5.

The screenshot shows a dialog box titled "Tape Options". It has a close button in the top-left corner. The "Tape name:" field contains "My Tape Set". The "Description:" field contains "Full Backup of C:". Below these fields is a section with three options: "Password" (unchecked), "QFA - Quick file access" (checked), and "ECC - Error correction code" (checked). At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Figure 8-5. Tape Options

The following table lists available tape options:

Option	Description
Tape name	Lets you give the tape a personalized name for recognizing the contents quickly.
Description	Lets you describe the tape for identifying the system that created it. If the tape is moved away from the original system, you can determine which system the files belong to by clicking on Details in the Utilities window.
Password	<p>Lets you assign the tape a password for security purposes. Sytos Premium prompts you for the password when you run the Groom Job.</p> <p>CAUTION: <i>Without the password, you cannot restore or compare the files, and you cannot append other Backup Sessions to the tape.</i></p> <p>TIP: <i>You should write-protect your tape even if it is password-protected, as a password does not prevent tapes from being erased or overwritten.</i></p>

Option	Description
<p>QFA-Quick file access</p>	<p>Enables Sytos Premium to find specific stored files quickly. When QFA is enabled, Sytos Premium records information during a Groom about each file's location on the tape. This information is stored in a special "directory" on the tape. Sytos Premium refers to the directory to quickly locate files during Restore or Compare Jobs.</p> <p>This option is useful for increasing performance when restoring or comparing single files. However, because the QFA option records information on the tape, it reduces the number of files you can back up to your tape.</p> <p>If you select QFA, you cannot select Software compression as a groom option.</p> <p><i>TIP: QFA is useful when using high-capacity tape or backup devices, such as DAT drives.</i></p> <p><i>NOTE: QFA is not available for all devices.</i></p>
<p>ECC-Error correction code</p>	<p>Records special information on the tape to assist with restoring files if the tape becomes damaged after a successful Groom Job. Although recording this information takes up more space on your tape, it is beneficial if that tape ever becomes damaged.</p> <p><i>NOTE: You cannot clear this option.</i></p>

Selecting Groom Options

Description



Click on **Groom options** to select options for the Groom Job. Figure 8-6 shows the window where you select Groom options.

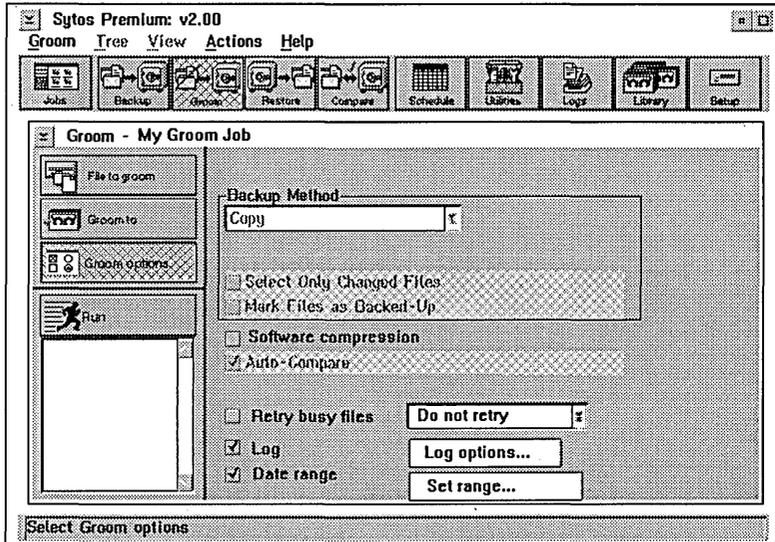


Figure 8-6. Groom Options

Choosing a Backup Method

Sytos Premium sets the Backup Method for Groom Jobs to "Copy," and does not let you change the setting. For more information about Backup types and their option settings, refer to "Choosing a Backup Method" in *Chapter 7: Backing Up Data*.

The following options are available for a Groom Job:

Option	Description
<p>Software compression</p>	<p>Compresses the data on your tape, which reduces the size of your backup.</p> <p>When Software compression is selected, Sytos Premium places primary emphasis on data compression and secondary emphasis on the time required to perform a backup.</p> <p>If you select Software compression, you cannot select QFA as a tape option.</p> <p><i>NOTE: If your backup device provides hardware compression, this option is not selectable.</i></p>
<p>Auto-compare</p>	<p>Automatically performs a Compare Job after the Groom Job to check that your backed-up files are identical.</p> <p>You cannot clear this option for a Groom Job.</p>
<p>Retry busy files</p>	<p>Attempts once more at the end of a backup to back up busy files. If the file is still busy during the retry, the file is skipped and recorded in the Log as not backed up. This option is useful if you work in a network or multi-tasking environment.</p> <p>Use the listbox to choose from the following options to retry files:</p> <ul style="list-style-type: none"> - Do not retry. Skips busy files. This is the default option. - Until. Attempts to back up files until a specified time of day. - Until no longer busy. Retries busy files until they are no longer open. - For. Tries to backup busy files within a specific amount of time.

Option	Description
Log	Creates a record of what happened when you ran the Groom Job, including a list of Job, Log, and Selection Sheet settings, and a description of any problems that occurred. Sytos Premium saves the Log in a text file.
Log options...	<p>Opens the Log Options window, as shown in Figure 8-7. You can use the Log Options window to customize your Log with the following Log Options:</p> <p>Send Log to printer. Sends the Log to the printer.</p> <p>List all files in Log. Includes a complete list of all processed files in the Log.</p> <p><i>TIP: You should create a Log for all Jobs and review the Log after running a Job.</i></p>
Date range	Lets you select a date range for including/excluding files.
Set range...	<p>Opens the Date Range window. Selection Sheet is displayed if you selected a date range on the Selection Sheet. If you select a new date range as a backup option, your date range selection from the Selection Sheet is overwritten.</p> <p>Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on OK to accept the date range selections.</p>

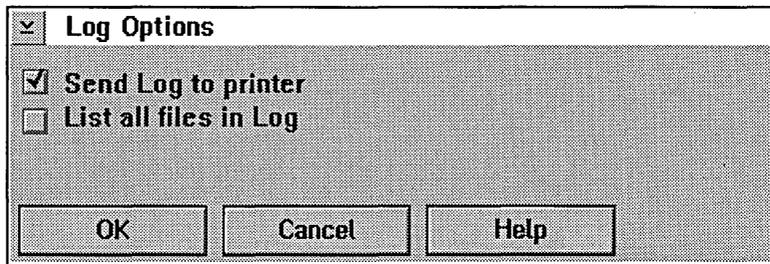
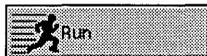


Figure 8-7. Log Options

Running a Groom Job

Description

You can run a Groom Job immediately, or preview a Groom Job before it runs. To schedule the Job to run later, refer to *Chapter 12: Scheduling*.



Saving a Groom Job

You can save the settings for a newly created or modified Groom Job using the following commands from the **Groom** menu:

- **Save** saves edits to an existing Job under the current name.
- **Save as...** lets you assign a new name and description to a Job. Use this command to create a new Job from edits to a default Job.

TIP: *If you are setting up a complex Job, you may want to save your work periodically.*

To save a Groom Job, follow these steps:

Step	Action
1	Select Save from the Groom menu to save edits made to an existing Job under the current name. -or- Select Save as... from the Groom menu to assign a new name and description to a Job.
2	Enter a name and description for the new Job.
3	Click on Save to save the Job.

Previewing a Groom Job

Preview provides statistics about the current Groom Job before you actually run the Job. This option does not affect files or their attributes in any way.

Preview tells you the number of files that Sytos Premium attempts to groom, and the space needed, so you can estimate the number of tapes you need for the Job.

Since files are not actually processed, **Preview** does not tell you if files are busy, damaged, or unmatched during the Compare process.

To preview a Groom Job, follow these steps:

Step	Action
1	Select Preview from the Groom menu to start previewing the Job. The Groom Status window opens. Refer to "Viewing the Groom Status Window," in this chapter for information about the Groom Status window. You can click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Job.
2	When the Preview is complete, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Groom Status window.

Estimating Tapes Needed

You can estimate the number of tapes or diskettes Sytos Premium needs during a Groom Job by previewing your Job. This step provides the total size of the files that are processed. You can then compare this size to the capacity of your tapes and estimate the number of tapes or diskettes that you need.

Running a Groom Job

To run your Groom Job, follow these steps:

Step	Action
1	<p>Click on Run from the Groom window or select Run from the Groom menu. The Groom Status window appears.</p> <p>You can click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Groom Job.</p> <p>TIP: You should run a Backup Job before a Groom Job to ensure you have more than one copy of your files on tape. If one tape becomes damaged, you have a second copy of your files.</p>
2	<p>When the Job completes, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Groom Status window.</p>

Viewing the Groom Status Window

During **Preview** and **Run**, the Groom Status window appears, as shown in Figure 8-8. This window provides detailed information about the Groom Job.

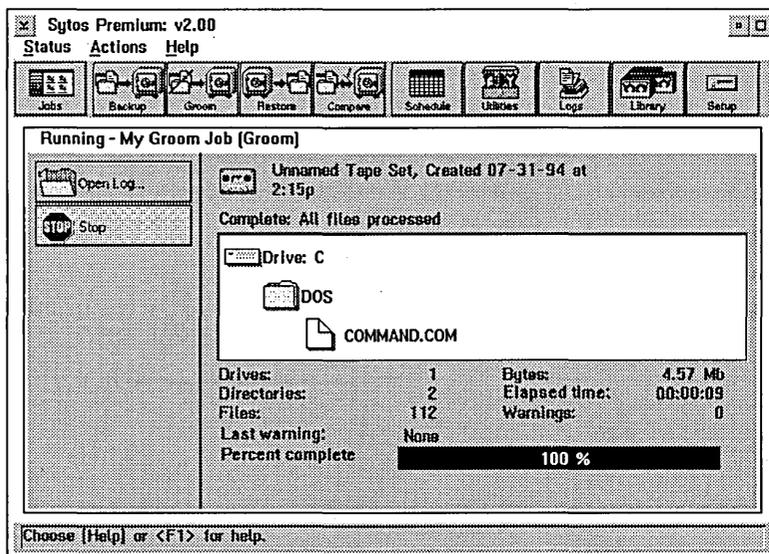


Figure 8-8. Groom Status

The following table describes the Groom Status window elements:

Item	Description
Title bar	Displays either "Previewing" or "Running," the name of the Groom Job, and the Job type (Groom).
Tape Set information	Displays the Tape Set name, creation date, and time.
Status line	Summarizes the progress of the Groom Job (for example, "Rewinding tape" and "Complete: All files processed").
Files window	Displays the Directory Tree and the files as they are backed up and compared.

The Status window's lower section displays the number of drives, directories, files, and bytes that have been groomed. It displays the last warning message and the number of warnings the Groom Job has received. It also shows the time that the Job has been processing

(including time spent on tape preparation or replacement of tape), and the percentage complete for the Job.

The following table describes the Groom Status window pushbuttons:

Pushbutton	Description
<input type="button" value="Open Log..."/>	Lets you review the Log of the completed Groom Job.
<input type="button" value="Stop"/>	Lets you stop a running Groom Job. A message box appears and asks you to confirm that you want to stop the Job. Click on <input type="button" value="OK"/> to stop the Groom Job.

Reviewing Groom Log

After you run a Groom Job, review its Log.

The Log lets you review a completed Job and possible error messages for unsuccessful Jobs. You can create a hardcopy printout that lists the files processed by the Job by selecting **List all files in Log** and **Send Log to printer** as Log options for the Job. The printout can accompany the groomed files and provide a complete file listing of the contents of the tape.

Once you review the Log and are satisfied that the Groom Job has completed successfully, you can delete the Log.

TIP: *If a Groom Job is not successful, the information in the Log can help determine any errors. Re-run the Job after you correct the problem.*

To review the Log, follow these steps:

Step	Action
1	Click on <input type="button" value="Open Log..."/> in the Status window. The Log for the Job appears. To open the Log from other windows, select Logs from the Actions menu or click on <input type="button" value="Logs"/> on the tool bar. Refer to <i>Chapter 14: Managing Logs</i> for more information.
2	Click on <input type="button" value="Print..."/> to print the Log, or click on <input type="button" value="Close"/> to close the Log.

Labeling Your Tape

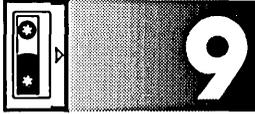
Always clearly label your tape with the following information:

- Tape name
- Creation date and time
- Tape sequence number

Tape sequence number is important for Jobs that require several tapes. This information lets you quickly and easily determine which is the correct tape when Sytos Premium prompts you to insert the next tape during a Compare or Restore Job.

If you insert tape out of sequence, Sytos Premium prompts you for the correct one. This feature lets Sytos Premium process the files completely. However, if the correct tape is damaged or lost you can proceed out of sequence.

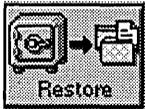
NOTES:



Restoring Data

Overview

Introduction



This chapter explains how to create, edit, and run a Restore Job. Creating a Restore Job involves selecting a backup device, Backup Sessions, files, and options.

A Restore Job restores data from tape to disk, and lets you perform the following tasks:

- Restore data to its previous state
- Restore a single file from a Backup Session
- Transport files across systems.

CAUTION: *If you restore operating system program files to a system using a different version operating system, you may overwrite your configuration information.*

Transferring Files Between HPFS and FAT File Systems

Sytos Premium supports both the OS/2 High Performance File System (HPFS) and the File Allocation Table (FAT) file system used in DOS. When files are transferred between HPFS and FAT file systems, Sytos Premium automatically converts files to the proper format and naming conventions of the file system to which you are copying the files.

For Additional Information

Refer to these chapters for additional information:

Chapter 11: Disaster Recovery, for step-by-step instructions to accomplish a full restore of your system or network to its previous state.

Appendix A: Network Considerations, for additional information if you are restoring files in a network environment.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Creating a Restore Job	9-3
Selecting a Backup Device and Backup Sessions	9-5
Selecting Files to Restore	9-7
Selecting Restore Options	9-14
Running a Restore Job	9-23

Creating a Restore Job

Description

The Restore window, as shown in Figure 9-1, lets you create, edit, and run Restore Jobs. Click on **Restore** on the tool bar to display the Restore window.

Click on **Restore** to open the Restore window.

Click on **Restore from** to select a backup device and Backup Sessions for the Restore Job.

Click on **Files to restore** to select files for the Restore Job.

Click on **Restore options** to select a destination and options for the Restore Job.

Click on **Run** to run the Restore Job.

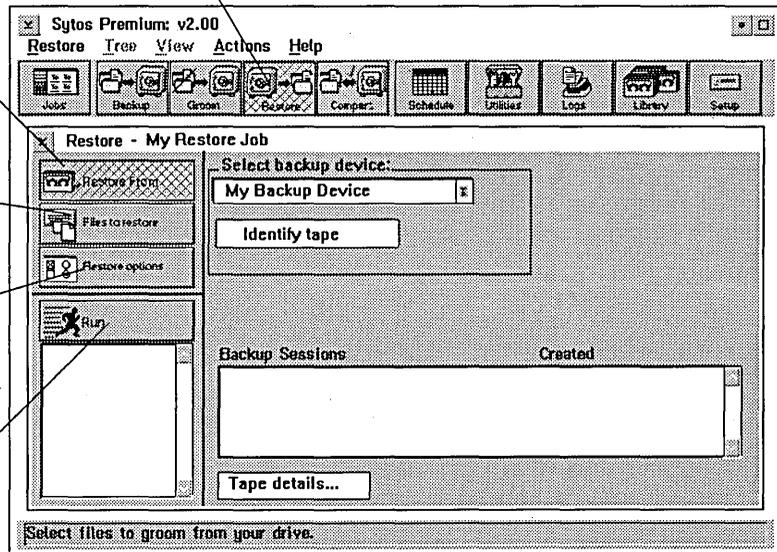


Figure 9-1. Restore

To create and run a customized Restore Job, follow these steps:

Step	Action
1	Click on Restore from to select a backup device and Backup Sessions from which to restore data. Refer to "Selecting a Backup Device" in this chapter for more information.
2	Click on Files to restore to select files for the Restore Job. Select drives, directories, and files from the Directory Tree by clicking the Selection Status box. You can also click on Selection Sheet... to specify files using wildcards or date ranges. Refer to "Selecting Files to Restore" in this chapter for more information.
3	Click on Restore options to select restore options and a destination to which to restore files. You can restore files to their original source, or to a new location. Refer to "Selecting Restore Options" in this chapter for more information.
4	Click on Run to run the current Restore Job. Refer to "Running a Restore Job" in this chapter for more information.

Using the Restore Menu

The **Restore** menu appears on the menu bar when you open the Restore window, and provides additional commands for Restore Jobs. You can select the following commands from the **Restore** menu:

Restore	
Save	Ctrl+S
Save as...	
✓ Restore from	
Files to restore	
Restore options	
Eview	Ctrl+P
Run	Ctrl+R
Exit	Alt+F4

Save saves edits to an existing Restore Job under the current name.

Save as... lets you assign a new name and description to a Restore Job. Use this command to create a new Restore Job from edits to a default Restore Job.

Restore from lets you select a backup device and Backup Sessions from which you restore data.

Files to restore lets you select files from the tape for the Restore Job.

Restore options lets you select options and a destination to which to restore files.

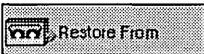
Preview provides statistics about the current Restore Job before you actually run the Job.

Run starts the current Restore Job.

Exit lets you leave Sytos Premium.

Selecting a Backup Device and Backup Sessions

Description



Before you can select files to restore, you need to specify the backup device where the files are located and the backup sessions containing the files. Click on **Restore from** to select a backup device and Backup Sessions for the Job.

If you have only one backup device, Sytos Premium automatically selects it. If you have more than one backup device, you must select a backup device for the Restore Job. You must also select the Backup Sessions that contain the files you want to restore. To select a backup device and Backup Sessions, follow these steps:

Step	Action
1	Insert the tape containing the files you want to restore into the backup device.
2	Select the backup device in the Select backup device drop-down listbox.
3	Click on Identify tape to display the Backup Sessions in the Backup Session window and the tape's name, tape sequence number, and creation date next to Identify tape .

- 4 Click on the Backup Sessions that you want to restore. A checkmark identifies selected Backup Sessions.
- Click on **Tape details...** to open the Tape Details window where you can view information about the tape and the Backup Sessions on the tape. Click on **Sessions>>** to expand the Tape Details window to view additional information about the highlighted Backup Session. Figure 9-2 shows the expanded Tape Details window.
- NOTE:** Backup Sessions are restored consecutively from earliest to latest.

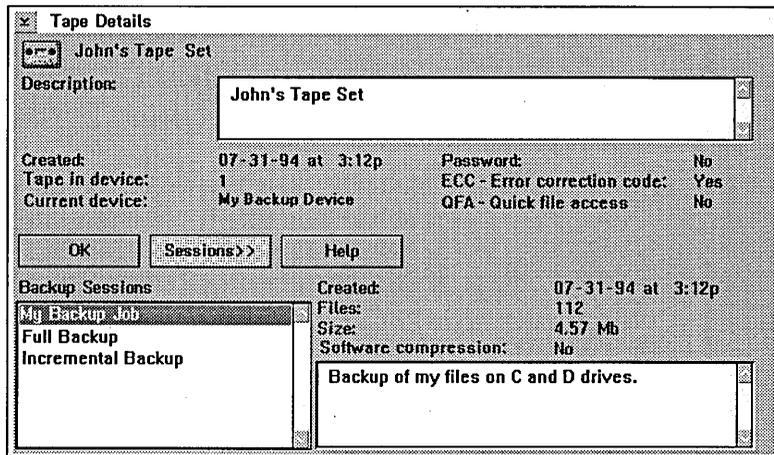
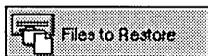


Figure 9-2. Expanded Tape Details

Selecting Files to Restore

Description



After selecting a backup device and Backup Sessions, you must select files in the Backup Session on the tape that you want to restore. Click on **Files to restore** to display the Directory Tree, as shown in Figure 9-3. You can select files from the Directory Tree or the Selection Sheet.

When you select files for a Restore Job, you select them from the tape, rather than from the hard disk. The files have the same names as the originals from which they are copied. For example, the backed-up files have the same source name, such as the C: drive, but they are actually on the tape.

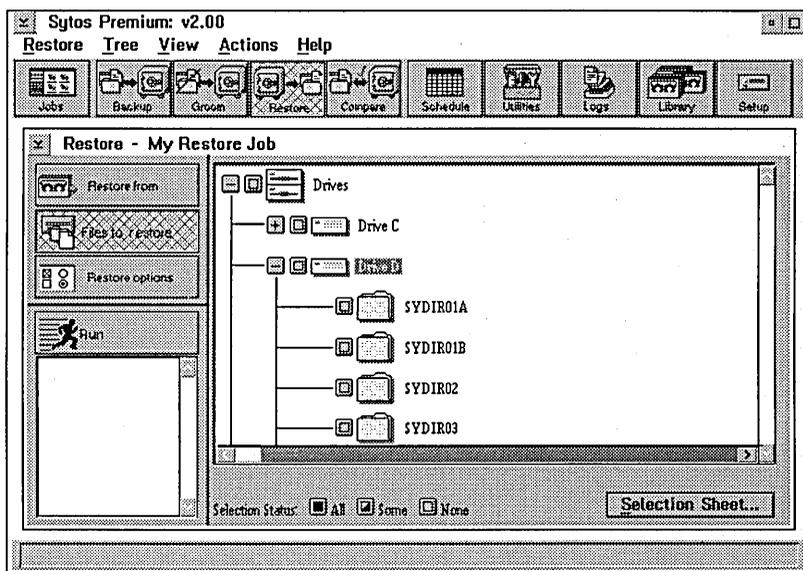


Figure 9-3. Directory Tree

Using the Directory Tree

When you click on **Files to restore** a Directory Tree displaying the backed-up system appears. The following selection boxes show current selections for a Restore Job:



All. All files on the listed drive or directory have been selected for restore.



Some. Specific files on the listed drive or directory have been selected for restore.



None. No files on the listed drive or directory are currently selected.

To select files for a Restore Job, follow these steps:

Step	Action
1	Click on the plus sign + and the minus sign - next to displayed drives, directories, and files to expand or collapse the Directory Tree to a level from which you can make selections. You can also use the Tree and View menu commands to change the Directory Tree display. Refer to <i>Chapter 5: Navigating Within Sytos Premium</i> for instructions on using the Directory Tree.
2	Click the selection box next to files, directories, and drives to All to select the files, directories, or drives for the Restore Job. To clear the selection box, click on it again.

Using the Selection Sheet

A Selection Sheet, as shown in Figure 9-4, lets you select files and subdirectories on the tape using wildcards (* and ?), by date ranges, and by archive bit.

When you choose files from the Directory Tree, Sytos Premium builds a Selection Sheet in the background. By clicking on **Selection Sheet...**, you can view or edit the Selection Sheet for your Restore Job.

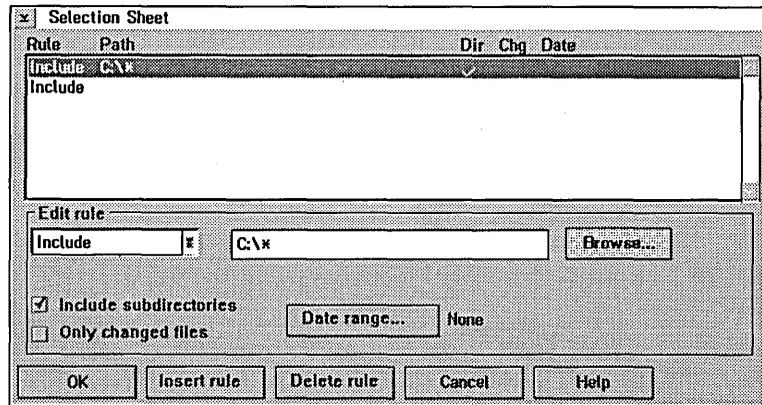


Figure 9-4. Selection Sheet

Editing the Selection Sheet

Use **Insert rule** to add a new rule above the highlighted one and **Delete rule** to delete the highlighted rule. Use the Edit rule group box to edit the highlighted rule.

To edit a Selection Sheet, follow these steps:

Step	Action
1	Click on Selection Sheet... to display the Selection Sheet with its current file selections. Each line on the sheet represents one rule.
2	Use the Edit rule group box and pushbuttons to edit the Selection Sheet. Refer to "Inserting and Deleting Rules" and "Editing Selection Sheet Rules" in this section for information.
3	Click on OK to accept the Selection Sheet.

NOTE: A Selection Sheet is read from top to bottom, and a rule inserted in the middle of the sheet may be affected by a rule below it. Insert new rules at the bottom of the Selection Sheet.

Inserting and Deleting Rules

To insert a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight a rule above which you want to insert a new rule.
2	Click on <input type="button" value="Insert rule"/> to insert a blank rule above the highlighted rule.
3	<p>Enter a pathname into the pathname edit field that identifies the data to be restored. The inserted rule displays the current pathname.</p> <p>You can type the pathname into the field.</p> <p>-or-</p> <p>Click on <input type="button" value="Browse..."/> to open the Browse window where you scan the Directory Tree for directories and files to restore. When the edit field displays the path you want to select, click on <input type="button" value="OK"/>. The inserted rule displays the pathname.</p>

To delete a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight the rule that you want to delete.
2	Click on <input type="button" value="Delete rule"/> to delete the highlighted rule.

Editing Selection Sheet Rules

To edit an existing rule, follow these steps:

Step	Action
1	Highlight the rule to display the rule's path in the pathname edit field.
2	Select options in the Edit rule group box to edit the highlighted rule or change the rule by typing directly in the pathname edit field.

The Edit rule group box provides the following fields and options:

Option	Description
Include/Exclude	Lets you include or exclude files specified by the pathname in the pathname edit field for the Restore Job.
Pathname edit field	Lets you specify a pathname for a rule to insert, delete, or edit. You can type the pathname into the field or click on Browse... to scan the Directory Tree for a pathname.
Include subdirectories	Includes all subdirectories of the specified path.
Only changed files	Includes only files of the specified path that have changed since the last backup.

<input type="button" value="Date range..."/>	<p>Opens the Date Range window where you select a date range for including/excluding files. Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. This is the default setting. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on <input type="button" value="OK"/> to accept the date range selections and return to the Selection Sheet.</p>
--	---

Selection Sheet Examples

The following examples show file selections and their corresponding rules on the Selection Sheet:

Example 1: Include all files from the C: drive.

Your Selection Sheet rule:

Rule	Path	Dir	Chg	Date
Include	C:*	√		

Example 2: Include only changed files from the C: drive.

Your Selection Sheet rule:

Rule	Path	Dir	Chg	Date
Include	C:*	√	√	

Example 3: Include all files from the C: drive, except Accounts files.

Your Selection Sheet rules:

Rule	Path	Dir	Chg	Date
Include	C:*	√		
Exclude	C:\ACCOUNTS*	√		

NOTE: The Selection Sheet is read from top to bottom. If you insert a rule in the middle of the sheet, it can be affected by rules below it. For instance, in Example 3 if you inserted the rule "Include C:*" below the rule excluding C:\ACCOUNTS*, Sytos Premium backs up all files in C:.

Selecting Restore Options

Description

Click on **Restore options** to select a destination and options for Restore Jobs. Figure 9-5 shows the window where you select restore options.

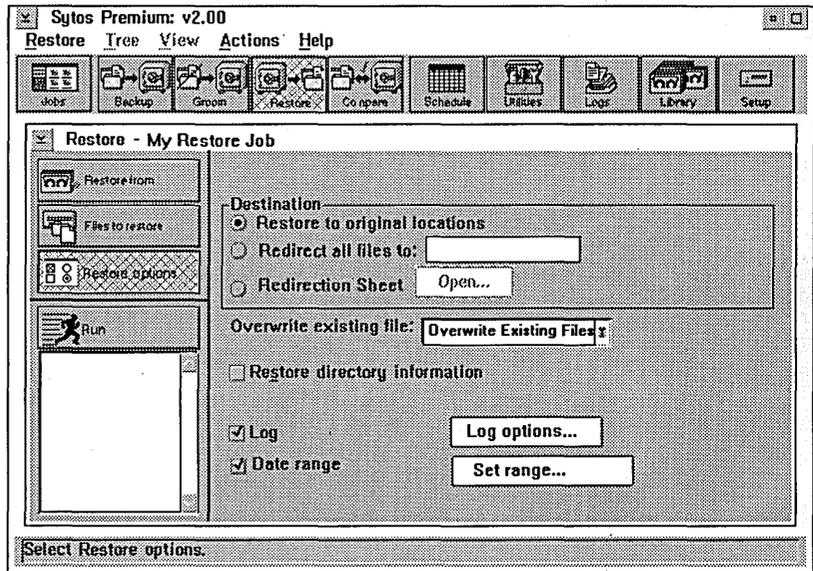


Figure 9-5. Restore Options

Selecting a Destination

The Destination group box lets you select a destination to which you restore files. Select one of the following options:

- **Restore to original locations.** Restores all files to their original source.
- **Redirect all files to:** Restores all files to a destination as you specify in the pathname edit field.
- **Use Redirection Sheet.** Restore files as you specify on the Redirection Sheet. Click on **Open...** to open the Redirection Sheet. Refer to “Using the Redirection Sheet” in this section for more information.

Using the Redirection Sheet

A Redirection Sheet, as shown in Figure 9-6, lets you restore files to drives, directories, and filenames that are not the original sources for the files.

Redirecting files lets you:

- Restore files from one system to another system.
- Restore previous versions of files for reference purposes, ensuring they do not overwrite newer versions of the same files.
- Restore files into a new directory structure.

NOTE: You should preview the Job first and then review the Log to be sure of the Redirection results (for example, to check if any files will be overwritten). Also, if you select files for a Compare Job after a Restore with redirection, you must duplicate the rules you used for the Restore Job.

Redirecting HPFS and FAT Files

When you redirect files from a HPFS file system to a FAT file system, Sytos Premium automatically shortens the HPFS pathnames to the FAT convention (eight characters, and a possible three-character extension). Sytos Premium stores the long HPFS pathnames with the Extended Attributes (EAs) of the files. Later, if you back up the files on the FAT system and restore them to the HPFS file system, Sytos Premium restores the original HPFS pathnames.

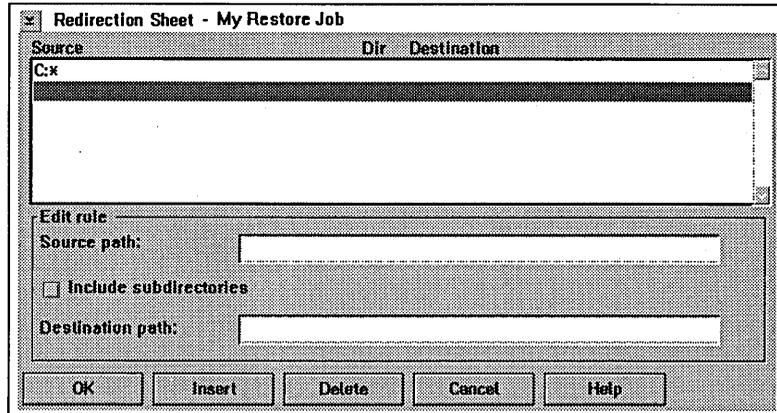


Figure 9-6. Redirection Sheet

CAUTION: When transferring files between HPFS and FAT file systems, you can overwrite existing files. Always include the Log as part of your Restore Job, and check the Log immediately after restoring file.

After you transfer HPFS or FAT files, run a Compare Job.

NOTE: When you run a Compare after transferring HPFS or FAT files, files that do not fit the filenaming standards of the target system may be listed as “unmatched,” even though the files are successfully restored.

Editing the Redirection Sheet

Each rule on the Redirection Sheet includes a source and destination. Use **Insert** to add a new rule above the highlighted one or **Delete** to delete the highlighted rule. Use the Edit rule group box to edit the source or destination of the highlighted rule.

When redirecting files on the Redirection Sheet, specify exact pathnames of the files you intend to restore. This is important in a networking environment because files with the same names may exist in different locations within the network. Refer to “Entering Pathnames” in this section for more information.

To edit the Redirection Sheet, follow these steps:

Step	Action
1	Select <input checked="" type="radio"/> Use Redirection Sheet in the Destination group box.
2	Click on <input type="button" value="Open..."/> in the Destination group box to open the Redirection Sheet. Each line shows one rule with a source and a destination.
3	Use the Edit rule group box and pushbuttons to edit, insert, and delete rules. Refer to "Inserting and Deleting Rules" and "Editing Redirection Sheet Rules" in this section for more information.
4	Click on <input type="button" value="OK"/> to accept the Redirection Sheet.

Inserting and Deleting Rules

To insert a rule on the Redirection Sheet, follow these steps:

Step	Action
1	Highlight a rule above which you want to insert a new rule.
2	Click on <input type="button" value="Insert"/> to insert a blank rule above the highlighted rule.
3	Enter a pathname for the rule's source into the Source path edit field. <i>NOTE: When specifying a source pathname, ensure that the pathname identifies files on the Selection Sheet. If a file is not shown on the Selection Sheet, you cannot restore the file.</i>
4	Select Include subdirectories to restore the source's subdirectories.

5	Enter a pathname for the rule's destination into the Destination path edit field.
6	Click on OK .

To delete a rule on the Redirection Sheet, follow these steps:

Step	Action
1	Highlight the rule that you want to delete.
2	Click on Delete to delete the highlighted rule.

Editing Redirection Sheet Rules

To edit a rule on the Redirection Sheet, follow these steps:

Step	Action
1	Highlight the rule on the Redirection Sheet. The Source path and Destination path edit fields display the rule's source and destination pathnames.
2	To change the rule's source, enter a pathname into the Source path edit field. <i>NOTE: When specifying a source pathname, ensure that the pathname identifies files on the Selection Sheet. If a file is not shown on the Selection Sheet, you cannot restore the file.</i>
3	Select Include subdirectories to restore the source's subdirectories.
4	To change the rule's destination, enter a pathname into the Destination path edit field.
5	Click on OK .

Entering Pathnames

To redirect all files in a directory, you must include `*` at the end of the source pathname and the redirected pathname. Otherwise, Sytos Premium searches only for files that match the names you have entered.

For example, to redirect all files from `C:\FILES` to `C:\NEWFILES`, your settings are as follows:

- Source pathname: `C:\FILES*`
- Redirected pathname: `C:\NEWFILES*`
- **Include subdirectories**

This specification looks for all files in the “FILES” directory and its subdirectories and redirects them to a “NEWFILES” directory (creating it if necessary) along with the original subdirectories.

The following is an example of incorrect settings:

- Source pathname: `C:\FILES`
- Redirected pathname: `C:\NEWFILES`
- **Include subdirectories**

This specification looks for the file called “FILES” on the C: drive and in any subdirectories and renames it “NEWFILES.”

Redirection Sheet Examples

The following examples show how to use the Redirection Sheet to redirect files:

Example 1: You want to restore files from another system to your system, but some of the files from the other system have the same pathnames as files on your system. To restore the files without overwriting your files, restore them to a new directory. Enter the following rule on your Redirection Sheet:

Source	Destination	Include subdirectories
<code>C:\FILES*</code>	<code>C:\NEWFILES*</code>	√

Example 2: You want to restore some of your older spreadsheet files for reference, including all subdirectories, but want to rename them so they do not overwrite the newer spreadsheet files you use every day. Enter the following rule on your Redirection Sheet:

Source	Destination	Include subdirectories
C:\ACCOUNTS*.WKS	C:\ACCOUNTS*.OLD	√

Example 3: You recently backed up your fixed disk and then re-formatted it to create two disk partitions instead of one partition. You want to restore your files to the new D: drive. Enter the following rule on your Redirection Sheet:

Source	Destination	Include subdirectories
C:*	D:*	√

Restore Options

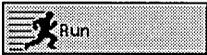
The following table lists the options for a Restore Job:

Option	Description
<p>Overwrite existing files</p>	<p>Determines what Sytos Premium should do if a file being restored encounters a file on your system with the same name.</p> <p>The default setting is Prompt before overwriting newer files.</p> <p>Click on one of the following in the drop-down listbox:</p> <ul style="list-style-type: none"> - Overwrite existing files without prompting. Always overwrites existing files without prompting. - Skip existing files without prompting. Never overwrites existing files. - Prompt before overwriting files. Prompts before overwriting files on the disk that have the same names as files being restored. - Prompt before overwriting newer files. Prompts before overwriting files on the hard drive that are newer than the files that are being restored. <p>When restoring files to a server, ensure that users are not using files that you want to restore, since files that are open cannot be overwritten.</p>
<p>Restore directory information</p>	<p>Allows you to restore directory information, for example Directory Extended Attributes (EAs) and Access Control Lists (ACLs), along with file information.</p> <p>If you do not select this option, only your file information is restored. This option also restores empty directories.</p>

Option	Description
Log	Creates a record of what happened when you ran the Restore Job, including a list of Job, Log, and Selection Sheet settings, and a description of any problems that occurred. Sytos Premium saves the Log in a text file.
Log options...	<p>Opens the Log Options window where you can customize your Log with the following Log Options:</p> <p>Send Log to printer. Sends the Log to the default printer.</p> <p>List all files in Log. Includes a complete list of all processed files in the Log.</p> <p><i>TIP: You should create a Log for all Jobs and review the Log after running a Job.</i></p>
Date range	Lets you select a date range for including/excluding files.
Set range...	<p>Opens the Date Range window. Selection Sheet is displayed if you selected a date range on the Selection Sheet. If you select a new date range as a restore option, your date range selection from the Selection Sheet is overwritten.</p> <p>Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on OK to accept the date range selections.</p>

Running a Restore Job

Description



You can run your Restore immediately or preview the Restore Job before it runs. To run a Restore Job immediately, click on **Run** in the Restore window.

Saving a Restore Job

You can save the settings for a newly created or modified Restore Job using the following commands from the **Restore** menu:

- **Save** saves edits to an existing Job under the current name.
- **Save as...** lets you assign a new name and description to a Job. Use this command to save a default Job and edits to the default Job.

***TIP:** If you are setting up a complex Job, you may want to save your work periodically.*

To save a Restore Job, follow these steps:

Step	Action
1	Select Save from the Restore menu to save edits made to an existing Job under the current name. Select Save as... from the Restore menu to assign a new name and description to a Job.
2	Enter a name and description for the new Job.
3	Click on Save to save the Job.

Previewing a Restore Job

Preview provides statistics about the current Restore Job before you actually run the Job. It does not affect files or their attributes in any way. **Preview** tells you the number of files that Sytos Premium attempts to restore.

Since files are not actually processed, **Preview** does not tell you if files are busy, damaged, or unmatched during the Restore process.

NOTE: If Sytos Premium files are selected for a Restore, you may notice a discrepancy in the number of files processed in a **Preview** and those processed during a Restore. The only way to restore Sytos Premium files is to select the **Use Redirection Sheet** option to restore them to a different directory.

To preview a Restore Job, follow these steps:

Step	Action
1	<p>Select Preview from the Restore menu to start previewing the Job. The Restore Status window opens. Refer to "Viewing the Restore Status Window" in this section for more information about the Restore Status window.</p> <p>Click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Job.</p>
2	<p>When the preview is complete, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Restore Status window.</p>

Running a Restore Job

To run your Restore Job, follow these steps:

Step	Action
1	<p>Click on Run from the Restore window or select Run from the Restore menu. The Restore Status window appears.</p> <p>You can click on Stop to cancel the process, or click on Open Log... to review the Log of the completed Restore Job.</p>
2	<p>When the Job completes, Sytos Premium displays a final status message. Click on OK to close the prompt and return to the Restore Status window.</p>

Viewing the Restore Status Window

During **Preview** and **Run**, the Restore Status window appears, as shown in Figure 9-7. This window provides detailed information about the Restore Job in progress.

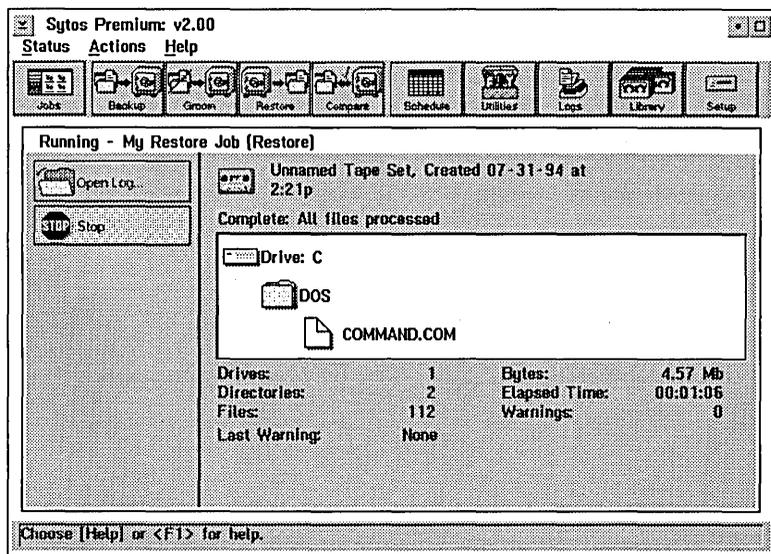


Figure 9-7. Restore Status

The following table describes the Restore Status window elements:

Item	Description
Title bar	Displays either "Previewing" or "Running," the name of the Restore Job, and the Job type (Restore).
Tape Set information	Displays the Tape Set name, creation date, and time.
Status Line	Summarizes the progress of the Restore Job (for example, "Rewinding tape" and "Complete: All files processed").
Files window	Displays the Directory Tree for the files in the Backup Session and the files as they are restored.

The Restore Status window's lower section displays the number of drives, directories, files, and bytes that have been restored. It displays the last warning message and the number of warnings the Restore Job has received. It also shows the time that the Job has been processing (including time spent on tape preparation or replacement of tape).

The following table describes the Restore Status window pushbuttons:

Pushbutton	Description
	Lets you review the Log of the completed Restore Job.
	Lets you stop a running Restore Job. A message box appears and asks you to confirm that you want to stop the restore. Click on  to stop the restore.

Reviewing the Restore Log

After you run a Restore Job, review its Log.

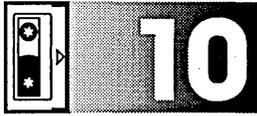
The Log option lets you review a completed Restore Job and possible error messages for unsuccessful Restore Jobs.

Once you review the Log and are satisfied that the Restore Job has completed successfully, you can delete the Log using the Log utility.

TIP: *If a Restore Job is not successful, the information in the Log can help determine any errors. Rerun the Restore Job after you correct the problem.*

To review the Log after a Restore Job, follow these steps:

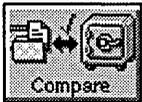
Step	Action
1	Click on  in the Restore Status window. The Log for the Restore Job appears. To open the Log in other windows, select Logs from the Actions menu or click on  on the tool bar. Refer to <i>Chapter 14: Managing Logs</i> for more information.
2	Click on  to print the Log, or click on  to close the Log.



Comparing Data

Overview

Introduction



This chapter explains how to create, edit, and run a Compare Job. Creating a Compare Job involves selecting a backup device, backup sessions, files, and options.

A Compare Job compares the files on a tape with the files on disk. You can compare files using a separate Compare Job, or you can select **Auto-compare** as a Backup option.

You should run a separate Compare Job after Restore Jobs and after Unattended Backups that span more than one tape.

If you run a multiple tape, unattended backup with **Auto-compare**, Sytos Premium compares only the last tape in the tape set. A status message stating that the Compare Job completed without errors is true only for the last tape, because other tapes were not compared.

For Additional Information

Refer to *Chapter 9: Restoring Data* for step-by-step instructions for selecting files to restore or compare.

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Creating a Compare Job	10-3
Selecting a Backup Device and Backup Sessions	10-5
Selecting Files to Compare	10-7
Selecting Compare Options	10-12
Running a Compare Job	10-15

Creating a Compare Job

Description

The Compare window, as shown in Figure 10-1, lets you create, edit, and run a Compare Job. Click on **Compare** on the tool bar to display the Compare window.

Click on **Compare from** to select a backup device and Backup Sessions for the Compare Job.

Click on **Compare** to open the Compare window.

Click on **Files to compare** to select files for the Compare Job.

Click on **Compare options** to select a destination and options for the Compare Job.

Click on **Run** to run the Compare Job.

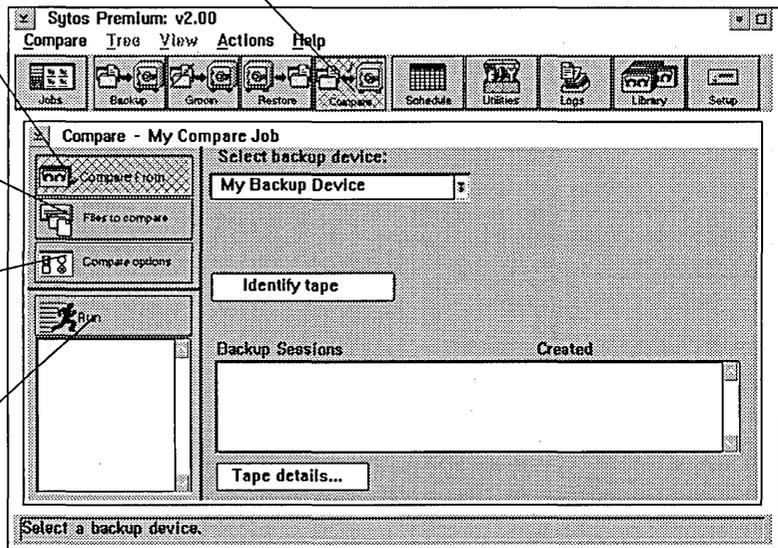


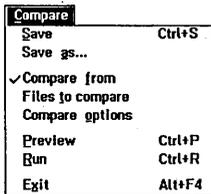
Figure 10-1. Compare

To create and run a customized Compare Job, follow these steps:

Step	Action
1	Click on Compare from to select a backup device and Backup Sessions with which you compare data. Refer to "Selecting a Backup Device" in this chapter for more information.
2	Click on Files to compare to select files for the Compare Job. Select drives, directories, and files from the Directory Tree by clicking the Selection Status box. You can also click on Selection Sheet... to specify files using wildcards and date ranges. Refer to "Selecting Files to Compare" in this chapter for more information.
3	Click on Compare options to select options and a destination with which to compare files. When you run a Compare after restoring files, you must select the same destination for the Compare Job as for the Restore. Refer to "Selecting Compare Options" in this chapter for more information.
4	Click on Run to run the Compare Job. Refer to "Running a Compare Job" in this chapter for more information.

Using the Compare Menu

The **Compare** menu appears on the menu bar when you open the Compare window, and provides additional commands for Compare Jobs. You can select the following commands from the **Compare** menu:



Save saves edits to an existing Compare Job under the current name.

Save as... lets you assign a new name and description to a Compare Job. Use this command to create a new Compare Job from edits to a default Compare Job.

Compare from lets you select a backup device and Backup Sessions with which you compare data.

Files to compare lets you select files for the Compare Job.

Compare options lets you select options and a destination with which to compare files.

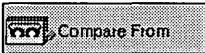
Preview provides statistics about the Compare Job before you actually run the Job.

Run starts the Compare Job.

Exit lets you leave Sytos Premium.

Selecting a Backup Device and Backup Sessions

Description



Before you can select files to compare, you need to specify the backup device containing the tape you want to compare and the Backup Sessions on the tape to be compared. Click on **Compare from** to select a backup device and Backup Sessions for the Job.

If you have only one backup device, Sytos Premium automatically selects it. If you have more than one backup device, you must select a backup device for the Compare Job. You must also select the Backup Sessions that contain the files you want to compare. To select a backup device and Backup Sessions, follow these steps:

Step	Action
1	Insert the tape, containing the files that you want to compare into the backup device.
2	Select the backup device in the Select backup device drop-down listbox.
3	Click on Identify tape to display the Backup Sessions in the Backup Session window and the tape's name, tape sequence number, and creation date next to Identify tape .

- 4 Click on the Backup Sessions that you want to compare. A checkmark identifies selected Backup Sessions.
- Click on **Tape details...** to open the Tape Details window where you can view information about the tape and the Backup Sessions on the tape. Click on **Sessions>>** to expand the Tape Details window to view additional information about the highlighted Backup Session. Figure 10-2 shows the expanded Tape Details window.
- NOTE:** Backup Sessions are restored consecutively from earliest to latest.

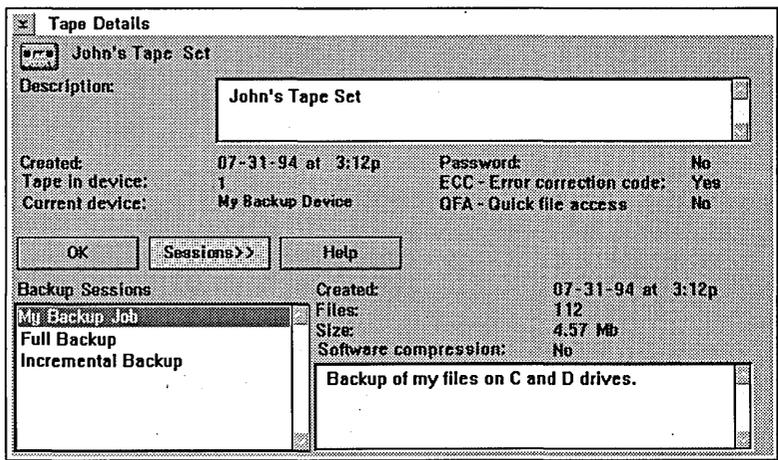
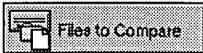


Figure 10-2. Expanded Tape Details

Selecting Files to Compare

Description



When you select files for a Compare Job, you select them from the tape, rather than from the hard disk. The files on tape have the same names as the originals from which they were copied.

Selecting files to compare is similar to selecting files to restore. You select a backup device, Backup Sessions, and files to compare.

Click on **Files to compare** in the Compare window to display the Directory Tree as shown in Figure 10-3. You can select files using the Directory Tree or the Selection Sheet.

NOTE: If you compare multiple Backup Sessions containing multiple versions of the same file, only the latest version of the file successfully matches the source file during the Compare Job.

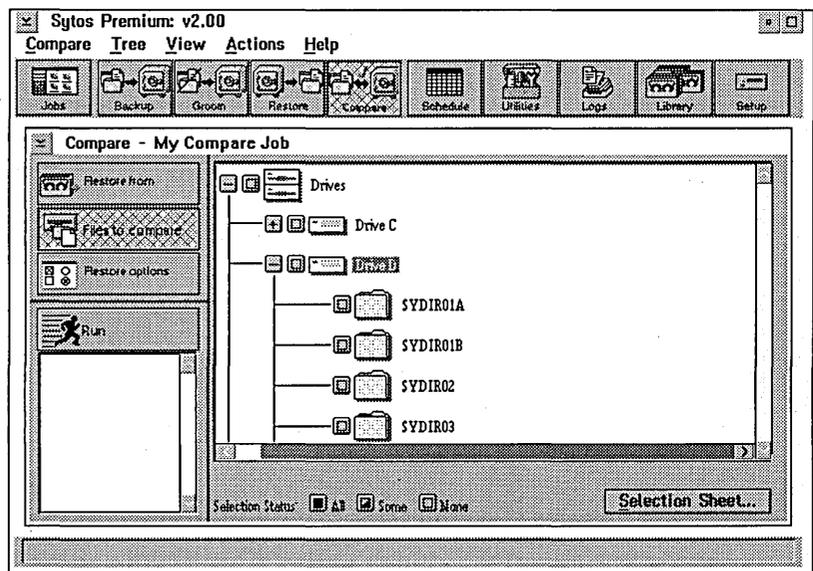


Figure 10-3. Directory Tree

Using the Directory Tree

When you click on [Files to compare](#), a Directory Tree displaying the backed-up system on the tape appears. The following selection boxes show current selections for a Compare Job:



All. All files on the listed drive or directory have been selected for compare.



Some. Specific files on the listed drive or directory have been selected for compare.



None. No files on the listed drive or directory are currently selected.

To select files for a Compare Job, follow these steps:

Step	Action
1	Click on the plus sign  and the minus sign  next to displayed drives, directories, and files to expand or collapse the Directory Tree to a level from which you can make selections. You can also use the Tree and View menu commands to change the Directory Tree display. Refer to <i>Chapter 5: Navigating Within Sytos Premium</i> for instructions on using the Directory Tree.
2	Click the selection box next to files, directories, and drives to All to select files, directories, and drives for the Compare Job. To clear the selection box, click on it again.

Using the Selection Sheet

A Selection Sheet, as shown in Figure 10-4, lets you select files and subdirectories using wildcards (* and ?), by date ranges, and by archive bit.

When you choose files from the Directory Tree, Sytos Premium builds a Selection Sheet in the background. By clicking on [Selection Sheet...](#), you can view or edit the Selection Sheet for your Compare Job.

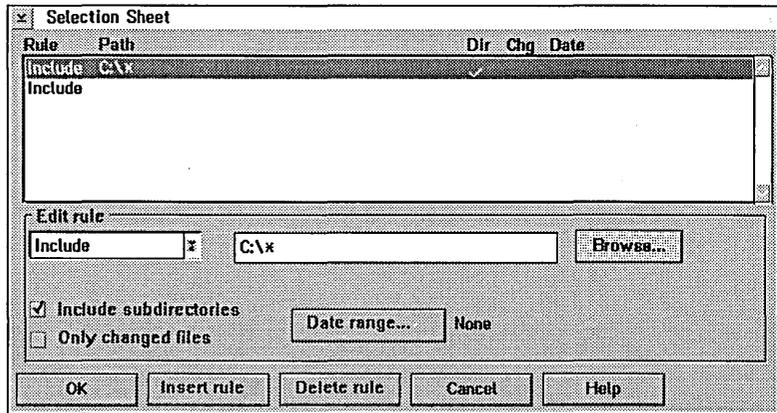


Figure 10-4. Selection Sheet

Editing the Selection Sheet

Use **Insert rule** to add a new rule above the highlighted one, and **Delete rule** to delete the highlighted rule. Use the Edit rule group box to edit the highlighted rule.

To edit a Selection Sheet, follow these steps:

Step	Action
1	Click on Selection Sheet... to display the Selection Sheet with its current file selections. Each line on the sheet represents one rule.
2	Edit the Selection Sheet by inserting, deleting, and editing rules. Refer to "Inserting and Deleting Rules" and "Editing Selection Sheet Rules" later in this section for more information.
3	Click on OK to accept the Selection Sheet.

NOTE: A Selection Sheet is read from top to bottom, and a rule inserted in the middle of the sheet may be affected by a rule below it. Insert new rules at the bottom of the Selection Sheet.

Inserting and Deleting Rules

To insert a rule on the Selection Sheet, follow these steps:

Step	Action
1	Highlight a rule on the Selection Sheet.
2	Click on Insert rule to insert a blank rule above the highlighted rule.
3	<p>Enter a pathname into the pathname edit field that identifies the data to be compared. The inserted rule displays the current pathname.</p> <p>You can type the pathname into the field.</p> <p>-or-</p> <p>Click on Browse... to open the Browse window where you scan the Directory Tree for directories and files to compare. When the edit field displays the path you want to select, click on OK. The inserted rule displays the pathname.</p>

To delete a rule on the Selection Sheet, follow these steps.

Step	Action
1	Highlight the rule that you want to delete.
2	Click on Delete rule to delete the highlighted rule.

Editing Selection Sheet Rules

To edit an existing rule, follow these steps:

Step	Action
1	Highlight the rule to display the rule's path in the pathname edit field.
2	Select options in the Edit rule group box to edit the highlighted rule or change the rule by typing directly in the pathname edit field.

The Edit rule group box contains the following fields and options:

Option	Description
Include/Exclude	Lets you include or exclude files specified by the pathname in the pathname edit field for the Compare Job.
Pathname edit field	Lets you specify a pathname for a rule to insert, delete, or edit. You can type the pathname into the field or click on <input type="button" value="Browse..."/> to scan the Directory Tree for a pathname.
Include subdirectories	Includes all subdirectories of the specified path.
Only changed files	Includes only files of the specified path that have changed since the last backup.
<input type="button" value="Date range..."/>	<p>Opens the Date Range window where you select a date range for including/excluding files. Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. This option is the default setting. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on <input type="button" value="OK"/> to accept the date range selections and return to the Selection Sheet.</p>

Selecting Compare Options

Description

Click on **Compare options** to select a destination and options for the Compare Job. Figure 10-5 shows the window where you select compare options.

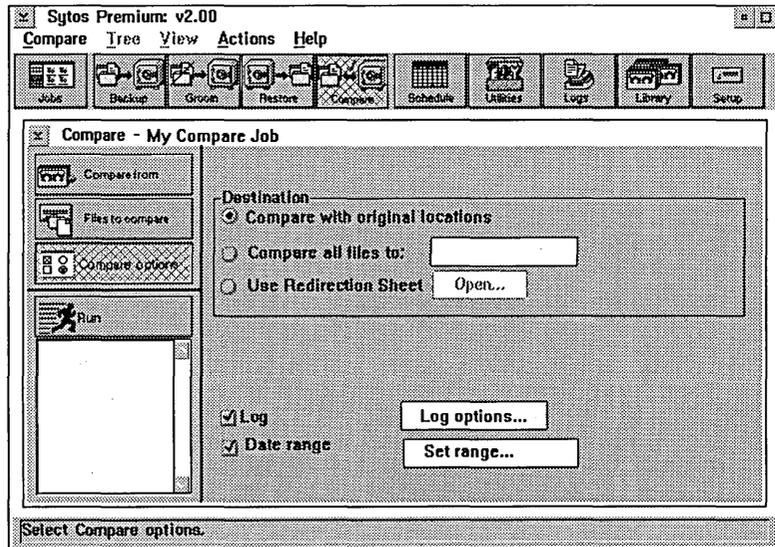


Figure 10-5. Compare Options

Selecting a Destination

The Destination group box lets you select a destination with which Sytos Premium compares the files on tape. To select a destination, select one of the following options:

- **Compare with Original Locations.** Compares the files on tape with the restored files on the hard drive. If you select this option for a Restore Job, select it for the Compare Job.
- **Compare all files to:** Compares all files on tape with files at a destination that you specify in the pathname edit field. If you select this option for a Restore Job, select it for the Compare Job.
- **Use Redirection Sheet.** Compares files on tape with files at a destination you specify on the Redirection Sheet. If you are comparing redirected files, the Redirection Sheet for the Compare Job must match the Redirection Sheet for the Restore Job.

Refer to “Selecting Restore Options” in *Chapter 9: Restoring Data* for information about using the Redirection Sheet.

Comparing Redirected Files

If you select files for a Compare Job after a Restore with redirection, you must duplicate the rules you used for the Restore Job.

For example, Joe gives you his sales report called:

C:\REPORTS\SALES.DOC

and you restore it with the following name:

C:\REPORTS\JOESFILE.DOC

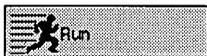
When you set up the Compare Job, enter the source pathname as “C:\REPORTS\SALES.DOC” and enter the redirected pathname as “C:\REPORTS\JOESFILE.DOC.” This ensures that Sytos Premium knows which files it should compare. Otherwise, your files do not compare successfully.

Compare Options The following table lists the options for a Compare Job:

Option	Description
Log	Creates a record of what happened when you ran the Compare Job, including a list of Job, Log, and Selection Sheet settings, and a description of any problems that occurred. Sytos Premium saves the Log in a text file.
Log options...	<p>Opens the Log Options window where you can customize your Log with the following Log Options:</p> <p>Send Log to printer sends the Log to the default printer.</p> <p>List all files in Log includes a complete list of all processed files in the Log.</p> <p><i>TIP: You should create a Log for all Jobs and review the Log after running a Job.</i></p>
Date range	Lets you select a date range for including/excluding files.
Set range...	<p>Opens the Date Range window. Selection Sheet is displayed if you selected a date range on the Selection Sheet. If you select a new date range as a compare option, your date range selection from the Selection Sheet is overwritten. Select one Date Range option for including files:</p> <ul style="list-style-type: none"> • Is any date includes all files. This is the default setting. • Is includes only the files created on the specified date. • Is on or before includes only those files created on or before the specified date. • Is on or after includes only those files created on or after the specified date. • Is between specifies a date range for including files. <p>Click on OK to accept the date range selections.</p>

Running a Compare Job

Description



You can run your Compare immediately or preview the Compare Job before it runs. Click on **Run** in the Compare window to run a Compare Job.

Saving a Compare Job

You can save the settings for a newly created or modified Compare Job using the following commands from the **Compare** menu:

- **Save** saves edits to an existing Job under the current name.
- **Save as...** lets you assign a new name and description to a Job. Use this command to create a new Job from edits to a default Job.

***TIP:** If you are setting up a complex Job, you may want to save your work periodically.*

To save a Compare Job, follow these steps:

Step	Action
1	Select Save from the Compare menu to save edits made to an existing Job under the current name. -or- Select Save as... from the Compare menu to assign a new name and description to a Job.
2	Enter a name and description for the new Job.
3	Click on Save to save the Job.

Previewing a Compare Job

Preview provides statistics about the Compare Job before you actually run the Job. It does not affect files or their attributes in any way.

To preview a Compare Job, follow these steps:

Step	Action
1	<p>Select Preview from the Compare menu to start previewing the Job. The Compare Status window opens. Refer to "Viewing the Compare Status Window" in this section for information about the Compare Status window.</p> <p>You can click on (S)top to cancel the process, or click on (O)pen Log... to review the Log of the completed Job.</p>
2	<p>When the Preview is complete, Sytos Premium displays a final status message. Click on (O)K to close the prompt and return to the Compare Status window.</p>

Running a Compare Job

To run your Compare Job, follow these steps:

Step	Action
1	<p>Click on (R)un from the Compare window or select Run from the Compare menu. The Compare Status window appears.</p> <p>You can click on (S)top to cancel the process, or click on (O)pen Log... to review the Log of the completed Compare Job.</p>
2	<p>When the Job completes, Sytos Premium displays a final status message. Click on (O)K to close the prompt and return to the Compare Status window.</p>

Viewing the Compare Status Window

During **P**review and **R**un, the Compare Status window appears, as shown in Figure 10-6. This window provides detailed information about the Compare Job in progress.

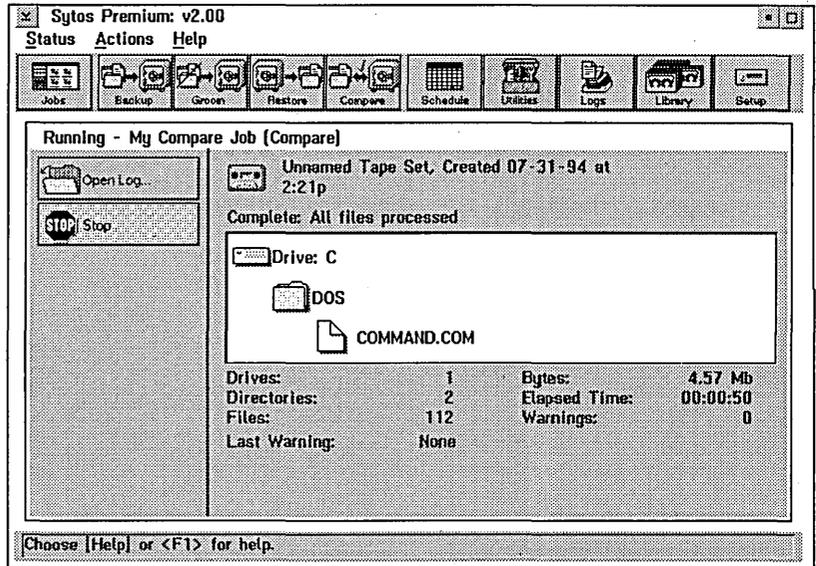


Figure 10-6. Compare Status

The following table describes the Compare Status window elements:

Item	Description
Title bar	Displays either "Previewing" or "Running," the name of the Compare Job, and the Job type (Compare).
Tape Set information	Displays the Tape Set name, creation date, and time.
Status line	Summarizes the progress of the Compare Job (for example, "Rewinding tape" and "Complete: All files processed").
Files window	Displays the Directory Tree for the files in the Backup Session and the files as they are compared.

The Compare Status window's lower section displays the number of drives, directories, files, and bytes that have been compared. It displays the last warning message and the number of warnings the

Compare Job has received. It also shows the time that the Job has been processing.

The following table describes the Compare Status window pushbuttons:

Pushbutton	Description
Open Log...	Lets you review the Log of the completed Compare Job.
Stop	Lets you stop a running Compare Job. A message box appears and asks you to confirm that you want to stop the compare. Click on OK to stop the compare.

Reviewing the Compare Log

After you run a Compare Job, review its Log.

The Log option lets you review a completed Compare Job and possible error messages for unsuccessful Compare Jobs.

Once you review the Log and are satisfied that the Job has completed successfully, you can delete the Log using the Log utility.

TIP: If a Compare Job is not successful the information in the Log can help determine any errors. Re-run the Job after you correct the problem.

To review the Log after a Compare Job, follow these steps:

Step	Action
1	Click on Open Log... in the Compare Status window. The Log for the Compare Job appears. To open the Log in other windows, select Logs from the Actions menu or click on Logs on the tool bar. Refer to Chapter 14: Managing Logs for more information.
2	Click on Print... to print the Log or click on Close to close the Log.



Disaster Recovery

Overview

Introduction

This chapter explains how to run Rebound, Sytos Premium's disaster recovery utility, to restore your OS/2 operating system on a single workstation or server.

You can run Rebound if you lose your OS/2 operating system, after a hard disk or server failure or after you have replaced, reformatted, or upgraded a hard disk or server.

Rebound can be used only on the system for which it is setup; however, Rebound accommodates normal system reconfiguration and upgrades.

For Additional Information

Refer to "Setting Up Disaster Recovery" in *Chapter 2: Installing Sytos Premium* for instructions on setting up Rebound.

In this Chapter

This chapter includes the following topics:

Topic	See Page
How Rebound Works	11-2
Recovering The System	11-4
Running Recovery	11-5
Restoring OS/2 Systems Without Rebound	11-8

How Rebound Works

Description

Rebound is a single-menu utility that uses your backup tape to recover your system on a diskette boot. Figure 11-1 shows the Rebound main menu. Protection against a disaster is a two step process:

Setup. Setup scans your drive for valuable system configuration data and copies it to the Rebound Assistant diskette. Rebound refers to the Assistant diskette during Recovery to restore your system. Run Setup at the following times:

- Immediately after installing Sytos Premium.
- Any time you add or change device drivers that modify CONFIG.SYS and require a system reboot. This rule applies to all device drivers, not just Sytos Premium drivers.
- Any time you upgrade OS/2 to a new revision or install a Customer Service Diskette (for example, IBM's Service Pack). Run Setup after the new version is installed and a full system backup has been completed.

CAUTION: Rebound cannot recover your system if you do not run Setup before the disaster. Refer to "Setting Up Disaster Recovery" in Chapter 2: Installing Sytos Premium for instructions on running Setup.

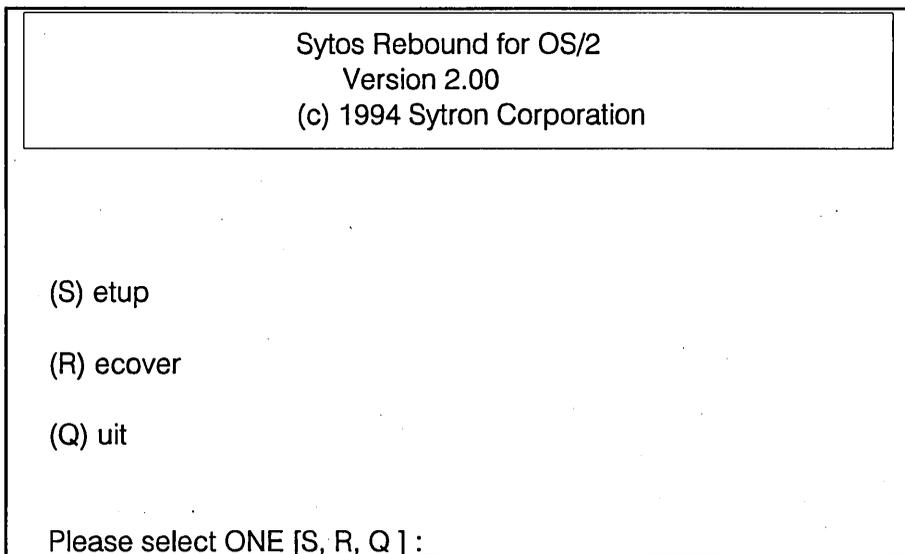


Figure 11-1. Rebound Main Menu

Recovery. Run Recovery if you have lost your operating system due to corruption or hardware failure. You need to format all your partitions before running Recovery. To run Recovery, insert the backup tape, boot your system using the Assistant diskette, and run Recovery from the Rebound diskette.

Recovering the System

Introduction

This section explains how to recover systems running one version of OS/2 and LAN Servers 3.0 or higher.

NOTE: *If you have multiple versions of OS/2 on your system, you need a separate Rebound diskette, Rebound diskette set, and Full Backup tape to recover each OS/2 version.*

What You Need

When you begin system recovery, ensure that you have the following items:

- Rebound diskette.
- The Rebound diskette set that you created during Setup. The set includes the Assistant and Spare diskettes, and the Startup diskette if you are running OS/2 2.x.
- Tape containing the latest full system backup.

NOTE: *At the start of Recovery, Rebound prompts for a password if the backup tape was password-protected from within Sytos Premium. Because Rebound is case-sensitive, the password must be entered in upper case letters.*

- A copy of the OS/2 Installation Guide to refer to information on disk partitioning and formatting.

Running Recovery

Description

Use these recovery instructions for systems running one version of OS/2 where the OS/2 Boot Manager may or may not be installed.

To recover the OS/2 system, follow these steps:

Step	Action
1	<p>Insert the Assistant diskette into the drive and enter: TYPE [drive:]\DSKCFG.TXT</p> <p>or refer to Table 2-3 in <i>Chapter 2: Installing Sytos Premium</i> to review how your hard drive was partitioned when you ran Setup.</p> <p>Run FDISK from your Spare diskette to view the current partition information. If the current partitions do not match the partitions from Setup, re-partition the disk.</p> <p>To re-partition the drive, use the DOS FDISK utility to partition hard drives under OS/2 v1.3 and the OS/2 FDISK utility for OS/2 2.x.</p> <p>NOTE: Ensure that each partition is large enough to hold all files that were backed up from that partition. Also, if the system is configured with Boot Manager, you may need to set the Boot Manager as the active partition after running Rebound. Once Recovery is complete, run FDISK from the Assistant diskette and check that you can start the Boot Manager partition.</p>

<p>2</p>	<p>Run Format from the Spare diskette to format each partition that you want to recover:</p> <ul style="list-style-type: none"> • To reformat DOS partitions, use the DOS format utility (FORMAT.COM) supplied with your version of DOS, and include the argument /S on the command line. • To reformat OS/2 and dualboot partitions, always use the OS/2 format utility (FORMAT.COM) supplied with your version of OS/2. <p>NOTE: When formatting, specify the correct file system type (HPFS or FAT). For example, if the OS/2 FORMAT.COM is being used to format an HPFS partition, include the argument /FS:HPFS on the command line. For a list of the file system types on the drive, refer to Table 2-3 in Chapter 2: Installing Sytos Premium, or insert the Assistant diskette and enter:</p> <p>TYPE[drive:]\DSKCFG.TXT</p>
<p>3</p>	<p>Insert the tape containing the latest Sytos Premium full system backup into the backup device.</p>
<p>4</p>	<p>Determine the version of OS/2 you are recovering and select from the following steps, A or B:</p> <p>A. OS/2 v2.0 or greater: Insert the Startup diskette and boot the system. When prompted to insert the next diskette, insert the Assistant diskette. The OS/2 prompt appears.</p> <p>B. OS/2 pre-v2.0: Insert the Assistant diskette and boot the system. The system prompt appears.</p>

5	<p>Insert the Rebound diskette into the drive and type:</p> <p>[drive:] REBOUND</p> <p>where [drive:] is the drive containing the Disaster Recovery diskette.</p> <p>NOTE: On some monochrome monitors, the screen may go blank during Recovery. If this occurs, press [Esc]. To avoid this problem, add the following parameter:</p> <p>[drive:]REBOUND/EGAMONO</p>
6	<p>Select (R)ecover from the main menu. Rebound displays the backup tape's Tape Set name, description, and creation date.</p> <p>Select [OK] to continue.</p> <p>Recovery runs automatically unless the backup spans across tapes, in which case Rebound prompts for the next tape. "Successful recovery" displays upon completion.</p>
7	<p>If you have other Backup Sessions, restore them using Sytos Premium.</p>
8	<p>If you are recovering a LAN Server v3.x server, you must restore the Access Control Lists (ACLs). Start the server and with the Rebound diskette in the drive, and type:</p> <p>[drive:]REBOUND</p> <p>Select (R)ecover, Rebound prompts whether or not to restore the access privileges. Select [OK] for yes, or select [Esc] to cancel.</p> <p>If you select [OK], Recovery restores the access privileges. If you select [Esc], Recovery does not run and fully restores the server except for the access privileges.</p> <p>NOTE: The backup device must be located at the server.</p>

NOTE: If this is a dual boot system with DOS and OS/2, Rebound automatically re-installs DOS.

If the C: DRIVE is a DOS partition and was formatted with a volume label, DOS is not bootable after a Recovery. When attempting to boot from the C: drive, the message "Non-System disk" appears.

If you already ran Recovery, boot from a DOS diskette and type SYS C: at the system prompt. This step allows booting from the C: drive.

Restoring OS/2 Systems Without Rebound

Description

If your backup device does not support Rebound or you did not run Setup, follow these steps to recover your OS/2 system:

Step	Action
1	Install OS/2.
2	Install Sytos Premium.
3	<p>If you are running OS/2 v2.x, open to the OS/2 Full Screen and delete all files and directories under the desktop directory:</p> <p>OS/2 v2.0x: the directory is under [drive]:\“OS!2 2.0 Desktop” if on an HPFS boot drive [drive]:\“OS!2.0_D” if on a FAT boot drive</p> <p>OS/2 v2.1: the directory is under [drive]:\Desktop</p>

4	<p>Create a Restore Job to restore your Full Backup and your OS/2 system files. Use the Redirection Sheet to copy OS2.INI and OS2SYS.INI to a different location. For example:</p> <p>Source pathnames: [drive]:\OS2\OS2.INI [drive]:\OS2\OS2SYS.INI</p> <p>Redirected pathnames: [drive]:\OS2\MYSYSTEM\OS2.INI [drive]:\OS2\MYSYSTEM\OS2SYS.INI</p>
5	<p>Run the Restore Job.</p> <p><i>NOTE: Do not return to the OS/2 workplace shell. Run Sytos Premium from the open OS/2 Full Screen.</i></p>
6	<p>Shut down and reboot your system from your floppy drive using the OS/2 diskettes.</p>
7	<p>At the command prompt, enter:</p> <pre>copy [drive]:\OS2\MYSYSTEM\OS2.INI [drive]:\OS2\OS2.INI</pre> <p>After OS/2 copies the file to your OS/2 directory, enter:</p> <pre>copy [drive]:\OS2\MYSYSTEM\OS2SYS.INI [drive]:\OS2\OS2SYS.INI</pre>
8	<p>Remove the diskette from the drive and reboot your system.</p>

Restoring Network Servers

To restore a network server to its previous state, follow these steps:

Step	Action
1	Restore the system as described in "Restoring OS/2 Systems Without Rebound."

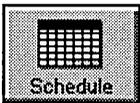
2	Start the system and the server using Net Start Server .
3	Re-run the Restore Job to restore the Access Control Lists (ACLs). Ensure that Restore directory information under restore options is selected.
4	Restore any Incremental or Differential Backups that are appended to the Full Backup.
5	Delete the newer version of Sytos Premium. Use Sytos Premium from the original directory to access your existing Logs, Tape Sets, and Jobs.
6	Shut down your system and bring the server back up. Refer to your LAN documentation for instructions.

 **12**

Scheduling

Overview

Introduction



This chapter explains how to run Sytos Premium Jobs and other programs at specified times. Sytos Premium includes the Sytos Schedule utility that lets you set up Jobs and program files as scheduled events.

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Scheduling Events	12-2
Adding Events to the Calendar	12-5
Editing Events	12-12
Deleting Events	12-12
Configuring the Schedule	12-13
Activating the Schedule	12-16

Scheduling Events

Description

The Sytos Schedule Utility lets you set up Sytos Premium Jobs and other programs as scheduled events. You can open the Schedule window, as shown in Figure 12-1, by clicking on **Schedule** on the tool bar or selecting **Schedule** from the **Actions** menu.

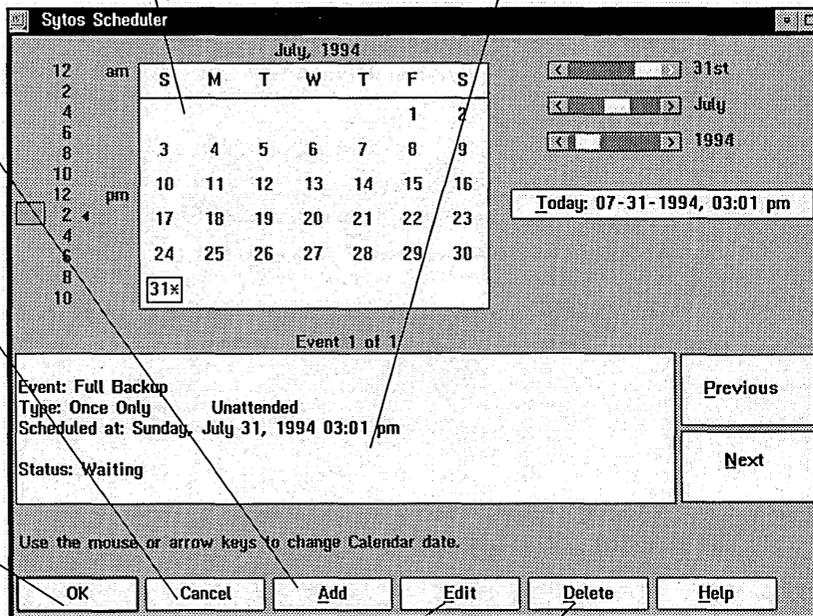
The Calendar displays the current month's scheduled events.

The Event box describes the highlighted event on the Calendar. Click on **Preview** to view the previous event and **Next** to view the next event.

Click on **Add** to open the Add Event window where you add an event to the Schedule.

Click on **Cancel** to exit the Schedule without saving your edits.

Click on **OK** to save the settings, close the window, and activate the Schedule.



Click on **Edit** to open a window where you edit the highlighted event.

Click on **Delete** to remove the highlighted event from the Schedule.

Figure 12-1. Schedule

Viewing the Calendar

When you open the Schedule window, a calendar of the current month appears and displays the following details:

- A box highlights the current date. You can change the date by highlighting a different day on the Calendar. You can use the scroll bars to change the day, month, and year. Scroll left for a previous day, month, or year; scroll right for a future day, month, or year. Click on **Today** to return the Calendar to the current date and time.

NOTE: Ensure that your system clock is correct for an accurate display of the current date and time in **Today**.

- An asterisk (*) next to a date indicates one or more events are scheduled for that day.
- The column to the left of the calendar displays a summary of the highlighted day in two-hour increments.
 - A colored block indicates a scheduled event within the two-hour time frame.
 - A triangular symbol next to a time indicates the event for that time is displayed in the Event description box.

Viewing Events

The Event box displays a description and status of the highlighted or active day's first scheduled event. The Event box displays the following information:

- **Event:** The name of the event.
- **Type:** The type (frequency) of the event, for example, a "Daily" event.
- **Scheduled at:** The next time the event is scheduled to run.
- **Status:** The current status of the event, for example, "Waiting," or "Completed."

If the schedule for the active day contains more than one event, click on **Previous** to view the previously scheduled event, and **Next** to view the next scheduled event.

Checking for the Next Scheduled Event

To check for the next scheduled event, follow these steps:

Step	Action
1	<p>Select Query Next Scheduled Event... from the Control Menu in the Schedule window.</p> <p>A window displays the description, date, and time for the next event. An information prompt may also be displayed, telling you that no events are scheduled.</p>
2	<p>Click on OK to return to the Schedule window and display the event in the Event box.</p> <p>-or-</p> <p>Click on Cancel to return to the Schedule window and display the event that was already active in the Event box.</p>

Adding Events to the Calendar

To add an event to the Calendar, follow these steps:

Step	Action
1	Click on Add to open the Add Event window, as shown in Figure 12-2, where you add an event to the Calendar.
2	Select settings for the event in the Add Event window. Refer to "Setting Up Events" in this section for additional information.

Sytos Scheduler: Add Event

Event: Sytos Premium Job

Frequency: Daily

Jobs: Full Backup
Job type is: Backup

Unattended Mode

Start: _____ End: _____

Date: _____
Time: _____

Once Every: _____ hrs. min.

Select or Deselect Unattended Mode

OK Cancel Help

July, 1994

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

< 31st
< July
< 1994

Today: 07-31-1994, 03:03 pm

Set Start Date

Exclude

Figure 12-2. Add Event, Jobs

3	Click on OK to save the settings and return to the Schedule window.
4	Click on OK in the Schedule window to activate the Schedule.

Setting Up Events

Select settings in the Add Event window to schedule an event. The following table describes these settings:

Setting	Description
Event	<p>Lets you select a Sytos Premium Job or other file to add to the Calendar by clicking on one of the following options:</p> <p>Sytos Premium Job Other File</p> <p>NOTE: If you select Other File, the Jobs drop-down listbox changes to the Other Files edit field, as shown in Figure 12-3.</p>
Frequency	<p>Lets you specify when the event runs by clicking on one of the following options:</p> <p>Once only. Once (at the time you specify). Daily. Monday through Sunday. Work Week. Monday through Friday. Weekly. Once a week (on the day and time you specify). Monthly. Once a month (on the day and time you specify).</p> <p>NOTE: If you select Daily, Work Week, Weekly, or Monthly, the Add Event window displays Exclude. Exclude lets you clear dates from the Schedule.</p>

Sylos Scheduler: Add Event

Event: Other file

Frequency: Daily

Other File:

Date: Start End

Time:

Once Every: hrs. min.

Select or Deselect Unattended Mode

OK Cancel Help

July, 1994

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

< 31st

< July

< 1994

Today: 07-31-1994, 03:03 pm

Set Start Date

Exclude

Figure 12-3. Add Event, Other File

Jobs

Lets you select a Job to add to the Schedule. When you select a Job, a box below the Jobs listbox displays the type of Job you selected.

NOTE: If you selected **Other File** in the Event box, the Add Event window displays the Other File edit field in place of the Jobs listbox.

<p>Attended/Unattended Mode</p>	<p>Lets you select one of the following run modes when you schedule Sytos Premium Jobs:</p> <p>Attended. Instructs Sytos Premium to stop and wait for user input at all prompts.</p> <p>Unattended. Instructs Sytos Premium to run the Job without user input using previously selected default settings. This setting is the default run mode. Refer to "Choosing Default Settings for Unattended Jobs" in this section for more information.</p> <p>NOTE: <i>If you selected Other File, the Add Event window does not display the Attended/Unattended Mode checkbox.</i></p> <p>TIP: <i>In either case, but especially for unattended Jobs, include the Log as part of the Job and review it as soon as the Job completes.</i></p>
<p>Other File</p>	<p>Lets you enter the pathname of the file that you want to add to the Schedule. Enter the entire pathname if the file is not located on the drive containing Sytos Premium. You can use a "qualified" pathname if the file is located on the same drive as Sytos Premium. For example, enter the following pathname:</p> <p>..\..\filename.exe</p> <p>Sytos Premium fills in the pathname.</p> <p>NOTE: <i>If you selected Sytos Premium Job in the Event listbox, the Add Event window displays the Jobs listbox in place of the Other File edit field.</i></p>

<p>Start</p>	<p>Lets you specify a time and date when the event runs for the first time. To specify a time and date, type a date into the Date edit field and a time into the Time edit field. You can also specify a date by highlighting a date on the Calendar and clicking on Set Start Date.</p> <p>If you do not specify a date, the default is the current (or displayed) date.</p> <p>NOTE: A previous event must complete running before any other events can start.</p>
<p>End</p>	<p>Lets you specify a time and date when the event runs for a final time. To specify a time and date, type a time into the Time edit field and a date into the Date edit field.</p> <p>NOTE: If you select Once only in the Frequency listbox, the Add Event window does not display the End edit field.</p> <p>TIP: Leave the End field blank to run an event indefinitely.</p>
<p>Once Every</p>	<p>Lets you enter a time in hours and minutes for how often you want the event to run.</p> <p>Once Every specifies how often the event runs between the Start Time and End Time. For example, you may want to run an event every 15 minutes, or every hour.</p>

<input type="button" value="Exclude"/>	<p>Lets you skip a date during an otherwise regular schedule. To exclude a date, highlight the date on the Calendar and click on <input type="button" value="Exclude"/>. The date changes to black, indicating that the scheduled event is canceled on that date.</p> <p>To add an excluded date to the Schedule, highlight the date. <input type="button" value="Exclude"/> changes to <input type="button" value="Include"/>. Click on <input type="button" value="Include"/> to include the date.</p> <p>NOTE: <input type="button" value="Exclude"/> is available for all frequencies except Once only.</p>
--	---

Choosing Default Settings for Unattended Jobs

When running Unattended Jobs, Sytos Premium refers to the default settings that you selected when you created the Job. The default settings determine whether or not the Job continues when a prompt requires a response.

The following table describes situations when Sytos Premium continues an Unattended Job:

Situation	Reaction
<p>A new password is needed.</p>	<p>The Job continues without assigning a password</p> <p style="text-align: center;">- or -</p> <p>If you selected a default password through Unattended Password in Setup: Preferences, the Job uses the password specified in the Unattended Password window.</p>
<p>The tape contains information and you are creating a new Tape Set.</p>	<p>The Job continues and Sytos Premium overwrites the Tape Set (regardless of your Tape overwrite setting in Setup: Preferences).</p>

Situation	Reaction
You selected one of the Restore options for overwriting.	<p>The following occurs when you select these overwrite options:</p> <ul style="list-style-type: none"> - Prompt before overwriting files. Sytos Premium continues the Job, but does not overwrite duplicate files. - Prompt before overwriting newer files. Sytos Premium continues the Job, but does not overwrite files that are newer than files on the tape.
An error occurs while reading a file from the hard drive.	The Job continues and records in the Log that the file is damaged.
Disk space runs out for the Log or the Library.	The Job continues without recording any more Tape Set or Log information.

The following table describes situations when Sytos Premium does not continue an Unattended Job:

Situation	Reaction
An existing password is required.	The Job is canceled if the password on the Tape Set in the drive does not match the password required, or if you did not select an Unattended Password in Setup: Preferences .
A new tape needs to be inserted.	The Job stops and waits for a tape to be inserted.
If a severe error occurs.	The Job is canceled and the error is entered into the Log, if you selected the Log option.

Editing Events

To edit an event, follow these steps:

Step	Action
1	Highlight the event that you want to edit.
2	Click on Edit to open the Add Event window, as shown in Figure 12-2, where you can edit the highlighted event. <i>NOTE: You cannot edit a running event.</i>
3	Edit the event's settings in the Add Event window. Refer to "Setting Up Events" in this chapter for a description of the settings in the Add Event window.
4	Click on OK to accept the settings and return to the Schedule window.
5	Click on OK to save the changes and activate the schedule.

Deleting Events

To delete a scheduled event, follow these steps:

Step	Action
1	Highlight the event that you want to delete.
2	Click on Delete to remove the highlighted event from the Calendar. The event cannot be currently running. <i>NOTE: The OS/2 file or Sytos Premium Job that you delete is not deleted; only its entry in the schedule is removed.</i>

3	<p>A message appears to inform you that you are about to delete the highlighted event, and provides the event description, date, and time. Click on OK to delete the event.</p> <p>If you are deleting an event that is scheduled to run more than once, you receive a different prompt that lets you delete all occurrences of the event, or only the highlighted date for the event, as follows:</p> <p>Click on Single to delete only the highlighted date. The event is excluded on that date. Repeat this step for each occurrence that you want to delete.</p> <p>Click on All to delete all occurrences of the event.</p>
4	<p>Click on OK to accept the changes and activate the Schedule.</p>

Configuring the Schedule

The Schedule initialization file contains default settings for the Schedule and Add Event windows that you can modify.

To modify the initialization file, follow these steps:

Step	Action
1	Select Sytos Schedule Configuration from the menu in the Schedule window. The Configuration window opens as shown in Figure 12-4.

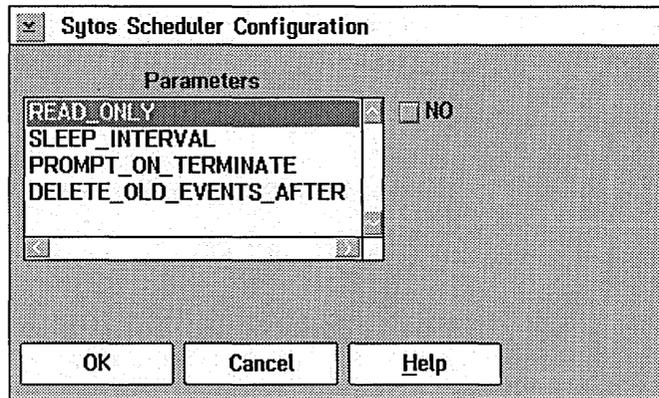


Figure 12-4. Configuring the Schedule

2	<p>Highlight the setting you want to change. The option available depends on the setting you have highlighted:</p> <ul style="list-style-type: none"> - A YES or NO checkbox appears for settings that are either On or Off. Select or clear the checkbox to change the setting. - An edit field appears if the setting requires a value. Enter a new value in the edit field that appears.
3	<p>Click on OK to save the changes.</p>

NOTE: If you do not want to delete old events from Sytos Premium after they have run, enter the value "NEVER" in the DELETE_OLD_EVENTS field. The value must be entered in upper-case letters or must be entered as an integer. For example, "-1" can be used instead of NEVER.

Refer to the following table for a description of the settings:

Default Setting	Description
READ_ONLY	<p>Specifies whether you or another user can Add, Edit, or Delete events. This setting is useful if you want to set up a schedule for other users to run.</p> <p>When you choose YES for READ ONLY, the Schedule prompts for a password.</p> <p>NOTE: You must later enter the password to review or change the configuration file.</p> <p>If a password is lost or unknown, the only way to access the configuration file is by re-installing Sytos Premium. You do <i>not</i> lose your Schedule.</p>
SLEEP_INTERVAL	<p>Determines how often the Schedule checks to see if an event is scheduled to run. The value is entered in seconds, with the default being one minute (60 seconds).</p> <p>Specifying an amount of time less than 30 seconds could cause your system to slow down, as it spends more time checking for events.</p>
PROMPT_ON_TERMINATE	<p>Prompts when you choose to exit the Schedule in one of the following ways:</p> <ul style="list-style-type: none"> - OK in the Scheduler Main window. - Close under the OS/2 system menu. - End Task in OS/2 Task Manager.

Default Setting	Description
DELETE_OLD_EVENTS_AFTER	<p>Removes an event from the Schedule after the specified amount of time.</p> <p>The values are NEVER or an integer specifying the number of days.</p> <p>If you run a large number of scheduled events, the file could become quite large. Deleting information for old events ensures that your file does not contain old information that is no longer useful.</p>

NOTE: *If Sytos Premium is running at the time a scheduled event is beginning, Sytos Premium closes, and the scheduled event begins.*

Activating the Schedule

Description

The Schedule shuts down when you turn off your computer and is reactivated when you start Sytos Premium. To activate the schedule automatically when you turn on your computer, include the Schedule command in your STARTUP.CMD file.

Insert the following statement in your STARTUP.CMD file after the drive and pathname where Sytos Premium resides. For example, if Sytos Premium is located on C:\SYPLUS, you would add the following line to your STARTUP.CMD file:

```
START C:\SYPLUS\SYSCHED /I
```

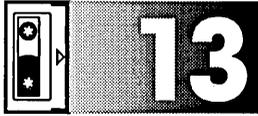
The schedule appears as an icon on your desktop.

During command line operations, you must specify a switch to inform Sytos Premium whether you want to run in Attended or Unattended mode. Unattended is the default setting. Refer to *Appendix J: Running Sytos Premium from the Command Line*.

Scheduling Several Events in One Day

An event that is scheduled to start while an earlier event is still running is delayed until the earlier event completes. Because of this, it is possible for a scheduled daily event to run twice on the same day. For example, an event is scheduled to run daily at 11 p.m. It is Thursday, and other scheduled events are running that delay the event scheduled to run at 11 p.m. Thursday to run at 1 a.m. Friday. If you look at the Schedule, Friday at 9 a.m., you see that the event has already run that day. However, the event will run again later that day at 11 p.m. as scheduled.

NOTES:



Using Tape Utilities

Overview

Introduction



This chapter explains how to view tape and Backup Session information about the tapes in your backup device. In addition, it explains how to re-tension, erase, format, and prepare tapes in advance to use with Sytos Premium.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Using the Utilities Window	13-2
Identifying Tapes	13-4
Viewing Tape Details	13-5
Viewing Tape Directories	13-8
Preparing Tapes in Advance	13-9

Using the Utilities Window

Description

The Utilities window, as shown in Figure 13-1, lets you view and prepare tapes in your backup device. Click on **Utilities** on the tool bar or select **Utilities** from the **Actions** menu to open the Utilities Window.

Click on **Identify** to display the name, tape sequence number, and creation date of the tape.

Click on **Details...** to display Tape Set and Backup Session information about the tape.

Click on **Directory...** for a list of the Backup Sessions on the tape.

Click on **Re-tension** to adjust the tape's tension.

Click on **Erase** to make the tape appear blank to Sytos Premium.

Click on **Format** to prepare tapes that require formatting.

Click on **Create tape...** to prepare tapes in advance.

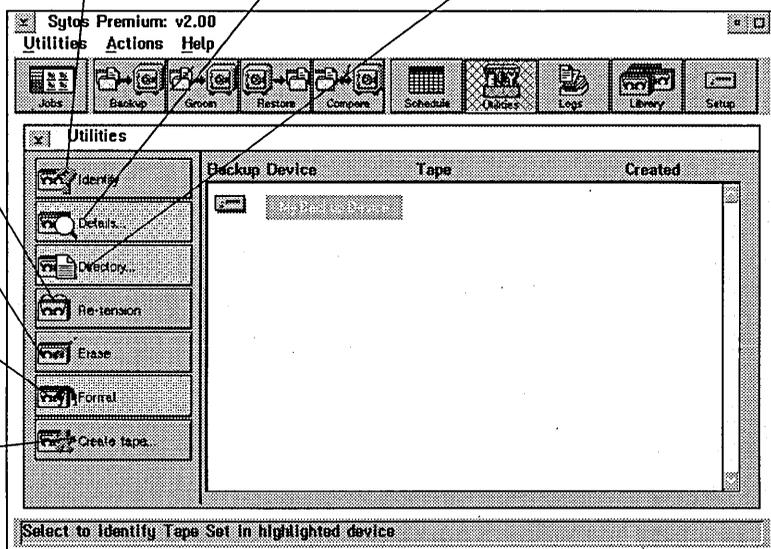
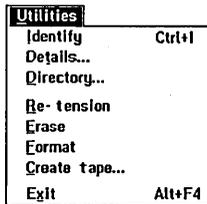


Figure 13-1. Utilities

Using the Utilities Menu



The **Utilities** menu appears on the menu bar when you open the Utilities window and provides menu commands for preparing and viewing tapes in your backup device. You can select the following commands from the **Utilities** menu:

Identify provides the name, tape sequence number, and creation date of the tape in the backup device.

Details... opens the Tape Details window where you can view the name, description, creation date, tape sequence number, backup device, QFA, ECC, and password information for the tape in the highlighted backup device. Click on **Sessions>>** to expand the Tape Details window and view information about the Backup Sessions on the tape.

Directory... opens the View Tape Set window where you can view a list of Backup Sessions and their files on the tape in the highlighted backup device.

Re-tension adjusts the tape tension by going to the beginning of the tape and rewinding it to ensure the tape is taut enough to record information properly.

Erase makes the tape appear blank to Sytos Premium.

Format prepares tapes and diskettes to receive Sytos Premium information.

Create tape... lets you prepare an empty tape in advance by providing a name, description, and tape options.

Exit lets you leave Sytos Premium.

Identifying Tapes



Identify lets you view the name, tape sequence number, and creation date of the tape in the highlighted backup device, as shown in Figure 13-2. The tape information appears in the columns next to the backup device name.

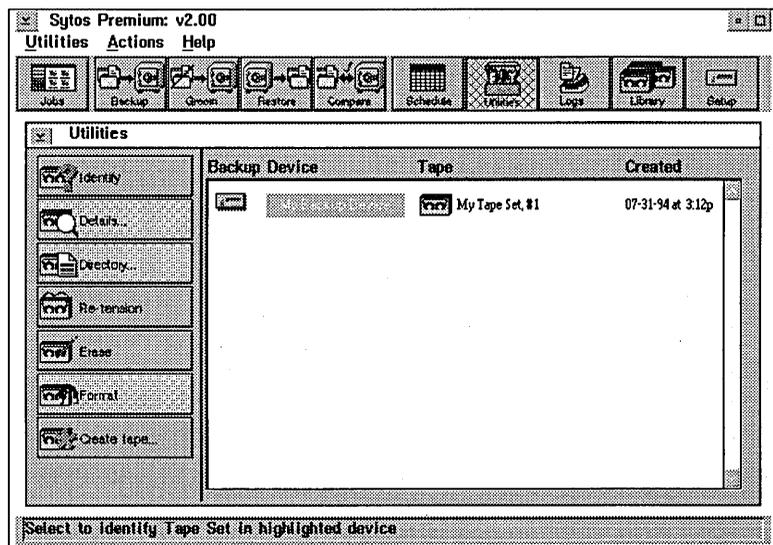


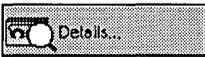
Figure 13-2. Identifying a Tape Set

To identify a tape in your backup device, follow these steps:

Step	Action
1	Insert a tape into a backup device.
2	Highlight the backup device containing the tape that you want to identify. NOTE: You can identify all tapes in a cascaded device or an autoloader by highlighting the configured backup device. To identify a single tape, highlight only the tape. You cannot identify more than one tape without identifying all tapes in the backup device.

3	Click on Identify or select Identify from the Utilities menu. The tape name, sequence number, and creation date display next to the backup device.
4	To view additional tape information, click on Details... or Directory... .

Viewing Tape Details



Details... lets you view Tape Set and Backup Session information for the tape in the backup device.

To view tape details, follow these steps:

Step	Action
1	Insert a tape into a backup device.
2	Identify the tape as described in the previous section.

- 3 Highlight the tape and click on **Details...** or select **Details** from the **Utilities** menu. The Tape Details window opens, as shown in Figure 13-3.
- The window shows the following information about the entire Tape Set:
- **Name** shows the personalized name you assigned to the tape.
 - **Description** shows the description you provided for identifying the tape.
 - **Created** shows the time and date when you created the tape. All tapes in the Tape Set show the same creation time and date.
 - **Tape in Device** shows the tape sequence number for the tape in the highlighted backup device.
 - **Current Device** shows the backup device containing the tape.
 - **Password** shows whether or not you assigned a password for the tape.
 - **ECC** shows whether or not you selected ECC as a tape option for the tape.
 - **QFA** shows whether or not you selected QFA as a tape option for the tape.

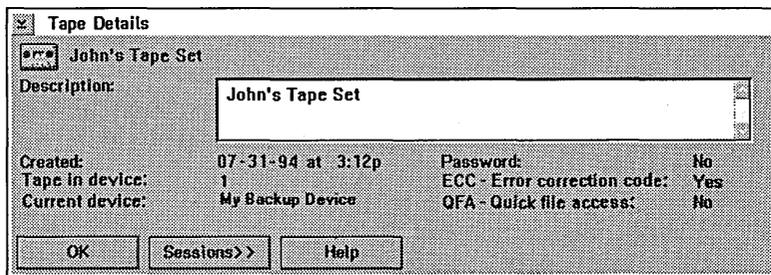


Figure 13-3. Tape Details

- 4 Click on **Sessions>>** to expand the Tape Details window, as shown in Figure 13-4, and view information about the Backup Sessions on the tape.
- The Tape Details window displays the following information about the highlighted Backup Session:
- **Created** shows the time and date when you created the Backup Session.
 - **Files** shows the number of files in the Backup Session.
 - **Size** shows the size in bytes for the Backup Session.
 - **Software compression** shows whether or not you selected Software compression as a backup option for the Backup Session.
- 5 Click on **OK** to return to the Utilities window.

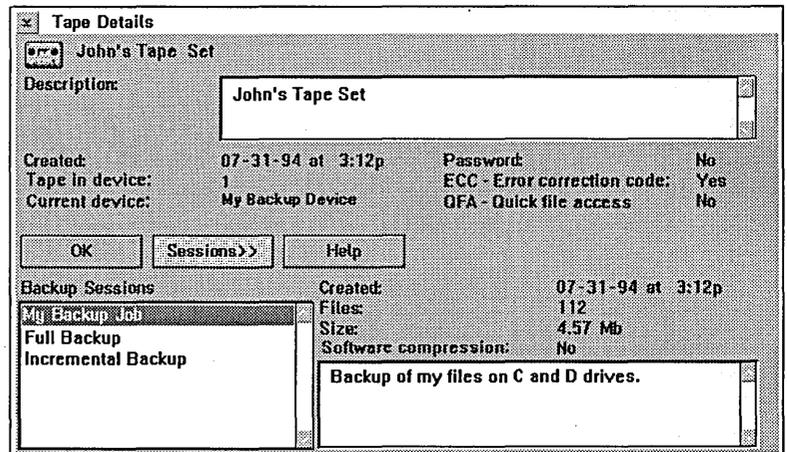


Figure 13-4. Expanded Tape Details

Viewing Tape Directories



Directory... lets you view or print the contents of the tape in the backup device.

To view a tape directory, follow these steps:

Step	Action
1	Insert a tape in a backup device.
2	Identify the tape as described in this chapter.
3	Highlight the tape and click on Directory... . The View Tape Set window opens, as shown in Figure 13-5. The window shows the Backup Sessions on the tape and a list of files in the Backup Sessions.

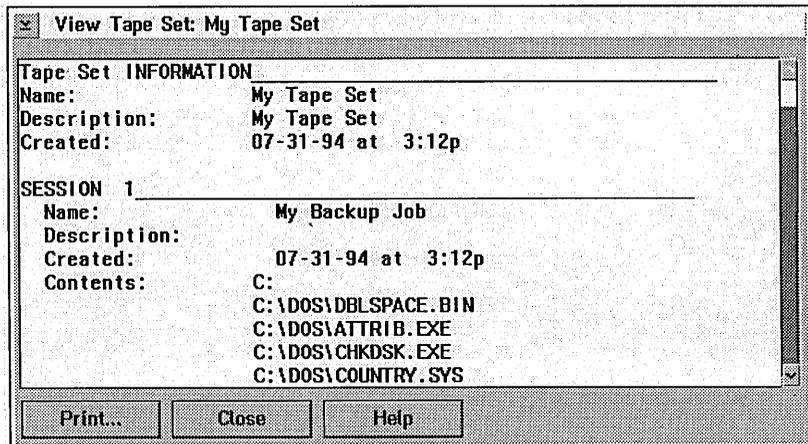


Figure 13-5. View Tape Set

4	<p>Click on Print... to print the directory contents. The Send To window opens. Select one or both of the following options:</p> <p>A text file creates a text file using the default pathname, or a pathname that you enter.</p> <p>The printer prints to the current default printer.</p> <p>Click on OK to print the file. Click on Close to close the View Tape Set window.</p>
---	--

Preparing Tapes in Advance

The Utilities window lets you prepare backup tapes before running a Job.

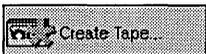
NOTE: *If you are using an autoloader as a backup device, you can re-tension, erase, and format only the tape in the first slot of the configured backup device.*

Options for preparing tapes are described in the following table:

Option	Description
Re-tension	<p>Adjusts the tape tension by fast-forwarding and rewinding the tape to ensure it is taut enough to record information properly. Re-tension, by itself, does not change the information stored on the tape.</p> <p>Select this option for tapes that are having read or write errors.</p> <p>NOTE: <i>This option is not supported by all backup devices.</i></p>

Option	Description
<p>Erase</p>	<p>Erases a tape so that Sytos Premium does not prompt when overwriting it. If security measures require it, tapes may also be erased with a commercial bulk eraser.</p> <p>NOTE: Erasing tapes for 4mm and 8mm drives can take two to three hours.</p>
<p>Format</p>	<p>Lets you format tapes before starting a Job. You do not need to format all tapes before using them; however, new tapes for some backup devices may need formatting. If this option is grayed, formatting is not required for the type of backup device you are using. This option also includes low-level pre-formatting for those devices that require it.</p> <p>Formatting overwrites any data already on the tape.</p> <p>If you are using a 4mm DAT backup device, the blank tapes must be formatted before creating a new tape. Formatting this type of tape takes only a few minutes.</p>
<p>Create tape...</p>	<p>Lets you prepare an empty Tape Set in advance by providing a name, description, and options. The tapes in the Tape Set are then ready to use for a Backup or Groom Job.</p>

Creating Tape Sets



Create tape... lets you start a new Tape Set in advance by providing a name, description, and options. The tapes are then ready to use for a Backup or Groom Job. You can append Backup Sessions to the Tape Set when you run a Backup or Groom Job.

To create a Tape Set, follow these steps:

Step	Action
1	Insert a tape into a backup device.
2	Highlight the backup device in the Utilities window.

3	Click on Create tape... . The Create Tape window opens, as shown in Figure 13-6.
4	<p>Enter the following information:</p> <ul style="list-style-type: none"> • Tape name. Give the tape a personalized name for recognizing the contents quickly. • Description. Describe the tape in order to identify the tape later. • Password. Assign the tape a password for security purposes. Sytos Premium prompts you for the password when you run a Job using the tape. • QFA (Quick File Access). Select this option to create a QFA directory on the tape to which Sytos Premium refers in order to quickly restore and compare files. • ECC (Error Correction Code). This option records special information on the tape to assist with restoring files if the tape becomes damaged after a successful Backup or Groom Job. You cannot clear this option.
5	Click on Create .

Create Tape on "UNNAMED TAPE SET"

Tape Name:

Description:

Password
 QFA - Quick File Access
 ECC - Error Correction Code

Figure 13-6. Create Tape

NOTES:



14

Managing Logs

Overview

Introduction



This chapter explains how to view, delete, and print your Sytos Premium Logs. Logs record information about completed Jobs that you can review to determine whether or not a Job was successful. Logs display information about files processed and problems that may have occurred when the Job ran. You can create Logs by selecting **Log** as a job option.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Using the Logs Window	14-2
Sorting Logs	14-4
Viewing Logs	14-4
Deleting Logs	14-6
Printing Logs	14-6

Using the Logs Window

Description

The Logs window, as shown in Figure 14-1, lets you view, delete, and print your Sytos Premium Logs. Click on **Logs** on the tool bar or select **Logs** from the **Actions** menu to open the Logs window.

Click on **Open Log...** to open the highlighted Log for viewing.

Click on **Delete** to remove the highlighted Log from Sytos Premium.

Click on **Print...** to print the highlighted Log.

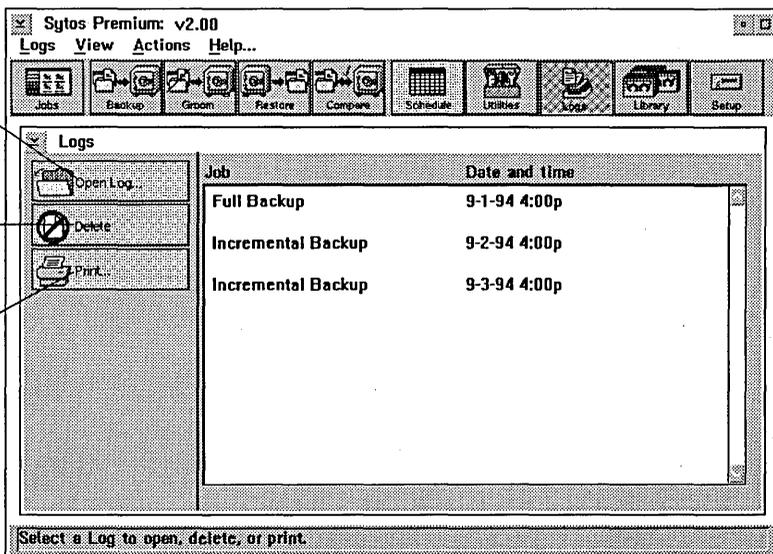
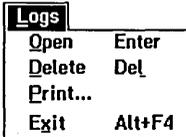


Figure 14-1. Logs

Using the Logs Menu



The **Logs** menu appears on the menu bar when you open the Logs window and provides the following commands for managing Sytos Premium Logs:

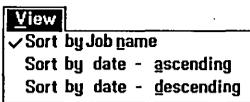
Open lets you open the highlighted Log for viewing.

Delete lets you remove Logs from Sytos Premium.

Print... lets you send Logs to a text file or to the default printer.

Exit lets you leave Sytos Premium.

Using the View Menu



The **View** menu also appears on the menu bar when you open the Logs window. This menu lets you set the order in which the Logs are displayed in the Logs window. Select one of the following display options:

Sort by Job name displays Jobs in alphabetical order.

Sort by date - ascending displays Jobs in chronological order.

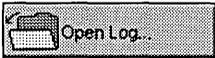
Sort by date - descending displays Jobs in reverse chronological order. This is the default setting.

Sorting Logs

To sort the Logs in the Logs window, follow this step:

Step	Action
1	<p>To change the sequence of the Logs, select one of the following display options from the View menu:</p> <p>Sort by Job name. Displays the Logs in alphabetical order.</p> <p>Sort by date - ascending. Displays the Logs in chronological order.</p> <p>Sort by date - descending. Displays the Logs in reverse chronological order.</p>

Viewing Logs



Logs let you review completed Backup and Groom Jobs to ensure that the files you specified were processed correctly. If the Log indicates a Job was not successful, you can refer to the Log to correct the problem and then re-run the Job. You should create a Log for all Jobs and review the Log after a Job runs.

To view a Log, follow these steps:

Step	Action
1	Highlight the Log that you want to view.

2	<p>Click on Open Log... or select Open from the Logs menu. The View Log window opens, as shown in Figure 14-2. The Log shows the following information:</p> <ul style="list-style-type: none"> • Name shows the personalized name you assigned to the Job. • Operation shows the type of Job that you ran. • Description shows the description you provided for identifying the Job. • Created shows the date and time when you ran the Job. • Backup to shows the backup device that you selected for the Job. • Backup Statistics shows whether you ran or previewed the Job, the time and date when the Job started and finished running, elapsed time for running the Job, and any warning messages the Job may have received. • File Information shows the number and size in bytes of files processed by the Job, and the number and size in bytes of files that were busy, unfound, or damaged when the Job ran.
3	<p>Click on Print... to print the Log, or click on Close to close the Log.</p>

NOTE: After you review the Log and determine whether or not the Job was successful, delete the Log to save space on your hard drive.

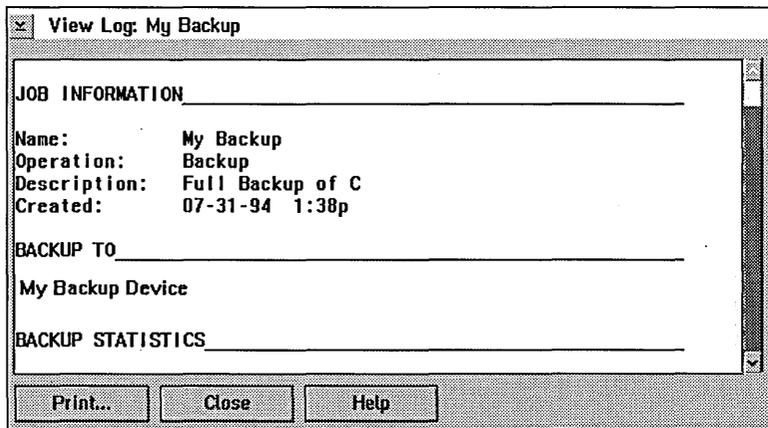


Figure 14-2. View Log

Deleting Logs

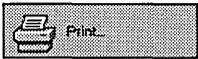


Deleting a Log removes it from the Log list. After you review the Log of a completed Job and confirm that the Job was successful, delete the Log in order to conserve disk space.

To delete a Log, follow these steps:

Step	Action
1	Highlight the Logs that you want to delete.
2	Click on Delete or select D elete from the L ogs menu. A message window appears asking you to confirm the deletion. Click on O K.

Printing Logs



To print the Log, follow these steps:

Step	Action
1	Highlight the Logs that you want to print.
2	Click on P rint... or select P rint... from the L ogs menu. The Send Log To window opens, as shown in Figure 14-3. Select one or both of the following options: To a text file sends the Log to a text file. To the printer sends the Log to the default printer. Click on O K.

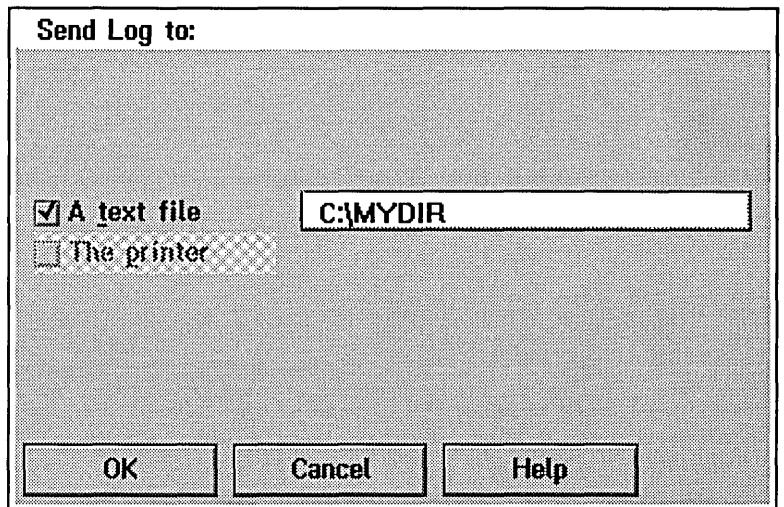


Figure 14-3. Print Log

NOTES:



15

Using the Library

Overview

Introduction



In this Chapter

This chapter explains how to view Tape Set and Backup Session information that is stored in the Library. The Library is a database that stores information about all Tape Sets that have been created on or added to your system.

This chapter includes the following topics:

Topic	See Page
Using the Library Window	15-2
Viewing Tape Set Details	15-4
Viewing Tape Set Directories	15-6
Adding Tape Sets to the Library	15-8
Deleting Tape Sets from the Library	15-8

Using The Library Window

Description

The Library window, as shown in Figure 15-1, uses a tree structure to display the Tape Sets and Backup Sessions contained in your Library. The column next to the tree shows when the Tape Sets and Backup Sessions were created. Click on **Library** on the tool bar or select **Library** from the **Actions** menu to open the Library window.

Click on **Details...** for more information about the highlighted Tape Set and its Backup Sessions.

Click on **Directory...** for a list of Backup Sessions and their files in the highlighted Tape Set.

Click on **Add to Library...** to add a Tape Set to the Library.

Click on **Delete tape** to remove the highlighted Tape Set from the Library.

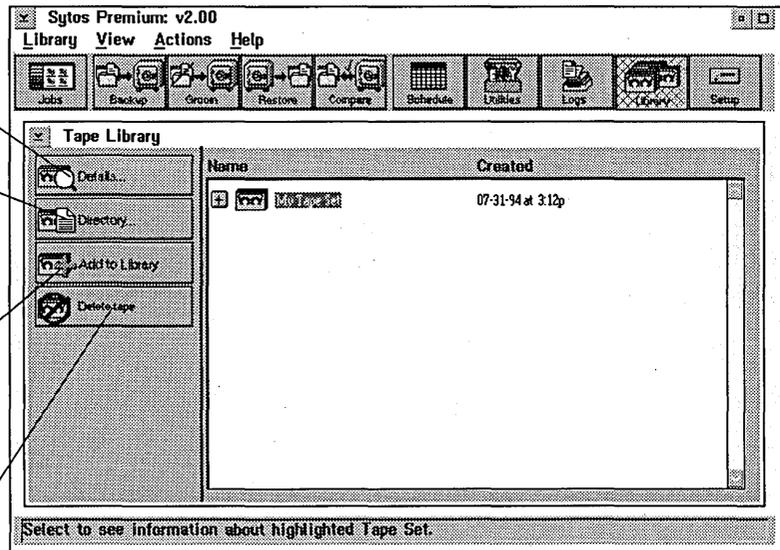
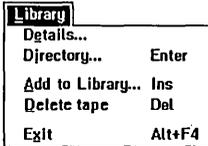


Figure 15-1. Library

Using the Library Menu



The **Library** menu appears on the menu bar when you open the Library window. You can select the following commands from the **Library** menu:

Details... opens the Tape Details window where you can view the name, description, creation date, QFA, ECC, and password information for the highlighted Tape Set. Click on **Sessions>>** to expand the Tape Details window and view information about the Backup Sessions in the Tape Set.

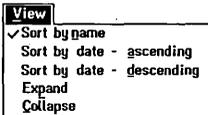
Directory... opens the View Tape Set window where you can view a list of Backup Sessions and their files on the highlighted Tape Set.

Add to Library... lets you add a Tape Set from your backup device to the Library.

Delete tape removes the Tape Set from the Library.

Exit lets you leave Sytos Premium.

Using the View Menu



The **View** menu also appears on the menu bar when you open the Library window. This menu lets you determine how the tree displays the Tape Sets and Backup Sessions in the Library window. Select one of the following options:

Sort by name displays Tape Sets in alphabetical order.

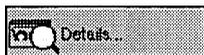
Sort by date - ascending displays Tape Sets in chronological order.

Sort by date - descending displays Tape Sets in reverse chronological order.

Expand lets you expand the tree to the Backup Session level.

Collapse lets you close the tree to the Tape Set level.

Viewing Tape Set Details



Details... lets you open the Tape Details window where you can view information about the highlighted Tape Set in the Library.

To view Tape Set details, follow these steps:

Step	Action
1	Highlight a Tape Set in the Library window.
2	<p>Click on Details... or select Details from the Library menu. The Tape Details window opens, as shown in Figure 15-2.</p> <p>The window provides the following information about the Tape Set:</p> <ul style="list-style-type: none"> • Name shows the personalized name you assigned to the Tape Set. • Description shows the description you provided for identifying the Tape Set. • Created shows the time and date when you created the Tape Set. • Tape in device shows the tape sequence number for tapes in your backup device. This field is blank when you view Tape Sets from the Library. • Current device shows the name of the backup device when you view Tape Set information for tapes in your Backup Device. This field is blank when you view Tape Sets from the Library. • Password shows whether or not you assigned a password for the Tape Set. • ECC shows whether or not you selected ECC as a tape option for the Tape Set. • QFA shows whether or not you selected QFA as a tape option for the Tape Set.

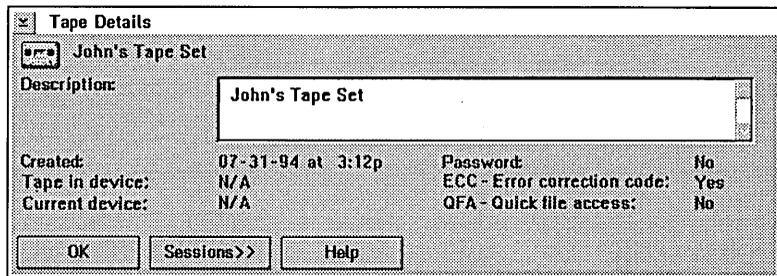


Figure 15-2. Tape Details

3	<p>Click on Sessions>> to expand the Tape Details window, as shown in Figure 15-3, and view information about the Backup Sessions in the Tape Set.</p> <p>The Tape Details window displays the following information about the highlighted Backup Session:</p> <ul style="list-style-type: none"> • Created shows the time and date when you created the Backup Session. • Files shows the number of files in the Backup Session. • Size shows the size in bytes for the Backup Session. • Software compression shows whether or not you selected Software compression as a backup option for the Backup Session.
4	Click on OK to return to the Library window.

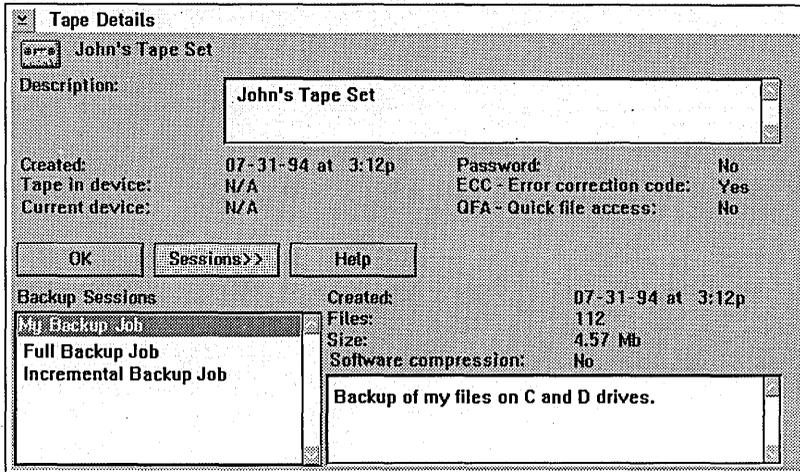
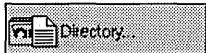


Figure 15-3. Expanded Tape Details

Viewing Tape Set Directories



Directory... lets you view and print the contents of the highlighted Tape Set in the Library.

To view a Tape Set directory, follow these steps:

Step	Action
1	Highlight a Tape Set in the Library window.
2	Click on Directory... or select Directory from the Library menu. The View Tape Set window opens, as shown in Figure 15-4. The window shows the Backup Sessions in the Tape Set and a list of files in the Backup Sessions.
3	Click on Print... to print the directory contents. The Send To window opens. Select one or both of the following options: A text file. Use the default pathname, or enter a pathname. The printer. Prints to the current default printer. Click on OK to print the file. Click on Close to close the View Tape Set window.

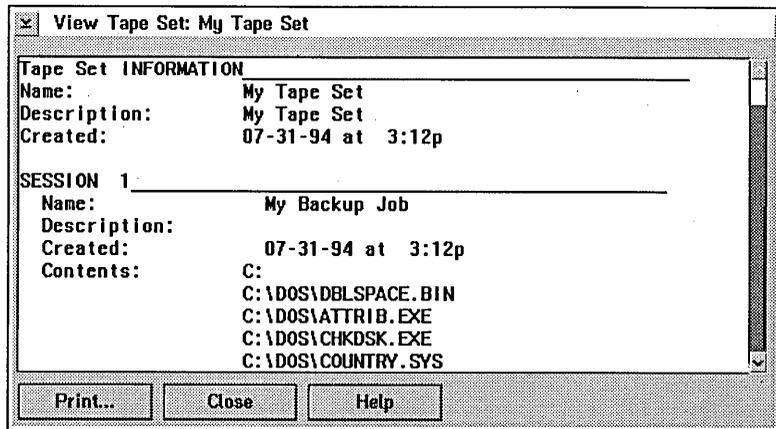
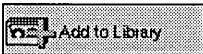


Figure 15-4. View Tape Set

Adding Tape Sets to the Library



Sytos Premium refers to the Tape Set information stored in the Library when restoring Backup Sessions. If the Library does not contain a Tape Set (for example, your Library does not contain Tape Sets created on other systems that you import to your system), Sytos Premium cannot restore the files in the Tape Set. However, the Library window lets you add Tape Sets to the Library.

To add a Tape Set to the Library on your hard drive, follow these steps:

Step	Action
1	Click on Add to Library... or select Add To Library from the Library menu. The Add Tape To Library window opens.
2	Insert the first tape of the Tape Set that you want to add to the Library.
3	Select the backup device containing the first tape of the Tape Set that you want to add.

4	<p>Click on Add tape. Sytos Premium starts reading the Backup Session information from the tape and prompts you to insert the remaining tapes of the set, if any, as each tape is finished.</p> <p>To cancel the operation, click on Stop adding tape.</p> <p>NOTE: If you cancel this operation, the Tape Set information copied to your library is incomplete and cannot be used for QFA restores.</p>
---	---

Deleting Tape Sets from the Library

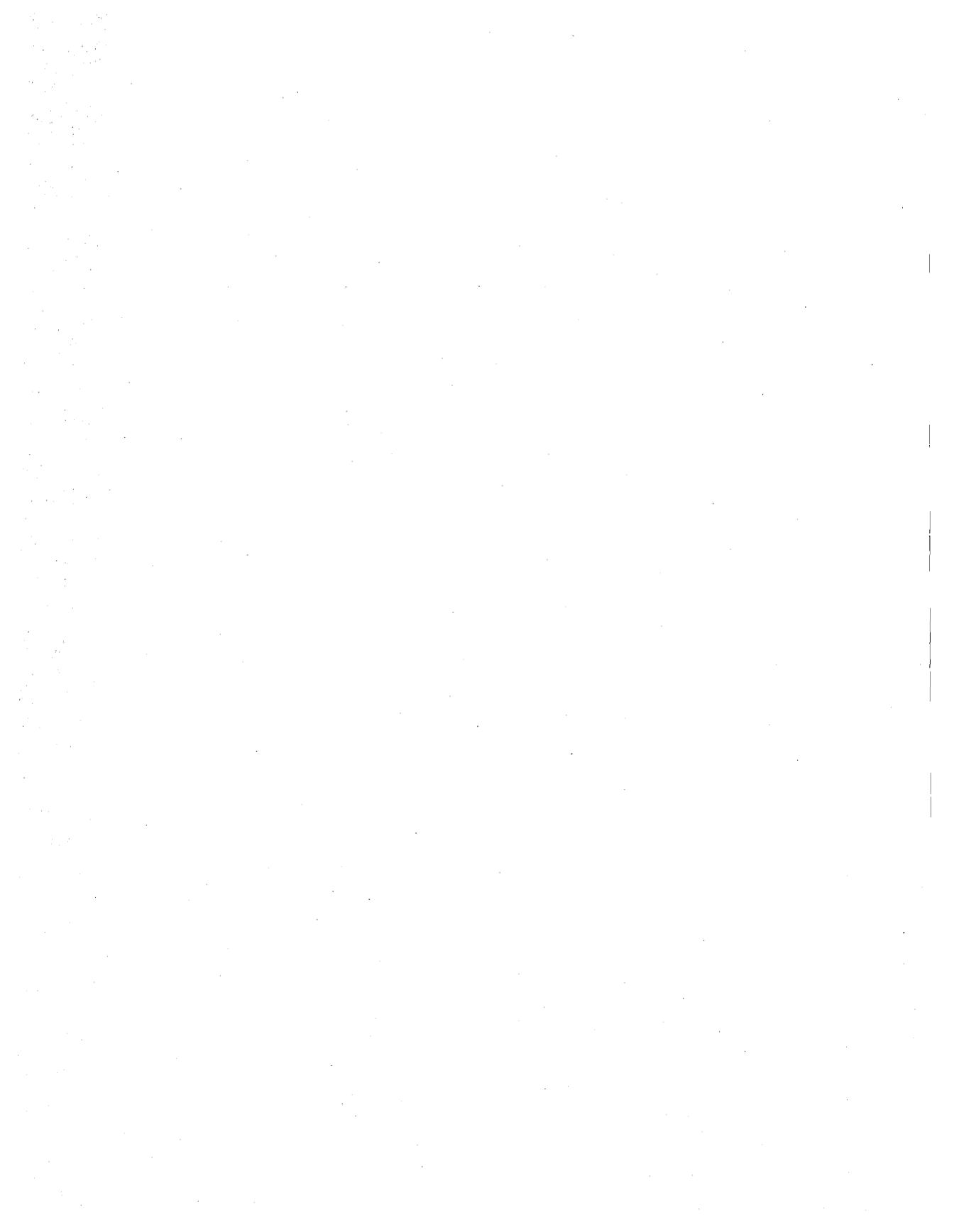


You should delete Tapes Sets from the Library if a tape in a Tape Set is corrupted or overwritten, or if you no longer need the Tape Set and want to conserve disk space on your hard drive.

To delete a Tape Set from the Library, follow these steps:

Step	Action
1	Highlight the Tape Set that you want to delete.
2	<p>Click on Delete tape or select Delete tape from the Library menu. A message box appears asking you to confirm the deletion. Click on OK.</p> <p>CAUTION: Delete only the Tape Sets that you no longer need. You cannot restore files from a tape if the Tape Set has been deleted from the Library.</p>

Appendices



A Network Considerations

Overview

Introduction

Networks allow several individuals, located at different workstations, to access programs, files, and peripherals that make up the system.

You can use Sytos Premium to back up all network systems to which you have access rights. When running Sytos Premium in a network environment, the following file protection features can affect how Sytos Premium backs up and restores data:

- **File Security.** Access rights to network files that are assigned to users by a network supervisor or administrator. You cannot back up files to which you have no access rights.

***NOTE:** To obtain access privileges to all files, you should log in as the supervisor or administrator.*

- **Busy Files.** Files that are currently in use. Busy files are inaccessible to Sytos Premium and all other users or application programs. You cannot back up files while they are busy; however, you can select the Retry Busy Files option to try backing up files at the end of the Job when the files are no longer busy.

***NOTE:** The Sytos Premium Log lists files that are busy during a Backup Job. Select the Log option for your network backups and refer to the Log to see if all your files are backed up.*

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Running Sytos Premium on a Network	A-2
Backing Up Network Files	A-3
Restoring Files	A-5

Running Sytos Premium on a Network

Description

You can run Sytos Premium from any workstation or server, provided that the Sytos Premium files, the associated backup device controller card, and the backup device are present at that workstation. To restore files, you should know ID assignments and access rights of your network as described in "Backing Up Network Files."

NOTE: Log on to the network before running the Schedule. Otherwise you must reboot your system.

Networks Supported by Sytos Premium

Sytos Premium does not specifically support versions of LAN Manager prior to 2.x nor LAN Server prior to 1.2. LAN Manager for UNIX (formerly LAN Manager/X) servers cannot be backed up or restored with Sytos Premium.

Sytos Premium supports these networks:

- IBM LAN Server version 1.2 or later.
- Microsoft LAN Manager version 2.0 or later.

Under LAN Server 3.0, you must install the LAN Server 3.0 update from IBM, reference number APAR #IC05170 or higher, to restore file attributes using Sytos Premium.

Temporary “USE” During a Backup or Restore

Under LAN Manager/LAN Server, Sytos Premium creates a temporary NET USE to the next available drive when restoring or backing up to a shared resource. This occurs if you are accessing a shared resource by a shared name and not by another USE. The temporary USE is deleted once you exit Sytos Premium. If a USE is not available, Sytos Premium cannot run. In the event that no drives are available, delete a USE.

Backing Up Network Files

Selecting Files for Backup

When you click on **Backup** or **Files to backup**, Sytos Premium displays your network drives. The shares are displayed next to the drive letters. You can select network files for backup using the Directory Tree or the Selection Sheet. When entering Selection Sheet rules, you can use the Universal Naming Convention (UNC) for servers instead of using drive letters, for example, \\servername\C\$*.

NOTE: You may not be able to access files that are located in a directory for which you do not have permissions, even if you have access permissions to the files themselves.

Backing up Busy Files

Sytos Premium cannot back up busy files, but you can select the Retry Busy Files backup option to try to back up these files at the end of the backup. When you select this option you must specify a time range for retrying the busy files.

Retry Busy Files

To retry busy files for a Backup Job, follow these steps:

Step	Action
1	Click on Backup options in the Backup window.

2	<p>Select Retry Busy Files and specify a time range for retrying busy files. Select one of the following options:</p> <p>Do not retry skips busy files. This option is the default.</p> <p>Until this time attempts to back up files until a specified time of day.</p> <p>Until no longer busy retries busy files until they are no longer open.</p> <p>For this much time tries to back up busy files within a specified amount of time.</p>
3	<p>Click on Run or select Run from the Backup menu.</p>

Sending Broadcast Messages During Backup

The Network Broadcast option in the Preferences window lets you notify network users that a Backup Job is starting.

To send network broadcasts for Backup Jobs, follow these steps:

Step	Action
1	<p>Click on Setup or select Setup from the Actions menu to open the Setup window.</p>
2	<p>Click on Preferences... or select Preferences from the Setup menu. The Preferences window opens.</p>
3	<p>Select from the following Network Broadcast options:</p> <p>General sends a warning to all LAN Server or LAN/MAN users that a Backup Job is about to start and asks all users to close files. A final messages tells users that the Job has completed.</p> <p>Individual sends a warning to users who have open files on a server during a Backup Job if the Retry Busy Files option is set.</p> <p>Click on OK to accept the preference settings.</p>

NOTE: *If a user is logged on to the same network at more than one location, Sytos Premium sends network broadcasts to the location where the user first logged on.*

Backing Up User and Group Security Information

When an Administrator adds a user to the system, a user "account" is established.

In LAN Manager, information about the user accounts is kept in the following file:

`\LANMAN\ACCOUNTS\NET.ACC`

In LAN Server, information about the user accounts is kept in the following file:

`\IBMLAN\ACCOUNTS\NET.ACC`

LAN Server ACLs are kept in each directory on the server. To back up this information, select the NET.ACC file for the Backup Job. You do not need to run the LAN Manager BACKACC utility to back up the NET.ACC file.

After an account is established, the Administrator can set up access privileges to certain files or directories for the user. Access privileges are also backed up when you back up files and directories.

Restoring Files

Description

You can restore files to a server without shutting it down by closing all files in directories to which you are restoring data.

CAUTION: *Before restoring network system files, stop the server or workstation using Net Stop Server or Net Stop Workstation, to prevent file damage or loss.*

Restoring User and Group Security Information

Sometimes directories and files on the tape have different access privileges than the corresponding directories and files on the server. This can occur if you run a Backup Job and change the access privileges on the server after the backup.

The first time Sytos Premium tries to restore a file or directory to a network drive, it displays a prompt for you to determine how to restore all privileges that may be attached to files on the tape. This occurs if

you have selected the Restore Directory Information option. You may either preserve the existing network privileges or overwrite them with those from the tape.

You can choose one of the following options:

- to preserve the access privileges as they exist on the server.
- to overwrite the access privileges that exist on the server with those from the tape.
- to stop the Restore Job.

Restoring Access Privileges (NET.ACC)

If LAN Manager or LAN Server is not installed to an HPFS partition, you must restore the access privileges in NET.ACC. You must work from your server, and replace the version of NET.ACC on your system with your backup copy.

NOTE: You cannot use LAN Manager RESTACC to restore access privileges.

To replace NET.ACC, follow these steps:

Step	Action
1	Use Net Stop Workstation to stop the workstation. This command also stops the server and all other active services.
2	Use the Redirection Sheet to restore the NET.ACC file under a new name, such as NET.TMP. Refer to <i>Chapter 9: Restoring Data</i> for information about using the Redirection Sheet.
3	If you are running Local Security, use the LAN Manager Installer to Detach your server.
4	Copy the NET.ACC file on your system to another name, for example, NET.SAV.
5	Copy the restored, renamed file (in this example, NET.TMP) to NET.ACC.

6	If you are running Local Security, use the LAN Manager Installer to re-Attach your server.
7	Use Net Start Server to restart the server. This command also starts the workstation service.
8	Restore the rest of the files. When you are prompted to preserve or overwrite the access privileges, click on <input type="checkbox"/> to overwrite the privileges with those on the tape.
9	Verify that your accounts and access privileges are set up the way you want them.
10	Delete the renamed files (in this example, NET.SAV and NET.TMP).

Transferring Files from Servers Using LAN Manager 1.0

You can use Sytos Premium to backup or restore servers running LAN Manager Version 1.0. However, you may encounter problems restoring files from a 2.x server to a 1.0 server. The older version of LAN Manager does not support the Version 2.x Extended Attributes (EAs) or long filenames, so files with those characteristics are not restored.

Redirecting Files

When redirecting files during Restore Jobs, specify exact pathnames of the files you intend to restore. This is especially important in a networking environment because files with the same names may exist in different locations within the network. If you prefer, you may also use the UNC, for example:

```
\\[servername]\[drive]\$\  
to specify the redirected pathnames. For LAN Server 3.0, the network must be started before ACLs can be restored.
```

NOTES:

B Troubleshooting

Overview

Description

This appendix answers questions you may have when installing or running Sytos Premium.

Helpful Tips

If you have a problem with Sytos Premium, perform these tasks before contacting Technical Support:

- Review the README file for recent information about Sytos Premium.
- If you receive an error or warning message, click on **F1** or **Help** for immediate online help.
- To access the Help Index, select **Help index....** from the **Help** menu for a list of topics. Error and warning messages are also listed in the index. You can use the OS/2 Help window to search for, print, mark, or copy help.
- Refer to your backup device reference manual. If the reference manual does not provide an answer, record the error or warning message. Refer to the Sytos Premium Technical Support Information form in *Appendix F* and call Technical Support.
- Review Sytron's Tech Tips that are available on the BBS and SYFAX, Sytron's fax retrieval system. Refer to *Appendix F* for Sytron's BBS and SYFAX telephone numbers.

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Using the Sytos Premium Log to Troubleshoot	B-2
Choosing a Device Driver During Install	B-3
Problems After Installing Sytos Premium	B-6
Backup Device Problems While Running Sytos Premium	B-9
Problems While Running Sytos Premium	B-15
Problems Appending a Backup or Restoring with QFA	B-18
Slow Performance and Apparent System Locks	B-21
List of Error and Warning Messages	B-23
Rebound Error Messages	B-28

Using the Sytos Premium Log to Troubleshoot

Description

When a Sytos Premium Job is unsuccessful, you can review the Log to determine why the Job failed. The following messages tell you that a problem has been encountered:

- Complete: Some files not processed
- Canceled due to error
- Canceled by user

The Log may explain why you received an error or warning message, or why a Job was canceled due to an error.

Reviewing the Log

Review the Log of the problem Job, correct any problems that you discover, and re-run the Job.

To review the Log, follow these steps:

Step	Action
1	Click on Logs on the tool bar or select Logs from the Actions menu.
2	Highlight the Log that you want to view.
3	Click on Open... or select Open from the Logs menu to view the highlighted Log.
4	Review the Log, using the arrow keys. Look for the following information: <ul style="list-style-type: none"> - Possible error messages. - Names of any busy, damaged, unmatched, or unfound files. <p>Click on Print... to print the Log, and Close to close the Log.</p>
5	If you cannot determine the Job's problem after reviewing the Log, re-run the Job with the List all files in Log option selected. This creates a new Log that lists all processed files. After you run the Job and determine the problem, clear this option.

Choosing a Device Driver During Install

Description

This section tells you how to choose the correct driver for your backup device, and check the device if you receive error messages while installing Sytos Premium.

Selecting a Backup Device Model Number

To select the correct Sytos Premium device driver, you need to know the model number of your backup device, and the OS/2 version you are running (for example, 1.3, 2.x, or Microsoft 1.3 with LADDR).

The Sytos Premium device driver name usually includes part of your backup device's model name and number, as described in "Installing Hardware" in Chapter 2. Check the model number in one of three ways.

- Refer to the documentation that came with the device.
- Open your system and check the backup device for the model number. If you are using an external device, look on the back of the device.
- Call the dealer who supplied the equipment.

Verify that your CONFIG.SYS file contains the correct device drivers. If you did not let Sytos Premium automatically modify your CONFIG.SYS file during installation, you must add the appropriate information. Refer to "Modifying CONFIG.SYS After Installing Sytos Premium," in Chapter 2.

If your backup device requires a SCSI controller board, you must choose the proper driver for the controller board when you run Sytos Premium.

NOTE: For a complete and updated list of all devices supported by Sytos Premium, call Sytron's BBS or SYFAX number. Refer to Appendix F for the numbers.

Checking Device Settings

If you receive a warning message that your device settings do not match, refer to Table 13-1 for guidelines on correct device settings. For additional information, refer to Chapter 2.

Type of Device	Suggestions
Non-SCSI Devices on AT systems	When configuring the backup device, ensure that the DMA, Interrupt, and Address settings match the hardware settings for your non-SCSI backup device. Also, ensure that your backup device settings do not conflict with other hardware installed on your system. If your settings conflict, you may have problems running Sytos Premium. Refer to the backup device's installation instructions for the correct settings.
Micro Channel Systems	Refer to "Installing a Backup Device on a Micro Channel System" in Chapter 2.
Diskette Drive	If you are backing up to a diskette drive, verify that the correct drive is selected when configuring the drive as a backup device (if more than one is available on your system) and that the density setting is correct.
LADDR Devices under Microsoft OS/2 1.3	<p>To verify that the proper drivers loaded during system boot, follow these steps:</p> <ol style="list-style-type: none"> 1. Open OS/2 Full Screen. 2. Type <code>cd \OS2\support</code> and press Enter. 3. Type <code>VIEWCFG</code> and press Enter. 4. A menu appears from which you can choose Devices or Drivers. Choose Drivers. 5. Check for TAPE.TSD, .VSD driver, and *.BID and ensure that they are in this order. 6. Press Esc. The menu returns. 7. Choose Devices. If you do not see your device, it may not be connected, or the .BID driver may not be installed. Refer to <i>Appendix G</i>.

Table 13-1. Checking Backup Device Settings

Problems After Installing Sytos Premium

Description

You may have problems when you first run Sytos Premium if you selected the wrong Sytos Premium device driver or configuration settings while installing Sytos Premium.

Refer to the following sections for information about common warning or error messages received during installation:

- W32 “Device Settings Do Not Match”
- E21 “Backup Device Not Found”

W32 “Device Settings Do Not Match”

Cause

You may receive this warning message for the following reasons:

- You selected the wrong device driver or configuration settings for your non-SCSI backup device when installing Sytos Premium.
- Your CONFIG.SYS does not contain the proper drivers, or the CONFIG.SYS file contains the wrong SCSI drivers for your controller for your version of OS/2.
- You have a hardware problem.

Suggestions

If you receive a W32 warning message, choose one of the following solutions:

- Click on **Cancel** to clear the warning message from your screen and configure the backup device. Change the DMA, Interrupt, and Address software settings to match the settings of your non-SCSI backup device.

or

- Click on **OK** if the chosen backup device is not installed on your system, but you plan to install it after exiting Sytos Premium.

E21 “Backup Device Not Found”

Cause

You may receive this error message for the following reasons:

- You may have deleted the backup device originally specified, or changed the backup device name.
- You did not save the Job.
- The specified backup device does not exist in the list of configured devices available for Sytos Premium on this system. This problem may result from importing a Job from another system.

Suggestion

To solve this problem, you can choose a different backup device from the **Select backup device** drop-down listbox or add a new backup device to the listbox.

To choose a different backup device for a Job, such as a Backup Job, follow these steps:

Step	Action
1	Click on (Esc) to leave the error message.
2	Click on (Backup to) in the Backup window. Refer to the next table if no backup device is configured.
3	Select a backup device in the Select backup device drop-down listbox.
4	Select Save from the Backup menu to save the Job and avoid future errors.
5	Click on (Run) to run the Job.

To add a new backup device, follow these steps.

Step	Action
1	Click on Setup on the tool bar or select Setup from the Actions menu to open the Setup window.
2	Click on New... or select New device... from the Setup menu to open the Add New Backup Device window.
3	<p>If you are adding a device driver from a drive, select the drive containing the driver. Select the driver and click on Add device to add the driver to the "Working Directory."</p> <p>The default drive setting, "Working Directory," refers to the directory on your hard drive containing your backup device drivers.</p>
4	Select a device driver from the list and click on Add device to add the backup device to Sytos Premium. If you need to add lines to your CONFIG.SYS file, the Backup Device Installation Instructions window opens. This window provides instructions for adding the appropriate lines to your CONFIG.SYS file. Add the lines to your CONFIG.SYS and reboot your computer.
5	Configure your backup device as described in "Configuring Backup Devices" in <i>Chapter 3: Setting Up Sytos Premium</i> .
6	Open the Job that you want to run and select the backup device from the Select backup device drop-down listbox.
7	Select Save from the Backup menu to avoid future errors.
8	Click on Run to run the Job.

Backup Device Problems While Running Sytos Premium

Overview

If you have tape or mechanical problems, you may receive one of the following error messages:

- E40 "Cannot Access Backup Device"
- E41 "Backup Device Is Not Responding (1)"
- E47 "Device Cannot Be Accessed"
- E55 "Command Not Recognized by Device"
- E56 "Backup Device Error (1)"
- E122 "Device Could Not Be Accessed"

Table 13-2 provides common reasons for receiving these error messages and suggestions for troubleshooting.

Problem	Suggestion
<p>No tape or damaged tape.</p>	<ul style="list-style-type: none"> - Ensure the tape is inserted properly in the backup device. - Try a different tape or a new tape. - If the problem still exists format or erase the tape. Follow these steps: <ol style="list-style-type: none"> 1. Click on Utilities on the tool bar or select Utilities from the Actions menu to open the Utilities window. 2. Highlight the backup device and click on Format to format the tape or Erase to erase the tape. 3. If you are using a QIC device, format or erase the tape. If you are using a DAT or 8 mm device, format the tape. (Do not erase a DAT tape when troubleshooting. Erasing a DAT tape can take two to three hours.)
<p>Backup device is not functioning properly.</p>	<p>The device cables may be loose. Check that the cables and power connections for your backup device are secure.</p> <p>Power on your device before you turn on your system. Some backup devices must be powered on before the system is powered on, to be recognized as "present."</p>
<p>Dirty tape heads.</p>	<p>Clean the tape heads according to the manufacturer's specifications.</p>

Table 13-2. Checking for Mechanical Problems

If these suggestions do not correct the error message, your backup device probably has a hardware problem that must be corrected. Refer to the documentation that came with your backup device.

E40 “Cannot Access Backup Device”

Cause

Sytos Premium must first gain access to a backup device before copying files to or from the Tape Set. This error message indicates that Sytos Premium cannot access the selected backup device.

Suggestions

This error message may be corrected in one of the following ways:

Possible Cause	Suggestion
The backup device is not set up correctly.	Refer to Table 13-1, “Checking Backup Device Settings,” in this chapter.
There is no tape, or damaged tape in the backup device, the power connections are loose, or the backup device is not powered on.	Refer to Table 13-2, “Checking for Mechanical Problems,” in this section.
The backup device settings match the actual hardware settings, but there is a conflict with another device on the system.	Change your backup device hardware settings. Refer to Table 2-1 in Chapter 2.

E41 “Backup Device Is Not Responding (1)”

Cause

When Sytos Premium attempts to access the backup device, the device responds with a non-specific error. This error may be caused by one of the following situations:

- The backup device was not set up correctly or has malfunctioned.
- The backup device is not physically present on the system.

- The automatic configuration utility for an EISA system was not run after the backup device controller card was installed. The error may also occur if the configuration settings are incorrect.

Suggestions

To correct this error, follow these steps:

Step	Action
1	Check the cable connections to the backup device.
2	Ensure the backup device is turned on. Some backup devices need to be powered on before the system is powered on to be recognized as "present."
3	Reboot your system.
4	Ensure that the backup device specified for this Job is present on the system.
5	Ensure the hardware settings are correct. Refer to Table 13-1 in this chapter, "Checking Backup Device Settings." Refer to <i>Chapter 2: Installing Sytos Premium</i> for more information. Chapter 2 provides suggestions for settings when configuring your backup device.
6	Run Sytos Premium again.

If you are using a Micro Channel or EISA system, follow these additional steps:

Steps	Action
1	Ensure the Micro Channel or Micro Channel configuration utility recognizes the controller.
2	Ensure the controller was enabled and set up correctly.
3	Ensure the hardware settings are correct. Refer to Table 13-1 in this chapter, "Checking Backup Device Settings."
4	Reboot your system and run Sytos Premium again.

E47 “Device Cannot Be Accessed”

Cause

You may receive this error message if you have a configuration or hardware problem with your backup device, or you did not specify a backup device for the Job.

Suggestions

The following table provides common reasons for receiving this error message and suggestions for troubleshooting:

Problem	Suggestion
The backup device is not set up correctly.	Refer to Table 13-1, “Checking Backup Device Settings,” in this chapter.
There is no tape, or a damaged tape in the backup device, or the backup device is not powered on.	Refer to Table 13-2, “Checking for Mechanical Problems,” in this chapter.

E55 “Command Not Recognized By Device”

Cause

You may receive this error message if the backup device does not recognize a command sent to it by Sytos Premium. This problem can occur if your backup device's firmware does not support Sytos Premium commands.

Suggestions

To correct this problem, record the firmware version that your backup device is using. Contact the backup device manufacturer to confirm that the firmware was qualified by Sytos Premium.

E56 “Backup Device Error (1)”

Cause

When you get the error reading “Backup Device Error: The exact cause cannot be determined,” Sytos Premium shuts off your device and provides no further details about the error.

IMPORTANT: Record your actions before this error occurred in case you need to call Sytron Technical Support.

Suggestions

This error may be corrected in one of the following ways:

Possible Cause	Suggestion
Bad tape, dirty tape heads, or a hardware problem.	This error message is most often corrected by using a new tape. If using a new tape does not correct the problem, refer to Table 13-2, “Checking for Mechanical Problems,” in this chapter for additional suggestions. If the suggestions in Table 13-2 do not solve the problem, you may have a hardware problem. Refer to the backup device’s documentation or contact your backup device manufacturer.

E122 “Drive Could Not Be Accessed”

Cause

This error most commonly occurs when Sytos Premium cannot read from the specified source device (for example, the drive from which you are copying files).

Suggestions

This error may be corrected in one of the following ways:

Possible Cause	Suggestion
There is a problem with the file being processed.	Because the files may be damaged on your fixed disk, use your operating system utilities to check for damage on the disk and repair it.
The network connection is broken.	When running on a network, ensure your system is properly connected to the network.
There is a problem reading or writing to the disk on which Sytos Premium resides.	Disable any disk caching for the partition. Also, ensure that you have administrative rights, if you are connected to a network.

Problems While Running Sytos Premium

Description

Refer to the following sections for answers to common problems when running Sytos Premium.

- Problems restoring SY-TOS tapes
- Fixed disk activity during Restore or Backup Jobs
- Receiving “Busy Files” messages for redirected Restore Jobs
- Sytos Premium locks during unattended Backup Jobs

Problems Restoring SY-TOS Tapes

Description

If you cannot restore SY-TOS tapes after upgrading from SY-TOS to Sytos Premium, you may not have selected the correct format when restoring, or the SY-TOS tapes were created on a device not supported by Sytron.

Also, Sytos Premium only restores SY-TOS tapes that were backed up to a QIC 02 150, 50 to 60 Mb tape.

Suggestion

To restore SY-TOS tapes using Sytos Premium, follow these steps:

Step	Action
1	Click on Setup on the tool bar or select Setup from the Actions menu to open the Setup window.
2	Highlight the backup device in the Setup window.
3	Click on Configure... to re-configure the backup device.
4	Select SY-TOS 3.x Restore in the Tape format drop-down listbox.
5	Click on OK to accept the change.
6	Run the Restore Job again. After you successfully run your Restore Job, change Tape format from SY-TOS to Sytos Plus.

Fixed Disk Activity During Restore or Backup Jobs

Description

Fixed disk activity during a Restore or Backup Job before or after accessing the backup device is normal, especially if the files or the Backup Sessions are large.

During a Backup Job, Sytos Premium creates Library files that are stored on a fixed disk. During a Restore Job, Sytos Premium checks the Library to locate the file names to be restored.

Receiving a “Busy Files” Message for Redirected Restore Jobs

Description

This problem usually occurs when the pathnames on the Redirection Sheet for redirected files are incorrect.

Suggestion

To correct a redirected Restore Job that has failed, follow these steps:

Step	Action
1	Open the Restore Job and click on Restore options .
2	Click on Use Redirection Sheet and Open to open the Redirection Sheet.
3	<p>Ensure that the Redirection Sheet rules follow these suggestions:</p> <ul style="list-style-type: none"> • Rules specify “*.*” or “**” at the end of the source and destination pathnames. • The Destination drive exists on the system. • The Source pathname exists on the tape. Refer to the Selection Sheet to verify that the Source pathname is on the tape. • The user has security rights to write to the destination. • There are no spelling errors on the Redirection Sheet.
4	Edit your rules if necessary and click on OK to exit the Redirection Sheet.
5	Select Save from the Restore menu to save the Job.
6	Click on Run to run the Restore Job.

Sytos Premium Locks During Unattended Backup Jobs

Description

If your unattended Backup Job does not run and seems to hang your system, your Schedule file (SYPLUS.SCH) may be corrupted.

Suggestion

To correct a problem caused by a corrupted Schedule file, follow these steps.

Step	Action
1	At the OS/2 command prompt, close Sytos Premium if it is running.
2	Delete the SYSCHED.SCH file in the SYFILES directory. Sytos Premium automatically creates a new schedule file the next time you run the schedule.
3	Activate the schedule.
4	To verify that the problem is corrected, run an Attended Job. If your system hangs again, you receive a specific error message requiring a response.

Problems Appending a Backup or Restoring with QFA

Overview

Refer to the following sections for common questions and error messages encountered when running a Job with QFA (Quick File Access).

- W23 "Cannot Read QFA Directory"
- W12 "Invalid File Header"

W23 “Cannot Read QFA Directory”

Description

This warning usually occurs during Compare or Restore Jobs with QFA (Quick File Access).

NOTE: *This message is not a fatal error and Sytos Premium continues with the Job.*

You may receive this error message in the following situations:

- The tape is damaged or lost, preventing Sytos Premium from reading the QFA directory.
- A Backup Job was prematurely terminated.

If you suspect the tape is damaged, do not use it again. Discard the tape after retrieving any important information that it contains.

Suggestions

Choose one of the following options if you believe the problem is caused by a damaged tape or a backup device that is not set up correctly.

- To continue with the Job, click on **OK**. The Tape Set is processed sequentially.

NOTE: *You can continue the Compare or Restore Job without QFA; however, the Job may take longer to complete because Sytos Premium is reading files sequentially.*

- To stop the Job, click on **Stop Job**. Because the warning may signify a problem with the tape or the backup device, try to determine the cause of the warning and correct it by following these suggestions:

For tape systems, click on **Re-tension** from the Utilities window. If you are using a 8mm or 4 mm DAT tape, you cannot re-tension the tape.

Also, clean the backup device heads according to the manufacturer's instructions and run the Job again.

If you receive this error message while running a Restore Job with the QFA option selected, you can restore the files after you clear QFA.

To clear QFA, follow these steps:

Step	Action
1	Click on Setup on the tool bar or Setup from the Actions menu to open the Setup window.
2	Click on Preferences... or select Preferences from the Setup menu.
3	Click to clear Use QFA when reading tapes .
4	Click on OK to save the changes.
5	Restore your Backup Sessions.
6	After restoring, click on Use QFA when reading tapes to return to the original Preferences settings.

W12 “Invalid File Header”

Description

An “Invalid File Header” message may display if you are running a Restore or Compare Job with QFA, and QFA does not find a file at the expected location.

The problem may also be caused by:

- An old or damaged tape.
- A malfunctioning backup device.
- Dirty tape heads.
- Bad QFA track. (If “Invalid File Header” is caused by this problem, you receive the error message soon after you try to run the Restore or Compare Job.)

Suggestions

If you suspect the error message was caused by a mechanical problem, follow these steps:

Step	Action
1	Click on Utilities on the tool bar or select Utilities from the Actions menu to open the Utilities window.
2	Highlight the tape and click on Re-tension .

If you suspect the problem was caused by a bad QFA track, follow these steps:

Step	Action
1	Click on Setup on the tool bar or select Setup from the Actions menu to open the Setup window.
2	Click on Preferences... or select Preferences from the Setup menu to open the Preferences window.
3	Click to clear Use QFA when reading tapes .
4	Select OK to save the change.

Slow Performance and Apparent System Locks

Overview

If your system occasionally seems to “hang,” or Sytos Premium runs slowly, refer to the following sections:

- Sytos Premium Runs Slowly or Apparently Locks
- Sytos Premium Directory Uses a Lot of Disk Space

Sytos Premium Runs Slowly or Apparently Locks

Description

Performance delays or apparent locks may result on a system configured with more than 200 files in a single directory, using a FAT system. Also, your system may not have enough memory.

Suggestion

Avoid putting a large number of files into a single directory. Organize your files into subdirectories.

Sytos Premium Directory Uses a Lot of Disk Space

Description

Over time your Sytos Premium Log and Library files accumulate in the Sytos Premium directory. If you do not delete these files periodically, they can use a lot of your disk space.

Suggestions

To save disk space, remove old Log and Library files by using the appropriate Sytos Premium utilities.

CAUTION: Do not alter any Sytos Premium files from outside of Sytos Premium

Logs and Tape Sets are located in the following directories:

- **\SYFILES\SYJRN** - Logs directory. These files may be deleted from the Logs window within Sytos Premium. Refer to *Chapter 14: Managing Logs* for instructions on deleting Logs.
- **\SYFILES\SYLIB** - Library directory. These files may be deleted from the Library within Sytos Premium. Refer to *Chapter 15: Using the Library* for instructions about deleting Tape Sets from the Library.

The Sytos Premium directory may contain temporary files that you can delete using the OS/2 command. These files, identified by a filename extension of .!!!, are located in the SYFILES directory where Sytos Premium is installed. By default, the directory is called \SYPLUS\SYFILES.

List of Error and Warning Messages

The following list includes all error and warning messages contained in the online Help Index. To access online help, press **[Help]** or **[F1]**.

Numerals in parentheses following some error messages refer to identical errors which can occur at different points in Sytos Premium. Note that in some cases the messages do not follow in numerical sequence.

Errors

- E2 Not Enough Memory
- E3 Unable to Create Directory
- E4 Cannot Access Sytos Premium File
- E5 Cannot Read Tape Set
- E6 Invalid Pathname
- E7 End of QFA Directory
- E8 Cannot Create Tape Set
- E9 Cannot Create Backup Session
- E10 Cannot Update Tape Set Information
- E11 Cannot Retry Busy Files
- E12 Cannot Update Busy Files List
- E13 Cannot Update Tape Set Information
- E14 Cannot Read File
- E15 Cannot Copy Files
- E16 Cannot Update Tape Set Information
- E17 Cannot Update Log
- E18 Cannot View Log
- E19 Not Enough Memory
- E20 Cannot Access Sytos Premium Job
- E21 Backup Device Not Found
- E23 Cannot Update File
- E24 Cannot Create QFA Directory
- E26 Cannot Append to Tape Set Using QFA
- E27 Error Writing ECC to Directory Track
- E28 Invalid Format of Files on Tape
- E29 Job is Damaged
- E30 Cannot Interpret Job Setting
- E31 Device Configuration File Missing
- E32 Damaged Device Configuration File
- E33 Cannot Update Configuration File
- E34 Cannot Activate ECC
- E35 Too Many Files to Display
- E36 Invalid Job Name
- E37 Cannot Skip Backup Session

- E38 Cannot Update Display
- E39 Backup Device Already 'In Use'
- E40 Cannot Access Backup Device
- E41 Backup Device Is Not Responding (1)
- E42 Backup Device Already 'Closed'
- E43 Backup Device Is Not Responding (2)
- E44 Memory Conflict
- E45 Cannot Read Files On Tape
- E46 Cannot Copy Files to Tape
- E47 Device Cannot Be Accessed
- E48 Unexpected End of Tape
- E49 Write Protected Tape
- E50 Unexpected End of File
- E51 There Are No Files on the Tape
- E52 Cannot Reserve Memory
- E53 Cannot Free Memory
- E54 Cannot Find Files Using QFA
- E55 Command Not Recognized By Device (1)
- E56 Backup Device Error (1)
- E57 Cannot Format Tape
- E58 Block Size Not Supported
- E59 Invalid Drive
- E60 Incompatible Backup Device Setup
- E61 Backup Device Not Processing QFA
- E62 Tape Not Pre-Formatted
- E63 Tape Not Formatted
- E64 Not Enough Memory For Device Driver
- E65 Backup Device Still 'In Use'
- E66 Sytos Premium Files Missing
- E67 Backup Device Has Not Been Initialized
- E68 Invalid Device Configuration
- E69 Sytos Premium Files Cannot Be Accessed
- E70 Maximum Number of Devices In Use
- E71 Driver Memory Allocation Error
- E72 Reallocating Memory
- E73 Command Not Recognized By Device (1)
- E74 Command Not Recognized by Device (2)
- E75 No Tape in Backup Device
- E76 Tape Has Been Changed
- E77 Not Enough Memory (3)
- E78 Unable to Deactivate Backup Device Functions
- E79 Cannot Write to Tape
- E80 Tape Is Different
- E81 Too Many Bad Blocks
- E82 Tape Is Unusable
- E83 Cannot Recognize Tape Format
- E84 Not Enough Memory (4)

- E85 Unable to Build List
- E86 Cannot Update Schedule
- E87 Damaged Tape Set Files
- E88 System Error
- E89 Unable to Access Library
- E90 Incorrect Password (1)
- E91 Incorrect Encryption Key (1)
- E92 Cannot Find Device Drivers
- E94 Critical Error (1)
- E95 Not Enough Disk Space
- E96 Cannot Find Jobs
- E97 Cannot Initialize Device Manager
- E98 Too Many Open Files
- E99 Tape Not Part of Tape Set (1)
- E100 Tape Part of Current Tape Set
- E101 Tape Not Part of Tape Set (2)
- E102 Cannot Activate Compression
- E103 Incorrect Password (2)
- E104 Incorrect Encryption Key (2)
- E105 Backup Sessions Cannot Be Viewed
- E106 Internal Sytos Premium Error
- E107 Invalid Time of Day
- E108 Invalid Length of Time
- E109 Invalid Date
- E110 Invalid Redirection Sheet Pathname
- E111 Allocated Space Not Valid
- E112 Daily Stop Is Not Later than Start
- E113 Invalid Selection Sheet Pathname
- E114 No Jobs Selected
- E115 Wrong Sequence - Earlier Number
- E116 Information on Tape (1)
- E117 Information on Tape (2)
- E118 Invalid Selection Sheet Date Range
- E119 Tape Set Not in Library (1)
- E120 Critical Error (2)
- E121 Tape Is Write Protected
- E122 Device Could Not Be Accessed
- E123 Problem with Printer
- E124 Cannot Delete Tape Set
- E125 Printer Is In Use
- E126 Device Already Exists
- E127 Log Does Not Exist
- E128 Hardware Error
- E129 Backup Device Error
- E130 Default Device Settings Do Not Match
- E131 No Backup Devices Configured
- E132 Cannot Activate QFA

E133 Unable to Use Backup Device
E134 Filename Exists - Cannot Overwrite
E135 Cannot Continue with Current Operation
E136 Import/Export Device Is In Use
E137 Tape Is of a Different Density
E138 No Diskette Drive Has Been Selected
E139 File Could Not Be Deleted During Groom
E140 Command Line Option Wildcard Invalid
E141 Command Line Option: No File Found
E142 Command Line Option: Unreadable File
E143 Command Line Option: Invalid File Format
E144 No Removable Logical Devices Supported
E145 Multiple Devices Must be Same Capacity Tape
E146 No Tape in Logical Device
E147 No Logical Device Selected
E148 No Backup Device Files
E149 Invalid Drive Selected
E150 Error While Copying Backup Device Files
E151 No Non-Removable Logical Device Supported
E152 No Non-Removable Logical Device Selected
E153 Invalid Space Allocation
E154 Backup Device Full
E155 Invalid Drive or Path
E156 Unable to Access Drive
E157 Tape Does Not Have Correct Tape Set
E158 Not a Valid Device Driver Diskette
E159 Error Reading Device Driver Information File
E160 Sytos Premium Cannot Modify CONFIG.SYS
E161 Invalid Space Allocation
E162 Cannot Modify Configuration File
E163 Start Date/Time exceeds End Date/Time
E164 Invalid Event
E165 Invalid End/Interval

Warnings

W1 Job Name Already Exists
W2 Stop Job or Operation - Confirmation
W3 Delete Job - Confirmation
W4 Delete Log - Confirmation
W5 Delete Tape Set - Confirmation
W6 Job Has Not Been Saved
W7 Tape Set Not in Library (2)
W8 De-select Unattended Password - Confirmation
W9 De-select Unattended Encryption - Confirmation
W10 Filename Already Exists on Disk
W11 Tape Set Not in Library (3)
W12 Invalid File Header

W13 Cannot Delete Tape Set
W14 Cannot Update Tape Set Information (4)
W15 Preserve or Overwrite Access Permissions
W16 Owner Does Not Exist
W17 Wrong Sequence - Later Number
W18 Information on tape (3)
W19 Sytos Premium Files Exist on the tape
W20 Overwrite File - Confirmation
W21 Cannot Switch to Next Backup Device
W22 Cannot Restore File
W23 Cannot Read QFA Directory
W26 Cannot Read Source File
W27 Sytos Premium Has Read a Damaged File
W28 Delete Backup Device - Confirmation
W29 Printer Out of Paper or Not Connected
W30 Printer Is Not On Or Is Not 'On-Line'
W31 Printer Is Being Used
W32 Device Settings Do Not Match
W33 Tape is Not Formatted for QFA
W34 Tape Is Not Formatted
W36 Filename/Directory Name Conflict
W38 Close Sytos Premium - Confirmation
W37 Pathname Exceeds OS/2 Limits
W39 Close Sytos Premium in Progress - Confirmation
W40 Delete Logical Device: Confirmation
W41 Overwrite Backup Files: Confirmation
W42 New Job Has Not Been Saved
W43 CONFIG.BAK Could Not Be Created
W44 No Drivers Selected
W45 Overwrite Backup File: Confirmation
W46 Delete Optical Library Directory: Confirmation
W47 Unable to Find a Specified File
W48 Delete an Event
W49 Delete Event Entirely/Partially

Rebound Error Messages

E1 There is not enough memory available.

E2 There are no files on the tape in the selected backup device. Make sure the correct tape is inserted in the backup device and run Sytos Rebound again.

E3 The tape in the selected backup device is not part of the current Tape Set. To continue, locate the correct tape, insert it into the backup device and choose **F2**. To stop, select **F7**.

E4 The Sytos Rebound backup device configuration file is missing. Sytos Rebound cannot continue without this file.

E5 The Sytos Rebound backup device configuration file is damaged.

E6 The default settings for the backup device do not match the actual device settings. The backup device configuration may have changed since you last ran Setup. Check that the configuration is exactly the same as when Setup was run. Run Setup again.

E7 ECC (Error Correction Code) cannot be activated. Call Sytron Technical Support at (508) 898-0193.

E8 Unable to activate compression. Call Sytron Technical Support at (508) 898-0193.

E9 Sytos Rebound cannot read one of the required files. Please try running Setup again.

E10 There is not enough disk space for Sytos Rebound to create or copy the required files. Make sure the drive is partitioned and formatted as it was when the Backup Job was run and run Sytos Rebound again.

E11 Invalid format of files on tape. Make sure the Backup Jobs use the Sytos Plus format.

E12 Sytos Rebound is unable to access the current device or is unable to read the tape in that device. Check that the tape is inserted properly in the device and that it is formatted.

E13 The backup device is already "in use". Sytos Rebound is unable to access the backup device. Reboot the system and run Sytos Rebound again.

E14 Sytos Rebound is unable to access the backup device. Make sure that the backup device is present on the system and powered on. Some backup devices need to be powered on before the system is powered on to be recognized as "present". Try powering on the backup device again and reboot the system.

E15 The backup device is not responding. Make sure that the backup device is present on the system and powered on. Some backup devices need to be powered on before the system is powered on to be recognized as "present". Try powering on the backup device again and reboot the system. When running Sytos Rebound on an EISA system which has an automatic configuration utility, this error may occur if the utility ran before the backup device controller card was installed. The error may also occur if the utility ran but the configuration settings were incorrect.

E16 Sytos Rebound attempted to "close" the backup device, but the device has already been closed. Reboot the system and run Sytos Rebound again.

E17 Sytos Rebound cannot access one of the backup devices. Make sure all of the devices configured as "multiple devices" are physically present, attached properly to the system and to each other. Also, check that the devices are configured correctly and powered on. Some backup devices need to be powered on before the system is powered on to be recognized as "present". Try powering on the backup device again and reboot the system.

E18 Memory conflict with a device driver. Shut down the system and try running Sytos Rebound again.

E19 Sytos Rebound is unable to read the files on the tape in the backup device. Try cleaning the tape drive heads according to the manufacturer's instructions and run Sytos Rebound again.

E20 Sytos Rebound is unable to access the backup device. Check that the tape is inserted properly in the backup device.

E21 Sytos Rebound has unexpectedly reached the end of tape. Check the cable and power connections to the backup device and make sure the hardware settings are correct.

E22 Sytos Rebound has unexpectedly encountered the end of a file. Check the cable and power connections to the backup device and make sure the hardware settings are correct.

E23 There is not enough memory available.

E24 Sytos Rebound cannot find the selected files using QFA (Quick File Access). Try cleaning the tape drive heads according to the manufacturer's instructions and run Sytos Rebound again. There may be a problem with the backup device. Power the system down. Check the cable and power connections to the backup device and make sure the hardware settings are correct.

E25 Backup device does not recognize Sytos Rebound command. Check the cable and power connections to the backup device and make sure the hardware settings are correct. Make sure that the backup device and its controller board are compatible with each other. Also, make sure the device driver is the correct one for the backup device and controller board.

E26 Backup device error. The exact cause cannot be determined. Make a careful note of the actions performed before this error occurred. Exit Sytos Rebound and check the cable and power connections to the backup device. Make sure the hardware settings are correct.

E27 The backup device does not support the block size specified by Sytos Rebound. Make sure that the correct device driver has been chosen for the backup device. Also, check that the backup device and its controller board are compatible with each other.

E28 The backup device and device driver may be incompatible.

E29 The backup device is unable to process QFA (Quick File Access) commands. The backup device may not be set up correctly

or has malfunctioned. Also, check that the backup device and its controller board are compatible with each other.

E30 There is not enough memory available for the device driver to operate. Try adding more memory.

E31 A backup device is still in use. Exit Sytos Rebound, reboot the system and power off the backup device(s).

E32 The backup device has not been initialized. Try running Sytos Rebound again.

E33 The DMA, Interrupt, and Address settings for this backup device are no longer valid, or the device driver is not loaded. When running Sytos Rebound on an EISA system which has an automatic configuration utility, this error may occur if the utility ran before the backup device controller card was installed. The error may also occur if the utility ran but the configuration settings were incorrect.

E34 Illegal command argument. Please contact Technical Support at (508) 898-0193.

E35 The backup device does not recognize a Sytos Rebound command. Check the cable and power connections to the backup device and make sure the hardware settings are correct. Also, make sure that the backup device and its controller board are compatible with each other.

E36 There is no tape in the backup device.

E37 There is not enough memory available to activate the selected backup device functions.

E38 The tape in the backup device is of a different type than the previous tape. Insert the correct tape in the backup device. Make sure all of the tape being used are the same type.

E39 This tape contains too much defective area to be used reliably.

E40 This tape contains too many bad blocks and cannot be used.

E41 Sytos Rebound does not recognize the format on this tape. Try cleaning the tape drive heads according to the manufacturer's instructions.

E42 The device driver is unable to reserve the memory it requires to run.

E43 A hardware error has occurred. Error code: xx. Refer to the section of the device driver documentation which defines error codes. Look up the cause of the error code number displayed in the error message.

E44 A backup device error has occurred. Error code: xx. Refer to the section of the device driver documentation which defines error codes. Look up the cause of the error code number displayed in the error message.

E45 The revision of the backup device does not support all of the commands required by Sytos Rebound. Contact the backup device supplier.

E46 The tape being used is a different density than the density used during the backup. Sytos Rebound cannot continue with this operation.

E47 The system cannot continue with the current operation. Check that enough memory is available. Run Sytos Rebound again.

E49 Sytos Rebound could not complete the test. Try running Setup again.

E50 (QFA) Quick File Access could not be activated. Recovery will continue without QFA. This error may have been caused by one of the following situations. 1. The backup device may have malfunctioned. 2. The currently selected format does not support QFA for this backup device. 3. The tape being used is of the wrong density or the wrong type for the backup device. Although Recovery will continue, the cause of this error should be determined later.

E51 Information exists on the tape in the backup device. Sytos Rebound cannot identify the contents using the currently selected format and cannot continue Recovery.

E52 The tape being accessed is write protected.

E53 Sytos Rebound cannot access the following drive(s): ____.
Please make sure that the drive(s) listed above are properly formatted. If any of the above drives are removable, please make sure that formatted tape is properly inserted in the drive.

E62 An error occurred during Setup. Unable to open the Sytos Premium Device Configuration file (DEVICES.CFG). Check that the file exists on the disk drive. If it exists, it may be damaged.

E63 An error occurred during Setup. Unable to copy Operating System specific (for example, *.ADD, *.DMD or *.SYS) files. Check that there is space available on the Assistant disk. Also check that the files exist. If the files exist, they may be damaged.

E64 An error occurred during Setup. Unable to find the *.ECC and *.MOD files in the Sytos Premium SYFILES directory. Check that the files exist in the SYFILES directory.

E65 An error occurred during Setup. Unable to copy the *.ECC and *.MOD files from the Sytos Premium SYFILES directory. Check that there is space available on the Assistant disk. Also check that the files exist in the SYFILES directory. If the files exist, they may be damaged.

E66 An error occurred during Setup. Unable to find the *.BID files. (Applicable for LADDR environments only.) Check that the files exist.

E67 An error occurred during Setup. Unable to copy the *.BID files. (Applicable for LADDR environments only.) Check that there is space available on the Assistant disk.

E68 An error occurred during Setup due to insufficient memory.

E69 An error occurred during Setup. Unable to access the CONFIG.SYS file on the Assistant disk. Check that the file exists on the Assistant disk. If the file exists, it may be damaged.

E70 An error occurred during Setup. Unable to create the DSKCFG.TXT file on the Assistant disk. Check that there is space available on the Assistant disk.

E71 An error occurred during Setup. Unable to modify the CONFIG.SYS file on the Assistant disk. Check that there is space available on the Assistant disk.

E72 An error occurred during Setup. Unable to copy Operating System specific file(s) to the Assistant disk. Check that there is space available on the Assistant disk.

E73 An error occurred during Setup. Unable to find Operating System specific file(s) on the hard drive or, unable to copy the file(s) to the Assistant disk. If the files exist on the hard drive, they may be damaged. Also, check that there is space available on the Assistant disk.

E74 An error occurred during Setup. Unable to update the CONFIG.SYS file on the Assistant disk. Check that there is space available on the Assistant disk.

E75 An error occurred during Setup. Unable to find the *.BID files. Check that the files exist.

E76 An error occurred during Setup. Unable to copy the *.BID files to the Assistant disk. Check that there is space available on the Assistant disk.

E77 An error occurred during Setup. Unable to access Sytos Rebound specific files on the Sytos Rebound key disk. The files may be damaged.

E78 An error occurred during Setup. Unable to free resources allocated by Sytos Rebound.

E79 An error occurred during Setup. Unable to access Sytos Rebound specific files on the Sytos Rebound key disk. The files may be damaged.

C Backup Strategies

Overview

Introduction

This chapter provides example backup strategies that you can use to protect your system against disaster or to archive files. It also offers suggestions for devising your own backup strategy.

For Additional Information

Refer to these chapters for additional information:

Chapter 4: To Back Up Immediately for step-by-step instructions to run the sample Full Backup Job immediately.

Chapter 7: Backing Up Data for step-by-step instructions to create and run your own Backup Jobs.

Appendix I: Sample Sytos Premium Jobs for a description of the option settings for the sample Sytos Premium Jobs.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Protecting Against Disaster	C-2
Devising Backup Strategies	C-7
Archiving Files	C-9

Protecting Against Disaster

Description

The following examples show three easy-to-use backup strategies that protect your system against disaster. You can use the Sytos Premium sample Backup Jobs to implement these strategies immediately.

Weekly Full Backups Using Two Tapes

A weekly Full Backup Strategy, as shown in Figure C-1, backs up all the files on your system once a week, whether or not they have changed since the last backup.

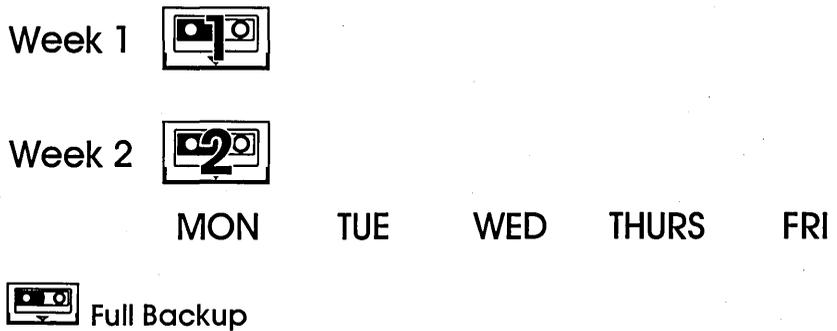


Figure C-1. Weekly Full Backup Strategy

To implement a weekly Full Backup Strategy using two tapes, follow these steps:

Step	Day	Action
1	Monday (Week 1)	Run the sample Full Backup Job with Tape 1. Store the tape in a secure off-site location.
2	Monday (Week 2)	Run the sample Full Backup Job with Tape 2. Store the tape in a secure off-site location. Move Tape 1 from your off-site location to a secure on-site location (for example, in a fireproof safe).
3	Run the sample Full Backup Job every Monday rotating Tapes 1 and 2. Label the tapes indicating the date of the last backup and the files included in the backup.	

Daily Full Backups Using Two Tapes

A daily Full Backup Strategy, as shown in Figure C-2, backs up all the files on your system once a day, whether or not they have changed since the last backup.

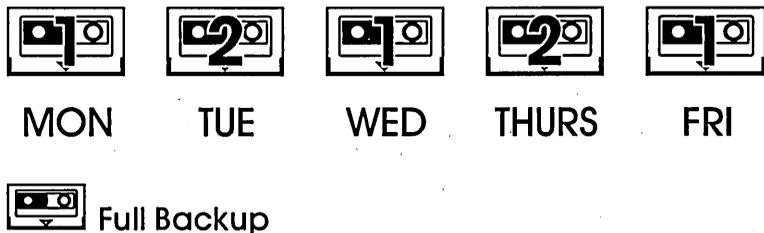


Figure C-2. Daily Full Backup Strategy

To implement a daily Full Backup Strategy using two tapes, follow these steps:

Step	Day	Action
1	Monday	Run the sample Full Backup Job with Tape 1. Store the tape in a secure off-site location.
2	Tuesday	Run the sample Full Backup Job with Tape 2. Store the tape in a secure off-site location. Move Tape 1 from your off-site location to a secure on-site location (for example, in a fireproof safe).
3		Run the sample Full Backup Job every day rotating Tapes 1 and 2. Label the tapes indicating the date of the last backup and the files included in the backup.

Incremental Backups Using Two Tapes

A Full-and-Incremental Backup Strategy, as shown in Figure C-3, is one in which you back up only the files that have changed since the most recent Full or Incremental Backup. Intermediate versions of the changed files are saved.

NOTE: *If you anticipate having to restore any one of many versions of files backed up before any file loss or damage, use an Incremental Backup Strategy.*

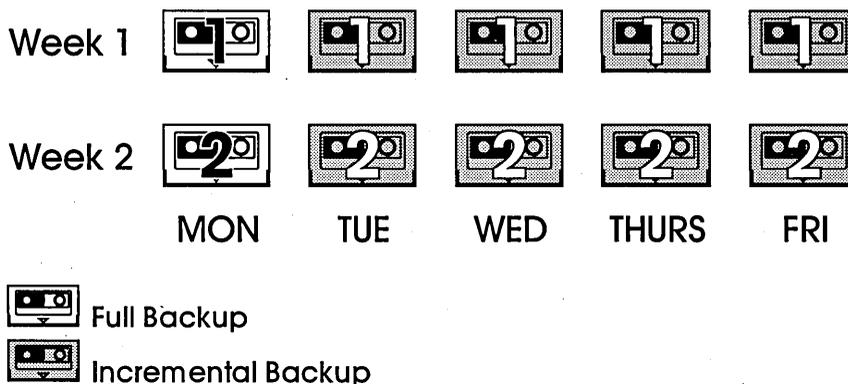


Figure C-3. Full-and-Incremental Backup Strategy

To implement a Full-and-Incremental Backup Strategy using two tapes, follow these steps:

Step	Day	Action
1	Monday (week 1)	Run the sample Full Backup Job with Tape 1. Store Tape 1 at a secure on-site location (such as a fireproof safe).
2	Tuesday-Friday (week 1)	Run the sample Incremental Backup Job (Append) with Tape 1. Store Tape 1 at a secure on-site location (such as a fireproof safe).
3	Monday (week 2)	Run the sample Full Backup Job with Tape 2. Store Tape 2 at a secure on-site location and move Tape 1 to a secure off-site location.
4	Tuesday-Friday (week 2)	Run the sample Incremental Backup Job (Append) with Tape 2. Store Tape 2 at a secure on-site location.
5		Run the Full-and-Incremental Backup Strategy every week rotating Tapes 1 and 2. Label the tapes indicating the date of the last backup and the files included in the backup.

Comparing Strategies

The following table compares the advantages and disadvantages of the three backup strategies described in this section. For a description of Cost, Backup Time, Maximum Loss, and Restore Time, refer to "Devising Backup Strategies" in this chapter.

	Weekly Full	Daily Full	Full-and-Incremental
Cost	Equal (Two Tapes)	Equal (Two Tapes)	Equal (Two Tapes)
Backup Time per week	Minimum 1 Full Backup per week	Maximum 5 Full Backups per week	1 Full Backup and 4 Incremental Backups. Incremental backups usually take less time to run than Full backups.
Maximum Loss	7 days	1 day	1 day
Restore Time	Equal	Equal	Maximum (You must restore four Incremental backups in addition to the Full Backup.)

Devising Backup Strategies

Description

If you are devising your own strategy, consider the following factors:

- **Cost** is the amount of money you spend on backup tapes.

NOTE: *When devising a backup strategy, you should use a minimum of two sets of tapes so you always have at least one Full Backup. Using three tape sets is an even better strategy because you can store one Full Backup on-site and another Full Backup off-site.*

- **Backup Time** is the amount of time per day and per week that you spend backing up your system. This factor determines how often you run backups and the type of backups you run. In general, Full backups take more time to run than Incremental and Differential backups.
- **Maximum Loss** is the number of days of work that you can afford to lose if your files become damaged.
- **Restore Time** is the amount of time that it takes to restore the files that you want.

You can also use a backup strategy to archive files. Refer to "Archiving Files" in this chapter for examples of strategies that you can use to archive files. When choosing an archive strategy, consider the following additional factor:

Archive Time is the amount of time that you want to keep older versions of files.

TIP: *If you use an archive backup strategy, use it in addition to your disaster protection strategy.*

Basics of a Good Strategy

Regardless of which strategy you choose, there are several elements fundamental to all good strategies.

Elements	Rationale
Secure Off-site Storage	If your business was struck by fire, flood, or theft, you can ensure that your system can be restored by keeping a recent copy of your files off-site.

Elements	Rationale
Secure On-site Storage	Store your tape in a fireproof safe to enhance security. Remember that you may want to have easy access to your most vital backed-up files.
Write Protection	Backup copies may be the only way to re-create files in case of loss or damage. Write protecting your backup tapes ensures that they cannot be accidentally overwritten.

NOTE: You should write-protect your backup tapes even if they are password-protected since a password does not prevent tapes from being erased or overwritten.

Implementing a Monitoring Strategy

A monitoring strategy lets you systematically back up frequently changing files. To run a Monitoring strategy, use the Sytos Schedule Utility to schedule Full and Incremental Backups at intervals throughout the day or week.

Choosing Media

When choosing media for your backup strategy, consider the following advantages and disadvantages for the media types:

- **Tape** is appropriate if your system contains many files, you want to run unattended Jobs, and backup performance is critical. Since tape is removable, you can store it securely both on and off-site. Tape imposes few time or tape space limitations and is cost-effective due to its low cost of data storage.
- **Removable Disk** can give you both high performance and accessibility. You can store Full Backups away from your system. However, removable disk media are expensive.
- **Diskette** is most appropriate when your system does not contain many files and you need to back up only a few files regularly. The backup device and diskettes are readily available. Diskettes are easily removable and require the least initial expense. But, they can impose time and space limitations because of their low capacity and the number of diskettes needed, as well as the time required to frequently change diskettes during Jobs.

TIP: When devising a backup strategy or copying an example Backup strategy in this chapter, you can substitute diskette sets for tapes. For example, if a backup strategy uses three tapes, you can substitute three sets of diskettes for three

tapes. A diskette set can contain as many diskettes as you need to run a backup.

- **Fixed Disk** has the advantage of convenience and accessibility. However, using a fixed disk for backup does not protect your files from hard drive failure (unless you have another fixed disk installed onto which you back up your files). If you are continually appending your new files to your old files, a fixed disk can be useful for maintaining older versions of files for easy access.

Archiving Files

Description

An archive strategy lets you save old versions of files. The following examples show two backup strategies that you can use to archive files.

NOTE: You should use an archive backup strategy in addition to your strategy for disaster protection.

Weekly Full Backups Using Four Tapes

A weekly Full Backup Strategy, as shown in Figure C-4, backs up all the files on your system once a week, whether or not they have changed since the last backup. This strategy saves files for up to four weeks. To restore archived files, select the files from the

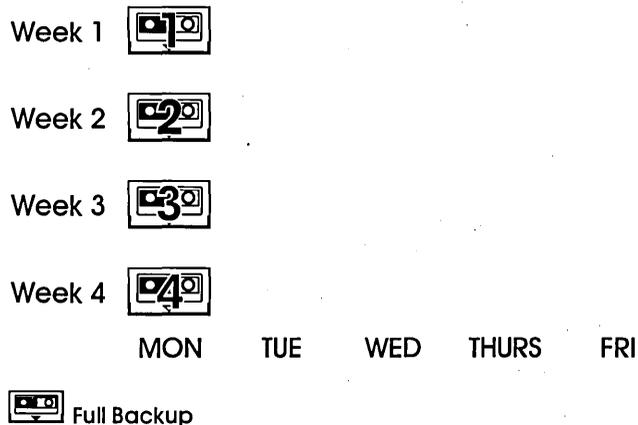


Figure C-4. Weekly Full Backup Strategy

Backup Session containing the version of the files that you want to restore.

To implement a weekly Full Backup Strategy using four tapes, follow these steps:

Step	Day	Action
1	Monday (Week 1)	Run the sample Full Backup Job with Tape 1. Store the tape in a secure off-site location.
2	Monday (Week 2)	Run the sample Full Backup Job with Tape 2. Store the tape in a secure off-site location.
3	Monday (Week 3)	Run the sample Full Backup Job with Tape 3. Store the tape in a secure off-site location.
4	Monday (Week 4)	Run the sample Full Backup Job with Tape 4. Store the tape in a secure off-site location.
5	Run the sample Full Backup Job every Monday rotating Tapes 1 through 4. Label the tapes indicating the date of the last backup and the files included in the backup.	

Quarterly Full Backups Using Four Tapes

A quarterly Full Backup Strategy, as shown in Figure C-5, backs up all the files on your system once per fiscal quarter, whether or not they have changed since the last backup. This strategy saves files for up to one year.

To restore archived files, select the files from the Backup Session containing the files that you want to restore.



Figure C-5. Quarterly Full Backup Strategy

To implement a quarterly Full Backup Strategy using four tapes, follow these steps:

Step	Day	Action
1	Jan. 1	Run the sample Full Backup Job with Tape 1. Store the tape in a secure off-site location.
2	April 1	Run the sample Full Backup Job with Tape 2. Store the tape in a secure off-site location.
3	July 1	Run the sample Full Backup Job with Tape 3. Store the tape in a secure off-site location.
4	Oct. 1	Run the sample Full Backup Job with Tape 4. Store the tape in a secure off-site location.
5		Run the sample Full Backup Job on the first day of the quarter rotating Tapes 1 through 4. Label the tapes indicating the date of the last backup and the files included in the backup.

Comparing Strategies for Archiving

The following table compares the advantages and disadvantages of the two backup strategies that are described in this section. For a description of Archive Time, Maximum Loss, Cost, Backup Time, and Restore Time, refer to "Devising Backup Strategies" in this chapter.

	Weekly Full Backup	Quarterly Full Backup
Archive Time	Four Weeks	1 Year
Maximum Loss	1 Week	4 Months
Cost	Equal	Equal
Backup Time	Maximum	Minimum
Restore Time	Equal	Equal

NOTE: The example archive strategies show that you can increase the archive time by increasing the time between backups. However, this strategy also increases the maximum loss time. To increase the archive time, without increasing the maximum loss time, add tapes to the backup strategy. For example, you can archive files for a year with a maximum loss time of 1 week between backups by using 52 tapes running backups once a week.

D Taking Care of Your Media

Introduction

To protect backed-up files, place tapes and diskettes in a safe, clean area and always keep them clear of magnetic fields that could erase or damage the information.

Tapes

Use the following guidelines for proper tape care:

- Store tapes in their protective cases.
 - Protect tapes from smoke, dust, moisture, direct sunlight, static electricity, and extreme temperatures.
 - Insert tapes into the drive carefully; remove them when not in use.
 - Check older tapes for wear by backing up with **Auto-compare** selected as a backup option; discard if the files don't match when compared.
 - Do not touch exposed tape surfaces.
 - Write-protect your tapes after Backup and Groom Jobs to prevent them from being accidentally overwritten or erased.
-

Diskettes

Use the following guidelines to care for your diskettes:

- Store diskettes in their protective jackets.
- Protect diskettes from smoke, dust, moisture, direct sunlight, static electricity, and extreme temperatures.

- **Insert diskettes into the drive carefully; remove them when not in use.**
- **Always remove a diskette from the computer before turning it off.**
- **Use only soft-tip markers when labeling diskettes.**
- **Do not touch exposed diskette surfaces.**
- **Do not bend or fold diskettes.**
- **Write-protect your diskettes to prevent them from being accidentally overwritten or erased.**

E Upgrading to Sytos Premium 2.0

Overview

Introduction

This appendix is for users who are upgrading from Sytos Plus to Sytos Premium. Sytos Premium features a revised interface with new windows, menus, and terminology. This appendix explains how the Sytos Plus terminology and tasks have been updated in Sytos Premium.

Using Sytos Premium Terminology

The following table provides a list of Sytos Plus terminology and the corresponding terms in Sytos Premium:

Sytos Plus Terms	Sytos Premium Terms
Media	Tape
Backup Set	Backup Session
Progressive	Differential
Volume	Tape Set

Volume Utility	Library
Move	Groom
Procedure	Job

Using Sytos Premium Tasks

The following tables provide a list of Sytos Plus tasks and the corresponding tasks in Sytos Premium.

Procedures Menu

The **Procedures** menu in Sytos Plus lets you manage Sytos Plus Procedures. The following table tells you how to perform the corresponding actions in Sytos Premium:

Procedures	
Load...	Ctrl+L
New...	Ctrl+N
Save	Ctrl+S
Save as...	
Preview...	Ctrl+P
Run...	Ctrl+R
Schedule...	
List...	
View...	
Delete...	
Import...	
Export...	
About Sytos Plus...	

Sytos Plus Task	Sytos Premium Task
Load... lets you open a Procedure.	Highlight a Job in the Jobs window and click on Open or select Open from the Jobs menu.
New... lets you create a Backup, Compare, Move, or Restore Procedure.	<p>You have three methods for creating a Job. To create a Job:</p> <ul style="list-style-type: none"> • Click on Backup, Groom, Restore, or Compare on the tool bar to open the appropriate job window. • Select New from the Jobs menu to open a cascading menu where you can select the type of Job that you want to create. • Click on New... in the Jobs window to open a window where you can select the type of Job that you want to create.

<p>Save lets you save a Procedure.</p>	<p>Select Save from a jobs menu to save Backup, Groom, Restore, and Compare Jobs.</p>
<p>Save as lets you save a Procedure under a new name.</p>	<p>Select Save as... from a jobs menu to save a Backup, Groom, Restore, or Compare Job under a new name.</p>
<p>Preview provides statistics about a Procedure before actually running the Procedure.</p>	<p>Select Preview from any jobs menu to view a job's statistics before actually running the Job.</p>
<p>Run lets you run a Procedure.</p>	<p>You have two methods for running a Job. To run a Job:</p> <ul style="list-style-type: none"> • Highlight the Job in the Jobs window and click on Run or select Run from the Jobs menu. • Click on Run in the Backup, Groom, Restore, and Compare windows to run the Job.
<p>Schedule... lets you specify a time for running Sytos Plus Procedures and other programs.</p>	<p>Click on Schedule on the tool bar or select Schedule from the Actions menu to open the Schedule window where you can specify a time for running Sytos Premium Jobs and other programs.</p>
<p>List... sends a list of all your Procedures to a text file or printer.</p>	<p>Select Print Job list... from the Jobs menu to send a list of Sytos Premium Jobs to a printer or text file.</p>
<p>View... shows information about the loaded Procedure.</p>	<p>Select View settings from the Jobs menu to show the name, description, options, and settings of the highlighted Job in the Jobs window.</p>
<p>Delete... removes a Procedure from your list of available Procedures.</p>	<p>Select Delete from the Jobs menu to remove the highlighted Job from Sytos Premium.</p>

<p>Import... copies a Procedure to your system from another system using Sytos Plus.</p>	<p>Select Import... from the Jobs menu to copy Jobs to your system from another system using Sytos Plus or Sytos Premium.</p>
<p>Export... copies a Procedure so that it can be used on another system running Sytos Plus.</p>	<p>Select Export... from the Jobs menu to copy Jobs to a drive so that the Jobs can be used by another system running Sytos Plus or Sytos Premium.</p>

Utilities Menu

The **Utilities** menu in Sytos Plus lets you manage your Logs and Volumes, prepare media, configure backup devices, and set up the Sytos Plus working environment. The following table tells you how to perform the corresponding actions in Sytos Premium:

Utilities
Volumes...
Logs...
Media preparation...
Backup device setup...
Preferences...

Sytos Plus Task	Sytos Premium Task
<p>Volumes... lets you view, add, delete, or print a list of Volume entries.</p>	<p>Click on Library on the tool bar or select Library from the Actions menu to open the Library window where you can perform the following tasks:</p> <ul style="list-style-type: none"> • View a list of Tapes Sets in the Library. To view the contents of a Tape Set, highlight the Tape Set and click on Details or select Details from the Library menu. You can also click on Directory or select Directory from the Library menu to view a list of Backup Sessions and their files in the highlighted Tape Set. • Click on Add to Library to add a Tape Set from your tape in the backup device to the Library. • Click on Delete tape or select Delete tape from the Library menu to remove the highlighted Tape Set from the Library.

<p>Logs... lets you view, print, or delete Logs that were created while previewing or running Procedures.</p>	<p>Click on Logs on the tool bar or select Logs from the Actions menu to open the Logs window where you can perform the following tasks:</p> <ul style="list-style-type: none"> • View a list of Logs. • Click on Open Log... or select Open from the Logs menu to view and print the highlighted Log. • Click on Delete or select Delete from the Logs menu to delete the highlighted Log. • Click on Print... or select Print from the Logs menu to print the highlighted Log.
<p>Media preparation... lets you prepare backup media and create Volumes to use later with Procedures.</p>	<p>Click on Utilities on the tool bar or select Utilities from the Actions menu to open the Utilities window where you can perform the following tasks:</p> <ul style="list-style-type: none"> • Erase, format, or re-tension the tape in your backup device by clicking on Erase, Format, or Re-tension, or by selecting Erase, Format, or Re-tension from the Utilities menu. • Prepare a tape in advance by clicking on Create tape... or by selecting Create tape from the Utilities menu. • View information about the tape in the backup device by clicking on Identify or selecting Identify from the Utilities menu.
<p>Backup device setup... lets you configure your backup device</p>	<p>Click on Setup on the tool bar or select Setup from the Actions menu to open the Setup window where you can perform the following tasks:</p> <ul style="list-style-type: none"> • Click on New... or select New device from the Setup menu to add a new device driver to Sytos Premium. • Click on Configure... or select Configure device from the Setup window to configure a device.

Preferences... lets you set overwrite and password options for unattended Procedures, and choose how files and directories are listed in the utilities windows.

To select preferences for the Sytos Premium environment, follow these steps:

1. Click on **Setup** on the tool bar or select **Setup** from the **Actions** menu to open the Setup menu.
2. Click on **Preferences...** or select **Preferences** from the **Setup** menu to open the Preferences window.
3. Select preference options and click on **OK**.

F Technical Support

Overview

If you encounter a problem while installing or running Sytos Premium, you have full access to technical support. You can also get context-sensitive help on Sytos Premium features, prompts, and error messages by choosing **[Help]** or pressing the **[F1]** function key within Sytos Premium.

If you cannot solve a problem by referring to the documentation or the Sytos Premium help utility, you can contact Sytron's Technical Support Department between the hours of 8:30 a.m. and 7:00 p.m. Eastern time (U.S.A.):

Phone:	U.S.A. + (508) 898-0193
FAX:	U.S.A. + (508) 898-2677
BBS:	U.S.A. + (508) 898-2608

On Demand FAX Retrieval System:	U.S.A. + (508) 898-0001
--	-------------------------

CompuServe:	To locate the Sytron section, type <i>GO SYTRON</i>
--------------------	---

To connect to Sytron on the BBS, set your modem settings to 8-N-1 (8 Bits, 1 Stop Bit, No Parity). Please be prepared to provide the technical support representative with the information listed on the following page when you call. If you prefer to FAX the description of the problem, you can photocopy the following page and use it as a template for your correspondence.

Sytos Premium Technical Support Information

Name: _____

Company: _____

Address: _____

City/State/Zip: _____

Phone/FAX: _____

Registration Number: _____

(Located on your Sytos Premium registration card)

Product Code Number: _____

Please fill in the appropriate information for each line

Manufacturer _____
Processor _____ 386 _____ 486 _____ 586
Bus Architecture _____ ISA/AT _____ MCA _____ EISA
System Speed _____ MHz
RAM _____ Mb
OS/2 Version # _____ IBM MS CQ
Network _____ LAN Manager LAN Server
_____ Other

Backup device manufacturer _____

Backup Device Tape Capacity _____

Controller Manufacturer _____

NOTE: Please provide a printout of your CONFIG.SYS file.

Error/Warning Number _____

Problem Description _____

G Installing Sytos Premium Under OS/2 1.3 LADDR

Overview

Introduction

This release of Sytos Premium supports Microsoft's OS/2 1.3 Layered Device Driver Architecture (LADDR) for SCSI adapters. If LADDR is detected during installation, Sytos Premium provides a list of device drivers for SCSI tape drives in the LADDR environment. This appendix provides instructions to install the Sytos Premium drivers.

Before Installing Sytos Premium Device Drivers

If you previously used Sytos Premium with a SCSI tape backup device, edit CONFIG.SYS and remove the DEVICE= lines for previous Sytos Premium SCSI drivers and SCSI host adapter (for example, ASPI4OS2.ISA, ASPI4OS2.MCA, or SCSI.SYS).

NOTE: *The OS/2 LADDR drivers for SCSI adapters are identified by a filename with a .BID extension. The .BID files must be installed by the operating system in the root directory of your C: drive.*

To install Sytos Premium LADDR drivers, follow the steps in the appropriate section below, depending on whether or not you have installed Sytos Premium.

If you have added LADDR drivers, or modified your CONFIG.SYS file since installing OS/2, refer to the section "Adding a LADDR Driver After Sytos Premium is Installed."

Installing a LADDR Driver While Installing Sytos Premium

The Sytos Premium Install Utility displays a list of drivers and prompts from which you can choose a default backup device. Sytos Premium LADDR drivers include the letters **LDR** in the driver name. The device driver file is identified in CONFIG.SYS by a .VSD extension. To install LADDR drivers, follow these steps:

Step	Action
1	When prompted by the Sytos Premium Install Utility, choose the device driver for your backup device from the list of available drivers.
2	Allow Sytos Premium to modify the CONFIG.SYS file. <i>NOTE: If you have added a SCSI device, ensure that the .BID file for that SCSI controller is in the root of C:.</i>
3	Reboot your system to allow the changes in CONFIG.SYS to take effect.

Adding a LADDR Driver after Installation

Before adding Sytos Premium device drivers, ensure that the LADDR drivers for SCSI adapters are already installed.

To add a LADDR driver after Sytos Premium is installed, follow these steps:

Step	Action
1	Click on New... or select New device... from the Setup menu to open the Add New Backup Device window.
2	<p>If you are adding a device driver from a drive, select the drive containing the driver. Select the driver and click on Add device to add the driver to the "Working Directory."</p> <p>The default drive setting, "Working Directory," refers to the directory on your hard drive containing your backup device drivers.</p>
3	Select a device driver from the list and click on Add device to add the backup device to Sytos Premium. Sytos Premium LADDR drivers include the letters LDR in the driver name.
4	<p>Edit CONFIG.SYS, and add the DEVICE= line for the Sytos Premium .VSD device driver (or remove the REM statement if the device line already exists). The drivers must appear in CONFIG.SYS in the following order:</p> <p>[drivename].VSD: The Sytos Premium LADDR device driver(s).</p> <p>TAPE.TSD: The device type driver (only one).</p> <p>Ensure that only one DEVICE= line for TAPE.TSD is in CONFIG.SYS, and appears after all .VSD device drivers.</p> <p>NOTE: If you have added a SCSI device, ensure that the .BID file for that SCSI controller is in the root of C:.</p>
5	Reboot your system to allow changes to CONFIG.SYS.
6	Configure your backup device as described in "Configuring Backup Devices" in <i>Chapter 3: Setting Up Sytos Premium</i> .

NOTES:

H Installing Under OS/2 1.2 and IBM 1.3

Overview

Introduction

This appendix provides instructions for modifying your CONFIG.SYS file when installing Sytos Premium under OS/2 1.2 and IBM 1.3.

IBM SCSI HOST Adapters

For Sytos Premium to access backup devices that use an IBM SCSI host adapter, the following two lines must appear in CONFIG.SYS:

```
DEVICE=C:\OS2\SCSI.SYS /N:4  
DEVICE=[drive:]\[path]\SYFILES\[Driver].SYS
```

where [drive:]\[path] represents the drive and directory where you installed Sytos Premium, and [Driver].SYS corresponds to the device driver you chose during installation. Ensure that these two lines appear in CONFIG.SYS in the order shown. Remove the REM statement, if there is one, from the second statement.

If the DEVICE= statement for the IBM SCSI driver does not exist in your CONFIG.SYS, add it as follows:

Step	Action
1	Insert the IBM Device Support Diskette.
2	At the prompt, enter DDINSTAL.
3	Select the SCSI Device Driver.
4	Check CONFIG.SYS to ensure the two lines appear in the order shown above. Remove the REM statement, if there is one, from the DEVICE= line.
5	Reboot your system for the changes to CONFIG.SYS to take effect.

Adaptec SCSI Host Adapter

For Sytos Premium to access backup devices that use an Adaptec SCSI host adapter, a line for the adapter must appear in your CONFIG.SYS file.

NOTE: Ensure that no other devices are installed on the same controller, and use the following settings: DMA 5, IRQ 11, and Address 330. Refer to the documentation that came with your Adaptec controller.

Check your CONFIG.SYS file to ensure that the correct DEVICE= line for your SCSI host adapter is included. For Micro Channel systems, the following line should be included in CONFIG.SYS:

```
DEVICE=[drive:]\[path]\ASPI4OS2.MCA
```

For systems that are not Micro Channel systems, the following line should be included in CONFIG.SYS:

```
DEVICE=[drive:]\[path]\ASPI4OS2.ISA
```

If the lines are not in CONFIG.SYS, refer to your OS/2 documentation to install them.

Sample Sytos Premium Jobs

Overview

Introduction

This appendix describes the three sample Sytos Premium Jobs and their default settings.

For Additional Information

Refer to the following chapters for additional information:

Chapter 4: To Back Up Immediately for information about running the sample Full Backup Job immediately.

Chapter 7: Backing Up Data for information about creating your own Backup Jobs.

Chapter 9: Restoring Data for information about creating your own Restore Jobs.

In this Chapter

This chapter includes the following topics:

Topic	See Page
Using Sample Jobs	1-2
Default Settings	1-3

Using Sample Jobs

You can select the following sample Jobs to backup and restore your data:

- **Full Backup** backs up all files on all drives that Sytos Premium detected on your system during install. This Job creates a new Tape Set, marks source files as backed-up, and compares backed-up files with the source files. Files are backed up to the default backup device. You can run this Job immediately after installing Sytos Premium. Refer to *Chapter 4: To Back Up Immediately* for instructions on running the Full Backup Job immediately after installing Sytos Premium.
- **Incremental Backup** backs up all files that have been changed or created since the last Full or Incremental Backup. This Job appends the Backup Session to the Tape Set in the backup device, marks the files as backed-up, and compares backed-up files with the source files. Files are backed up to the default backup device. You can run this Job after running a Full Backup to back up changed files.
- **Restore Tape Set** restores all Backup Sessions from the Tape Set in the backup device. This Job does not restore OS/2 system files. Refer to *Chapter 11: Disaster Recovery* for information about running a Full Restore of your OS/2 system.

Default Settings

Description

The following tables list the default settings for the sample Jobs. For a detailed description of the settings, refer to *Chapter 7: Backing Up Data* and *Chapter 9: Restoring Data*.

Settings For Backup

The following table lists settings for tape and backup options for the sample Backup Jobs:

Option	Full Backup	Incremental Backup
Overwrite tape options	Overwrite	Append
Password	NO	NO
QFA - Quick file access	YES	YES
ECC - Error correction code	YES	YES
Backup method	Full	Incremental
Software compression	NO	NO
Auto-compare	YES	YES
Retry busy files	Do not retry	Do not retry
Log	YES	YES
Date range	Is any date	Is any date

Restore Options

The following table lists selected Restore options for the sample Restore Tape Set Job:

Option	Restore Tape Set
Destination	Restore to original locations
Overwrite existing files	Prompt before overwriting newer files
Restore directory information	YES
Log	YES
Date range	Is any date

J Running Sytos Premium from the Command Line

Overview

Introduction

This chapter explains how to run Sytos Premium Jobs from your operating system command line and within command files.

In this Chapter

This chapter includes the following major topics:

Topic	See Page
Running Sytos Premium from the Command Line	J-2
Using Text Files for Selection Sheets and Redirection Sheets	J-5

Running Sytos Premium from the Command Line

Sytos Premium can be run from your operating system command line or from within command files. You can run any existing Job by typing the following at the command line:

```
SYPLUS "JOB NAME"
```

To start a Sytos Premium Job concurrently from an OS/2 task, type the following at the command line or in a command file:

```
START SYPLUS "JOB NAME"
```

Also, you can start the Sytos Premium schedule from your command line or in a command file by typing the following:

```
START SYPLUS "JOB NAME" /I
```

NOTE: *Be sure to include the quotation marks. SYPLUS invokes Sytos Premium; the information in quotes is the name of the Job that you want to run. Sytos Premium runs in unattended mode if a command line switch is not specified.*

Batch Processor Exit Codes

Sytos Premium sets exit codes to represent certain conditions encountered during batch file processing. By using these codes with the OS/2 internal IF ERRORLEVEL command, you can verify quickly that the process finished without error or you can determine if any problems occurred. You may check the Log for details.

Sytos Premium sets the following exit codes:

Exit Code	Description
0:	Job completed — All files processed (no unfound, unmatched, damaged, or busy files found).
1:	Job completed — All files not processed (one or more busy files found).
2:	All other cases — All files not processed (one or more unfound, unmatched, or damaged files were found or you canceled the Job).

Refer to your Operating System's User Guide for more information about using the IF ERRORLEVEL command in batch processing.

Command Line Switches

Command line switches let you specify conditions for Jobs that you run from the command line. For example, to specify from the command line that a Sytos Premium Job run in unattended mode, type the following:

```
SYPLUS "JOB NAME" /U
```

The following table provides a description of the available commands that can be used with Sytos Premium on the command line:

Switch	Result
/U	Runs Sytos Premium in Unattended Mode. This is the default.
/A	Runs Sytos Premium in Attended Mode.
/I	Installs the Sytos Premium Schedule Utility. This does not start Sytos Premium.
/R	Removes the Sytos Premium Schedule Utility.

Switch	Result
/P	Previews the Job listed in quotation marks on the same command line.
/F	With a filename, substitutes a specified Selection Sheet File for the Selection Sheet of the Job listed on the command line. Refer to "Using Text Files for Selection Sheets and Redirection Sheets," in this chapter.
/D	With a filename, substitutes a specified Redirection Sheet File for the Redirection Sheet of the Job listed on the command line. Refer to "Using Text Files for Selection Sheets and Redirection Sheets," in this chapter.
/MMAXIMIZE	Causes the unattended Job listed in quotation marks to run as a full screen rather than in the background.

Using Text Files for Selection Sheets and Redirection Sheets

From the command line, you can specify a text file that temporarily replaces the Selection Sheet for any Job, or the Redirection Sheet for a Restore Job. After the Job runs, the original Selection Sheet or Redirection Sheet for the Job remains intact.

The text file is an ASCII file that you create and save. The text file can be used again.

Creating a Selection Sheet File

To create a Selection Sheet file, follow these steps:

Step	Action
1	Use a text editor to create a file with the pathnames of the files you want to select for your Job. You can use wildcards (* or ?) for the filenames.
2	Add any of the following file options (in upper or lower case) after the pathname and one space: S - Include subdirectories C - Only changed files E - Exclude files specified on this line
3	You may add comments at the end of any line containing the pathname, or on a separate line. The greater than character (>) must precede the comment.
4	Save the Selection Sheet File with a unique name and extension (for example, SELECT.TXT). You should save it under the directory where Sytos Premium is installed.

Sample Selection Sheet

The following is an example of a Selection Sheet file:

```
C:\PROJECTS\PLANS\ * C
C:\PROJECTS\PLANS\*.DOC E
>The above line excludes .DOC files in C:\PROJECTS\PLANS
D:\ADMIN\*.DOC S
```

Using a Selection Sheet File

To use a Selection Sheet file, follow these steps:

Step	Action
1	<p>Enter a command line with the Job name and the name of your Selection Sheet file, as shown:</p> <p>SYPLUS "MY BACKUP" /FSELECT.TXT</p> <p>(SELECT is the name of your Selection Sheet file) and press <input type="button" value="Enter"/>.</p> <p>NOTE: The Job name must be enclosed within quotation marks, and there is no space between /F and the Filename.</p> <p>Your filename can include the entire pathname including the drive letter.</p>
2	<p>If you encounter any problems running the Job, review the Log to determine the problem. Rerun the Job adding one or both of these switches:</p> <p>/A (attended mode) to generate an error message. Review the error message and its Help, and make the necessary corrections.</p> <p>/P to preview the Job. To verify the information in the file, select the Log option and select List all files in Log.</p> <p>NOTE: You should always review the Log after a Job runs to verify that all files are processed correctly. To review the Log after running a Job, click on <input type="button" value="Open Log..."/> in the Status window.</p>

Creating a Redirection Sheet File

To create a Redirection Sheet file, follow these steps:

Step	Action
1	<p>Use a text editor to enter the pathnames of the files you want to redirect for your Restore Job. You can use wildcards (* or ?) for the filenames.</p> <p>The first line with a complete pathname is used as the "source" path. The next line with a complete pathname is used as the "redirection" path.</p> <p>Review your file for valid rules before using it, or preview the Restore Job.</p>
2	<p>Add the following file options (in upper or lower case) after the pathname, if you wish to include subdirectories:</p> <p>S - Include subdirectories</p>
3	<p>You may add comments at the end of any line containing a pathname or on a separate line. The greater than character (>) must precede the comment.</p>
4	<p>Save the Redirection Sheet File with a unique name and extension (for example, REDIR.TXT). You should save it under the directory where Sytos Premium is installed.</p>

Sample Redirection Sheet File

The following is an example of a Redirection File:

```

D:\PROJECTS\PLANS\*
>The above line is the source path.
E:\PLANS\* S
>The above line is the destination path.
D:\ADMIN\*.DOC
>The above line is the source path.
E:\DOCUMENT\*.DOC
>The above line is the destination path.

```

In the above example, all files in D:\PROJECTS\PLANS are restored to E:\PLANS and all .DOC files in D:\ADMIN are restored to E:\DOCUMENT .

Using a Redirection Sheet

To use the Redirection Sheet file, follow these steps:

Step	Action
1	<p>Enter a command line with the Job name and the name of your Redirection Sheet file as shown below:</p> <p>SYPLUS "JOB NAME" /DFILENAME</p> <p>(FILENAME is the name of your file) and press Enter.</p> <p>NOTE: The Job name must be enclosed within quotation marks, and there is no space between /D and the Filename. For example,</p> <p>SYPLUS "MY RESTORE" /DREDIR.TXT</p> <p>Your filename can include the entire pathname including the drive letter.</p>
2	<p>If you encounter any problems running the Job, rerun the Job and add one or both of these switches:</p> <p>/A (attended mode) to generate an error message. Review the error message and its Help, and make the necessary corrections.</p> <p>/P to preview the Job. To verify the information in the file, select the Log option and select List all files in Log.</p>
3	<p>Review the Log to see if the proper files have been redirected.</p>

Glossary

This appendix provides a glossary of terms used throughout the Sytos Premium User's Guide.

Address

The setting that identifies the input/output port for peripherals.

Append

Adding files to a Tape Set without overwriting any existing data on the tape. Appending a Backup Session adds the Backup Session to the end of the previous Backup Session on the tape.

Archive Bit

The attribute that indicates a file has changed.

Attended Run Mode

Indicates that someone is monitoring the running Job in order to respond to prompts and to change tapes.

Auto-compare

An option for Backup and Groom Jobs that ensures backed-up files are identical to the originals.

Autoloader

A device that includes a tape drive and a tape loading mechanism. The autoloader can retrieve a tape from a magazine, and insert the tape into the tape drive. When the tape is finished, the autoloader returns the tape to its slot in the magazine.

Backed-up Files

Files that are written to a tape using a Backup or Groom Job.

- Backup** Copies files to a tape for safekeeping.
- Backup Device** The unit that houses the tape to which files are copied during Backup and Groom Jobs. Backup devices include tape drives, diskette drives, optical drives, and fixed disk drives.
- Backup Method** There are four Backup Methods you can choose from: Full, Incremental, Differential, or Copy. When you select a Backup Method, Sytos Premium automatically selects or clears **Select only changed files** and **Mark files as backed-up**.
- Backup Session** The results of Backup and Groom Jobs. Each Backup Session contains the files that were copied to the tape. Each Tape Set can contain one or more Backup Sessions.
- Busy Files** Those files that are currently in use in a network environment and therefore locked to all other users and/or application programs. If a file is busy when a Job is running, Sytos Premium cannot process the file.
- Cascading Drives** Backup devices that support using more than one backup device sequentially of the same type.
- Changed Files** Files that are modified or created after a Backup Job runs. Certain Backup strategies involve backing up only those files that have changed or have been created since the last backup.
- Command Line Operation** The process of running an application from your operating system command line to combine it with other operations.
- Compare** A Job that ensures backed-up files are identical to the original files on the tape or hard drive.
- Controller Card** A plug-in computer board that controls the exchange of information between the computer and the backup device.
- Copy** A backup method that backs up selected files without marking the source files as backed-up.

Damaged Files	Those files that can't be read in their entirety without error (from a fixed disk, diskette, or tape) and therefore cannot be processed correctly.
Data Distribution	The process of transferring files between systems.
Default	A value or option that is selected automatically by Sytos Premium when no other value is specified.
Device Driver	Software that runs a device, such as a tape drive or diskette drive.
Differential	A backup method that backs up all files that were changed or created since the last Full Backup. When employed as a strategy, intermediate versions of changed files are not saved.
Directory	The structural unit used by an operating system to organize files on a drive. A directory is usually a collection of subdirectories and files stored at the same location.
Directory Tree	A diagram showing the way the system is organized into drives, directories, sub-directories, and files.
DMA (Direct Memory Access) Channel	A backup device setting that you set when configuring some non-SCSI backup devices. DMA is a channel through which files are transferred between the main storage unit in a computer (usually a fixed disk) and a backup device. Settings for the DMA channel vary depending on the type of backup device you have.
ECC—Error Correction Code	A tape option for Backup and Groom Jobs that records special information on the tape to assist with restoring files if the tape becomes damaged after a successful backup.
Erase	To prepare your backup tape so it appears blank to Sytos Premium. You can erase tapes by clicking on Erase in the Utilities window or selecting Erase from the Utilities menu.
Event	A Sytos Premium Job or other file (for example, a batch, or executable file) scheduled to run at a particular time.

Exclude	The instruction for not including a file in a Job.
Export	A function in the Jobs menu that copies your Jobs to a drive for use by someone else who uses Sytos Premium for OS/2.
Extension	The part of a filename shown after the period, as in BROCHURE.DOC.
File Attributes	Information that describes a particular file, such as its name, the creation date and time, whether it has been changed, and its size.
File Security	A feature in network environments that gives a person rights to use particular files. This prevents the user from having access to all files on the system.
File Selection	The process of choosing files (either from the Directory Tree or by using a Selection Sheet) for a Backup, Groom, Restore, or Compare Job.
Fixed Disk	The device in your computer where files reside. Also known as a hard drive.
Format	In Sytos Premium, you can format tapes by clicking on Format in the Utilities window or selecting Format from the Utilities menu.
Full	A Backup method that backs up all selected files.
Groom	Transfers files to a backup device for storage by copying them (as in a Backup Job) and then deleting the originals.
Helpline	The horizontal bar that appears at the bottom of each Sytos Premium window and contains helpful information about the highlighted item.
Hard drive	<i>(See fixed disk.)</i>

- Help** The **Help** menu and **(F1)** are available in every Sytos Premium window and contain several categories of information to assist you with understanding Sytos Premium features.
- Highlight** Using the mouse or keyboard arrow keys to emphasize a rule, pushbutton, or icon.
- Identify Tape** An option that quickly shows the name, number, and creation date of the tape in your backup device.
- Import** An item in the **Jobs** menu that allows you to copy Jobs from other systems to your system.
- Include** The instruction for selecting a file to be processed in a Job.
- Incremental** A backup method that backs up any files that have been changed or created since the most recent Full or Incremental Backup. When employed as a strategy, intermediate versions of changed files are saved.
- Insert** To add information in an edit field or a list.
- Interrupt** A backup device setting you must select when configuring some non-SCSI backup devices. **IRQ** is a channel used to transport information to and from a backup device. Sytos Premium may use an interrupt channel to allow simultaneous operation of the disk and backup systems during Jobs.
- I/O Base Address** *(See address.)*
- Job lock** A Preference setting that limits users to running and previewing existing Jobs. This may prevent accidental or unauthorized changes to Jobs.
- Jobs** The file processing functions of Sytos Premium that can be customized as needed. The four types of Jobs are Backup, Groom, Restore, and Compare.

Jobs Window

The first window displayed by Sytos Premium. It lets you open and run existing Backup, Restore, Compare and Groom Jobs.

Library

The Sytos Premium database file on your hard drive that keeps track of the Tape Sets and Backup Sessions that have been created on your system. You can add Tape Sets from other systems to your Library by using **Add to Library** in the Library window.

Log

The record of a Job that has run. It displays all information about files processed and problems that occurred. It is useful to review the Log after a completed Job to ensure that all files were processed correctly. The **Log** menu lets you view, delete, and print Logs.

Overwrite

The process of replacing a file on your system by restoring a file that has the same name.

Overwrite Existing Tape

Sets up a new tape during Backup and Groom Jobs by overwriting the data of the existing tape. Tape options are available when this option is selected.

Overwrite Tape Options

This group of options in the Backup and Groom windows lets you choose to append to or overwrite the existing tape. You can select tape options for tapes that you overwrite.

Password

A word the user must provide to Sytos Premium to access files on a tape.

Pathname

Identifies the location and name of a file. A pathname includes the drive, directory, and subdirectories containing the file.

Peripherals

Equipment that is used in conjunction with a computer; for example, keyboards, modems, printers, backup devices.

Preview

Shows statistics for a Job without actually running the Job.

Processed Files

Files that have undergone a Backup, Groom, Restore, or Compare Job successfully and completely.

- Prompt** A screen message that requests information from you.
- QFA — Quick File Access** An option that enables Sytos Premium to record information about each file's location on the tape during Backup and Groom Jobs. This information is stored in a special "directory" on the tape. Sytos Premium refers to the directory to quickly locate files during Restore and Compare Jobs. (Not all backup devices support this option).
- Redirect Files** A Restore Job option that copies files to different drives, paths, or filenames than those on the tape. This option is also used during a Compare Job when the files involved are those restored with redirection.
- Redirection Sheet** The window in which you specify where selected files are to be restored.
- Redirection Sheet File** An ASCII text file that can be used from the command line to override the current Redirection Sheet for a Restore Job.
- Redirection Sheet Rule** A single instruction on the Redirection Sheet that shows how a particular group of files will be redirected. (*See also redirect files.*)
- Removable Disk** A device that behaves like a fixed disk and stores large amounts of information but can be removed from the computer for safekeeping off-site.
- Restore** Copies files from a backup device to your system (usually to your hard drive).
- Re-tension** Adjusts a tape's tension by fast-forwarding and rewinding it to ensure it is taut enough to properly record information. Re-tension is a tape utilities option.

- Retry Busy Files** A Backup and Groom option that checks files that are in use at the time of the Job and backs them up when they are available. This option is useful if you work in a network environment.
- Run Mode** (See Attended Run Mode and Unattended Run Mode.)
- Sample Jobs** Jobs supplied with your Sytos Premium package that are ready to use.
- Schedule** Schedules an event (a Sytos Premium Job or other file—for example, a batch or executable file) to run automatically at a particular time—once, daily, weekly, monthly, or during the work week.
- Select** Specifying files or options for a Job. To select an item, click on it with your mouse.
- Selection Sheet** A record that shows which files are selected for a Job. Sytos Premium builds a Selection Sheet in the background when you choose files for Jobs. You can also edit Selection Sheets by choosing **Selection Sheet...** from the Backup, Groom, Restore, and Compare windows.
- Selection Sheet File** An ASCII text file that can be used from the command line with the /F switch to override the current Selection Sheet for a Job.
- Selection Sheet Rule** An instruction in a Selection Sheet that includes/excludes a particular file or group of files for a Job.
- Software Compression** An option for Backup and Groom Jobs that compresses backed-up files before reaching the tape drive, allowing additional files to be copied to the tape. This option cannot be used with backup devices that use hardware compression. Also, QFA is not available as an option if you select Software Compression.
- Source** The location of files to be processed. For Backup and Groom Jobs this is usually your fixed disk; for Compare and Restore, this is the tape.

Status Window	During a Job Preview or Run operation, this window displays detailed information about the Job in progress. It includes information about the type of Job, the source files, and the total time elapsed.
SY-TOS 3.x Restore Tape Format	The format to select when setting up backup devices if you need to read tapes created with SY-TOS. Only tapes created with the SY-TOS Backup File List or Backup File (Pre)Selected commands can be read.
Sytos Premium Tape Format	The format required when setting up backup devices to create tapes. You can take advantage of all Sytos Premium tape and Backup Session options.
Sytos Rebound	A Sytron utility that automates a complete recovery of the system that has been setup.
Tape	A type of backup media that can hold large amounts of information on magnetic tape.
Tape Capacity	The amount of space on a tape that can be used for backed-up files.
Tape Sequence Number	A tape's place in a Tape Set.
Tape Set	Contains one or more Backup Sessions (backed up in chronological order). You can create a Tape Set during Backup and Groom Jobs by selecting Overwrite existing tape in the Overwrite Tape Options group box or you can create it in advance using Create tape from the Utilities menu.
Tree	A hierarchical method of organizing files into levels of directories and sub-directories.
Unattended Password	A Preference that lets you specify a default password to be used for <i>all</i> Jobs that you run unattended and for which Password has been included as an option.

**Unattended
Run Mode**

Specified when scheduling a Job. Unattended run mode indicates that no one is at the computer to answer prompts as the Job progresses.

Wildcards

The characters (for example, * and ?) that can be used in place of letters to represent groups of filenames.



Index

A

- Access Control Lists (ACLs)
 - See Access privileges
- Access privileges
 - Restoring ACLs, A-5
 - Restoring NET.ACC, A-6
- Access rights to files, A-1
- Adding a Job to the schedule, 12-7
- Adding Backup devices, 3-4
- Adding Tape Sets to the Library, 15-8
- Adjusting tape tension, 13-9
- Allocating fixed disk space, 3-16
- Appending to existing Tape Set, 8-12
 - when to use, 7-12, 8-12
- Application window
 - Sytos Premium, 5-2
- Assigning a password, 3-20, 13-11
- Auto-Compare, 7-17
- Autoloader
 - Configuring, 3-6 - 3-7

B

- Backing Up
 - Network files, A-3
 - Sample Jobs, I-2
- Backing Up Data
 - See Appendix C: Backup Strategies
- Backup
 - Using defaults, 4-1
- Backup Devices
 - Adding, 3-5
 - Checking settings, B-4, B-9
 - Configuring, 3-5
 - Deleting, 3-16
 - Selecting, 3-4, 7-11, 8-10, 9-5, 10-5
- Backup Jobs
 - See also Backup Options
 - Creating, 7-2 - 7-3
 - Estimating tape needs, 7-22
 - Previewing, 7-3, 7-21
 - Running, 7-22
 - Saving, 7-3, 7-20
 - Selecting a backup device, 7-11
 - Selecting files, 7-4
- Backup Options
 - Comparing files after Backup, 7-17
 - Compress backed-up files, 7-17
 - Date Range, 7-19, 8-17, 9-12, 9-22, 10-14
 - Error Correction Code (ECC), 7-14
 - Log Options, 7-18, 8-17, 9-22, 10-14
 - Logs, 7-18, 8-17, 9-22, 10-14

- Password, 7-13
- Quick File Access (QFA), 7-14
- Retry busy files, 7-18
- Backup Sessions
 - Creating Tape sets, 3-19
 - Displaying information, 13-7, 15-5
 - Selecting, 9-5, 10-5
 - Viewing, 15-3
- Backup Set
 - See Backup Session
- Backup strategies
 - Full, C-3
 - Incremental, C-4
 - Off-site storage, C-7
 - On-site storage, C-8
- Backup to, 7-11
- Broadcast Messages
 - Sending during backup, A-4
- Broadcasting messages, 3-19
- Busy files, 3-20, 8-16, A-1, B-17
 - Backing up, A-3
 - Options, A-3

C

- Calendar
 - Adding Events, 12-5
 - Changing the displayed date, 12-3
- Cascading devices, 3-6
- Changing file locations
 - Redirection sheet, 9-15, 10-13
- Changing the Directory Tree, 5-9
- CHKDSK command
 - Status report, 2-16
- Choosing media, C-8
 - See Appendix E
 - See Tapes
- Choosing Sytos Premium options, 5-3
- Clicking on buttons, 5-4
- Command file (CMD), 2-18
- Command Line
 - Running Sytos Premium from, J-2
 - Switches, J-3
 - Syntax, J-2
- Common hardware settings, 2-5
- Compare Jobs
 - See also Compare Options
 - Customizing, 10-1
 - Previewing, 10-5, 10-15
 - Running, 10-16
 - Saving, 10-4, 10-15
 - Saving with a new name, 10-4, 10-15
 - Selecting options, 10-12

Index

- Compare Options
 - Date Range, 10-11
 - Selecting, 10-12
- Comparing files
 - After Backup, 7-17
 - After Groom, 8-16
 - File locations, 10-13
- Compressing backed-up files, 7-17, 8-16
- Concepts
 - Sytos Premium, 1-6
- CONFIG.SYS File, G-2
 - Checking after Install, 2-11
 - Modifying, H-1
- Configuration
 - Hard Drive, 2-23
- Configuring
 - Diskette Devices, 3-11
 - Fixed Logical devices, 3-14
 - Multiple devices, 3-7
 - Non-SCSI devices, 3-9
 - Removable Logical Devices, 3-13
 - SCSI devices, 3-6
- Configuring a device, 3-3
- Configuring Backup Devices
 - Backup device setup task, E-5
 - Changing device settings, 2-5
 - Non-SCSI devices, 2-4
- Configuring the Sytos Schedule
 - Deleting old events, 12-16
 - Prompt on Termination, 12-15
- Contacting Technical support, F-1
- Converting files
 - Between HPFS and FAT file systems, 9-1
- Copy Backup, 7-16
- Copying a procedure to another system
 - Export task, E-4
 - See Jobs, Exporting
- Copying a procedure to your system
 - Import task, E-4
 - See Jobs, Importing
- Creating
 - New jobs, 6-5
 - Startup Disk, 2-20
 - Startup Diskette, 2-20
 - Tape sets, 13-10
- Creating a new procedure
 - See Jobs, Creating new
 - New task, E-2
- Customizing the Jobs Window, 6-4

D

- Date ranges
 - Excluding files by, 7-9, 7-19, 8-10, 8-17, 9-12, 9-22, 10-11, 10-14

- Default Backup Settings, 1-3
- Delete Old Events
 - See Configuring the Sytos Schedule
- Deleting
 - Backup devices, 3-16
 - Jobs, 6-6
 - Logs, 14-6
 - Scheduled event, 12-12
- Device driver
 - Driver names, 2-10
 - LADDR, G-1
 - Selecting during installation, 2-9
 - Under IBM OS/2 2.x, 2-10
 - Using Adaptec adapters, 2-10
- Device Settings
 - See Chapter 2: Installing Sytos Premium
 - Checking, B-4
 - Do not match, B-6
 - Record when upgrading, 2-16
- Differential Backup, 7-16
- Directories
 - Restoring information, A-6
 - Viewing and printing Tape Set, 15-6
 - Viewing or printing tape, 13-8
- Directory Tree
 - Changing appearance, 5-9
 - Collapsing, 5-9
 - Displaying, 7-4
 - Expanding, 5-7
 - Navigating, 5-6
 - Using, 7-5, 8-6, 9-8, 10-8
- Disaster Recovery
 - Error messages, B-28
 - Rebound utility, 2-19
 - Recovering your system, 2-19
 - Setting up Rebound, 2-9
- Diskette Devices
 - Configuring, 3-11
- Diskettes
 - Caring for, D-1
- Displaying
 - Jobs, 14-3
 - Tape Sets, 15-3
 - The Directory Tree, 5-6
- Drives level
 - Displaying, 5-7

E

- Editing rules
 - Redirection Sheets, 9-16, 9-18
 - Selection Sheets, 10-8
- Erasing tapes, 13-10
- Error Checking
 - Exit codes, J-2

Error Correction Code (ECC), 7-14, 8-14, 13-11
 Error Messages, B-23

Disaster Recovery, B-28
 Tape or mechanical problems, B-9

Event Settings, 12-6, 12-12
 Selecting frequency, 12-6

Events
 Descriptions, 12-3
 Editing, 12-12
 Scheduled, 12-4
 Setting Up, 12-6
 Specifying time, 12-9

Exit codes
 Descriptions, J-3
 Exporting Jobs, 6-9

F

FAT file system
 Redirecting files to HPFS, 9-1

File housecleaning, B-22

Files
 Selecting for a Backup, 7-4 - 7-5
 Selecting for a Compare Job, 10-8
 Selecting for a Groom, 8-6
 Selecting for a Restore Job, 9-8

Fixed Logical Devices
 Allocating disk space, 3-14
 Configuring, 3-14

Formatting tapes, 13-3, 13-10

Full Backup, 7-16
 Running, 4-2

G

Groom Jobs
 Estimating tape needs, 8-20

See also Groom Options

Groom to, 8-10
 Previewing, 8-4, 8-19
 Reviewing the Log, 8-22
 Running, 8-20

Saving, 8-4, 8-18
 Saving with a new name, 8-4, 8-18

Selecting a backup device, 8-10

Selecting files, 8-5

Groom Options
 Comparing files after backup, 8-16
 Compressing the data, 8-16
 Error Correction Code (ECC), 8-14
 Quick File Access (QFA), 8-14

Selecting, 8-15
 Tape name, 8-13
 Guide Conventions, 1-6

H

Hard drive configuration
 Knowing your settings, 2-23

Help, 1-8
 See Appendix B: Troubleshooting
 Technical support, F-1

Help Menu
 Defined, 5-6

How to use this user's guide, 1-2

HPFS File system
 Redirecting files to FAT, 9-1

I

Importing Jobs, 6-8

Incremental Backup, 7-16

Incremental Backup strategy, C-4

Installation
 Configuring device drivers, 2-4
 Configuring hardware, 2-4

Installing
 Modifying CONFIG.SYS File, 2-11
 Non-SCSI devices, 2-4
 On a Micro Channel system, 2-7
 On a network, 2-12
 Re-installing Sytos Premium, 2-14
 SCSI devices, 2-4
 Selecting a Device Driver, 2-9
 Sytos Premium, 2-8
 Under LADDR environment, G-1
 Upgrading from earlier versions, 2-15
 Upgrading from SY-TOS, 2-15

Installing SCSI devices, 2-4

Installing Sytos Premium Drivers, G-1

Installing, 2-4 to 2-15, 2-4

J

Job List
 Printing, 6-11

Job Settings
 Viewing, 6-10

Job types, 1-7

Jobs
 Creating new, 6-4
 Customizing, 7-1 - 7-26, 8-1, 9-1

- Deleting, 6-6
- Displaying, 14-3
- Exporting, 6-9
- Importing, 6-8
- Opening, 6-6
- Previewing, 7-21, 8-19
- Running, 6-6
- Running out of space, 3-16
- Saving, 7-20, 8-18, 9-23, 10-15
- Saving with a new name, 7-20, 9-23, 10-15
- Selection Sheets, 7-6, 8-7, 9-8
- Status window, 7-22
- Jobs Window
 - Customizing, 6-4
 - Double-Click action, 6-11
 - Opening, 6-3

K

- Key Features, 1-4
- Key Terms, 1-4

L

- LADDR Drivers
 - Installing, G-2
- LAN Manager
 - Transferring files with, A-7
- Layered Device Driver Architecture (LADDR)
 - See LADDR Drivers
- Library
 - Adding tape sets, 15-8
 - Deleting tape sets, 15-3
- Library window
 - Displaying tape sets, 15-2
- Listing procedures, E-3
 - See Job List
- Log files
 - Procedures to follow, 14-4
- Logs
 - Deleting, 14-6, E-5
 - For a Backup, 7-18, 8-17, 9-22, 10-14
 - Printing, E-5
 - Removing old, B-22
 - Reviewing Backup, 7-24
 - Reviewing Compare, 10-18
 - Reviewing Groom, 8-22
 - Reviewing Restore, 9-26
 - Sorting, 14-4
 - Strategies for using, B-2
 - Viewing, 14-3, 14-5, E-5

M

- Making selections
 - Using a keyboard, 5-3
 - Using a mouse, 5-3
- Manage Jobs
 - Previewing, 6-3
 - Running, 6-3
- Media
 - Choosing, C-8
 - See Tapes
- Micro Channel (MC) System
 - See Installing
- Move, E-2
 - See Groom Jobs
- Multiple Devices
 - Configuring, 3-7

N

- NET.ACC
 - Replacing, A-6
- Network environments
 - File locking, A-1
- Network Files
 - Access Rights, A-1
 - Backing up, A-3
- Networks, 2-12
 - How to send broadcasts, A-4
 - See also Appendix A: Network Considerations
 - Installing Sytos Premium, 2-12
- New Device
 - Setting Up, 3-3
- Non-SCSI Devices
 - Configuring, 3-9

O

- Off-site storage, C-7
- On-site storage, C-8
- Opening
 - Jobs, 6-6
 - Logs, 14-3
 - The Backup Window, 7-2
 - The Compare Window, 10-3
 - The Groom Window, 8-3
 - The Jobs window, 6-3
 - The Library Window, 15-3
 - The Restore Window, 9-3
 - The Schedule Window, 12-3
 - The Setup Window, 3-2

- The Utilities Window, 13-3
- Opening a procedure
 - See Jobs, Opening
 - Load task, E-2
- Options
 - For a Compare Job, 10-12
 - For a Groom Job, 8-15
 - For a Restore Job, 9-14
- Overwriting tape, 1-7, 3-18
 - Selecting a prompt, 3-18

P

- Partitioning the Hard Drive
 - , 2-23
- Password
 - for Sytos Schedule, 12-15
- Password security, 12-15, 13-11
- Passwords, 7-13, 8-13
 - Assigning, 8-13
- Performance delays
 - Sytos Premium, B-22
- Preferences Options, 3-18
 - Broadcasting messages, 3-19
 - Creating Tape sets, 3-19
 - Locking jobs, 3-20
 - Overwriting tape, 3-18
 - Quick File Access (QFA), 3-19
 - Selecting a prompt, 3-18
 - Specifying a password, 3-20
- Preliminaries to backing up
 - Media preparation, E-5
- Previewing a procedure
 - See Jobs, Previewing
 - Preview task, E-3
- Previewing Jobs, 6-3, 6-7, 7-21, 8-4, 8-19, 9-23, 10-15
- Printing a Job list, 6-11
- Printing directory contents, 13-8
- Problems
 - Restoring SY-TOS tapes, B-16
- Procedure
 - See Jobs
- Progressive
 - See Differential
- Prompt on Terminate
 - See Configuring the Sytos Schedule, 12-15
- Prompts
 - Selecting, 3-18

Q

- QFA Warnings
 - Receiving, B-19
- Quick File Access (QFA), 3-19, 7-14, 8-14, 13-11

R

- Re-installing Sytos Premium
 - Tasks, 2-14
- Read_only
 - Sytos Premium Schedule, 12-15
- README File, 2-3
- Rebound
 - See Disaster Recovery
 - Setup contingency, 2-19
- Rebound Utility, 2-9, 2-19
 - Running, 2-21
- Recovering the system
 - Using Rebound, 2-9
- Recovery instructions
 - Task details, 11-5
- Redirecting files
 - Examples of, 9-19
 - For a Restore, 9-16
- Redirection Sheets
 - See Chapter 9, Restoring Data
 - Creating a file, J-7
 - Deleting rules, 9-17
 - Editing rules, 9-16
 - Inserting rules, 9-17
 - Running Jobs, J-8
 - Sample File, J-7
- Registering Sytos Premium software, 2-2
- Removable Logical Devices
 - Allocating disk space, 3-13
 - Configuring, 3-13
- Removing a procedure
 - See Jobs, E-3
- Replacing NET.ACC, A-6
- Replacing Selection Sheets with text files, J-5
- Restore Files
 - Choosing a destination, 9-15
- Restore Jobs
 - Previewing, 9-5, 9-23
 - Redirecting files, 9-16
 - See also Restore Options
 - Running, 9-24
 - Saving, 9-4, 9-23
 - Saving with a new name, 9-4
 - Selecting files, 9-7 - 9-8
 - Selecting options, 9-14
- Restore Options
 - Overwriting files, 9-21
 - Sample Tape Set, I-4
 - Selecting, 9-14
- Restoring files
 - File locations, 9-15
 - Restoring SY-TOS tapes, B-16
 - Retrying busy files, 7-18
 - Reviewing the Log
 - Failed Job, B-2

Index

- Revised terminology
 - Old/New terms, E-1 - E-2
- Running
 - Compare Jobs, 10-16
 - Full backup, 4-2
 - Groom Jobs, 8-20
 - Restore Jobs, 9-24
- Running a procedure
 - See Jobs
- Running Jobs, 6-3, 6-6
 - Command Line switches, J-3
 - From the Command Line, J-2
 - Within a CMD file, 2-18
- Running Setup
 - Rebound, 2-21
 - Rebound contingency, 2-19
- Running Sytos Premium, 2-17
 - Requirements, A-2
- S**
- Sample Jobs
 - Backup, I-2
 - Default settings, I-3
- Saving a procedure
 - See Jobs
- Saving a procedure with a new name
 - See Jobs
- Saving Jobs, 8-4, 8-18, 9-23, 10-15
- Schedule
 - Configuring, 12-13
 - Modifying, 12-12
- Schedule Window, 12-2
 - Event descriptions, 12-3
 - Today button, 12-3
- Scheduled Events
 - Checking for next event, 12-4
 - Deleting, 12-12
 - Scheduling a File, 12-5
 - Scheduling a Job, 12-5
 - Several, 12-17
 - Start Date, 12-9
- Scheduling jobs
 - Run modes, 12-8
- Scheduling multiple events, 12-17
- Scheduling procedures
 - See Jobs
- SCSI Devices
 - Configuring, 3-6
 - Installing, 2-4
- Under IBM OS/2 2.x, 2-10
- Security measures, 3-20
 - Backing up information, A-5
 - Passwords, 8-13
 - Restoring information, A-5
- Write protecting media, D-1 - D-2
- Write protecting tapes, D-1
- Selecting
 - Backup devices, 9-5, 10-5
 - With a keyboard, 5-3
 - With a mouse, 5-3
- Selecting Data
 - Directory Tree, 5-7
- Selecting files
 - For a Backup, 7-5
 - For a Compare Job, 10-8
 - For a Groom Job, 8-6
 - For a Restore, 9-8
 - For a Restore Job, 9-7
- Selecting Sytos Premium operations
 - Actions menu, 5-5
- Selection Sheets, 7-6, 8-7, 9-8 - 9-9, 10-9
 - Advantages to using, 7-6, 9-8, 10-8
 - Creating a text file, J-5
 - Deleting rules, 7-7, 8-8, 9-10, 10-10
 - Editing rules, 7-8, 8-7, 9-10, 10-8, 10-10
 - Examples of, 7-9, 9-12
 - Excluding files, 7-10, 8-9, 9-11, 10-11
 - Including files, 8-9, 9-11, 10-11
 - Inserting rules, 7-7, 8-8, 9-10, 10-10
 - Running Jobs, J-6
 - Sample file, J-6
 - Selection Sheet File, J-5
 - Viewing, 7-6, 8-7, 9-8, 10-8
- Setting Double-Click Action, 6-11
- Setting Preferences, 3-3, 3-17
 - See also Preferences Options
 - Preferences task, E-6
- Setting the calendar, 12-3
- Setting up events, 12-6
- Setting up Sytos Premium, 3-3
- Setup
 - When to run, 2-19
- Showing information about procedures
 - See Jobs
- Sleep Interval
 - for Sytos Schedule, 12-15
- Software Compression, 7-17
- Software Requirements, 2-2
- Sorting Logs, 14-4
- Start Date, 12-9
- Status Window, 7-22
 - Compare pushbuttons, 10-18
 - Elements of Backup, 7-23
 - Elements of Compare, 10-17
 - Elements of Groom, 8-21
 - Elements of Restore, 9-25
- Groom pushbuttons, 8-22
- Pushbuttons, 7-24
- Restore pushbuttons, 9-26
- Supported devices, 2-9
- Supporting Networks, A-2

- SY-TOS tapes
 - Restoring, B-16
- Sytos Premium
 - Concepts, 1-6
 - Directory structure, 2-12
 - Install utility, 2-8
 - Registering software, 2-2
 - Screen elements, 5-2
 - Software protection, 2-3
- Sytos Premium Drivers
 - Installing, G-1
- Sytos Premium environment
 - Setting Preferences, 3-17
 - Setting up, 3-3
- Sytos Rebound
 - How Sytos Rebound Works, 11-2
 - Setting Up, 2-19

T

- Tape details window, 9-6, 10-6, 13-7, 15-5
 - Opening, 15-4
- Tape Information
 - Viewing, 13-4
- Tape Options, 7-12
 - Selecting, 8-13
- Tape Sets
 - Adding to the Library, 15-3, 15-8
 - Appending to, 7-12, 8-12
 - Creating, 13-10, I-2
 - Displaying, 15-3
 - Identifying, 13-4
 - Naming, 13-11
 - Viewing details, 15-3
- Tapes
 - Caring for, D-1
 - Details about, 13-5
 - Erasing, 13-10
 - Estimating needs, 7-22
 - Estimating the number, 8-20
 - Formatting, 13-10
 - Identifying, 13-3
 - Labeling, 7-25, 8-22 - 8-23
 - Overwriting, 3-18, 8-12
 - Preparing before backup, 13-9
 - Re-tensioning, 13-3, 13-9
 - Selecting settings, 3-19
- Tasks
 - Re-installing Sytos Premium, 2-14
- Technical Support, F-1

Text files

- Using for Redirection Sheets, J-7
- Using for Selection Sheets, J-5

- Today button, 12-3

- Tool Bar

- Sytos Premium, 5-4
- Transferring files
 - Using LAN Manager, A-7
- Troubleshooting, B-1
 - After Installation, B-6
 - Appending a Backup, B-18
 - List of error messages, B-23
 - Problems while running Sytos Premium, B-9
 - Restoring with QFA, B-18
 - Review the log, B-2
 - Slow Performance, B-21
 - Using Sytos Premium Logs, B-2
 - Warning messages, list, B-26
 - While running Sytos Premium, B-15

U

- Unattended Jobs
 - Default settings, 12-10
 - Scenarios, 12-10
- Upgrading, 2-15
- User's Guide
 - Conventions, 1-6
- Using OS/2 Operating system, 1-5
- Using Sytos Rebound, 2-9
- Using the Actions Menu, 5-5
 - See also Tool Bar

V

- Verify files
 - See Compare Jobs
 - See Comparing files
- View Commands
 - Changing Directory Tree, 5-9
- Viewing
 - Backup sessions, 15-3
 - Compare status window, 10-16
 - Directory contents, 13-8
 - Groom status window, 8-20
 - Job settings, 6-10
 - Logs, 14-3, 14-5
 - Restore Status Window, 9-24
 - Selection Sheets, 7-6, 8-7, 9-8
 - Tape details, 9-6, 10-6, 13-5, 15-3
- Viewing Jobs, 6-4
 - Sort by name or type, 6-4
- Volume Utility
 - See Library
- Volumes
 - See Tape Sets

W

Warning messages, B-26

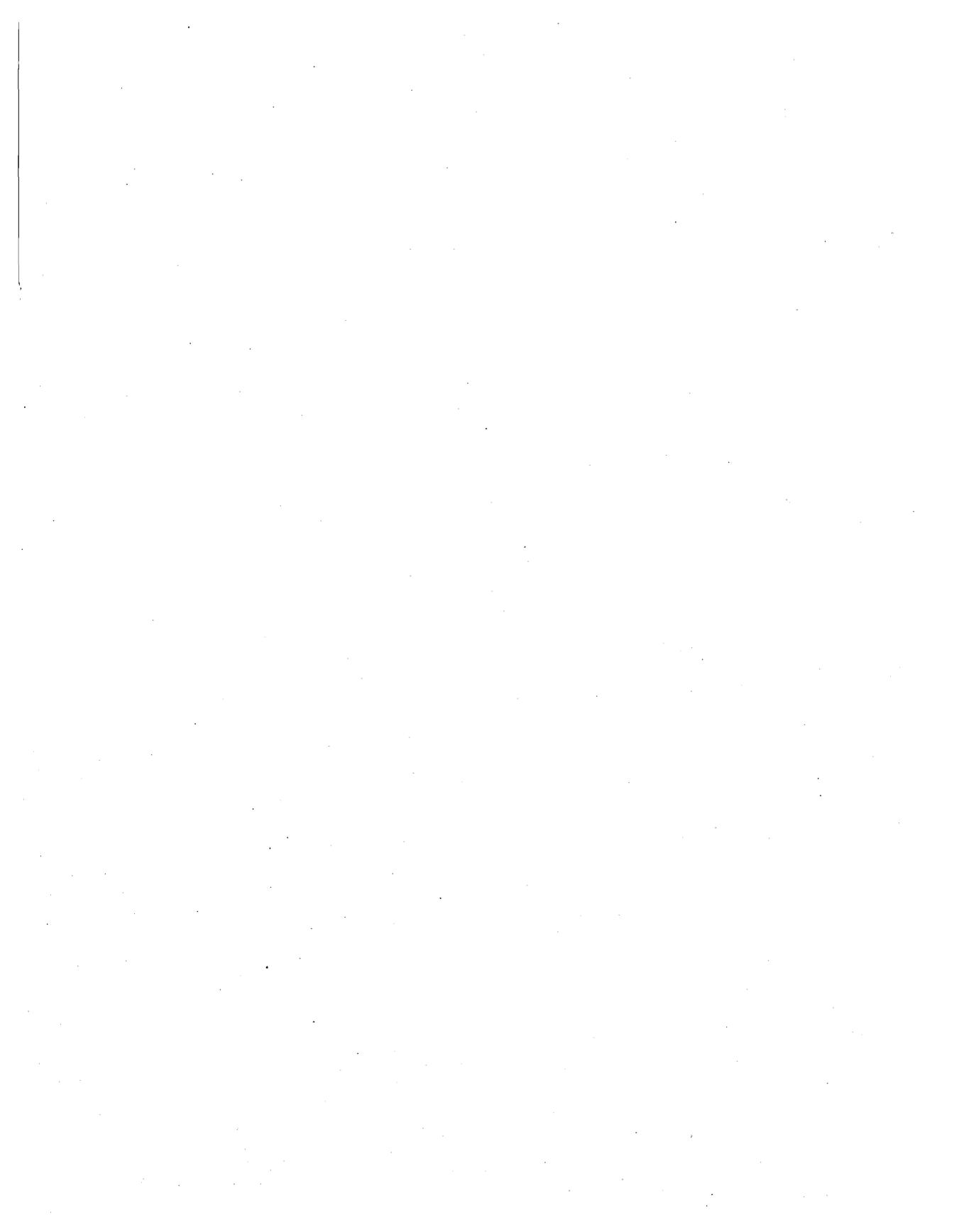
Windows

 Sytos Premium, 5-2

Working within Sytos Premium, 5-2

Write protecting media, D-1 - D-2

Write protecting tapes, D-1



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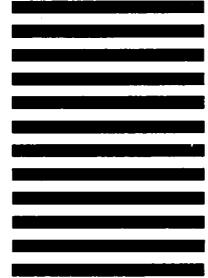
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