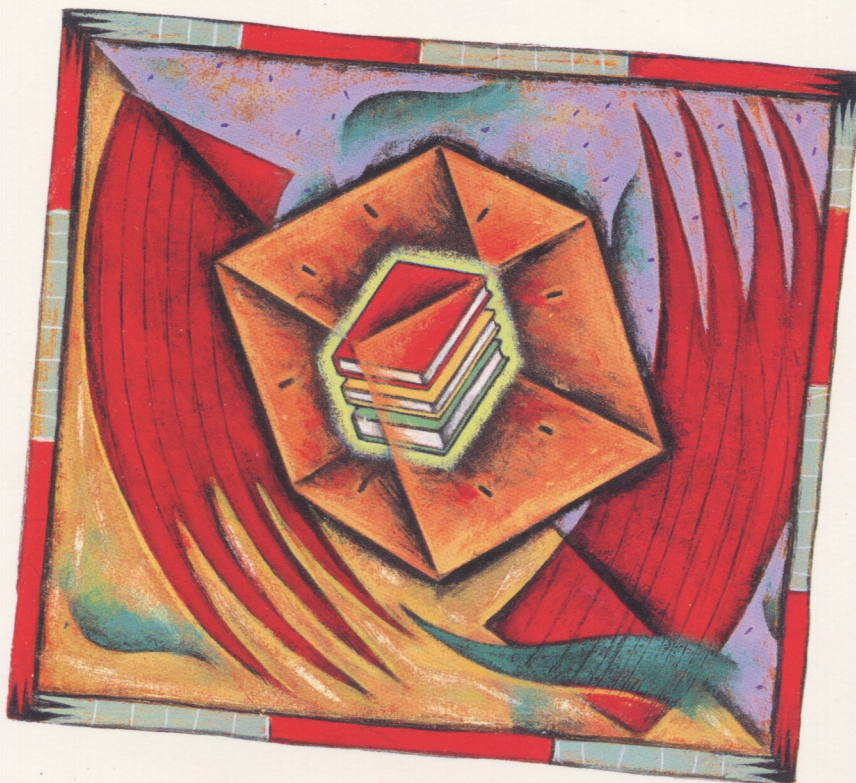


dantz

TM



Retrospect RemoteTM

Premier Network Backup Software for the Macintosh



Retrospect Remote[®]

USER'S GUIDE

Dantz Development Corporation, 4 Orinda Way, Building C, Orinda CA 94563

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4 Orinda Way, Building C
Orinda, CA 94563 USA

Technical Support: 510.253.3050

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Retrospect Remote written and created by Richard C. Zulch.

Additional development by Mike Pompa.

Technical and editorial consulting by Jon Maroney, Larry Zulch, Walt Hays and the entire technical support staff.

Extra reviewing by Pat Lee and Paul Mackinney.

Hard work and great attitudes by the entire Dantz staff. A special thanks to all of the users who provided suggestions regarding the software and the manual.

Manual written by Hank Ross and Jamie Brodie of Aquila Communications. Revision #1 by Ron Schmidt.

Manual version 2.0 rev. 1.

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Contents

Chapter 1. Introduction	7
What's in the product package	8
How Retrospect Remote works with Retrospect	9
Macintosh and System requirements	10
Remote Macintosh requirements	10
Backup Macintosh requirements	10
About this manual	12
Conventions and terms	13
Chapter 2. Network Backup Guidelines	15
Choosing the backup device	15
Encryption and compression considerations	16
Device capacity worksheet	17
Backup duration worksheet	19
Choosing the Backup Macintosh	20
Deciding which Macintosh model to use	21
Chapter 3. Installing and Configuring Remotes	23
Installing the °Remote control panel	23
Configuring Remotes	25
Updating °Remote control panels from the Backup Macintosh	31
Chapter 4. Viewing and Modifying Remotes	35
Viewing and modifying configured Remotes	36
Getting information about Remotes	40
°Remote control panel options	43
Chapter 5. Backing Up & Restoring Remotes	47
Backing up Remotes	47
Restoring a Remote volume	48
Preparing the Remote volume for a restore	49
Restoring files to the remote volume	51

Appendix A. Troubleshooting	53
Questions and answers	53
Error messages	57
°Remote control panel error messages	57
Detail Log Error messages	60
Technical Support	64
What to do before you contact us	64
Ways to contact Technical Support	65
Log of your calls to Technical Support	66
Glossary	67
Definition of terms	67
Definition of symbols	69
Index	71

Introduction

Welcome to Retrospect Remote! Retrospect Remote provide a centralized backup solution for your entire AppleTalk network. It allows you to use a single Macintosh with a storage device to back up other Macintosh computers on the network. Users of the other network computers do not require a backup application or their own backup storage device—their files are automatically backed up. With Retrospect Remote, you can schedule your network backups to run unattended at times that are most convenient, such as at night or on weekends. You can use Retrospect over any AppleTalk network, including LocalTalk, PhoneNet, EtherTalk, and TokenTalk.

Retrospect Remote works in combination with the Retrospect application. You need to be familiar with Retrospect before using Retrospect Remote to back up remote volumes. If you haven't done so already, refer to the *Retrospect User's Guide* to learn how to back up and restore locally attached volumes.

What's in the product package

The Remote packages include the following items. If any of these pieces are missing from your package, contact your Retrospect dealer.

If you have the Retrospect Remote product, your package includes:

- Retrospect program disk
- Retrospect Extras disk
- Remote Workstation disk
- *Retrospect User's Guide*
- *Retrospect Remote User's Guide*
- Device Notes
- Customer registration card (includes Activator Codes for Remote Macintosh computers)



Note: *If you only received three Activator Codes, you received Retrospect Remote as part of a tape drive/software bundle. Retrospect Remote 3-Packs are only sold in conjunction with tape drives and are not sold separately.*

If you have the Remote 10-Pack or 50-Pack, your package includes:

- Remote Workstation disk
- *Retrospect Remote User's Guide*
- Customer registration card (includes an Activator Code for each Remote Macintosh)

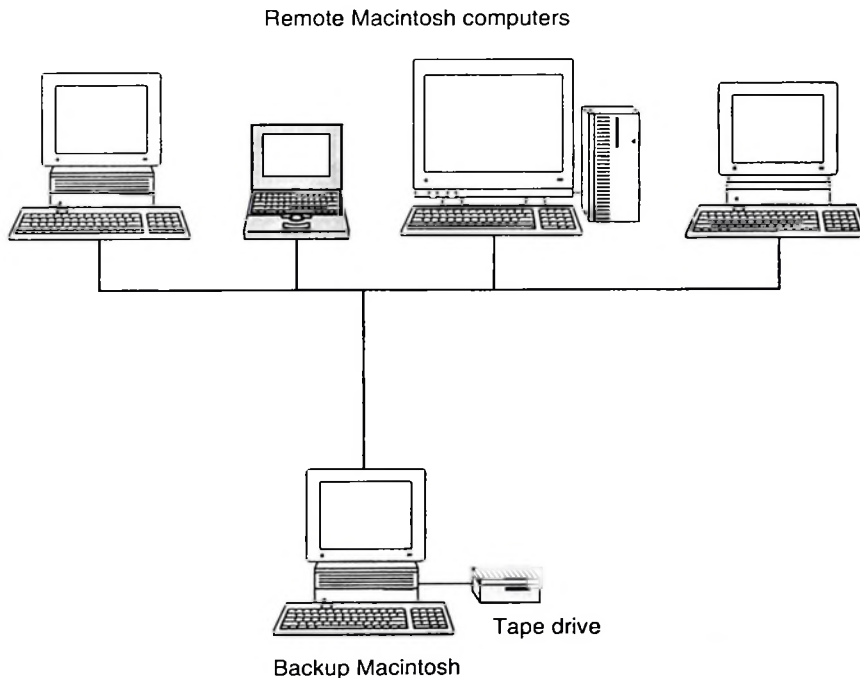


Note: *Remote 10-Packs and 50-Packs require that you have a copy of Retrospect, since Retrospect is not included with these packs. When you want to back up more Remote computers on your network, you can buy additional Remote 10- or 50-Packs.*

How Retrospect Remote works with Retrospect

Network backups are accomplished using the Retrospect application in conjunction with the **Remote control panel**. The network administrator installs the Remote control panel on each Remote Macintosh computer; these computers are simply called **Remotes**. The Remote control panel is included on the Remote Workstation disk.

The network administrator designates one Macintosh as the **Backup Macintosh** and installs the **Retrospect** application on it. This Backup Macintosh can be any computer on the network; it does not have to be the file server or mail server. The Retrospect application is used to activate Remotes. Each Remote is assigned an **Activator Code** and volumes are specified for backups. After the Remotes are configured, the network administrator selects remote volumes for backup and restore operations and schedules backup scripts for them as if the Remotes were connected directly to the Backup Macintosh.



Backing up over a network

Macintosh and System requirements

In addition to the Retrospect application and Remote control panel, you will need the following hardware and software to use Retrospect Remote.

Remote Macintosh requirements

To perform Retrospect backups and other operations across a network, the Remote control panel must be installed on each Remote Macintosh. Each Remote Macintosh must meet the following requirements:

- You must have a Macintosh Plus or later. Retrospect Remote cannot be used with 128K, 512K, 512KE, or XL Macintosh computers.
- Retrospect Remote is compatible with System software versions 6.0.5 and later, including 7.1.

Backup Macintosh requirements

To perform Retrospect backups and other operations across a network, the Retrospect application must be installed on the Macintosh computer designated as the Backup Macintosh. You don't need to dedicate this Macintosh for backups; it can be used as a server or for other functions. The Backup Macintosh must meet the following requirements:

- You must have a Macintosh Plus or later. Retrospect cannot be used with 128K, 512K, 512KE, or XL Macintosh computers.
- A minimum of 2 MB of RAM is recommended if you're using System 6 and 4 MB of RAM if you're using System 7. The more files you have, the more RAM you need. The following is a guide for how much memory Retrospect will need to back up large volumes:

1,700K for 3,500 files/folders (this is the default)

4,000K for 10,000 files/folders

6,000K for 20,000 files/folders

8,000K for 32,000 files/folders

If you are backing up volumes that contain a large number of files, you may need more than the recommended amount of memory.

- You cannot run Retrospect on a Macintosh that is running an electronic mail server, Meeting Maker server, or AppleShare 2.0 server. (AppleShare 3.0 servers allow Retrospect to run concurrently.)
- Retrospect is compatible with System 6.0.5 through System 7.1.

- Although there is no hard limit to the number of Remotes you can access from one Backup Macintosh, we recommend backing up no more than 50 Remotes to keep the task manageable. If you need to back up more Remotes, use more than one Backup Macintosh.

About this manual

Chapter 1, Introduction, introduces Retrospect Remote and describes the Macintosh and System requirements.

Chapter 2, Network Backup Guidelines, provides guidelines for choosing a Backup Macintosh and backup hardware to suit your network backup needs.

Chapter 3, Installing and Configuring Remotes, provides instructions for installing the Remote control panel, activating and updating Remotes.

Chapter 4, Viewing and Modifying Remotes, provides instructions for modifying activated Remotes, viewing Remote settings, and changing Remote control panel options.

Chapter 5, Backing Up and Restoring Remotes, provides instructions for backing up and restoring a Remote Macintosh.

Appendix A, Troubleshooting, answers common questions and problems, and tells you how to reach Dantz Technical Support.

Glossary defines important terms used in this guide and symbols that appear in Retrospect screens.

Index cross references terms and procedures used throughout this manual.

This manual assumes you know how to use the Macintosh to open applications, choose menu options, and use other Finder commands. Familiarity with System 7 features such as file sharing is also helpful. Refer to the documentation included with your Macintosh if you are unfamiliar with these operations.

Conventions and terms

The following conventions and terms are used throughout this guide.

Italics

Italics is used to emphasize important ideas and terms.

Bold

Bold indicates menu items, buttons, and options that you select on the screen.



Note:

A note like this provides additional information.



Tip:

A tip like this provides helpful hints and suggestions from our technical support staff.

disk, volume

Any volume on your desktop from which you can back up files or to which you can restore files. This can be a hard or floppy disk, partition of a hard disk, a Subvolume, a file server, or network Macintosh. The terms disk and volume are used interchangeably in this guide.

Backup Macintosh

The one network Macintosh and storage device that has the Retrospect application installed and is used to back up Remote Macintoshes. This Macintosh does not need the °Remote control panel.

Remote Macintosh

Any Macintosh with the °Remote control panel installed, allowing its volumes to be backed up to the Backup Macintosh.

Network Backup Guidelines

This chapter provides information and worksheets to help you set up a workgroup backup using Retrospect Remote. You will learn how to select the correct backup device and Backup Macintosh to suit your planned network backups.

Although the information in this chapter can be applied to any Macintosh network, the examples assume a basic LocalTalk or EtherTalk network installation. Most calculations will still apply if your network contains inter-network devices (such as routers or gateways), unless one or more members of the backup workgroup are separated from the rest by an inter-network device. Running backups through routers or gateways increases the time it takes to complete a backup.

Choosing the backup device

The capacity of the backup device is usually the most important consideration for automatic, unattended workgroup backups. There is no such thing as too much capacity for network backups. More capacity almost always means you can:

- Back up more Macintosh computers
- Broaden the criteria for selecting files to be backed up
- Increase the amount of time for unattended operation
- Increase the number of backup sessions per piece of media

If your backup device is not large enough, you will not be able to complete an automatic, unattended backup because you will have to change the media before the backup is finished.

Encryption and compression considerations

Retrospect provides an **encryption** feature that lets you protect your data from unauthorized access as it is being backed up, and a **compression** feature that saves space on the backup device by compressing stored data. The decision to use one or both of these features can affect the type of backup device you choose. Keep in mind that Retrospect's encryption and software compression can slow a backup down, especially when using a Backup Macintosh with a slow CPU. If you have a tape drive that supports hardware compression, it will perform the task of compression itself, since it compresses data faster than Retrospect.

Use the following table to determine whether to use compression and encryption and if a compression tape device is appropriate to use as the backup drive.

Table 2-1: Compression and Encryption

Feature	Description	Procedure	Implementation
Compression	Increases the storage capacity of the backup device.	Finds patterns in the data—the more patterns, the greater the compression.	If you have a compression drive, Retrospect will pass on the task of compression to the hardware since it can compress data faster than Retrospect.
Encryption	Adds security to your backup.	Randomizes the appearance of data to prevent unauthorized access.	Retrospect always manages encryption.
Compression and Encryption	Increases the storage capacity of the backup device and adds security to your backup.	Compression must take place before encryption.	Retrospect must perform both the compression and encryption functions. If you have a compression drive, you must choose between using encryption and using hardware compression. (You cannot use both.)

Device capacity worksheet

Use the worksheet below to estimate the minimum capacity of a backup drive for your workgroup.

Table 2-2: Device Capacity Worksheet

Item	Description	Amount
A. Total disk capacity	On a separate page, list all of the Macintosh computers in your workgroup. Next to each Macintosh, list the maximum disk space. Add the amounts together and write the total in megabytes (MB) in the column to the right.	
B. Estimated data redundancy	Estimate how much data is redundant. Retrospect makes only one copy of files that are identical in terms of name, size, type, creator, and creation and modification dates. If everyone in your workgroup uses the same applications, dictionaries, fonts, extensions (and so on), then you might have as much as 60% (0.6) redundancy. If your network is average, enter 0.3 (30%).	
C. Reduction factor ($C = 1 - B$)	Subtract the amount in B from 1 to get the data reduction factor. For example, if you entered 0.3 for B, the reduction factor will be 0.7 ($1 - 0.3 = 0.7$).	
D. Total reduced data ($D = A * C$)	Multiply A and C (total disk capacity times the reduction factor) to estimate the actual amount of data you need to back up, before any compression.	

Table 2-2: Device Capacity Worksheet (Continued)

Item	Description	Amount
E. Estimated compression	<p>The amount of compression savings you can rely on depends on the types of files you are compressing. Text files will compress quite a bit. Application files will not.</p> <p>The maximum compression you can usually count on is 50% (0.5). The average compression for all Macintosh files on a network is 30% (0.3) due to the variety of files found. If you do not plan on using compression, enter 0% (0).</p>	
F. Compression factor ($F = 1 - E$)	<p>Subtract the estimated compression (E) from 1. For example, if you estimated 30% reduction (0.3), enter 0.7 ($1 - 0.3 = 0.7$).</p>	
G. Backup capacity requirement ($G = D \cdot F$)	<p>Multiply the total reduced data amount (D) by the compression multiplier (F) to get the minimum backup capacity for an unattended backup.</p>	

Backup duration worksheet

Once you have determined the size of your backup device, use this worksheet to determine the number of hours your backup will require. If the total number of hours is less than 12, you will usually be able to complete a full backup in a single overnight period. If the total number of hours is more than 12, you may need to examine alternative strategies, such as performing full backups only on weekends or alternating between backing up documents and applications.

Table 2-3: Backup Duration Worksheet

Item	Description	Amount
H. Backup capacity requirement ($H = D$)	Enter the "total reduced data" requirement from item D in the Device Capacity Worksheet.	
I. Verification multiplier	Enter a verification multiplier. If you do not plan to use verification, enter 1. If you plan to use verification with LocalTalk, enter 1.2. If you plan to use verification with EtherTalk, enter 1.5. <i>Note: If you are using software compression or encryption, increase the verification multiplier by 0.1 to 0.5. The slower the Backup Macintosh, the higher the number.</i>	
J. Total transmission ($J = H * I$)	Multiply the backup capacity requirement (H) by the verification multiplier (I) to get the total amount of data transmitted across the network.	
K. Network throughput	Enter the network throughput. For LocalTalk, throughput is typically 60 MB per hour. For EtherTalk, throughput is typically 240 MB per hour.	
L. Hours required ($L = J/K$)	Divide the total transmission (J) by the network throughput (K) to determine the total number of hours required for the backup to complete.	

Choosing the Backup Macintosh

You do not need to use a file server as the Backup Macintosh—you can use any Macintosh on the network. This section will help you determine which Macintosh in your environment is the most appropriate to use as the Backup Macintosh.



Note: You cannot run Retrospect on a Macintosh that is running an electronic mail server, Meeting Maker server, or AppleShare 2.0 server. (AppleShare 3.0 servers allow Retrospect to run concurrently.)

The following table lists various advantages of using a Desktop Macintosh or a server as the Backup Macintosh.

Table 2-4: Desktop Macintosh vs. AppleShare 3.0 Server

Advantages of Desktop	Advantages of Server
<ul style="list-style-type: none">• You can use the Macintosh closest to you for easy access to the tape drive and Retrospect.• Avoids expense of a dedicated server.• You can select the Macintosh best suited in terms of memory and speed. Retrospect can be run at night or on weekends, allowing normal use of the Macintosh during work hours.• Allows your server to run at full speed for those who are accessing it while the backup is running.	<ul style="list-style-type: none">• Optimizes your backup speed since servers are often a high performance Macintosh model.• Takes advantage of the server's inactivity during the nights and weekends.• Gains added security for your StorageSets if your server is located in a secure area.• Backs up large server disks using faster SCSI transfer rates rather than the slower network transfer rates.

Deciding which Macintosh model to use

Although virtually any Macintosh model can be used as the Backup Macintosh, consider using a model that can adequately perform your network backups. For example, if you are backing up a small number of Macintosh computers over LocalTalk, a Mac Plus should be able to do the job. However, if you are backing up large file servers and Macintoshes with thousands of files, a IIcx or similar model would be more suitable. Here are some considerations when choosing the Macintosh model:

- The performance of the Backup Macintosh can often determine the performance of the entire system. Generally, a higher performance Macintosh will support a network backup of more data and a larger number of Macintosh computers.

The Retro.SCSI extension, included with Retrospect, can improve performance when backing up files from a Macintosh equipped with a 68000, 68020, or 68030 CPU to a SCSI tape drive. When installed, this extension allows information to be written to a tape drive while the hard drive is being read. In some instances, a 68030-based computer with Retro.SCSI will perform as well as or better than a 68040-based computer. For more information about the Retro.SCSI extension, see Appendix C, "Retrospect Files and Symbols," in the *Retrospect User's Guide*.

- Software compression and encryption increase CPU use significantly. If you are considering using either of these features, choose a Macintosh model with a more powerful CPU.
- Make sure that the Backup Macintosh has enough RAM to handle the network volume that contains the most files. The more files you have, the more RAM you need. The following is a guide for how much memory Retrospect will need to back up large volumes:

1,700K for 3,500 files/folders (this is the default)

4,000K for 10,000 files/folders

6,000K for 20,000 files/folders

8,000K for 32,000 files/folders

If you are backing up volumes that contain a large number of files, you may need more than the recommended amount of memory.

Installing and Configuring Remotes

This chapter provides instructions on installing the Remote software that allows you to back up Macintosh computers on a network from the Backup Macintosh. It also provides instructions for configuring Remotes from within Retrospect.

If an earlier version of the °Remote control panel is already installed on a Macintosh, you don't need to reinstall it, but you should update it to take advantage of Retrospect Remote's new features. Skip to "Updating °Remote control panels from the Backup Macintosh" on page 31 in this chapter.

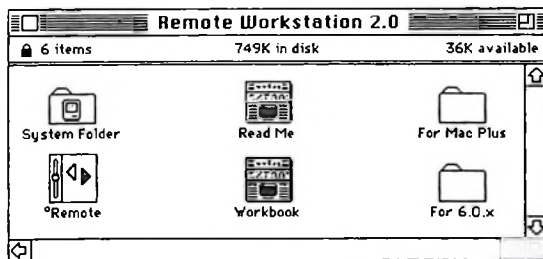
Installing the °Remote control panel

Use the following procedure to install the °Remote control panel on each Macintosh computer that you want to back up over the network. It's not necessary to install this control panel on the Backup Macintosh.

To install the °Remote control panel

1. Insert the Remote Workstation disk into your Macintosh.

The following window appears on your Desktop.



The Remote Workstation disk

2. Drag the "Remote control panel into the System Folder of the startup disk.
If you are using System 7.0 or later, a dialog box appears asking you to confirm that you want the file copied into the Control Panels folder. Click **OK** to continue.
3. If you are using system software version 6.0.5 or later, open the "For 6.0.x" folder and drag the ADSP (AppleTalk Data Stream Protocol) file into the System Folder.



Note: *If you are running system software version 7.0 or later, do not drag the ADSP file into the System Folder—it can cause conflicts. The ADSP file allows Macintosh computers to communicate across the network. This feature is built into System software version 7.0 and later.*

4. If the Remote computer is a Macintosh Plus, open the "For Mac Plus" folder and drag the AppleTalk file into the System Folder.
5. Confirm the Remote Macintosh name.
Each Remote Macintosh must have a name that identifies it to the Backup Macintosh. If the Remote Macintosh is running System 6.0.x, open the Chooser and verify that a name is entered in the User Name box. If the Remote Macintosh is running System 7.x, open the Sharing Setup control panel and verify that a name is entered in the Macintosh Name box.
6. Restart the Macintosh.

The Remote Macintosh icon will appear when you start up. The Remote is now ready to be configured from the Backup Macintosh. See the next section for details.

If the icon has an "X" across it, the "Remote control panel did not install. To determine why, open the "Remote control panel to read the error message, then refer to "Remote INIT not loaded at system startup" on page 58.

Configuring Remotes

Before you can perform network backups, you need to activate the °Remote control panel on each Remote Macintosh using the Activator Codes supplied in your Retrospect Remote package. In addition, you will need to update any Remote computers that were previously activated using an earlier version of Retrospect, although you do not need to do this immediately. For more information, see the Release Notes that accompanied your upgrade.

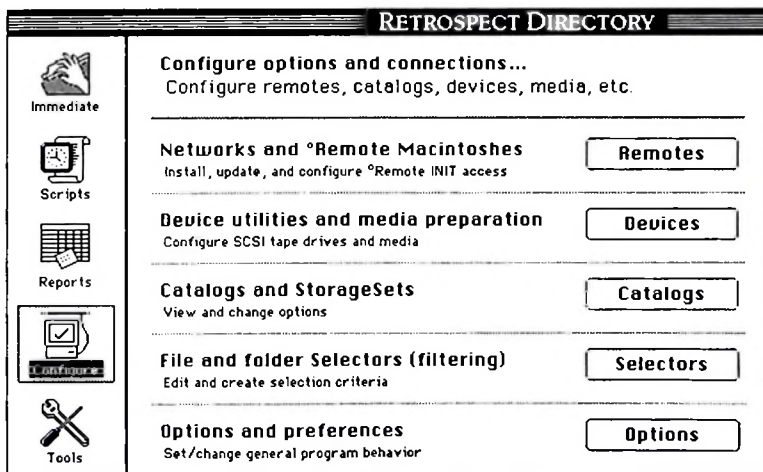
Remotes are activated from the Backup Macintosh. Once you have installed the °Remote control panel and restarted the Remote Macintosh, follow these steps to activate the °Remote control panel on each Remote Macintosh. You will need the **Activator Codes** supplied on the card in your Retrospect Remote product package.



Note: Remotes and their volumes defined are only visible within Retrospect. These volumes are not visible on the Desktop.

To activate Remotes

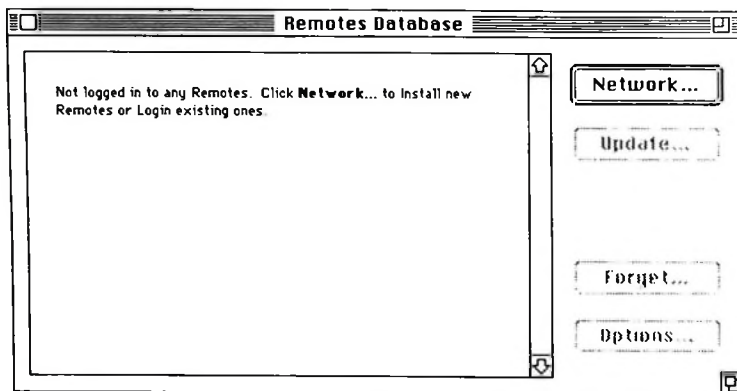
1. Start Retrospect by double-clicking the application icon.
When the application starts, the Retrospect Directory appears.
2. Click the **Configure** icon.
Retrospect displays the Configure window, shown below.



Directory showing Configure window

3. Click **Remotes**.

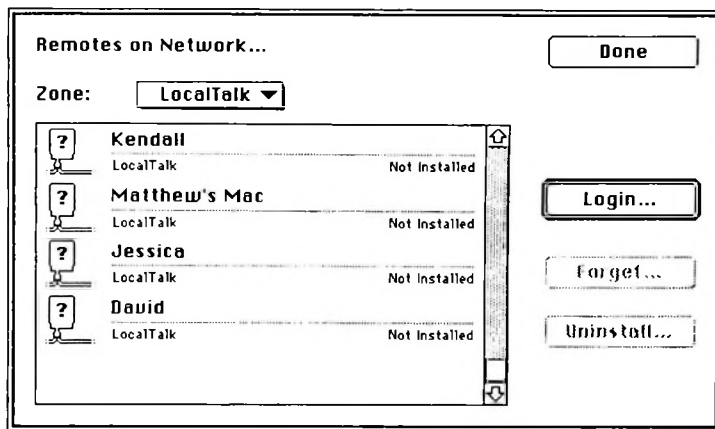
The Remotes Database window appears, listing all Remote Macintosh computers currently logged in and configured for use with Retrospect. If you haven't yet logged in to any Macintosh computers on the network, the window is empty.



Remotes Database window

4. Click **Network**.

The following window appears, listing all the Macintosh computers in the current zone that have a "Remote control panel. **Not Installed** means the Macintosh is on the network, but has not yet been installed with an Activator Code.



Remote on Network window

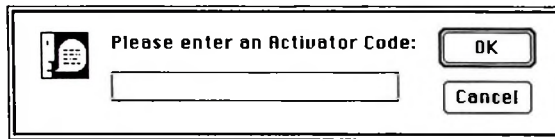
For each Macintosh on the network, Retrospect provides the current Chooser name (for System 6) or Macintosh name (for System 7) and the AppleTalk zone in which the computer resides. If the Remote Macintosh you want to install does not appear in the listing, use the **Zone** popup menu to change zones. If the Remote does not appear in any of your zones, make sure that the Remote Macintosh is connected to the network and has a Remote control panel correctly installed. For more information about what to do if a Remote is not installed, see "Troubleshooting" on page 53.



Note: The Zone popup menu is only available if you have more than one zone on your network.

5. In the Remotes on Network window, select the Remote Macintosh you want to activate and click **Install**.

Retrospect prompts you for an Activator Code.

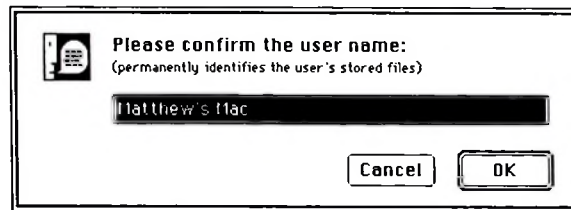


6. Type one of the Activator Codes from the card provided with your Retrospect Remote product package.

You cannot use the same Activator Code for more than one Macintosh on the network. You may want to make a note of the user name in the space provided on the Activator Code card.

7. Click **OK** to continue.

A dialog box appears asking you to confirm the user name. Retrospect Remote uses this name to identify the Macintosh.

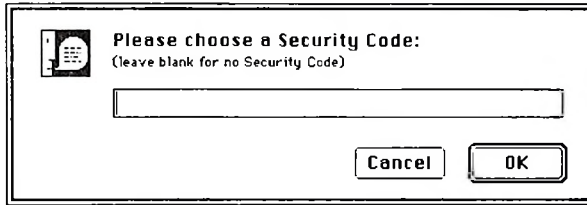


The current user name appears in an editable field. You can use the name provided, or you can type a new name for your own reference.



Note: Changing the user name in the above dialog box does not affect the user name that appears in the Chooser (in System 6) or the Macintosh Name that appears in the Sharing Setup control panel (in System 7).

8. Verify that the user name is what you want it to be and click **OK**. Another dialog box appears, prompting you for a Security Code.



The optional Security Code prevents unauthorized users from running Retrospect on the network and gaining access to a Remote. You can type any combination of characters. A Security Code is required if you plan to use Link Encryption, and is recommended if your network has many Macintoshes in multiple network zones.

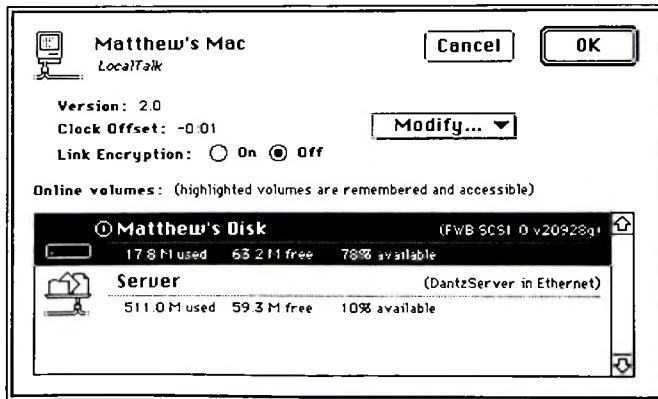


Note: If you do not enter a Security Code, any user on the network can access the Remote Macintosh by running the Retrospect application from their Macintosh. To keep unauthorized users from gaining access to the data on Remotes, use security codes.

9. Enter the Security Code or leave the box blank, and click **OK**.

Retrospect validates the Activator Code and displays the Remote Options window. See "Viewing and modifying configured Remotes" on page 36 to change the name, set Link Encryption, or synchronize the clock.

The Startup volume is selected and marked with a (1).



Remote Options window

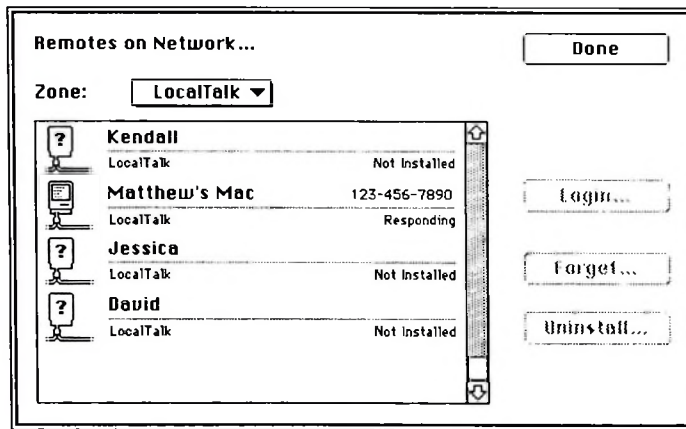
10. Select the volumes you want to use for Retrospect operations.

Shift-click volumes for multiple selections. Command-click volumes for non-contiguous selections.

Don't select servers or shared volumes. It is more efficient to mount these volumes directly on the Backup Macintosh than to back them up as a Remote Macintosh.

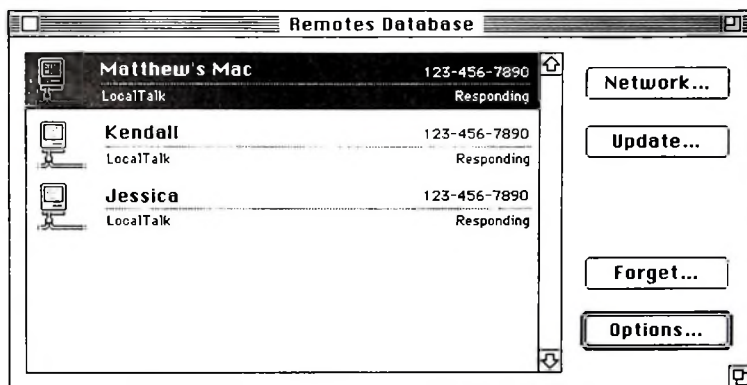
11. Click **OK** to continue.

The following window reappears, listing the Activator Code for the newly activated Remote Macintosh and indicating that the Remote is responding across the network.



Activator Code is shown for activated Remote

12. Repeat steps 5 through 11 above to configure additional Macintosh computers for network operations.
13. When all networked computers have been configured, click **Done** to return to the Remotes Database window, which now lists the newly installed Remote computers.



Remotes Database window

14. Click the close box on the Remotes Database window.

Now you can perform any Retrospect operation on the Remote Macintosh computers you have configured for use with Retrospect. See “Backing Up & Restoring Remotes” on page 47.

Updating Remote control panels from the Backup Macintosh

This section tells you how to update earlier versions of the Remote control panel that are already installed and activated on Remote computers. You can update Remote computers individually, or update all Remote computers in a single operation. When you update a Remote, all control panel preferences (including Access Restrictions) will be retained for the Remote.

You can update all Remote computers at any time. It's a good idea to go ahead and update all Remote computers even if you know some of them are turned off. You can later repeat this operation without affecting the Remotes that are already updated.

To update all Remote computers

1. Click the **Configure** icon in the Retrospect Directory.

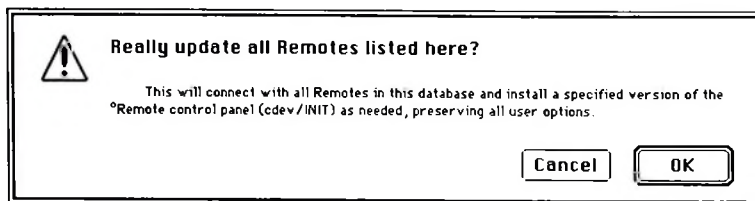
The Configure window is displayed.

2. Click the **Remotes** button.

The Remotes Database window appears, listing all Remote Macintosh computers currently logged in and configured for use with Retrospect.

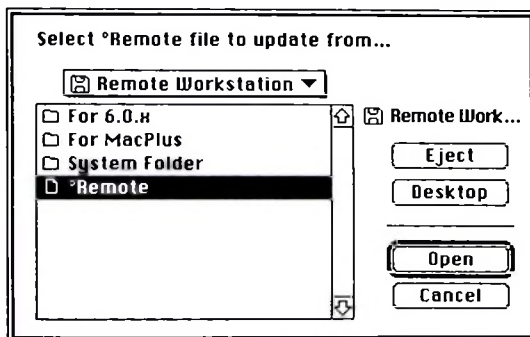
3. Click **Update**.

When you click Update, Retrospect displays a dialog box asking you to confirm the updating of the °Remote control panel on all Remote Macintosh computers appearing in the Remotes Database window.



4. Click **OK** to continue.

The Open file dialog box appears, prompting you to specify the location of the most recent version of the °Remote control panel. You can select a copy located on your hard disk, or insert your Remote Workstation disk and select the °Remote file on this disk.



5. When the "Remote file is displayed, select it and click **Open**.

Retrospect begins updating the Remote software on all Remote computers that appear in the Remotes Database window.



Note: If a Remote Macintosh has a virus protection application installed, the virus protection application will require confirmation at the Remote Macintosh before allowing the update to continue.

6. When the update is complete, Retrospect reports the results in a dialog box and the Detail Log. Click **OK**.
7. To confirm the status of each Remote update, choose **Log** from the **Windows** menu to open the Detail Log.
8. Restart each Remote Macintosh.

The update cannot take effect on a Remote Macintosh until it is restarted.

To update an individual Remote computer

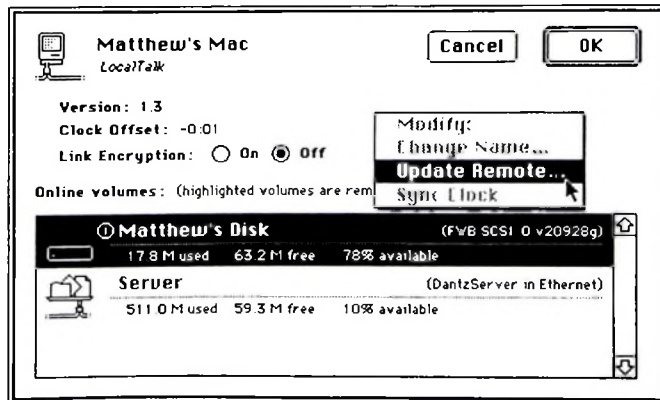
1. Click the **Configure** icon in the Retrospect Directory.
The Configure window is displayed.

2. Click the **Remotes** button.

The Remotes Database window appears, listing all Remote Macintosh computers currently logged in and configured for use with Retrospect.

3. Select the Remote you want to update and click **Options** (or double-click the Remote).

The following window appears.



Remote Options window

4. From the **Modify** popup menu, choose **Update Remote**.

A standard Open file dialog box appears, prompting you to specify the location of the most recent version of the °Remote file. You can select a copy located on your hard disk, or use the version on the Remote Workstation disk inserted in a floppy drive.

5. When the °Remote file is displayed, select it and click **Open**.

Retrospect updates the °Remote control panel.

6. When the update is complete, a dialog box appears. Click **OK**. Then restart the Remote Macintosh.

The update is now complete.



Note: Retrospect cannot delete the original °Remote file if it is in use when you try to update. If the °Remote control panel is open or the Wait at Shutdown window is displayed on a Remote, Retrospect creates a second °Remote file, called “°Obsolete Remote.” After restarting the Remote, delete the °Obsolete Remote file. On Macintosh computers running System 7, Retrospect automatically places the °Obsolete Remote file in the Trash.

Viewing and Modifying Remotes

This chapter provides instructions on using Retrospect to configure Remote Macintosh computers for Retrospect operations. It includes instructions for:

- Viewing and modifying configured Remotes
- Getting information about configured Remotes
- Changing the settings in the °Remote control panel

This chapter assumes you have installed the °Remote control panel on each Macintosh and have configured the Remotes as described in the previous chapter, “Installing and Configuring Remotes” on page 23.

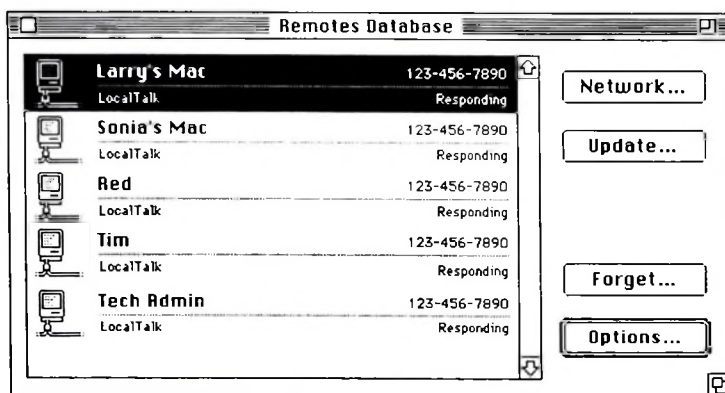
Viewing and modifying configured Remotes

You may want to view configured Remote computers to see if a Remote Macintosh is responding on the network or to check the status of a Remote.

To view configured Remotes in the Remotes Database window

1. Start Retrospect and click the **Configure** icon in the Retrospect Directory. Retrospect displays the Configure window.
2. Click **Remotes**.

The Remotes Database window appears, listing all Remote computers currently logged in and set up for use with Retrospect.



Remotes Database window

Network displays all Macintoshes on your network with the °Remote control panel installed and loaded. See the next section for details.

Update installs the latest version of the °Remote control panel on all active Remote Macintoshes. Remotes already running the latest version are not affected. See "Updating °Remote control panels from the Backup Macintosh" on page 31 for details.

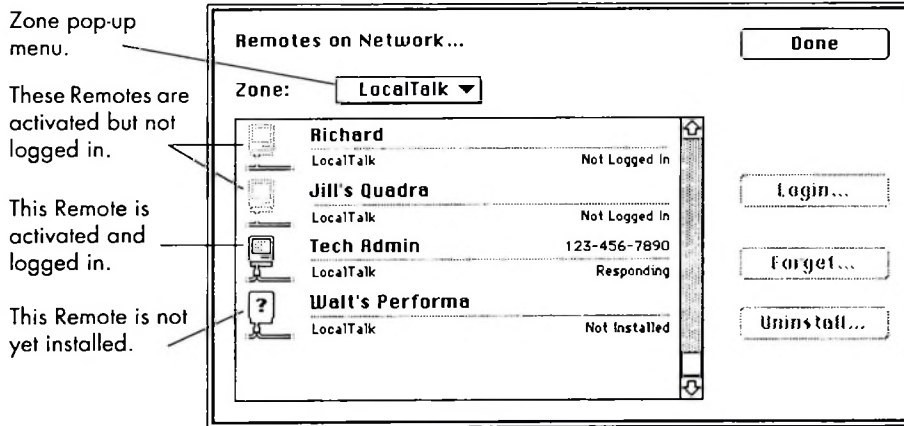
Forget removes the selected Remote Macintosh from this list, and removes its volumes from all scripts and other Source listings within Retrospect. The °Remote control panel on the Remote Macintosh is not affected by this operation. Files already copied from this Remote are not affected in your StorageSets.

Options allows you to configure the selected Remote. It is most often used to determine which volumes mounted on the Remote Macintosh should be displayed in Retrospect's list of possible Sources. See "To modify the settings in the Remote Options window" on page 38 in this chapter for details.

To view all Remotes on the network in the Remotes on Network window

1. From the Remotes Database window, click **Network**.

The following window appears, listing all the Macintosh computers in the current zone. The caption **Not Logged In** means that the Macintosh has been activated but is not currently logged in. **Not Installed** means the Macintosh has not yet been installed with an Activator Code. **Responding** means the Macintosh is logged in and available for backup operations. For each Macintosh on the network, Retrospect provides the current Remote User name and the AppleTalk zone in which the computer resides.



Remotes on Network window

Forget removes the selected Remote Macintosh from this list, and removes its volumes from all scripts and other Source listings within Retrospect. After you forget a Remote, it will show as "Not Logged In." The Remote control panel on the Remote Macintosh is not affected by this operation. Files already copied from this Remote are not affected in your StorageSets. The "forgotten" Macintosh retains its Activator Code in the Remote control panel.

Uninstall reverses the installation procedure. Uninstall allows you to re-use an Activator Code on another Remote Macintosh. If a Security Code exists for the Remote and you are not already logged in, you must enter the code to uninstall the Remote. An uninstalled Remote must be activated again before it can be accessed over the network. Uninstalling a Remote does not affect any backups you have already performed.

Options allows you to configure the selected Remote. Most often used to determine which volumes mounted on the Remote Macintosh should be displayed in Retrospect's list of possible Sources. See below for more information.

The **Zone pop-up menu** lets you choose a zone. If the Remote Macintosh you want to install does not appear in the listing, use the Zone popup menu to change zones. The Zone popup menu is only available if you have more than one zone on your network.

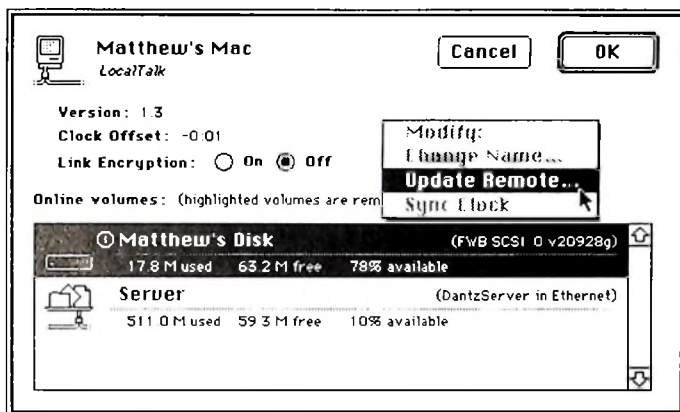
If the Remote does not appear in any of your zones, make sure that the Remote Macintosh is connected to the network and is loaded. For more information about what to do if a Remote is not loading or showing, see Appendix A, "Troubleshooting."

To modify the settings in the Remote Options window

1. From the Remotes Database window, select a Remote and click **Options**.
OR

From the Remotes on Network window, select a Remote and click **Options**.

The Remotes on Network window is displayed. All currently mounted volumes on the Remote are shown. The startup volume is selected and marked with a ①.



Remote Options window

2. The **Modify pop-up menu** contains three options.

Change Name lets you rename the Remote. A dialog box appears asking you to enter a new name. You can do this at any time; it does not affect files which have already been backed up.

Update Remote updates an earlier version of the Remote control panel on the Remote Macintosh. You can do this at any time. The installed version is shown in the upper left section of the window. For more information about updating the Remote control panel, see "Updating Remote control panels from the Backup Macintosh" on page 31.

Sync Clock synchronizes a Remote System clock to your Backup Macintosh System clock. Retrospect uses the Backup Macintosh clock to set the time on the Remote Macintosh. This option is also available to synchronize Remote System clocks each time the Remotes are backed up. See Chapter 6 of the *Retrospect User's Guide* for more information on using scripts to do this.

Note: The Change Name and Sync Clock options are only available if you are using Remote control panel version 2.0 or later.

3. The **Link Encryption** option lets you protect against network eavesdropping by encrypting data before it is transferred over the network. Link encryption protects data only while it is in transit across the network. It is not the same as encrypting information in the StorageSet. *You must have a Security Code in order to use the Link Encryption option.*



4. Select the volumes you want to use for Retrospect operations. The volumes you select will be available for backup and restore operations executed from the Backup Macintosh.

Shift-click volumes for multiple selections. Command-click volumes for non-contiguous selections.

Don't select servers or shared volumes. It is more efficient to mount these volumes directly on the Backup Macintosh than to back them up through a Remote Macintosh.

5. Click **OK** to exit the window.

Getting information about Remotes

From the Backup Macintosh, you can use the **Get Info** command in the File menu to display status and other information about any Remote that appears in the Remotes Database window. For example, you may want to find out whether a Remote is available for backup operations, or verify that a Remote has been updated to the latest version.

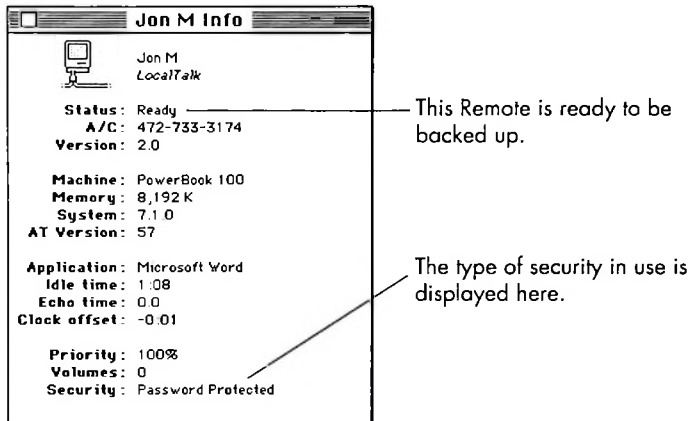
To get information about a Remote

1. Click the **Configure** icon in the Retrospect Directory.
2. Click **Remotes**.

The Remotes Database window appears.

3. Select the Remote you want information about. Then choose **Get Info** from the **File** menu.

The Get Info window appears, displaying the following information about the Remote.



Get Info window

Status indicates the Remote's availability for backup operations. **Ready** means the Remote is ready and available. **Locked** means the user at this Remote workstation has checked the "Read Only" option in the Remote control panel's window. The Remote can be backed up, but you cannot restore to it or delete files. **Busy** means the Remote is currently being accessed by a different copy of Retrospect on the network. **Turned Off** means the user at this Remote clicked the "Off" radio button in the Remote control panel. A Remote that is turned off will be unavailable for operations until it is turned on manually or restarted.

Version is the version of the Remote control panel installed on the Remote Macintosh.

Machine shows the model of the Remote Macintosh.

Memory is the total amount of RAM in the Remote Macintosh.

System is the version of System software used by the Remote Macintosh.

AT Version is the version of AppleTalk running on the Remote Macintosh.

Application is the application or Desk Accessory that is currently running in the foreground on the Remote Macintosh.

Idle Time is the amount of time since the keyboard or mouse on the Remote Macintosh were last used.

Echo Time is the time delay in seconds experienced in communicating with this Remote (usually 0.0 to 0.2). If the network or Remote is busy, or you are using routers, the echo time could easily be much higher without indicating a problem.

Clock Offset is the difference in hours:minutes:seconds between the Remote Macintosh clock and the Backup Macintosh clock.

Priority is the Priority setting the users have chosen in their Remote control panel. A 20% priority means the user has set the priority button all the way to "User," giving foreground operations the highest priority. A 100% priority means the priority is set all the way to "Backup," giving backup operations highest priority.

Volumes displays the number of volumes the Backup Macintosh knows about for this Remote Macintosh.

Security is the data security specified for this Remote Macintosh. **No Password** means no Security Code was installed. Anyone using Retrospect on the network can log into this Remote. **Password Protected** means a Security Code must be entered in order to log into this Remote. **Link Encrypted** means that the administrator has selected "Link Encryption" in the Remote Options window for this Remote. This means data from this Remote is being encrypted before being copied over the network. You cannot choose the Link Encryption option unless you have a Security Code.

4. Click the **close box** to close the Info window.

°Remote control panel options

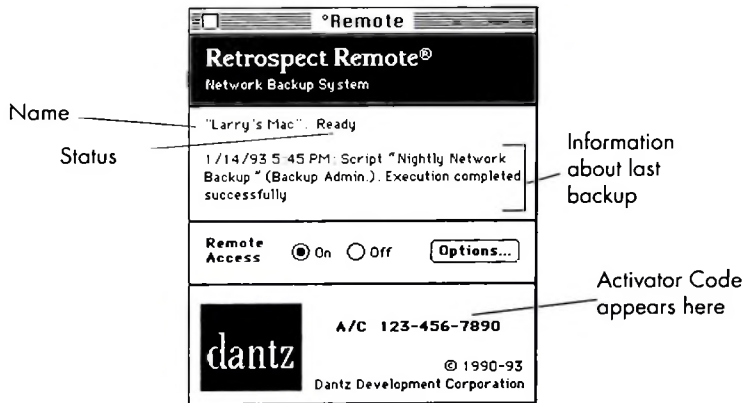
After the Retrospect Remote software has been installed, users of Remote Macintosh computers can control some aspects of network backup operations with the °Remote control panel.

You don't need to change any of the settings in the °Remote control panel to perform backups. In most cases, the existing settings are the ones you'll want to use.

To change the °Remote control panel options

1. On the Remote Macintosh, open the °Remote control panel from the **Apple** menu.

When opened, the °Remote control panel displays information about the Macintosh on which it is installed, including the user or Macintosh name, the Remote access status of the Macintosh, and information about the last backup. If the Remote computer has been activated from the Backup Macintosh, its Activator Code is also displayed in the panel.



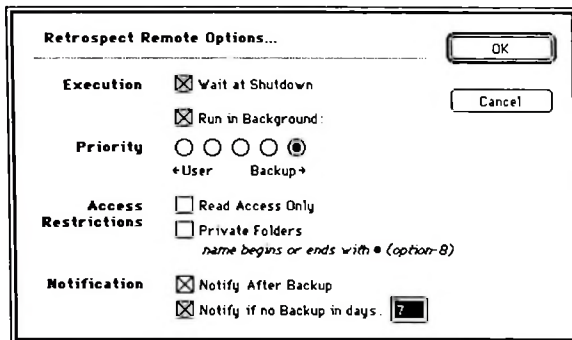
°Remote control panel

Remote Access allows you to deny the backup Macintosh access to your remote. Remote Access is automatically turned on when you install the °Remote control panel and restart the Remote Macintosh. When Remote Access is turned off, the data on the Remote Macintosh cannot be accessed over the network by Retrospect.



Tip: To permanently prevent access to the Remote Macintosh, remove the °Remote control panel from the System Folder and restart the Macintosh.

2. Click **Options** to display additional user options for managing Remote operations (shown below).



°Remote Control Panel Options

Execution options

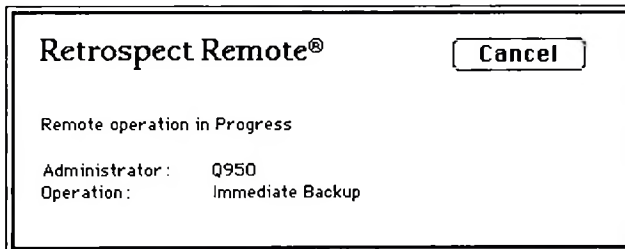
The Execution options allow Remote users to control how Retrospect interacts with the Remote computer.

Wait at Shutdown determines what happens when a Remote user chooses Shut Down from the Finder's Special menu. When this option is selected and Shut Down is chosen, the "Wait at Shutdown" window is displayed until the backup takes place. By default, this option is selected.



Wait at Shutdown window

Run in Background allows the Backup Macintosh to perform the backup while the user is working at the Remote Macintosh. If the option is deselected, a dialog box appears when the Backup Macintosh initiates an operation on the Remote computer. When the dialog box appears, the user of the Remote Macintosh can cancel the network operation to continue working or wait until the operation is finished. When "Run in Background" is checked, the dialog box does not appear during backups, and the Remote user can set priority levels for local and Remote operations. See below for details.



Dialog box indicating network backup in progress

Priority option

The priority option allows the Remote user to prioritize processor time between foreground and background operations when "Run in Background" is checked. Click a button in the range between "User" and "Backup." If "User" is checked, foreground operations are given priority and network backups are slowed during keyboard and mouse activity. If "Backup" is checked, the backup operation is given priority and foreground operations are slowed down. The Priority setting is ignored if the Remote Macintosh is displaying the Wait at Shutdown screen.



Tip: *If you will be scheduling backups to occur when users are not around, give priority to backup. This results in faster backups.*

Access Restrictions options

These options allow the Remote user to control access to the files and folders on his or her Macintosh.

Read Access Only allows the Remote Macintosh to be backed up across the network, but prevents restores from the Backup Macintosh. In addition, the Retrospect options "Set Volume Backup Date," "Move Files," and "Synchronize Clock" cannot be used on the Remote.

Private Folders makes any folders or volumes designated as private unavailable to the Backup Macintosh. To designate a folder as private, type • (Option-8) at the beginning or end of the folder or volume name (placing it at the end will preserve its sort order in the Finder). For example, you could designate the folder "Personal" as private by renaming it "Personal•".

Notification options

These two options allow the Remote users to specify how they are informed about Retrospect network operations.

Notify after Backup directs Retrospect Remote to display a message as soon as the mouse is moved after a backup is complete. Clicking **OK** dismisses the message. By default, this option is selected.

Notify if no Backup in days directs Retrospect Remote to display a message at 9:00 am if the Remote Macintosh has not been backed up within the number of days specified in the entry box. By default, this option is selected.

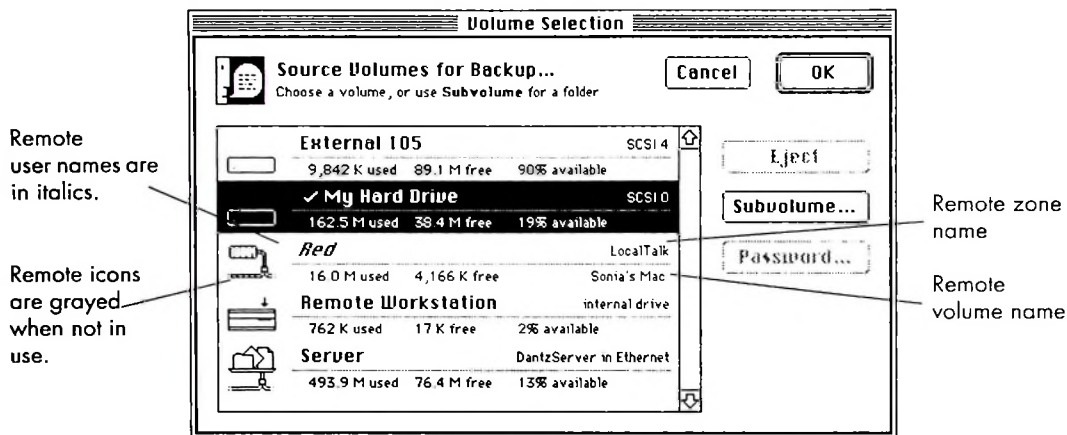
Backing Up & Restoring Remotes

After you have configured and logged in to your Remotes, you can back up and restore Remote volumes in the same way that you would volumes directly connected to your Macintosh.

For information on backup strategies, refer to Chapter 5, “Backup Strategies,” in the *Retrospect User's Guide*. In general, the same principles apply to network backups as apply to individual backups. However, it is important to take into consideration the conditions of the network. If you cannot back up the entire network in a single night, you may want to consider splitting the backup over several nights, or backing up only documents.

Backing up Remotes

When you start a backup, the Remote volumes will appear in the listing of source volumes available for backup (as shown below). You back up a Remote volume the same way that you would back up a volume directly connected to your Macintosh. For detailed instructions on performing a backup, see Chapter 3, “Performing an Immediate Backup,” in the *Retrospect User's Guide*.



Volume Selection window showing Remote volumes

Restoring a Remote volume

The following sections provide instructions for restoring a Remote volume over the network. You can restore an entire Remote volume or selected files and folders. To restore an AppleShare server or System 7 file sharing volume, see Appendix D, "Backing Up and Restoring Servers," in the *Retrospect User's Guide*.

There are three stages in restoring a Remote volume:

- Preparing the Remote volume for the restore
- Restoring files to the Remote volume
- Reconfiguring the Remote volume from the Backup Macintosh

Preparing the Remote volume for a restore

If you suspect that the Remote volume has failed because of media errors, reformat or erase the Remote volume before preparing the disk for the restore. Use the Macintosh Disk Tools disk or the formatting application provided with your hard disk to format the disk.



Note: Always make two separate backups with verification before formatting a hard disk.

Before you can restore the Remote volume, you need to start up the Remote Macintosh to which it is attached. Ideally, you should restart the Remote from an extra hard disk attached to the computer's SCSI port and designated as the Startup disk. If you have an extra hard disk, use this disk to restart the Remote volume.

If you don't have an extra hard disk, you have two options for starting the Remote Macintosh:

- For a Remote that can run system software version 6.0.x, start the Macintosh from the Remote Workstation disk provided with the Retrospect Remote product package. Even if you are restoring a volume that was running System 7, this is the best method for restoring.

Macintosh computers that can run System 6.0.x include all members of the Macintosh II family (excluding the Macintosh IIfx and IIfx), the Macintosh Plus, SE, SE/30, Classic, LC, Portable, and PowerBook 100.

- For a Remote that must run system software version 7.x, reinstall the system software on the disk to be restored, including any network extensions, and use this disk to restart the Remote.

Macintosh computers that require System 7.x include the Macintosh Quadra, the Macintosh IIfx and IIfx, Centris, Performa, Classic II, Color Classic, LCII, LCIII, and all PowerBook models other than the PowerBook 100.

To prepare a Remote Macintosh using System 6.0.x

1. Start the Remote Macintosh using a copy of the Remote Workstation disk.
2. Open the Chooser and verify that a User Name is entered for the Remote Macintosh.
3. Open the Remote control panel and verify that the status is "Waiting for Installation."

To prepare a Remote Macintosh using System 7.x

1. Install the System software and any required network software on the hard disk to be restored. You must include System 7 file sharing software in the installation. This will ensure that the Sharing Setup control panel will be available for setting the Macintosh Name in Step 3 below.

To install the System software, use the original System disks that came with your Macintosh. Refer to the *Macintosh User's Guide* for additional information.



Note: To maintain System 7 aliases, you must provide the hard disk with its original name.

2. Rename the newly installed System Folder "temp."
This avoids conflicts when restoring the original System Folder.
3. Open the Sharing Setup control panel and verify that the Remote Macintosh has a unique name. Enter a Macintosh Name.
4. Insert the Remote Workstation disk and copy the Remote control panel into the new System Folder called "temp."
5. Restart the Remote Macintosh.

Restoring files to the remote volume

Once the Remote Macintosh is prepared for the restore, you must perform the following operations:

- Reinstall the Remote Macintosh
- Restore files to the volume
- Uninstall the Remote Macintosh

To reinstall the Remote Macintosh

1. On the Backup Macintosh, start Retrospect.
2. Click the **Configure** icon in the Retrospect Directory.
3. Click **Remotes** to display the Remotes Database window.
If the Remote Macintosh you are restoring already appears in the Remotes Database window, make a note of its Activator Code, then click **Forget** to remove it from the window. Click **OK** when the confirmation request appears.
4. Click **Network** to display the Macintosh computers on the network.
5. Click the name of the Remote Macintosh you want to restore and click **Install**.
6. Enter an Activator Code to reinstall the Remote Macintosh for network backups. For more information, see Chapter 4 “Viewing and Modifying Remotes”.

To restore the remote volume

1. Perform the restore as you would for a volume attached directly to your Macintosh.

For more information, see Chapter 8, “Restoring” in the *Retrospect User's Guide*.

To uninstall the Remote Macintosh

1. Click the **Configure** icon in the Retrospect Directory.
2. Click **Remotes** to display the Remotes Database window. Click **Network** to see all known Remotes.
3. Select the Remote volume you just restored, and click **Uninstall**.
4. Click **OK** when the confirmation request appears.

After you have completed the procedures to restore the remote volume, rebuild the desktop on the Remote Macintosh by restarting the Remote, holding down Option-Command and waiting for the confirmation dialog box. If you do not rebuild the desktop, documents may be given generic icons. Discard the "temp" System Folder by dragging it to the Trash.

The final stage in the restoration of a Remote volume is to reconfigure the Remote Macintosh for Retrospect operation. Follow the steps described in "Configuring Remote Macintosh computers," in Chapter 4, "Viewing and Modifying Remotes."



Note: After restoring a Remote volume, you need to edit Retrospect scripts to include the newly restored volume.

Troubleshooting

This appendix answers the most commonly asked questions about Retrospect Remote. It also lists important error messages and provides instructions on how to proceed.

Questions and answers

How do I change the name of a Remote?

Answer: The Remote Macintosh is named when the Remote is first installed from the Backup Macintosh.

If a Remote has already been installed and you want to change the name, at the Backup Macintosh, click the **Configure** icon, then click **Remotes**. Double-click the Remote Macintosh to be renamed and choose **Rename** from the **Modify** popup menu. Enter a new name.

The name change will not affect previously backed up files—they are still stored under the old Remote name. New files and SnapShots will be stored under the new name.

What should I do if my Remote does not appear in the Remotes on Network window?

Answer: If you are trying to install a new Remote or login to an existing one, open the Remotes Database window and click the **Network** button. If the Remote you are looking for does not appear there, make sure that you are looking in the correct zone (if you have more than one zone on your network). Then make sure the Remote has the °Remote control panel installed on it. Open the °Remote control panel on the Remote Macintosh and check that it says “Ready” or “Waiting for Installation.” If you do not see one of these messages, follow the instructions provided in “°Remote INIT not loaded at system startup,” later in this appendix.

Next, make sure that the Remotes Database window does not show a Remote with exactly the same name as the Remote you are looking for. If it does, select this Remote and click **Forget**. You will now be able to login or activate the Remote in the Remotes on Network window.

How can I prevent the “Wait at Shutdown” window from appearing on Remotes on nights when no backup is scheduled?

Answer: The °Remote control panel has no way of knowing when a backup is scheduled to occur, so it always waits at shutdown if this option is turned on in the °Remote control panel Options window. There are three ways to get around this if you do not perform backups every night:

- Schedule a script using the “No Files” selector to run on nights when no backup is scheduled. This will shut down all Macintosh computers on those nights.
- Tell users which days they should click the **Shut Down** button in the Waiting for Backup dialog box when they leave for the day.
- Turn off the “Wait at Shutdown” option in the °Remote control panel on each user’s Macintosh. Tell your users which nights to leave their Macintosh computers on. Remind them to turn the screen down or off to prevent screen burn-in.

I forgot the Security Code for a Remote and need to login to it. What should I do?

Answer: From the Remote Macintosh, open the °Remote control panel and make a note of the Activator Code. Then drag the °Remote control panel to the Trash and reinstall a new copy from the Remote Workstation disk. Restart the Remote. From the Backup Macintosh, display the Remotes Database window, click **Network**, reinstall the Remote using the Activator Code you noted earlier, and enter a Security Code. Then edit any existing scripts that include this Remote.

Why do my Remotes fail to shut down after the backup is complete?

Answer: Remotes will only shut down if all of the following conditions are true:

- The “Shutdown when Done” Remote option is selected in your script.
For information about changing options, see “Setting execution options” in Chapter 6, “Customizing Backups” in the *Retrospect User’s Guide*.
- The Remote Macintosh is displaying the Wait at Shutdown window.
- The Remote is not scheduled for another backup within the next twelve hours.
- The Remote is the type of Macintosh that automatically powers off when you choose **Shut Down** from the **Special** menu in the Finder.

How can I reuse an Activator Code from a Macintosh that I’m no longer backing up?

Answer: You need to uninstall the Remote Macintosh that you are no longer backing up. To do this, click the **Configure** icon in the Retrospect Directory, then click **Remotes**. Next, click **Network**, select the Remote that you are no longer backing up, write down the Activator Code, and click **Uninstall**. You can now reuse the Activator Code for another Remote. If the Macintosh does not show in the Remotes on Network window, select it in the Remotes Database Window and click **Forget**.

I want to make a Macintosh in a different zone the Backup Macintosh. What should I do?

Answer: First, copy the Retrospect folder from the previous Backup Macintosh to the new Backup Macintosh. The Retrospect folder is located in the System Folder (System 6) or the Preferences folder (System 7). Next, make sure all Remote computers are turned on, then start Retrospect on the new Backup Macintosh. Click the **Configure** icon, then click **Remotes**. In the Remotes Database window, click **Network**. From the **Zone** popup menu, choose the zone for the previous Backup Macintosh, then choose the zone for the new Backup Macintosh. This allows Retrospect to update the Remotes Database. If you wish to continue using the same StorageSets, be sure to transfer their Catalog files to the new Backup Macintosh.

A Remote Macintosh has been moved to a different zone. What should I do?

Answer: On the Backup Macintosh, start Retrospect. Then, click the **Configure** icon in the Directory window, click **Remotes**, and click **Network**. From the **Zone** popup menu, choose the zone where the Remote Macintosh is now located. Perform this last step for each zone that contains a Remote that has been moved. The Remote Macintosh must be turned on when you do this.

How many Remote Macintoshes can I back up from a single Backup Macintosh?

Answer: Although there is no hard limit to the number of Remotes you can access from one Backup Macintosh, we recommend backing up no more than 50 Remotes to keep the task manageable. If you need to back up more Remotes, use more than one Backup Macintosh.

How can I back up PowerBooks that are often out of the office?

Answer: Two proven strategies are described below. For both strategies, you need to configure the PowerBook as a Remote and get cooperation with the PowerBook's owner.

- Include the PowerBook in your regular evening backup scripts. Have the owner leave the PowerBook at the office periodically and specify "Don't sleep when plugged in" in the PowerBook control panel options. The advantage of this method is that it requires little extra effort; the backup scripts can be easily modified to include the PowerBook. The disadvantage is that an error -1,028 will appear in the log each time the PowerBook is not present.
- Schedule a PowerBook-only backup that takes place during the work day, and have the PowerBook owner leave the PowerBook at the office during the day. The advantage of this method is that it doesn't generate errors in your regular scripts. The disadvantage is that backing up during the day can slow down your network.

What should I do if the volume I want to back up doesn't appear in the Volume Selection window, even though the Remote appears in the Remotes Database window?

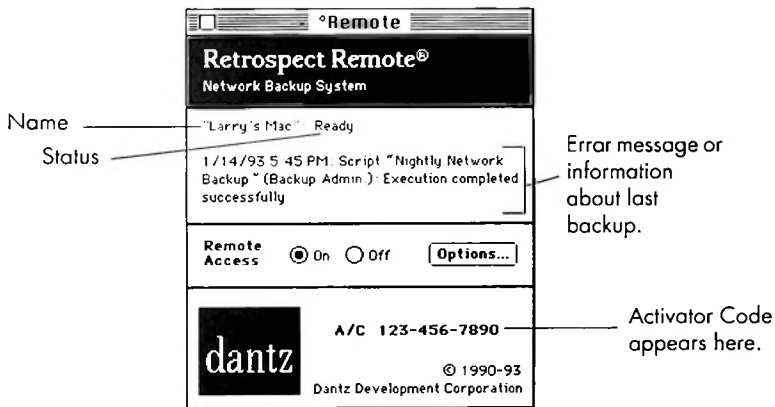
Answer: Go to the Remote Options window and select the volumes you want to use for Retrospect operations. By default, Retrospect only selects the startup volume when you configure a Remote. See "To modify the settings in the Remote Options window" on page 38 for details.

Error messages

When backing up over the network, errors can be generated either at the Remote Macintosh or the Backup Macintosh. In general, errors that are reported at the Remote Macintosh occur when the Remote control panel surveys the system and determines that Retrospect won't be able to back it up over the network.

Remote control panel error messages

The following error messages will appear in the Remote control panel, below the Remote user's name. When everything is set up normally, this area should say "Remote Name: Ready."



Remote control panel

°Remote INIT not loaded at system startup



Explanation: If this message appears by itself, there are four possible causes:

- You have not restarted the Remote Macintosh. Try restarting.
- In System 7, you held down the Shift key when you restarted the Backup Macintosh which prevented extensions from loading. Restart without holding down Shift.
- You have an extension manager program that specified that the °Remote control panel not be loaded.
- You have a conflict with one of your other control panels or system extensions. Rename the °Remote control panel by adding an "a" or a space at the beginning. Then try restarting again. This will cause it to appear near the top of the directory list. If this does not work, first remove all non-Apple items, verify that the °Remote control panel loads, and then add the other items back one at a time to determine the cause of the conflict.

If the message is followed by one of the following explanations, proceed as indicated:

Table A-1: °Remote control panel error messages

Message	Action/Comment
ROM or System Version too old	Check the Remote Macintosh. Minimum requirements are Macintosh Plus running System 6.0.5 or later.
AppleTalk version too old	If you are using a Macintosh Plus, use the AppleTalk file on your Remote Workstation disk. (This file is required for the Macintosh Plus only.)
AppleTalk turned off	Turn on AppleTalk in the Chooser and restart if necessary.
ADSP not installed	Install in your System Folder from the Remote Workstation disk and restart. (Applies to System 6 only. ADSP is built into System 7.)
No Chooser Name specified	For System 6, open the Chooser, provide a System name, and restart.
No Macintosh Name or Owner Name specified in sharing setup	For System 7, open the Sharing Setup control panel, provide an Owner Name and Macintosh Name, then restart. The Remote will use the Macintosh name if both are filled in.
Network Name conflict: "Name"	Another Remote on the network is already installed with this Chooser or Owner Name and Activator Code. Install a fresh copy of the °Remote control panel from the program disk on this Macintosh.
Mouse button held down	Holding down the mouse button during startup inactivates the control panel.
Doesn't run under A/UX	The °Remote control panel does not run under A/UX.

Detail Log Error messages

The following messages appear in the Detail Log of the Backup Macintosh.

Error -35/Error -53

Explanation: These errors mean that Retrospect cannot find a volume when it is time to perform a backup.

What to do: Make sure the volume is actually connected to the Remote Macintosh and that it is mounted on the Desktop. If it is, click the **Immediate** icon in the Retrospect Directory, then click **View** to scan the volume and display the Browser.

If Retrospect is able to scan the volume, the original error will probably not occur again. If the scan encounters the same error, click the **Immediate** icon in the Retrospect Directory, click **View**, then select the Remote volume and click **Forget**. Next, click the **Configure** icon and select **Remotes**. Select the Remote you are working with in the Remotes database window and click **Options**. Select the volumes you wish to back up and click **OK**. If you have any scripts that back up this volume, edit the scripts to include this volume.

Error 503 (Remote turned off)

Explanation: The Remote was turned off by the user at the Remote Macintosh before the backup started. The Remote control panel will automatically turn on when that Remote Macintosh is restarted.

Error 505 (Remote reserved)

Explanation: This error occurs if the Remote Macintosh is in use by another Backup Macintosh. A Remote Macintosh may be backed up by only one Backup Macintosh at a time.

Error 506 (duplicate Activator Code)

Explanation: This error appears when you try to activate a Remote Macintosh using a code that is currently in use by another Remote on your network or by a Remote listed in the Remotes Database.

What to do: Find the Remote that is using this Activator Code by viewing Remotes in the Remotes Database window and the Remotes on Network window (see "Viewing and modifying configured Remotes" on page 36). To reuse an Activator Code, refer to the instructions described earlier in the "Questions and answers" section of this appendix.

Error 508 (access terminated)

Explanation: This error occurs if the Remote Macintosh user opens the "Remote control panel during a backup and clicks the "Off" button. When this occurs, the Backup Macintosh logs the error and moves on to the next Remote Macintosh.

Error 515 (piton protocol violation)

Explanation: This error occurs when Retrospect sees that its data is becoming corrupt while being transferred over the network. It is usually caused by a hardware failure.

What to do: Attempt to discover a pattern to these errors. If the problem occurs only on one Remote Macintosh, it is likely that there is a problem with the Remote's network connector or its connection to the network. If the problem happens on several Remotes with no coherent pattern, the problem may be with the Backup Macintosh's network card or connection, or with a gateway/router common to all network transactions.

Error 519 (network communication failed)

Explanation: Error 519 occurs when ADSP decides a connection has failed, which takes about 30 seconds without successful communication. This error can occur in the following situations:

- A user shuts down a Macintosh during the backup.
- The Remote Macintosh fails or is disconnected from the network during a backup.

What to do: Determine why the Remote Macintosh is failing or what part of the network communication link is failing (for example, a router, bridge, hub, or individual network connector). See the next item for help in determining if the problem is due to a software conflict.

- An extension or some other software on the Macintosh has broken the network connection.

What to do: Make sure that you are not using software applications that prevent communication, such as older versions of security or compression programs that are active during a backup. Try starting up the Macintosh with the "Remote control panel turned on, but all non-Apple extensions turned off.

- A communication problem on the network is making transactions unreliable.
What to do: A failed network connector on a Remote Macintosh will cause errors on that Remote Macintosh. To determine whether a failed network connector is causing the problem, try switching connectors with a nearby Macintosh that is not experiencing problems.

- A bad or failing hard disk is hanging the Remote Macintosh.
If the hard disk read light on the Remote Macintosh is stuck “on,” and not blinking, and the Remote Macintosh must be restarted before it will work, the Remote Macintosh has a failing hard disk or a bug in the hard disk’s firmware or software.

What to do: Update the hard disk drivers for the hard disk that is hanging to the latest driver version from the appropriate vendor. Then try running a disk-checking program.

- An old version of ADSP is in use on either the Backup or the Remote Macintosh.

What to do: Make sure all of your users are using ADSP version 1.5.1 or later. System 7 has a recent version built into it, so do not install the separate ADSP on computers using System 7.

Error 525 (name/login conflict)

Explanation: Usually this error appears when a user’s regular Remote control panel has been replaced by an uninstalled copy or replaced by a Remote control panel that was already installed on another Macintosh.

What to do: On the Backup Macintosh, click the **Configure** icon in the Retrospect Directory, and click **Remotes**. Then, select the Remote that is experiencing the problem (its status will indicate it is “Not Responding”). Write down the Activator Code for this Remote, and click **Forget**. Now, click **Network** and click the uninstalled Remote of the same name. Then, click **Install** to reinstall this Remote.

Error 527 (Remote was renamed)

Explanation: This error occurs when a backup administrator renames a Remote that is being accessed by another Backup Macintosh.

What to do: Make sure the Remote Macintosh is turned on. Click **Configure**, then **Remotes**. Select the Remote from the Database window and click **Options**. You will be asked to confirm the name change. Click **OK**. The name is updated in the Remotes Database and in all scripts.

Error -1028 (not visible on network)

Explanation: This error occurs when a Remote Macintosh is not registered on the network because it is turned off or disconnected from the network.

What to do: Check whether the Remote Macintosh is turned off or disconnected. Make sure that the Remote is not a Powerbook that has been put into “sleep” mode. If the Remote Macintosh is properly connected and this message still appears, verify that the Remote Macintosh has the most recent version of the Remote control panel installed. Follow the suggestions provided in the section on “Remote INIT not loaded at system startup,” earlier in this appendix.

Error -1277 (can't open connection)

Explanation: This error occurs if a Remote Macintosh is registered on the network but does not respond to the Backup Macintosh's attempts to communicate. This can happen in the following situations:

- The Remote Macintosh has failed.
- The Remote Macintosh is occupied with a CPU-intensive operation such as starting an application or formatting a hard disk.
- The Remote Macintosh is running an older version of security software that allows it to appear as available on the network but prevents the Remote Macintosh from opening a connection. Security software known to cause problems include old versions of Disklock and Empower.

Technical Support

Technical Support is available to help you—we will try to answer your questions as thoroughly as possible. If we don't have an answer we'll try to get back to you within a stated period of time.

As technical representatives we assume two roles—we're troubleshooters and teachers. If you're a seasoned pro, we'll try to answer your questions with as much technical proficiency as we can. If you're new to the Macintosh, don't be afraid to ask us questions that seem trivial. If we throw a term at you that you don't understand, please ask us for a clearer explanation. In any case, we'll try to make your time spent with us a learning experience. We're here to help solve your problem, so don't be afraid to ask us for help.

What to do before you contact us

When you contact Technical Support, please have the following information available for us. It will help us to answer your questions and ensure that you receive efficient technical support.

- Have your original Retrospect and Retrospect Remote disks close at hand. Please note the version number that you are using and your registration number.
- Be prepared to describe your hardware and software setup as thoroughly as possible.
- At what point did the problem occur, and in what procedure?
- Were there any error messages? When did they occur in the backup procedure? Check the Detail Log and Backup Report and write down any error messages before contacting us.
- How repeatable is the problem? Does it occur every time you back up, sometimes, or did it just happen once?
- Does the problem only occur when you are using a specific type of backup media, such as tapes?
- Does the problem still occur if you run without extensions?

Ways to contact Technical Support

Contact Dantz Technical Support by telephone, fax, or mail at

Phone: 510.253.3050 (8 to 5 Pacific Time)

Fax: 510.253.9099

Dantz Development Corporation
4 Orinda Way, Building C
Orinda, CA 94563 USA

Network Services

You can also contact us via the following network services:

AppleLink ID: DANTZ.TECH (technical questions)

AppleLink ID: DANTZ (upgrade, registration, or change of address info)

CompuServe ID: 73367,2416

America Online ID: DANTZ

Internet ID: dantz.tech@applelink.apple.com

Log of your calls to Technical Support

The following is a log you can use to keep track of calls to Technical Support.

Table A-2: Log of calls to Technical support

Date	Technical Representative	Problem/Solution

Glossary

This glossary defines key terms used in this user's guide and describes how to use the symbols and buttons that appear in Retrospect windows.

Definition of terms

ADSP – (AppleTalk Data Stream Protocol) facilitates the transfer of large amounts of data over a network.

back up (v) – To *copy* files from your disk to a StorageSet, such as tape, another hard disk, floppy disks, etc. You should back up your files regularly in case something happens to your disk or any files.

Backup Macintosh – The network Macintosh that backs up all Remote Macintosh computers. The Backup Macintosh can be any Macintosh with backup devices attached that is running Retrospect. The Backup Macintosh does not need to be dedicated to Retrospect operations.

Destination – The storage medium to which files are being copied. When backing up, the Destination is the StorageSet media. When restoring, the Destination is your disk.

file server – A computer running file server software, allowing users to share information over a network.

Remote Macintosh – Any network Macintosh whose volumes are available for backup to the Backup Macintosh. This can be any Macintosh with the Remote extension installed. In this user's guide, Remote Macintoshes are often called "Remotes."

Remotes Database window – The window displaying the names of the Remotes that have the Remote control panel installed and are configured.

restore – Copies files from the StorageSet to a volume. You can restore all files that were on the volume at the time of the last backup (your current backup) or restore selected files from any previous backup session.

Retrospect folder – A folder automatically created within your System Folder or the Preferences folder that contains three files—Retro.Configuration, Retrospect Log, and Retro.Icon.Data. The Retro.Configuration file stores scripts, preferences, the Remotes Database, Selectors, and other program settings. The Retrospect Log is the Detail Log—a text file that can be opened by any text editor or word processing application. The Retro.Icon.Data file stores the type and creator database, and the creator and type codes for all scanned volumes. If you delete the Retrospect folder or its files, your customized information will be lost and the default configurations will be restored the next time you start Retrospect.

root – The highest level of folders in a data structure. When you double-click a Macintosh Desktop volume icon in the Finder, you see the root folders and files. In a Retrospect Browser, the root is the top folder in the window.

script – A saved backup procedure that you can schedule to run at some future date and time or on a repeating schedule, such as weekly.






Source – The Source disk or volume is the disk you are backing up. When you restore, the Source is the StorageSet from which you are copying files.

StorageSet – Called an Archive (n) in Retrospect 1.3. Retrospect stores all files in StorageSets. There are three types of StorageSets, depending on the StorageSet media you use—*Disks StorageSets* (for multiple ejectable HFS volumes), *Macintosh File StorageSets* (for a single HFS volume), and *Tapes StorageSets* (for non HFS media).

Subvolume – With Retrospect, a folder you designate as a volume for backup purposes. The folder appears in the Retrospect Source list, and is treated as a separate volume.

volume – Hard disk or floppy disk, a partition of a hard disk, a Subvolume, a file server, a Remote Macintosh, or any other data storage medium that can be used as a Retrospect source volume.

Definition of symbols

-  This symbol appears as the cursor when Retrospect is running unattended. To cause Retrospect to run interactively, choose Run Interactively from the Control menu, which appears while a backup is executing.
-  This cursor is used when Retrospect is performing an operation such as scanning, matching, or communicating with a Remote Macintosh.
-  This checkmark appears in a source window to indicate that a source is already selected for backup. You will see this checkmark if you have already selected sources and clicked on the Add button in a source window. It also appears in the Browser to indicate files that are marked for backup.
-  This symbol means that a volume, folder, or file is locked (read only).
-  This symbol indicates the startup volume on a Remote.

Index

A

- activating Remotes 25–31
- Activator Codes 8, 25, 28, 30
- ADSP file 24
- AppleShare 10, 20
- AppleTalk 7
- AppleTalk zone 27

B

- Backup 55
- backup device
 - capacity 15
 - choosing 15–18
- backup duration worksheet 19
- Backup Macintosh
 - choosing 20–21
 - moving 55
 - RAM requirements 21
 - system requirements 10
 - using a Desktop Macintosh 20
 - using an AppleShare 3.0 server 20
- backups 67
 - setting backup priority 46

C

- capacity of backup device 15–18
- Change Name option 39
- clock
 - synchronize 39
- compression 16
- Configure icon 25
- controlling
 - file access 46

D

- data redundancy 17
- deferring shutdown on Remotes 44, 54
- destination 67
- device capacity worksheet 17
- duration 19

E

- encryption 16
 - link encryption 39
- error messages 57–63
 - Error -35 60
 - Error -53 60
 - Error -1028 (not visible on network) 63
 - Error -1277 (can't open connection) 63
 - Error 503 (Remote turned off) 60
 - Error 505 (Remote reserved) 60
 - Error 506 (duplicate Activator Code) 60
 - Error 508 (access terminated) 61
 - Error 515 (piton protocol violation) 61
 - Error 519 (network communication failed) 61
 - Error 525 (name/login conflict) 62
 - Error 527 (Remote was renamed) 62
 - in Detail Log 60
 - Remote INIT not loaded at system startup 58
- estimating
 - backup duration 19
 - data compression 18
 - device capacity 17
- EtherTalk 7, 19

F

- file access
 - restricting 46
- file server 10, 67
- Forget button 36

G

- gateways 15
- Get Info command 40–42

I

- information
 - about previous backup 43
- installing
 - °Remote control panel 23–24

L

- Link Encryption option 39
- LocalTalk 7, 19

M

- memory requirements 10, 21
- Modify pop-up menu 39

N

- network backup guidelines 15–21
- Network button 26, 36
- Notify after Backup option 46
- Notify if no Backup in days 46

O

- Options button 38, 44

P

- PowerBooks 56
- previous backup
 - information about 43
- priority for remote backups 46
- Private Folders option 46
- product package, contents 8

R

- °Remote control panel 9
 - error messages 57–59
 - installing 23–24
 - not loading at startup 58
 - options 43–46
 - turning off 44
 - updating 31, 31–34
 - version 41
- RAM requirements 10, 21
- Read Access Only option 46
- Remote 10-Pack 8
- Remote 50-Pack 8
- Remote Access option 44
- Remotes 67
 - activating 25
 - changing name of 39, 53
 - denying access 44
 - failing to shut down 55
 - getting information 40–42
 - installing and configuring 23–34
 - maximum backed up 56
 - moved to different zone 56
 - not appearing 54
 - notifying Remote users 46
 - rename 39, 53
 - status 41
 - system requirements 10
 - updating 31–34
- Remotes Database window 26, 67
- Remotes on Network window 27, 54
- requirements
 - for Backup Macintosh 10, 21
 - for Remotes 10
- restore 68
- restricting
 - file access 46
- Retro.SCSI extension 21
- Retrospect Directory 25
- Retrospect folder 68
- reusing
 - Activator Codes 55

root directory 68
routers 15
Run in Background option 45

S

script 68
Security Code 29
 forgotten 54
selecting
 volumes 30, 40
server 10
 advantages as Backup Macintosh 20
Set Volume Backup Date option 46
Shut Down 44, 55
source 68
startup volume 29, 38
StorageSet 68
subvolume 68
symbols in Retrospect 69
Synchronize Clock option 39
system requirements 10

T

technical support 64–66
terms and conventions 13
TokenTalk 7

U

Uninstall button 38
Update Remote option 34, 39
updating
 Remotes 31–34
user name 28

V

volumes 68
 selecting 30, 40, 56
 uninstalling 38

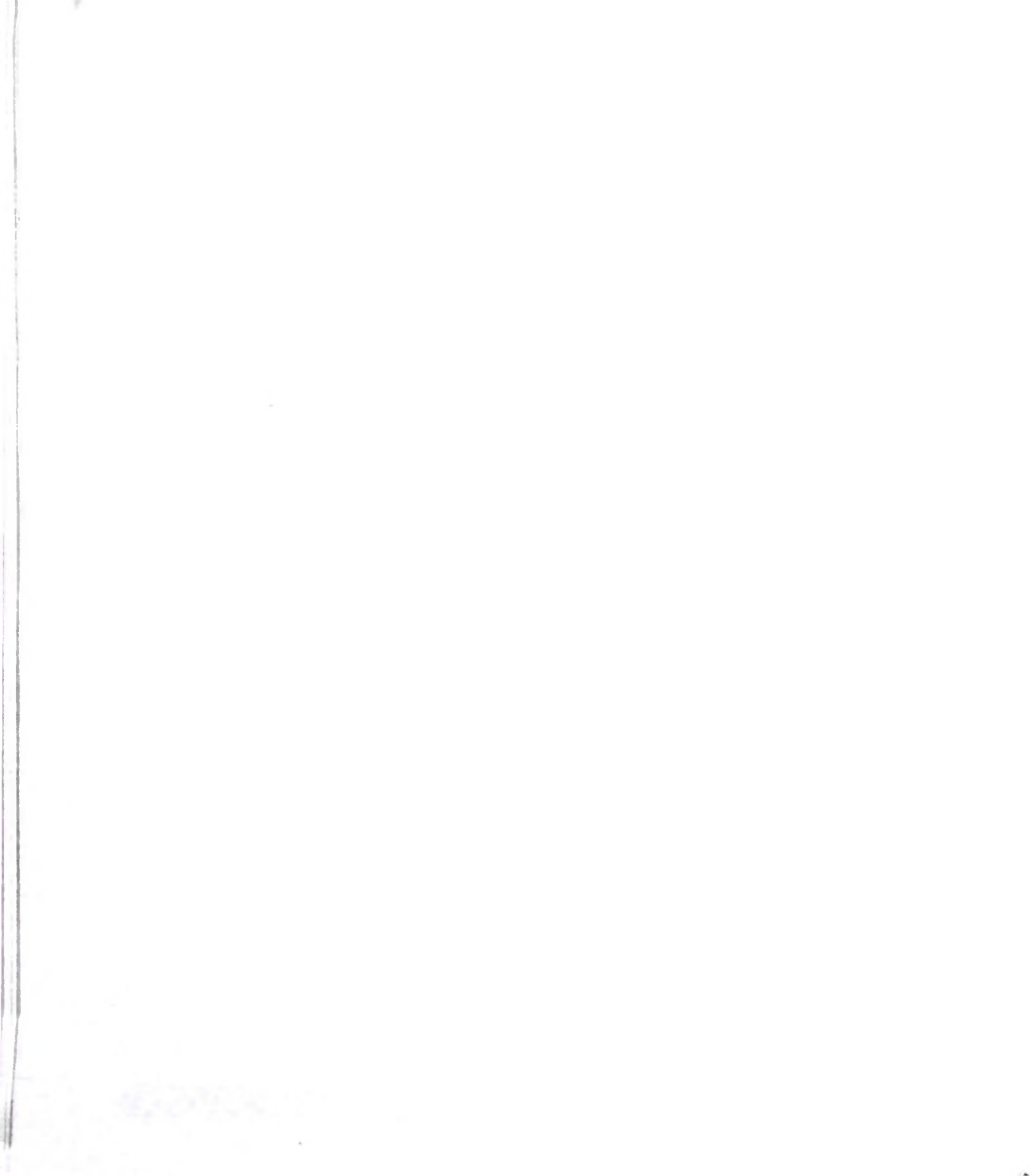
W

Wait at Shutdown option 44
Wait at Shutdown window

preventing 54
Worksheet
 Backup Duration 19
 Device capacity 17

Z

zone 27, see routers
Zone pop-up menu 37, 38



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Retrospect Remote™

Premier Network Backup Software for the Macintosh

Remote Control Why waste your valuable time worrying about your users' data and attempting recovery with disk repair tools? With Retrospect Remote, you can easily back up your Macintosh® plus 10 other Macintoshes on your network to the same storage device. Just drop a Remote INIT into the system folders of the 10 other Macintoshes and protect them with remote control—transparently, automatically, and overnight.

Fast

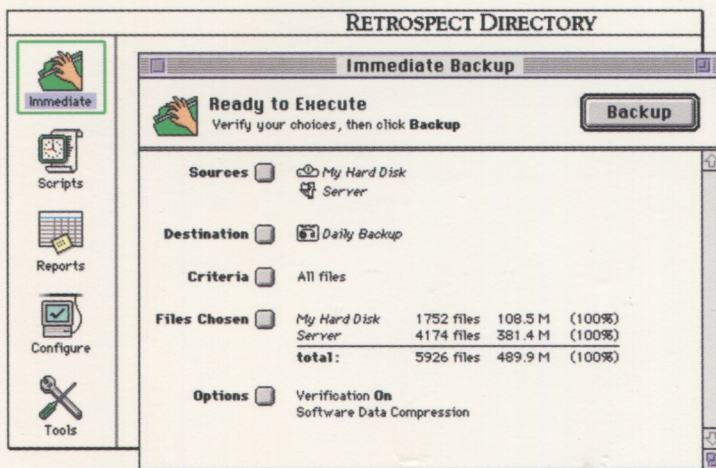
Retrospect's customized drivers and interleaved data flow operate SCSI storage devices 20% to 100% faster than other backup software.

Customizable

Create any number of scripts to customize your backups. Then, schedule the scripts so your backups can run automatically on any day and at any time.

Expandable

Add support for additional remote Macintoshes by purchasing optional Remote 10- or 50-Packs. If you already own Retrospect, buy a Remote10-Pack for full Retrospect Remote capability.



Secure

Retrospect Remote allows full security options at every point: the user's machine, the network, and the administrator's machine.

Reliable

Retrospect uses exclusive SnapShot™ technology to track the most recent state of each user's hard drive for fast, exact restores — even across the network.

Compatible

Retrospect Remote supports all Macintosh disk volumes and almost every SCSI tape drive ever made. (We guarantee it will work with yours — or your money back!)

Dantz provides a complete range of Macintosh backup products. **DiskFit Direct** Just the essentials of disk backup. Store files in Finder format. **DiskFit Pro** Use any desktop mountable media or server. Store files in Finder format. Schedule automatic, unattended backups. **Retrospect** Use any disk or tape drive. Compress files. Schedule automatic, unattended backups. **Remote 10-Pack** and **Remote 50-Pack** Add network backup to Retrospect or more Macintoshes to Retrospect Remote.

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