



Media Scanner™

Detect and map-out defective sectors
on all rewritable storage devices and interfaces

Part of the Intech's SpeedTools™ Software
for MacOS™ X

User's Guide



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For One Computer

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Table of Contents

- 1 . Guide Introduction 1**
 - About this Guide 1
 - Conventions Used in this Guide 1
 - User Registration 1
 - Technical Information 1

- 2 . Using the Media Scanner Utility 2**
 - About Media Scanner 2
 - Using Media Scanner 3
 - The Continuous Test Option 3
 - What Happens When a Defective Sector is Found? 3
 - Important Information About Scanning FireWire Devices 4
 - Alternative Procedure for Mapping Out Bad Secotrs 4
 - How Often Should Media Scanner Be Used? 5
 - Media Scanner System Requirements 5



Guide Introduction

About This Guide

The instructions and explanations in this guide assume that you understand how to operate your Macintosh computer. You should, for example, know how to choose, select, launch, and drag by using your mouse. In addition, you should also understand how the desktop, windows, dialog boxes, buttons and file/folders work within the Macintosh environment. For more information about these items, please refer to your Macintosh User's Guide.

Conventions Used In This Guide



Note: This symbol calls your attention to important information about the adjacent text. A note will always appear in standard print.



Warning: This symbol calls your attention to procedures in the adjacent text which can cause harm to you, your data or computer system. A warning will always appear in bold print.

User Registration

Please take a moment to register your copy of the SpeedTools™ software on-line via the Intech Software World Wide Web page at <http://www.SpeedTools.com>.

Technical Information

If you received this software with the purchase of a drive subsystem and you require technical support, Intech has made special arrangements with your drive manufacturer to support this software directly via their technical support department. For customers who have purchased this software product as stand-alone, Intech provides technical information and other late-breaking information via its web site at <http://www.SpeedTools.com>.

2

Using the Media Scanner Utility

About Media Scanner

The SpeedTools™ Media Scanner application is designed to test the reliability of and potentially repair defective sectors of local storage devices.

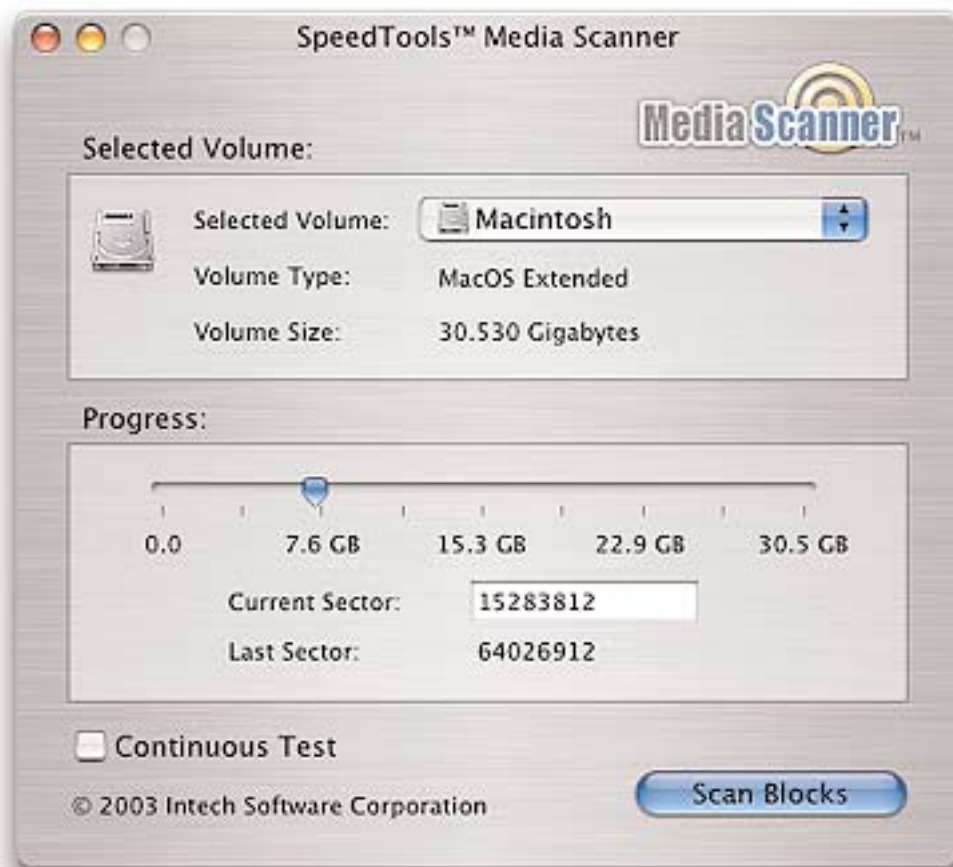


Figure 1. The Media Scanner Utility Window

Using Media Scanner

To begin, select a volume to test using the presented popup menu, or alternatively, drag and drop a volume's desktop icon on to the Media Scanner window. The test

will be setup to begin at the first logical sector of the drive. To change the starting value, you can either type in a new sector value, or drag the slider control to the right. Note that the Media Scanner application will only test the sectors which make up the drive volume itself. Non-data areas, such as partition maps, unallocated space and the like, will not be tested.

The Continuous Test Option

If you wish Media Scanner to perform multiple passes on the selected drive, click the "Continuous Test" check box. This feature can be turned on and off regardless of whether or not the test is running.

What Happens When a Defective Sector is Found?

For the majority of drives which function correctly when defective sectors are detected, Media Scanner will present an option window similar to the one below.

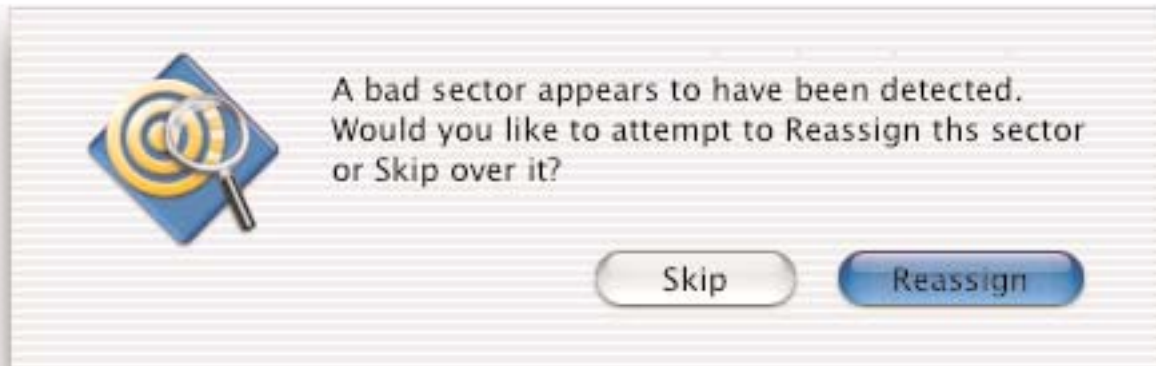


Figure 2. Bad Sector Notification

If you see this window, a defective sector has very likely been detected. If you would like to try to map the defective sector out of service, click the "Reassign" button. Note that this does not always work, but usually does on an otherwise healthy drive. Be aware that successfully reassigning a defective sector will forever make the contents of that sector unavailable. When a bad sector is mapped out of use, a new "spare" sector will be put into service in place of the bad one.

Please note that even drives which correctly handle defective sectors can take several seconds to finish processing a read from a bad sector. How long should you wait? Unfortunately, there is no hard and fast rule. We at Intech feel that one minute or so should be ample time to allow a drive to recover.



Note: A single sector is usually about 512 bytes or characters and reassigning it could leave a 512-byte "hole" in an existing file. Of course, since reading the sector is what discovered the error, it is unlikely that the data on that sector could have been retrieved anyway.

Choosing the "Skip" button will increment the Current Sector count past the bad sector and continue on with the test.

Important Information About Scanning FireWire Devices

Some brands of FireWire drives will hang the Media Scanner utility when a bad sector has been found. There is nothing that can be done about this phenomenon and has nothing whatsoever to do with the quality of the Media Scanner utility itself. If some other application tries to access a defective sector on such a drive, that application will hang as well.

If a hang happens on your FireWire drive, do the following: First, unplug from and then replug it back into your computer, ignoring any error message that this action may generate. Next, quit the Media Scanner utility. This process should free your computer from the hang.

Alternative Procedure for Mapping Out Bad Sectors

If Media Scanner hangs while searching for bad sectors, run the Media Scanner Utility again on the same volume to verify the problem, making sure that the hang occurs at the same sector count as before. If the problem is repeatable, you may be able to map out the bad sector by erasing it using the following procedure.



WARNING: Please backup as much of your important data files as necessary before performing the following procedure.

Try running Apple's Disk Utility program located in your Utilities folder. Select the drive, click the "Erase" tab, and click the "Options" button. This will bring up a new window which will allow you to click a "Zero all data" check box. Doing this will overwrite all sectors of the drive and should correct the problem.

The reason that this procedure will likely be successful is because these types of FireWire hangs have to do with reading a bad sector, not writing to one. To preserve your data, Media Scanner must read each sector to verify each ones fitness. No sector reading or verification takes place when erasing a disk or volume, it simply writes zeros to them all which should avoid the read hang in most cases.

How Often Should Media Scanner Be Used?

To ensure healthy media, Intech believes a bad sector scan should be performed at least once a month on all fixed disk volumes. Because removable disk cartridges are not completely sealed from contaminants, they are at a higher risk of developing bad sectors and should be scanned more frequently.

Media Scanner System Requirements

- MacOS X 10.2 or later
- 5 MB of available RAM