



SyQuest Utilities
Version 4.0.1

**User
Manual**



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Overview

Welcome

Welcome to the SyQuest Utilities Control Panel, a versatile cartridge **formatting** and **partitioning** utility for your SyQuest removable cartridge hard drive.

Using the SyQuest Utilities you can customize your drive settings to meet your individual needs. You can also use the SyQuest Utilities to divide your cartridge into separate volumes and prepare them for use on your Macintosh. As you use the SyQuest Utilities, your preferences are automatically saved to ensure your drive behaves just the way you like.

What is it?



The SyQuest Utilities provide the user interface for selecting SyQuest drives, customizing settings and graphically partitioning and formatting SyQuest cartridges. The SyQuest Utilities also include a highly efficient, state-of-the-art **device driver** tuned for maximum performance of your Macintosh computer with attached SyQuest drives.

The SyQuest Utilities will automatically load the device driver for your SyQuest drives when your Macintosh is starting up (with or without a cartridge in the drive). This device driver allows the volumes stored on your SyQuest cartridges to come and go from the desktop as cartridges are inserted and removed from the drive.

Major Features

- o **Customization.** Use the SyQuest Utilities to customize drive settings and optimize your drive for specialized applications.
- o **Ease of use.** The SyQuest Utilities conform to the standard Macintosh user interface guidelines, making them familiar and easy to use.
- o **Graphical partitioning and formatting.** Use the graphical partitioning window to simplify the process of dividing your cartridges into multiple volumes and preparing them for use on your Macintosh.
- o **Defect repair.** Use the verify process to identify and correct cartridge defects without needing to re-format your cartridge.
- o **Convert.** Recover space used to store hidden PC installation files and make it available for your Macintosh files (only available for *dual format* Starter cartridges).
- o **Device driver update.** There is no need to re-initialize your existing SyQuest cartridges just to take advantage of the latest version of the SyQuest Utilities device driver. You can use the SyQuest Utilities to update your device drivers without affecting the data stored on your cartridge.

System Requirements

The SyQuest Utilities are fully compatible with System 7.0 and above running on 68020 and PowerPC based Macintosh computers.

In addition, the SyQuest Utilities can be used with Apple's Classic **SCSI** manager or SCSI Manager 4.3.

The SyQuest Utilities will initialize and recognize cartridges in the HFS Standard and HFS Extended (when running Mac OS 8.1 and above) volume formats.

Assumptions

This manual assumes you are familiar with the operation of your Macintosh computer. This includes use of the mouse, selecting items from pull-down and pop-up menus. If you require additional information on any of these features, refer to the Getting Started guide that came with your computer.

In addition, it may help if you are familiar with commonly used hard disk terminology. In this manual these terms appear in ***bold italic***. The glossary at the end of this document defines these terms if you are not familiar with them.

Installation

The Package

How you obtained the SyQuest Utilities determines where you will find the following components. If you received the software when you purchased your SyQuest drive, the following components are located on the cartridge that came with your drive.

If you downloaded the software from the SyQuest web site, then these components are included in the archive you downloaded. Extract them to a folder on your hard disk prior to starting the installation.

In either case, you should have:

- o **The SyQuest Installer.** This component contains the SyQuest Utilities Control Panel. The installer will automatically copy the SyQuest Utilities to the “Control Panels” folder. In addition, if previous versions of Silverlining® or SCSI Probe are active in the “Control Panels” folder, these items are moved to the “Control Panels (Disabled)” folder.
- o **The User Manual.** An electronic copy of this manual is included in PDF format (this file). A PDF viewer (e.g., Adobe Acrobat® Reader) must be installed on your computer to view the manual.

- o **The Read Me File.** A Simple Text file that contains last minute product updates and Frequently Asked Questions. Be sure to read this file before installing the software.

Installing the SyQuest Utilities

The SyQuest Installer is a compressed archive containing the SyQuest Utilities software. Using the installer simplifies installing and uninstalling the SyQuest Utilities. The following sections describe installing from a cartridge, a floppy disk or the Internet.

NOTE: To prevent conflicts during the installation process, it is recommended that you start your computer with system extensions disabled. To disable extensions, hold down the shift key as your computer is starting up.

Preparing to Install from a Cartridge

If you have just purchased a SyQuest drive, a cartridge was included with your drive. This cartridge contains the SyQuest Installer. You may install the SyQuest Utilities directly from your cartridge using the following steps:

1. Connect your SyQuest drive to your computer as directed in the installation documentation that came with your drive.
2. Power on your drive and firmly insert the included cartridge, pressing in and down on the cartridge tab until it clicks into place. Wait for the drive to become ready. For more information on this process, refer to the installation documentation or SyQuest User Guide.



When the drive is ready, power on your computer. From the Finder, locate the cartridge on the desktop and double click it to open the installation folder.

Preparing to Install from a Floppy



From the Finder, insert the SyQuest Utilities installation diskette. A floppy disk icon should appear on the desktop. Double click it to open the installation folder.

Preparing to Install from the Web Site

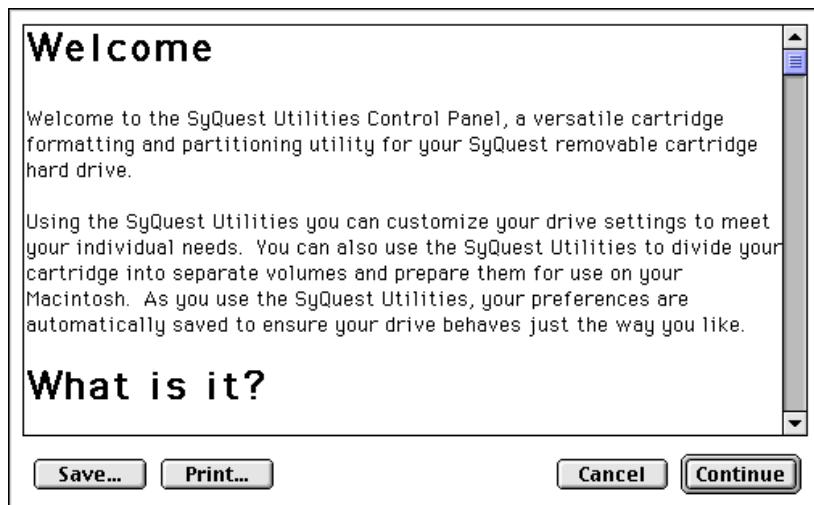
Create a folder on your hard drive to store the SyQuest installation files. Access the SyQuest web site at <http://www.syquest.com> and download the SyQuest Utilities archive to that folder. Use a decompression program (e.g., Stuffit) to extract the files from the archive in to the current folder. From the Finder, locate and open the SyQuest Utilities folder.

Installing the SyQuest Utilities



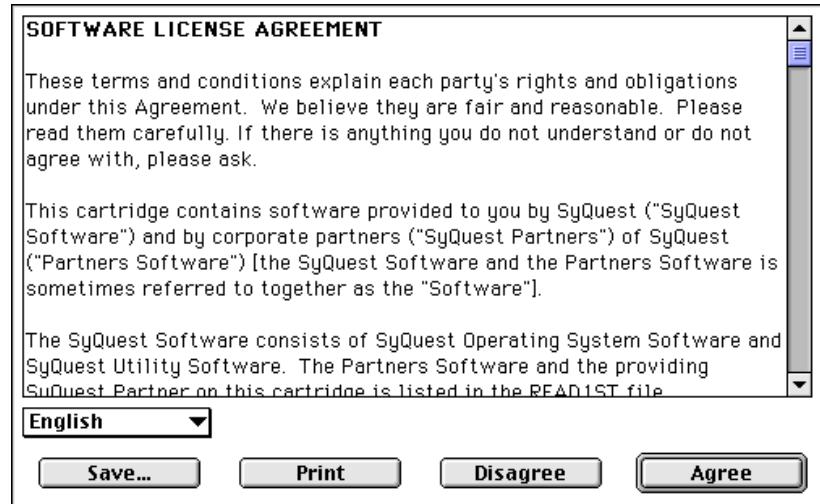
To install the new utility software, simply double-click on the “SyQuest Installer” located in the installation folder.

The Welcome dialog box presented by the installer contains a brief introduction to the SyQuest Utilities and a list of files included with the software.



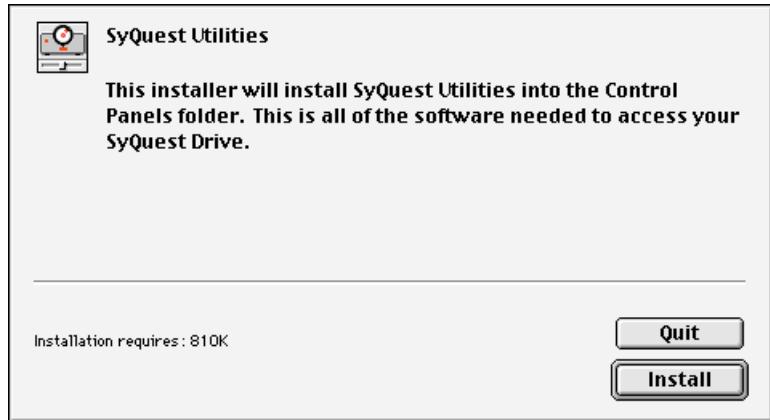
The contents of the dialog box may be printed or saved (although a simple text Read Me document containing all of this information and more is provided in the installation directory). To continue with the installation, click Continue. To exit the installer without modifying your system, click Cancel.

The next dialog box contains the SyQuest Software License Agreement.



You must agree to the terms of this agreement to install the software. Click Agree to continue the installation. Click Disagree to exit the installer without modifying your system.

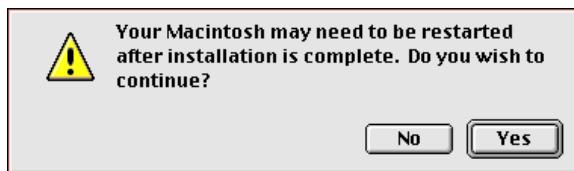
The following dialog box will start the installation process.



NOTE: The SyQuest Utilities are stored in the Control Panels folder.

This screen also identifies the amount of hard disk space that will be used by the software. Click Install to proceed with the installation.

After clicking Install, you will be notified that your system may need to be restarted after the installation is complete for the changes to take effect.



If there are other applications running, click No to exit the installer and exit these programs. When you are ready to proceed, click Yes to continue.

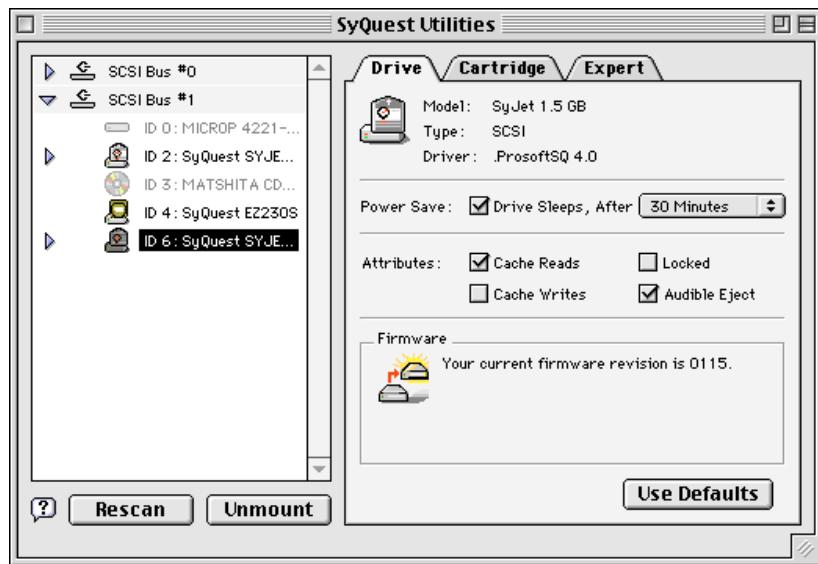
NOTE: If a version of Silverlining® or SCSI Probe is active in the “Control Panels” folder, it will be moved to the “Control Panels (Disabled)” folder on your system.

The Basics

At A Glance

The SyQuest Utilities were designed with the novice user in mind. The most common features are always at your fingertips. Most users will be able to start the SyQuest Utilities and quickly accomplish tasks without using any menu options.

The Main Window



The key features of the main window will be presented first. After you are comfortable with the layout of the SyQuest

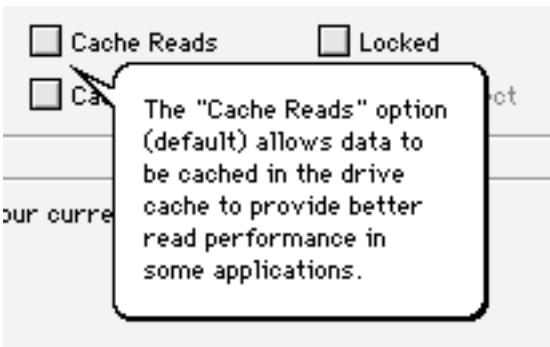
Utilities, skip to the section of the manual that describes the functions you wish to perform.

Most of the functionality of the SyQuest Utilities is confined to this single window. This window appears when you first start the SyQuest Utilities and remains as long as the utility is running. The window is divided into two main sections: a device selection list and a tabbed list of actions that can be taken for the selected drive. Each user interface feature is presented below with a picture and a description of its function.

The Help Button

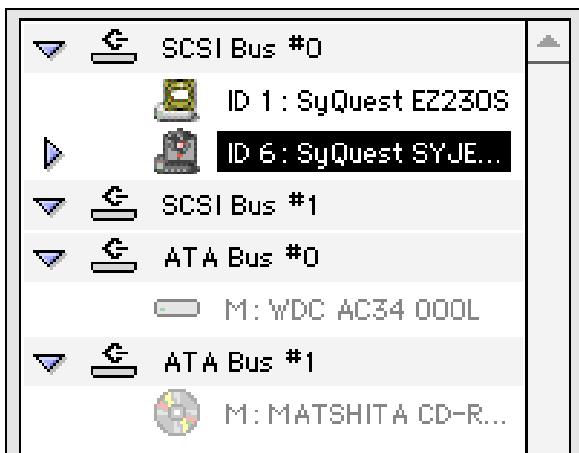


The help button (located in the lower left corner of the SyQuest Utilities window) turns on and off Balloon help. Balloon help provides online help for most elements of the user interface. With Balloon help active, you can point at any item of interest and view a detailed description of the feature. When done, click the help button again to turn off Balloon help.



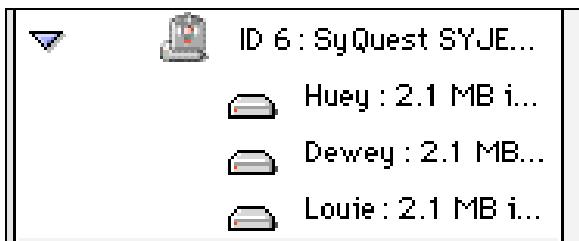
A sample balloon describing the “Cache Reads” attribute is shown above.

The Drive Selection List



The Drive Selection List on the left side of the SyQuest Utilities window lists all the SCSI and ATA busses and their attached devices. Each entry in the list corresponds to a SCSI or ATA device. The information presented includes an icon representing the device, the ***device identifier*** (or Device ID) and the manufacturer information for the device.

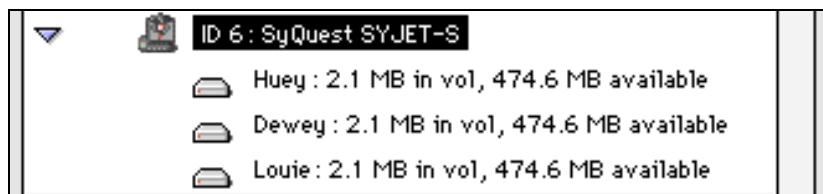
You can use the triangles to the left of an entry to show or hide additional information about the item. For instance, if you are not concerned about the devices on Bus 0, you can click once on the triangle next to bus 0 and those items will no longer be visible.



You can also click the triangle of a closed entry to display additional information. For example, to display the volumes mounted for any SyQuest cartridge, click the triangle next to any drive. The volume name, space used and available space are displayed for each mounted volume.



NOTE: By dragging the lower right corner of the window, you can stretch the window to display more information about the volumes in the list (as shown below).



Device Information

The right half of the window displays information about the selected SyQuest device. This includes information specific to the drive, the inserted cartridge and expert settings that control the SyQuest Utilities device driver. By clicking the appropriate tab, the indicated information is displayed.



NOTE: The tabs are functional only when a SyQuest drive is highlighted in the Drive Selection List.

The Drive Tab



This section contains drive-specific features and information. The Drive panel becomes visible when the Drive tab is selected. Changes made while in the Drive panel are saved

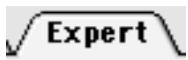
either by the drive itself or in the SyQuest Utilities' preference file. Since these options are specific to the drive, they are in effect for any cartridge inserted into the drive.

The Cartridge Tab



This section contains cartridge-specific features and information. The Cartridge panel becomes visible when the Cartridge tab is selected. Changes made while in the Cartridge panel are saved to the cartridge and are automatically in effect each time that specific cartridge is inserted into the drive.

The Expert Tab



This section contains options for the advanced user. Typically, these options are used to control the performance and fundamental cartridge-handling characteristics of the drive. The Expert panel becomes visible when the Expert tab is selected. The Expert panel settings are stored in the SyQuest Utilities' preference file. Since these options are specific to the drive, they are in effect for each cartridge inserted into the drive.

Other Features

The remaining features of the main window, including the "Rescan", "Unmount", and "Use Defaults" buttons are discussed in detail in The Interface chapter.

Quick Start

If you have previously used another software product to manage your SyQuest cartridges, it is recommended that you make a *backup* of that data before using these cartridges with the SyQuest Utilities.

Refer to the manuals shipped with your system for information about how to back-up your files and how to restore them in the event of a problem.

IMPORTANT

Before continuing, make sure that each SCSI device on a bus has been assigned a unique SCSI ID. See the documentation that came with your SCSI devices to determine how to set the SCSI IDs for your devices.

It is also important to properly *terminate* the *SCSI chain*. You must have a terminator at the beginning and at the end of the SCSI chain. See your Macintosh or SyQuest drive User Guide if you require additional information.

Starting the SyQuest Utilities

To use the SyQuest Utilities, they must be installed on your hard drive as described in the Installation chapter of this manual.



To start the utility program, select Control Panels from the Apple menu. From the Control Panels folder, locate and select the SyQuest Utilities.

This section will help you quickly prepare your cartridges for use with your Macintosh. To begin, locate and select the SyQuest drive you want to work with in the Drive Selection List. If you are unable to locate your SyQuest drive, please refer to the Frequently Asked Questions section of the Read Me file.

NOTE: You will not be able to prepare this cartridge if it contains the startup volume, open files or running applications,

is locked, is password protected (using a third party utility), or is shared via FileSharing.



Select the Cartridge tab and follow the instructions in the following sections to prepare your cartridge for use by the Macintosh.

Updating Existing Cartridges

Although we recommend using the latest SyQuest device drivers to obtain the maximum performance from your SyQuest products, it is not necessary for you to update the device driver in order to use your cartridge.

If you choose not to update your device drivers, we recommend starting your computer with the SyQuest drive powered on, but no cartridge inserted in the drive. Only insert a cartridge after your computer has started (i.e. the Finder's menu bar has appeared on your screen).

WARNING: It is recommended that you have a current backup of your cartridge before proceeding with the device driver update. Although great effort was expended to ensure that you can update your cartridge without data loss, software errors can occur that may result in the destruction of data on your cartridge.

To update the device driver while preserving the existing files on your cartridge, follow these steps:

With the Cartridge panel selected, press the Option key to display the Update button. This button will appear in the Prepare section of the panel. While holding the Option key, click the Update button to start the operation.



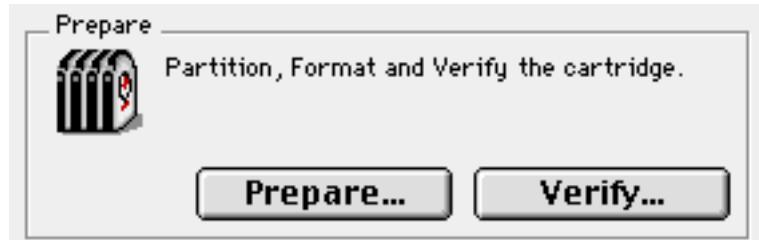
This procedure will close any existing device driver currently accessing your SyQuest cartridge and replace it with the new SyQuest Utilities device driver.

Unmount

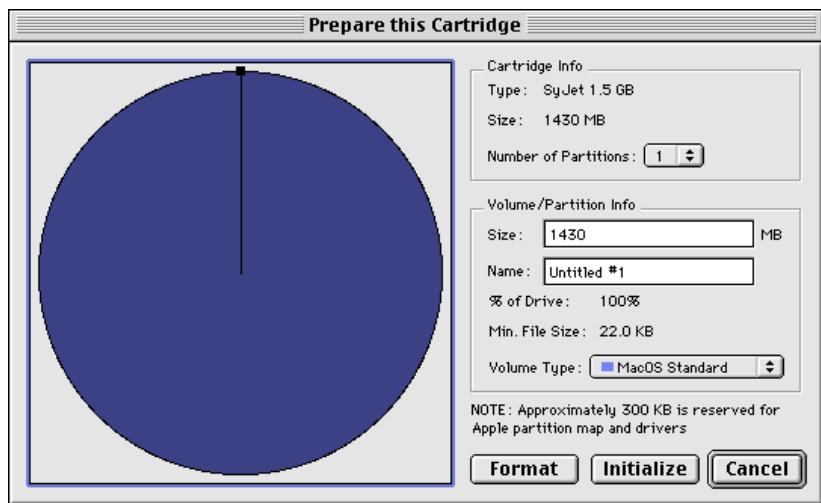
If you have additional cartridges to update, you can use the Unmount button below the Drive Selection List to eject the current cartridge, and insert another.

Preparing New Cartridges

To use new cartridges (or erase data from existing cartridges), you must prepare them for use. There are two ways to prepare your cartridge: format and initialize. Both are available by clicking Prepare on the Cartridge panel.



The Format/Initialize This Disk screen offers three functions: partition, format and initialize. Each is briefly described in the following section.

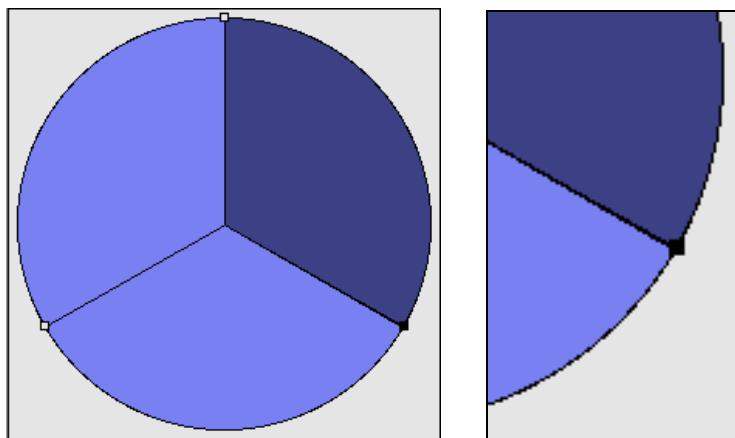


Partitioning

Whether formatting or initializing, the SyQuest Utilities enable you to create multiple partitions. Partitions are the computer's way of dividing a large capacity cartridge into smaller sections, each appearing as a separate volume. Partitioning makes it possible to have more than one operating system on a single cartridge or to divide a cartridge that is too large to be a single volume into smaller pieces. Up to eight partitions can be created on a cartridge, although a typical user will prepare their cartridge using a single partition (which is the default for the dialog box).

Number of Partitions:

By default, the total space available on the cartridge is divided evenly between the selected number of partitions. If you would like to modify this arrangement, click any partition in the pie (its color will darken to indicate it is now selected).



Once a partition is selected, the size may be modified by grabbing and dragging the square black handle at the edge of the pie, or by typing a new value in the Size field.

Size: MB

NOTE: If a value larger than the free space remaining on the cartridge is entered, the SyQuest Utilities will automatically set the value equal to the free space available for the cartridge.

Each partition on the cartridge has a name that the Finder uses when displaying the volume on the desktop. By default, the name 'Untitled' and the partition number will be used (e.g., 'Untitled #1') to identify the volume. If a name is not provided, the SyQuest Utilities will create a name using the cartridge type and capacity (e.g., SyJet 1.5 GB).

Name:

Like the size, a different volume type can be specified for each partition. The SyQuest Utilities can prepare the volume using

either the Mac OS Standard or Mac OS Extended volume format. This selection is made using the Volume Type pop-up.



NOTE: A Mac OS Extended partition can only be created and recognized on systems running Mac OS 8.1 or later.

Formatting

Formatting a cartridge organizes its internal structures to accommodate data storage of any kind. All cartridges need to be formatted, but most are formatted at the factory. You will probably never need to format any of your cartridges; however, there are two advantages to doing so.

- o **Secure Erase.** All data on the cartridge is completely erased and can never be recovered. If you have sensitive files on your cartridge that you want to erase, there is no more secure way to do that than a low level format. Unfortunately, formatting is not selective. You cannot choose which files to erase; the entire cartridge is erased.
- o **Correcting cartridge flaws.** During the course of a format, the cartridge is scrutinized carefully by your drive. Any defects found on the cartridge are repaired. If you have reason to believe that there are bad sections on your cartridge that should be repaired, the best way to proceed may be a format operation.

WARNING: Format is an irreversible action that should *only* be performed if the data on the cartridge has been backed up.

The time required to format a cartridge will vary based on the capacity of the cartridge. The following chart may be useful to

estimate the time required. The times listed are approximate, and may vary.

Cartridge Type and Capacity	Duration (hours:minutes)
SQ400 44 MB	0:03
SQ800 88 MB	0:05
SQ2000 200 MB	0:04
SQ3270 270 MB	0:05
EZFlyer 135 MB	0:05
EZFlyer 230 MB	0:07
SyJet 1.5 GB	0:20

Format

To start formatting the cartridge, click the Format button.

Initializing

Although this process also erases the files on your cartridge, it does not perform the elaborate cartridge scan and problem detection done by a format operation. However, since it is less complex, it completes much more quickly than a format.

WARNING: Initialize is an irreversible action that should *only* be performed if the data on the cartridge has been backed up.

Initialize

To start initializing the cartridge, click the Initialize button.

The Status Window

After clicking the Initialize or Format button and confirming that the operation will destroy any data stored on the cartridge, the status window is displayed. It will remain on the screen

until the operation is complete and the new volumes are ready for use.



NOTE: On some older Macintosh computers, the animated barber pole may not be present. This is an indication that your computer cannot be used to perform other operations until the current process is complete.

The Interface

A Guided Tour

The following sections contain a detailed discussion of the options available in the SyQuest Utilities. Refer to this section to quickly find information about a function that interests you.

The Menu Bar



After starting the SyQuest Utilities, a menu bar is present at the top of the screen. The menus provide an alternate method of accessing the utility features or access to infrequently used options.

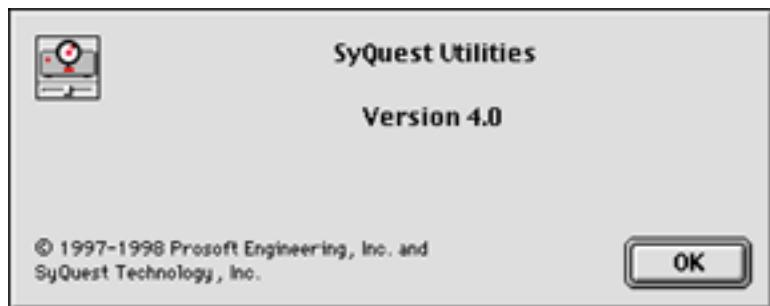
As with other Macintosh applications, short cuts can be used to access some menu items using the keyboard. If an item has a keyboard shortcut, it will be listed to the right of the item on the menu.

The Apple Menu

The Apple menu contains any desk accessories that you currently have installed in your System folder. The Control Panels folder is available from the Apple menu.

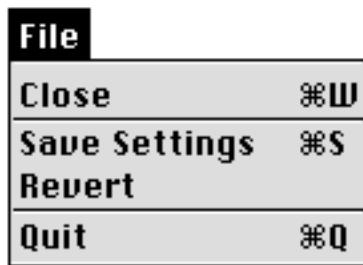


In addition, when the SyQuest Utilities are running, the first item on the Apple menu will provide information about the software. If you ever need to determine the version number of the software, it can be found in the About dialog box.



The File Menu

The File menu provides options to manage application data and quit the program. A detailed description of the menu items is provided below.

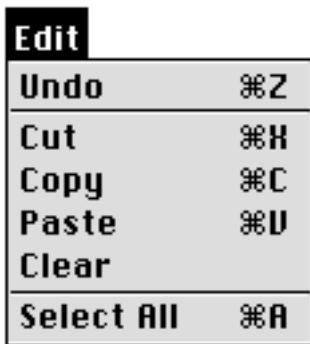


- o **Close.** This item closes the topmost opened window.

- o **Save Settings.** This item saves any changes to any settings you make from within the application. The save operation may update data in the preference file, on the drive, or on the cartridge.
- o **Revert.** This item restores all settings to their previously saved state. It can be used to undo accidental modification of settings. This option is not the same as the “Use Defaults” button that appears in the interface. More information will be provided on the utility defaults in a later section.
- o **Quit.** This item allows you to quit the SyQuest Utilities and return to the Finder.

The Edit Menu

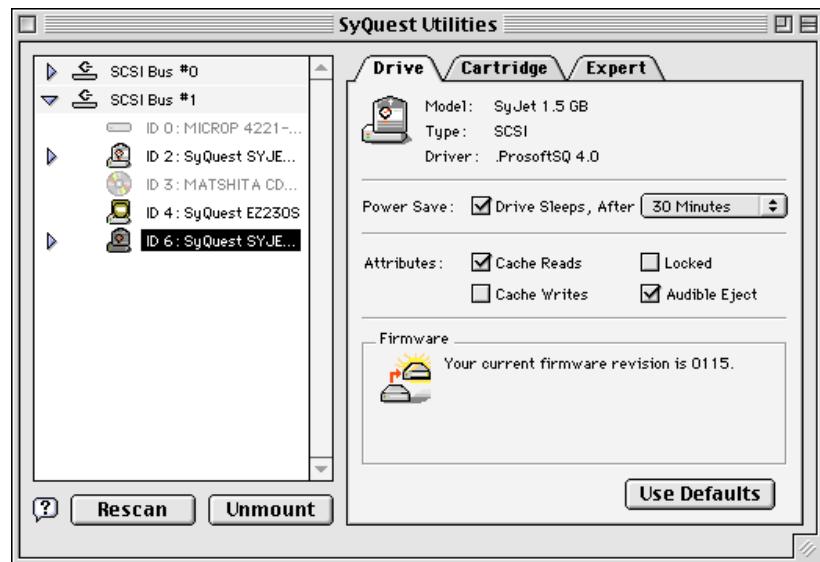
The Edit menu offers the standard editing commands. These standard editing items are not used by the SyQuest Utilities, but may be used by a desk accessory.



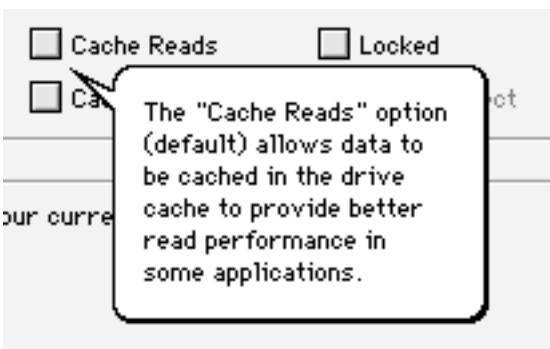
The Windows

This section of the documentation takes you through each of the SyQuest Utilities functions, explaining each of the user interface elements and their uses.

The Main Window

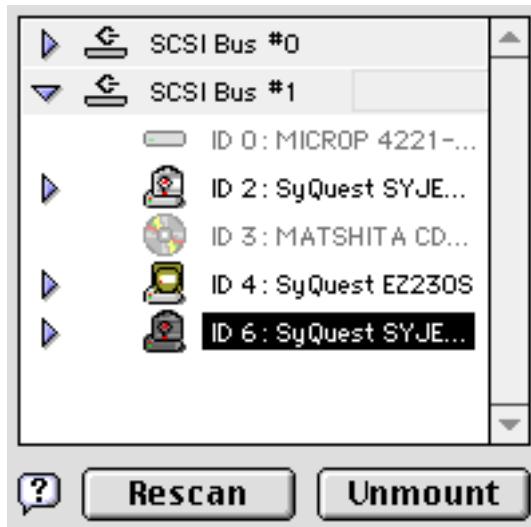


Use this section of the manual as a reference; skip to the section that describes the functions you wish to perform. Remember, while in the utility, you can always click the help button to view a description of the feature pointed to by the mouse.



A sample balloon describing the “Cache Reads” attribute is shown above.

The Drive Selection Area



The Drive Selection List

The Drive Selection List fills the majority of the drive selection area. It lists all the SCSI and ATA busses in the system and their attached devices. The information presented includes an

icon representing the device, the device identifier (or Device ID) and the manufacturer information for the device.

You can use the triangles to the left of an entry to show or hide additional information about the item. For instance, if you are not concerned about the devices on Bus 0, you can click once on the triangle next to bus 0 and those items will no longer be visible.

NOTE: Only SyQuest devices may be selected from the list. The rest of the user interface is unavailable until a SyQuest drive is selected.

The Rescan Button

Rescan

If a device does not automatically show up in the list when the utility is started, it may not be connected, powered on or properly configured. To resolve the problem, verify that the SyQuest drive is properly configured, connected to your Macintosh and powered on. For additional information, please refer to the Frequently Asked Questions section of the Read Me file, or the installation documentation that came with your SyQuest drive. After correcting the problem, you can click the "Rescan" button to refresh the list.

WARNING: You should never attach or remove a device from the computer while it is powered on. Doing so may result in damage to your computer or your SyQuest drive.

The Mount/Unmount Button

Mount

This button is located in the lower right corner of the drive selection area. If a selected drive has volumes that are not displayed on the desktop, the button will read Mount. Click the Mount button to display these additional volumes on the desktop.

Unmount

The button will read Unmount when either volumes stored on the selected drive are present on the desktop or when a volume is selected.

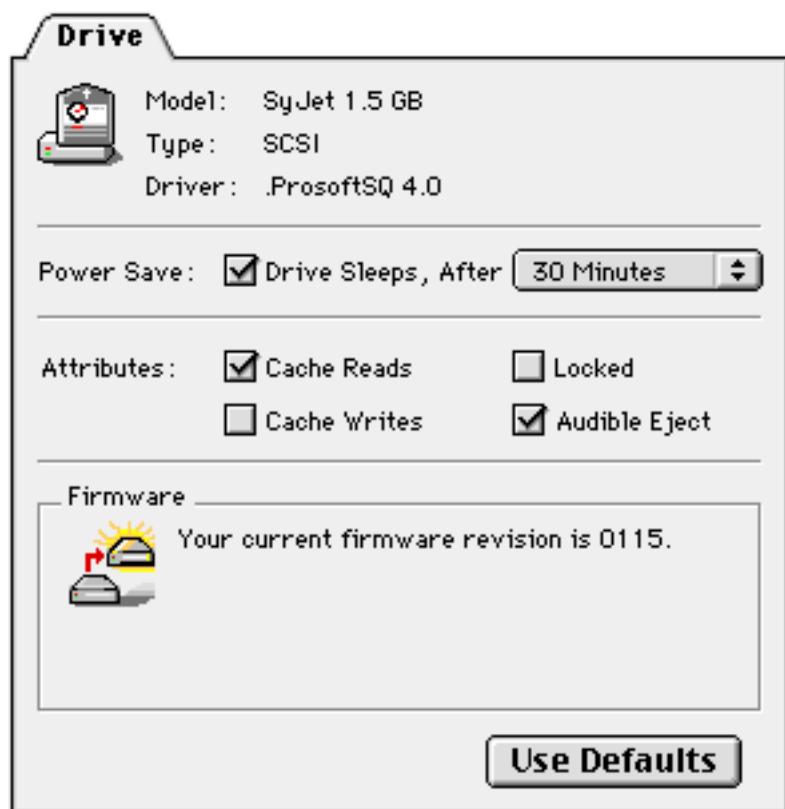
To remove a specific volume from the desktop, click on the triangle next to the drive to display the volume list. Select the volume to be removed, and click the Unmount button. If only one volume was displayed in this list, the cartridge will be ejected from the drive (if possible).

NOTE: Some older SyQuest drives (e.g., SQ5110, SQ5200, etc.) did not offer an automatic method for ejecting cartridges. These drives require an eject button to be pressed and an eject lever to be used to remove the cartridge from the drive.

To remove all volumes associated with the selected drive from the desktop and eject the cartridge (if possible), select the drive and click the Unmount button.

NOTE: If after selecting a drive, the button still reads Mount, not all of the volumes for the drive are currently mounted. To continue to Unmount the cartridge, press and hold the Option key. The button will change to read Unmount; click it to eject the cartridge from the drive (if possible).

The Drive Panel

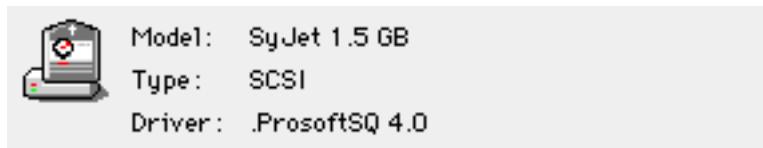


Each item on this panel represents a feature of the drive. If a drive is not selected in the drive list, this panel is disabled and cannot be selected. The Drive panel is divided into the following four sections.

NOTE: The features available will vary by drive model. Saving drive settings may require a cartridge to be inserted in the drive. If the options on this panel are unavailable even after selecting a drive, verify that a cartridge is properly inserted in the drive.

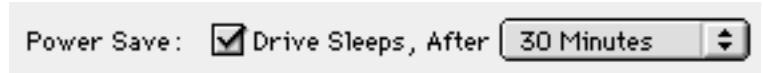
Drive Information

The drive information section identifies the drive model (e.g., SyJet 1.5 GB), the type of interface used by the drive (e.g., SCSI) and the name and version number of the device driver that is managing the drive. This information may be requested when communicating with SyQuest Technical Assistance.



Power Management

Some SyQuest drives offer an option to allow the drive to sleep when it is not used for a specified period of time. Power saving is enabled when the Drive Sleeps box is checked. Power Save is enabled by default, to reduce noise, energy consumption and wear-and-tear on the drive. The available sleep times will vary by drive model.



NOTE: The first access to a drive which has gone to sleep will take several seconds to complete. To prevent a drive from going to sleep, verify that the Drive Sleeps box is not checked.

Drive Attributes

This section identifies which drive attributes are currently enabled. In addition, an attribute may be modified by checking or unchecking the specific option. If changing an option could adversely affect drive performance, a warning is displayed. A detailed description of each attribute is presented below.



- o **Cache Reads.** When checked, the drive will attempt to make frequently accessed information available to the operating system without having to re-read it from the cartridge. This option substantially improves read performance of the drive. The default for this option is checked.
- o **Cache Writes.** When checked, the drive may indicate to the operating system that the data has been written to the cartridge before it has actually completed the operation. Doing so allows the computer to continue to perform other operations while the drive actually saves the data to the cartridge. While this option can result in performance gains, rare problems writing data to the cartridge could result in data loss. The default setting for this option is unchecked.
- o **Locked.** When checked, the drive will not permit changes to any cartridge inserted in the selected drive. To prevent this cartridge from being modified in any drive, see the Locked attribute on the Cartridge tab. The default setting for this option is unchecked.
- o **Audible Eject.** When checked, the drive will beep once when preparing to eject the cartridge and may also beep three times after the cartridge is ejected. The default setting for this option is checked.

Firmware Information

The current ***firmware*** revision used by the drive is displayed in this section. This information may be requested when communicating with SyQuest Technical Assistance.



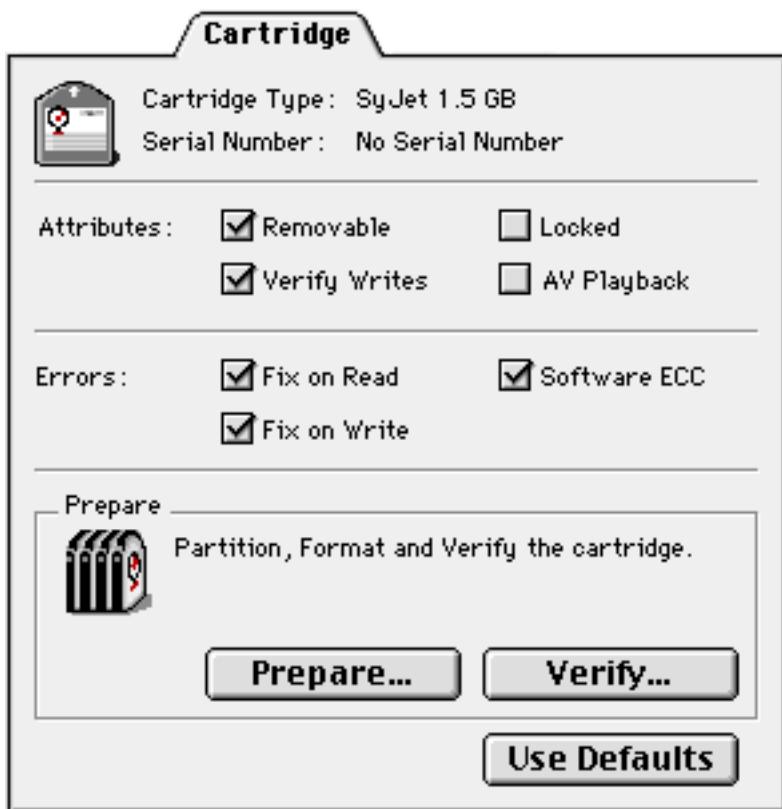
Drive Panel Defaults

Use Defaults

If you have made modifications to the settings on the Drive panel and wish to revert to the factory default settings, click the Use Defaults button.

NOTE: To revert to the previously saved settings (not necessarily the default settings), use the Revert option on the File menu.

The Cartridge Panel

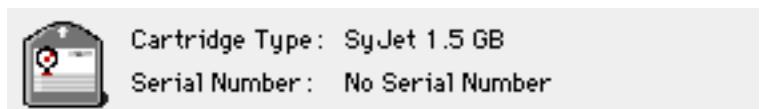


Each item on this panel represents a feature of the currently inserted cartridge. If a drive is not selected in the drive list or a cartridge is not inserted in the drive, this panel is disabled and cannot be selected. The Cartridge panel is divided into the following four sections.

NOTE: The features available will vary by drive model. If the options on this panel are unavailable even after selecting a drive, verify that a cartridge is properly inserted in the drive and the cartridge is not locked.

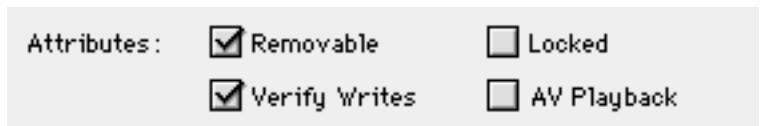
Cartridge Information

The cartridge information section identifies the cartridge type (e.g., SyJet), capacity (e.g., 1.5 GB) and the factory assigned serial number for the cartridge. If a serial number was not assigned to the cartridge, the text 'No Serial Number' will appear. This information may be requested when communicating with SyQuest Technical Assistance.



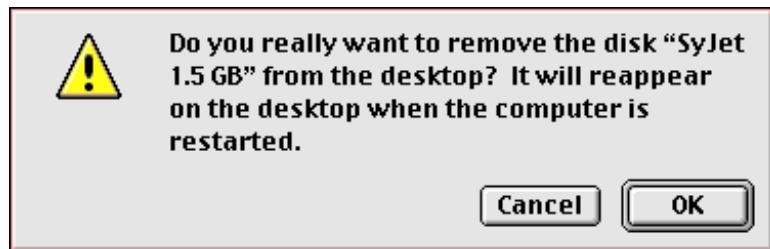
Cartridge Attributes

This section identifies which cartridge attributes are currently enabled. In addition, the attribute may be modified by checking or unchecking the specific option. If changing an option could adversely affect drive performance, a warning is displayed. A detailed description of each attribute is presented below.



- o **Removable.** When checked, the cartridge in the selected drive is treated as removable media. When the cartridge is removable, it may be ejected from the drive.

When unchecked, the cartridge in the selected drive is treated as a fixed hard disk. In this case the cartridge cannot be removed from the drive. If the volume is dragged to the trash, it will disappear from the desktop (until the machine is restarted), but not eject from the drive.



If you wish to eject the cartridge, the Removable box must be checked. The default for this option is checked.

- o **Verify Writes.** When checked, data written to the cartridge is validated against the original data before the write command is considered successful. This option offers protection against data loss. Although it can affect drive performance, it is recommended that you do not disable this function. The default for this option is checked.
- o **Locked.** When checked, the drive will not permit changes to the cartridge. Since this is an attribute of the cartridge, it will automatically be applied to this cartridge in any compatible drive. The default for this option is unchecked.

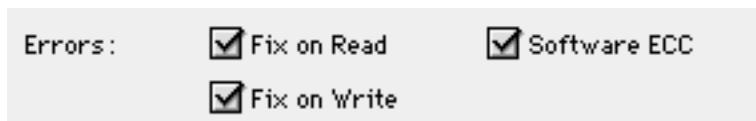
NOTE: The cartridge options are automatically disabled, if the cartridge inserted in the drive is locked. To modify the cartridge options, uncheck the Locked attribute and save the cartridge settings.

- o **AV Playback.** When checked, the drive will disable some error handling options, in an effort to improve drive performance. The default setting for this option is unchecked.

WARNING: This option should *only* be used to playback audio/visual data from the drive at a more consistent rate. Enabling this option may result in data errors being ignored by the drive. This option should not be checked when writing data to the cartridge.

Error Handling

SyQuest drives will automatically correct most cartridge errors encountered during the normal use of the drive. The following options allow you to fine tune the way the drive handles problems reading or writing to the cartridge. If changing an option could adversely affect drive performance, a warning is displayed. A detailed description of each option is presented below.



- o **Fix on Read.** When checked, the drive will automatically relocate data to another location on the cartridge when there is a ***correctable error*** reading data from the cartridge. The default for this option is checked.
- o **Fix on Write.** When checked, the drive will automatically relocate data to another location on the cartridge when there is a correctable error writing data to the cartridge. The default for this option is checked.

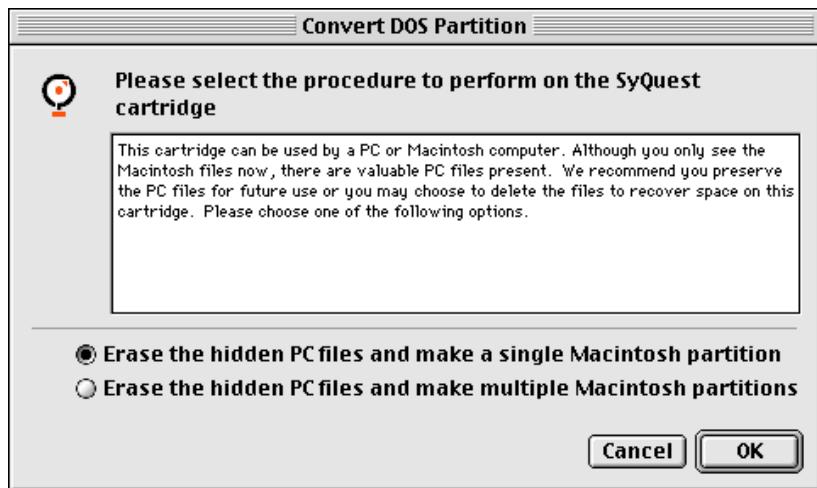
- o **Software ECC.** When checked, the drive will attempt to correct errors reading and writing from the cartridge using a mathematical formula and an *error correction code (ECC)* that is stored with the data. If the error can be corrected the data can be successfully read or written. If this option is unchecked, the same error would cause the operation to fail, and partial or incorrect data to be used. The default setting for this option is checked.

Convert Partition

Some SyQuest cartridges are prepared using a special dual format. A dual format cartridge contains Macintosh and PC files. If the cartridge won't ever be used on a PC computer, the space allocated for these files can be reused. The Convert button will appear in the Prepare section of the Cartridge tab *only* when a dual format cartridge is present in the selected drive.



Clicking the Convert button will display the Convert dialog box. This dialog box offers two options for recovering the space used by the hidden PC files.



- o **Erase the hidden PC files and make a single Macintosh partition.** The first option will combine the space used by the existing Macintosh volume with the space used by the PC files to form a single large volume.
- o **Erase the hidden PC files and make multiple Macintosh partitions.** The second option will convert the space used by the PC files into a new Macintosh volume.

In either case, the files stored on the existing Macintosh volume are not affected by the operation and the PC files are always erased.

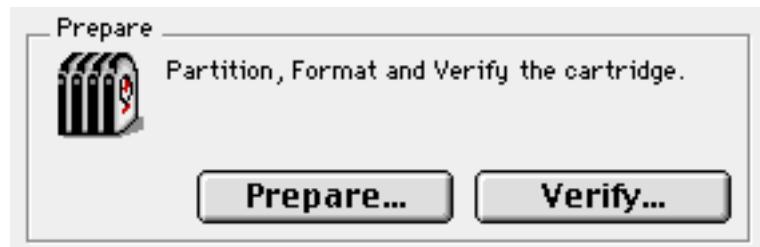
WARNING: It is not possible to backup the PC portion of the cartridge using your Macintosh computer or to recreate the dual format cartridge once it has been recovered.

NOTE: Depending on the version of the Mac OS your computer is running, combining the Macintosh and PC volumes may exceed the largest volume size understood by the operating system. In this event, the "Erase the hidden PC files

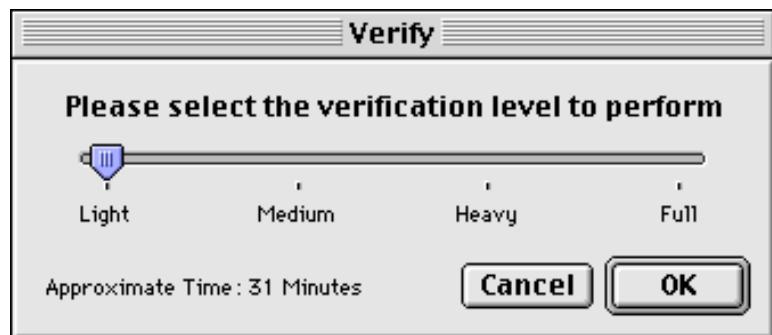
and make a single Macintosh partition" option will not be available.

Cartridge Verify

Over time cartridges can develop minor imperfections that may prevent reliable access to data stored in that location. Generally, the drive will detect these conditions before they become catastrophic and automatically move the data to a safer location. However, the drive will only perform this correction when it encounters a problem, during the normal use of the cartridge. If you wish to identify and correct all such problems anywhere on the cartridge, you need to scan the entire cartridge.



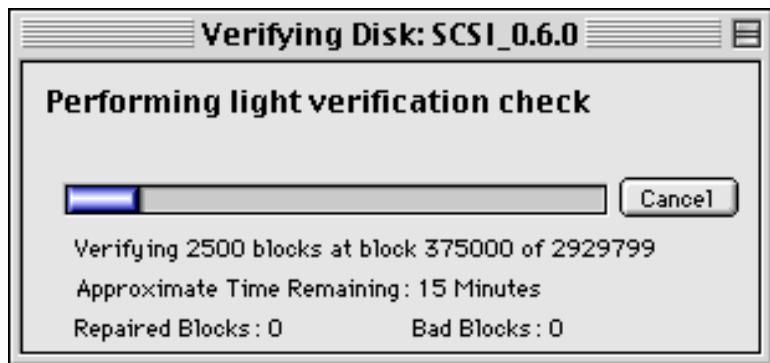
The Verify option on the Cartridge panel offers four methods of identifying and correcting problems with a cartridge.



- o **Light.** Light verification performs the fewest checks on the cartridge, but operates the fastest. If a quick check is all that is required (or time permits), this option should be used. It will attempt to verify each location on the cartridge and automatically fix any problems encountered. The data stored on the cartridge is not affected by this operation.
- o **Medium.** Medium verification performs more checks of the cartridge, and requires more time. A Medium Verify will attempt to read each location on the cartridge. This time, the drive is responsible for correcting problems encountered during the operation. The data stored on the cartridge is not affected by this operation.
- o **Heavy.** Heavy verification performs even more checks of the cartridge and requires more time. A Heavy Verify will attempt to read and write each location on the cartridge using a single pattern. The pattern used may cause marginal areas of the cartridge to fail, where previous verification methods would not have detected problems. When a Heavy Verify is used, the SyQuest Utilities are responsible for correcting errors encountered on the cartridge (bypassing the drive's built-in support for this function). Doing so allows a marginal area of the cartridge to be identified and its data relocated. The data stored on the cartridge is not affected by this operation.
- o **Full.** Full verification performs the most complex scan of the cartridge. It will require the most time to complete and is generally used only as a last-ditch effort to salvage an unreadable cartridge. A full verification will reset the *defect list* for the cartridge to its factory default state and use six different patterns in an attempt to identify problem areas on the cartridge. The partitions and data stored on the cartridge are erased by this operation.

NOTE: When a full verify completes, or is cancelled, the cartridge is ejected from the drive (if possible). It is important to *format* the cartridge before it is used again (even if the full verify was stopped before it was complete).

Once a verification method is selected, and the process is started, the verification status window is displayed. This window provides a gauge of the progress, time remaining and number of problems encountered.



NOTE: The Verify operation can be stopped using the Cancel button in the status window. It can take several seconds after clicking the Cancel button to terminate the Verify operation.

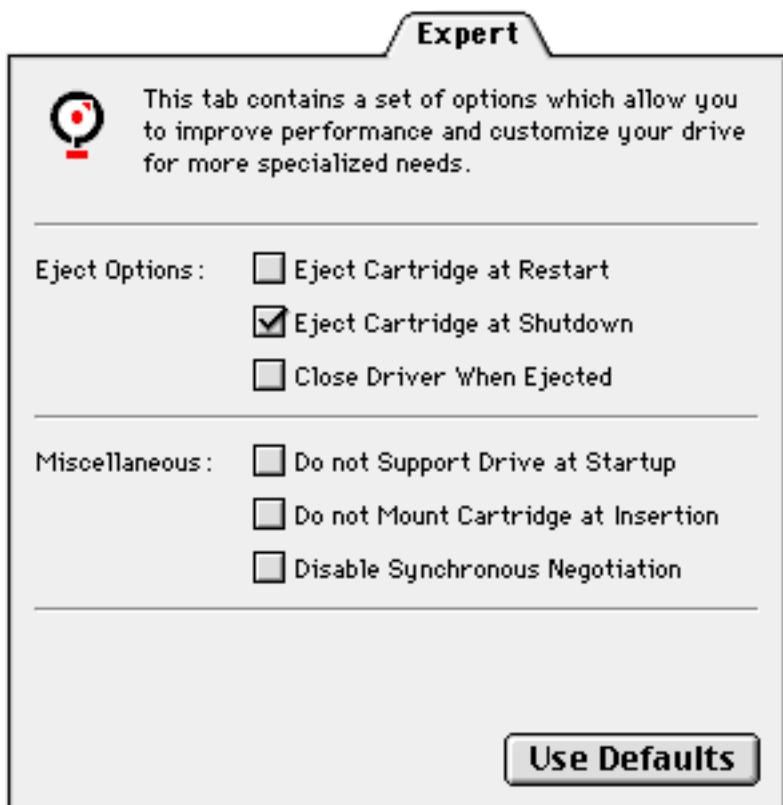
Cartridge Panel Defaults

Use Defaults

If you have made modifications to the settings on the Cartridge panel and wish to revert to the factory default settings, click the Use Defaults button.

NOTE: To revert to the previously saved settings (not necessarily the default settings), use the Revert option on the File menu.

The Expert Panel



Each item on this panel specifies how the SyQuest Utilities device driver interacts with the selected drive. The settings on this panel will affect every cartridge inserted into the drive. If a drive is not selected in the drive list, this panel is disabled and cannot be selected. The Expert panel is divided into two sections.

Eject Options

This section identifies under what circumstances the cartridge will be ejected from the drive and how the device driver reacts when the cartridge is ejected.

Eject Options:	<input type="checkbox"/> Eject Cartridge at Restart
	<input checked="" type="checkbox"/> Eject Cartridge at Shutdown
	<input type="checkbox"/> Close Driver When Ejected

- o **Eject Cartridge at Restart.** When checked and your Macintosh computer is restarted, any cartridge inserted in the selected drive will be removed from the desktop and if supported, ejected from the drive. The default for this option is unchecked.
- o **Eject Cartridge at Shutdown.** When checked and your Macintosh computer is shutdown, any cartridge inserted in the selected drive will be removed from the desktop and if supported, ejected from the drive. The default for this option is checked.
- o **Close Driver when Ejected.** When checked and a cartridge is ejected from the drive, the SyQuest Utilities will unload support for the selected drive. The next cartridge inserted in the drive will not automatically be supported by the SyQuest Utilities. The Mount button in the drive selection area must be used to load support for cartridges inserted into the selected drive. The default for this option is unchecked.

Miscellaneous Options

This section contains the miscellaneous SyQuest Utilities device driver options.

Miscellaneous:	<input type="checkbox"/> Do not Support Drive at Startup
	<input type="checkbox"/> Do not Mount Cartridge at Insertion
	<input type="checkbox"/> Disable Synchronous Negotiation

- o **Do not Support Drive at Startup.** When checked, the SyQuest Utilities device driver will not load support for the selected drive. This option should be checked if you would like to prepare and control your SyQuest drive using a different application. The default for this option is unchecked.
- o **Do not Mount Cartridge at Insertion.** When checked, the SyQuest Utilities will not periodically check if a new cartridge is inserted into the selected drive. This periodic polling of the drive could affect drive performance if it is being used to stream audio or video information from a cartridge. The default for this option is unchecked.
- o **Disable Synchronous Negotiation.** When checked, a faster method of transferring data (*synchronous transfers*) will be disabled. This may be necessary for older SyQuest drives which did not properly support synchronous requests. This option should only be checked on the advice of SyQuest Technical Assistance. The default for this option is unchecked.

Expert Panel Defaults

Use Defaults

If you have made modifications to the settings on the Expert panel and wish to revert to the factory default settings, click the Use Defaults button.

NOTE: To revert to the previously saved settings (not necessarily the default settings), use the Revert option on the File menu.

Glossary

Asynchronous Transfer. A method of sending or receiving data to/from a device. The computer can continue performing other actions while the device (e.g., disk drive) processes the original request.

Backup. To safeguard information by copying it to an alternate location. A duplicate copy of data stored on a cartridge.

Correctable Error. A data error, which through the use of a mathematical formula, can be fixed. The operating system or application may be unaware of a problem.

Defect List. A list of marginal or failed areas of the cartridge that is maintained by the drive. Each time the drive is unable to read or write a portion of the cartridge, the location is added to the defect list and will not be used to store data.

Device Driver. The system software, which communicates with a piece of hardware such as your SyQuest drive.

Device Identifier. A unique identifier assigned to each device in a SCSI chain. For narrow SCSI busses, the number can range from 0 to 7. For wide SCSI busses, the number can range from 0 to 15.

Dual Format. A specially constructed SyQuest cartridge that contains both Macintosh and PC files. While using the cartridge on a Macintosh computer, only the Macintosh files are visible. Similarly, the Macintosh files are not visible when the cartridge is used on a PC.

Error Correction Code (ECC). Additional information stored with each block of data on the cartridge that can be used to automatically correct errors reading or writing the cartridge.

Firmware. The software inside a piece of hardware, which controls the operations of the device. Some devices support updating this software, while others cannot be modified.

Formatting. The process of preparing a cartridge for use by your computer. The drive divides the disk into sections, identifies, and if possible, corrects potential problem areas of the cartridge.

Partitioning. A method of dividing a cartridge into multiple pieces, each which can be formatted and store data. Each partition in the system typically appears as a separate volume.

Removable Device. A storage device that allows its media to be ejected and replaced (e.g., floppy disk drive, CD-ROM drive, cartridge hard drive, etc.).

SCSI. Small Computer System Interface. A method for connecting and communicating with hardware that conforms to the SCSI specification.

SCSI Chain. The set of SCSI devices connected together with short cables is collectively called a SCSI bus or chain.

Synchronous Transfer. A method of sending or receiving data to/from a device. The computer must wait for the operation to complete before performing other actions.

Terminate. To identify the end of a SCSI bus by attaching a resistor pack (i.e., terminator). Each end of the SCSI bus must be explicitly identified or problems using the SCSI devices may occur.

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