SeaTools for DOS
User Guide
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Rev. 25-Jun-2011

IMPORTANT
This is a special DOS bootable CD-ROM. SeaTools is designed to run from DOS only and is NOT a Windows application.

SeaTools will not run in Windows in a DOS dialog box. Please see the section "Using SeaTools" for more information about booting to this CD.

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Seagate Technology LLC
SeaTools for DOS v2.24
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Welcome to Seagate's *SeaTools for DOS* Software!

This User Guide file contains important information about SeaTools. Please read this entire file before using this software.

SeaTools for DOS is a comprehensive, easy-to-use diagnostic tool that helps you quickly determine what is preventing you from accessing data on your desktop or notebook computer. It includes several tests that will examine the physical media on your Seagate or Maxtor disk drive and any non-Seagate disk drive.

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1. Why Use SeaTools?

After testing, a large percentage of the drives returned to Seagate for warranty replacement are perfectly good drives with "No Problem Found" (NPF). Returning a drive for warranty service means system downtime and inconvenience for you in packing and returning your drive product. Before you send in a drive, it is in your best interest to determine if a replacement drive is really necessary. This hard disk diagnostic utility will help you make that determination and possibly save you time and money and preserve your data.

   Some typical reasons for No Problem Found are:

   * File System Corruption
   * Driver Corruption
   * Broken Master Boot Record
   * Virus and Trojan Attack
   * Spyware, Adware and Keystroke loggers
   * Hardware Conflicts

The Seagate SeaTools software is easy to load and simple to use. The following instructions will help you get the most out of this new software tool. If you have questions about this or any other Seagate software or service products, please contact your system supplier.

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2. Using SeaTools

Do not remove the SeaTools CD while the tests are running.

Run Seagate SeaTools
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A. Reboot your system

Insert the SeaTools CD and reboot or power on your computer. The system will boot to the FreeDOS operating system. If your system fails to boot, see the Troubleshooting section #5 later in this file.


```
FreeDOS kernel version 1.1.35 (Build 2035b-cvs) [Jul 14 2006 21:18:52]
Kernel compatibility 7.10 - WATCOMC - FAT32 support

(C) Copyright 1995-2004 Pasquale J. Villani and The FreeDOS Project.
All Rights Reserved. This is free software and comes with ABSOLUTELY NO
WARRANTY; you can redistribute it and/or modify it under the terms of the
GNU General Public License as published by the Free Software Foundation;
either version 2, or (at your option) any later version.
 - InitDiskillegal partition table - drive 00 sector 0
```

B. Select Drives to Test

After SeaTools loads, the Drive List will show the different storage devices in your system. The first drive detected will be described as Device 0.

Select the drive you would like to test. Make sure to choose the correct drive! A check mark in the Model ID column will indicate which drive is selected.

This screen also displays information about the drives such as the Model Number and Serial Number. Seagate model numbers begin with the letters "ST". Seagate serial numbers are alpha numeric and eight characters long.

Language selection is available:
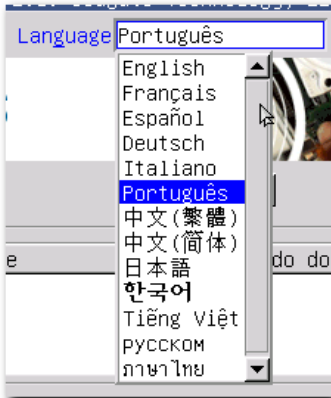
C. Select the Tests to Run

A menu of the possible diagnostic tests is shown. Select the tests that you would like to perform.

Fix All	**Advanced Features**	**Help**
Fix All Fast	Set Capacity	Contents
Fix All Long	Erase Drive	License
Basic Tests		About
Short Test		
Long Test		
Acoustic Test		

"Fix All Fast" and "Fix All Long" require the F8 key to be pressed which is your acknowledgement that SeaTools for DOS should attempt to repair any problem unreadable LBAs (sectors) it might detect. It is important to know that when the sector is bad and unreadable then any data in it is already lost. See section 4 "Help Topic: Bad Sector Found" for more information on this topic.

When you launch the "SHORT Test" most drives will run Drive Self Test. Drive Self Test (DST) is a thorough diagnostic routine that is built in to the hard drive's firmware. Firmware is the machine language programming the controls the disk drive. DST is completely data safe.

Older drives that do not support the DST will run a Legacy test which emulates the DST.
Note: You can force SeaTools to run the legacy test by adding the command line switch /L after seatools.exe /L.
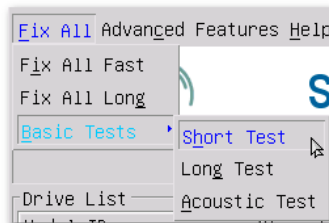
The "SHORT Test" is adequate for most situations. Consider running the "LONG Test" which reads each sector on the drive if you need to run a more comprehensive test.

The "LONG Test" test will take a long time to complete. Because the "LONG Test" reads every sector on the drive, the amount of time required will depend on the speed and capacity of the disk drive. The highest capacity drives often take 6 to 8 hours to complete. At any time, feel free to Cancel the test without harming the drive. The "LONG Test" will collect information about possible defects. If any defect are found, a list will be offered at the end or after aborting the scan. You will have the opportunity to attempt to repair the problem sectors.
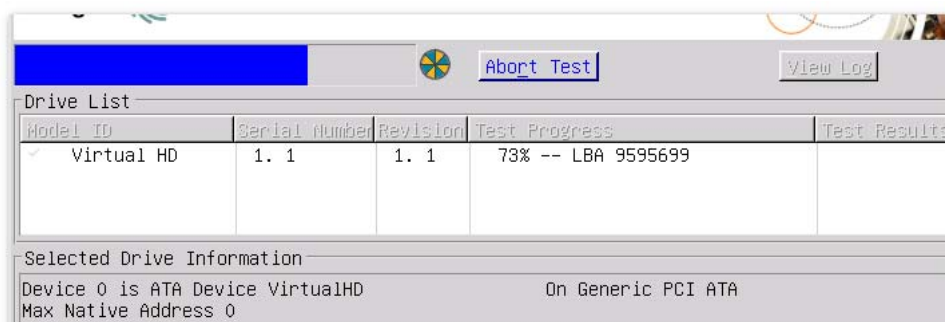
D. Running of the Diagnostics

The SeaTools performs a data-safe test of the selected hard disk drive or device for possible malfunctions. Long tests may be aborted at any time. Press the ESC (escape key) from the keyboard.

During the "LONG Test" only, bad sectors (LBAs) may be detected. They could be part of a data file or even part of the operating system directory structure. Sometimes, problem sectors are empty or not in use. It is important to know that when the sector is bad and unreadable then any data in it is already lost. See section 4 "Help Topic: Bad Sector Found" for more information on this topic.

E. Test Information and Results

Upon completion of running the diagnostics, the test results will be given. A log for each drive is saved to the RAM drive.

The following conditions may apply:
- Passed
- Passed after Repair (Seagate and Maxtor only)
- Failed
- User Skipped Repairs
- Aborted

"Passed after Repair" is a special condition where bad sectors were detected as unreadable and the user gave permission to SeaTools to attempt to reallocate blank replacement sectors which was successful. The drive is now considered a good drive. A few defects are usually not a cause for concern. For example, there are nearly four hundred million sectors on a 200GB drive. Nonetheless, you should run the LONG Test more often to see if there is a trend of growing defects.
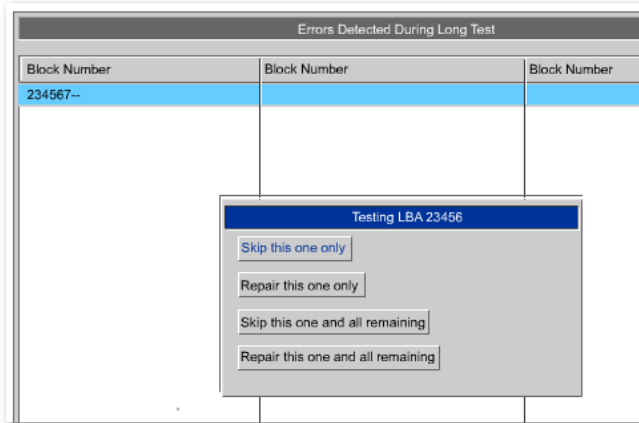
"SeaTools Test Code" - When *SeaTools for DOS* determines that a drive has failed a valid warranty test, it will display a SeaTools Test Code. Please save this code if you are planning a warranty exchange. Seagate product warranty status depends on how the product is sold. If your hard drive is a component in an OEM system, then the OEM covers the drive warranty.

SeaTools Test Codes are based on the type of test that failed and the product serial number. No two codes are the same. The online RMA submission system will use the SeaTools Test Code number to help process the exchange of your product. The code tells Seagate that the drive is, in fact, bad and that there is virtually no chance that a good drive is being returned.
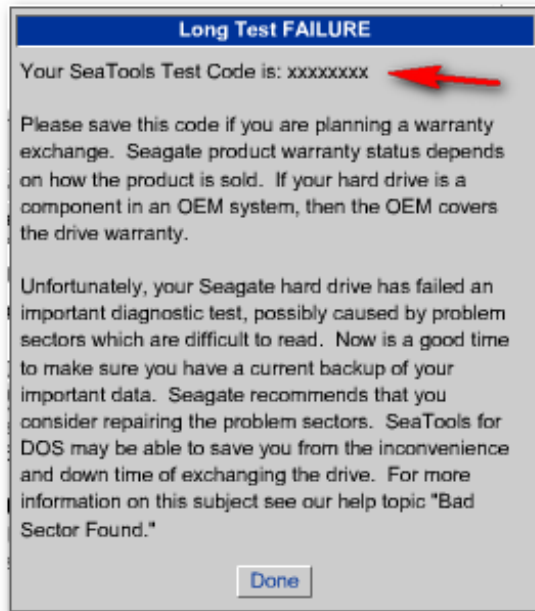
When you submit a drive for return to Seagate through the online Warranty and Returns process, the form will ask for your Serial Number, Model Number and SeaTools Test Code.

F. Set Capacity

Occasionally, a disk drive may be too large and its size needs to be reduced to a lower capacity. Similarly, a drive with a reduced capacity may need to be reset to its native maximum capacity. Three choices are available under this section: Set 32GB Capacity. A common setting for older systems. Set Capacity to MAX Native. Full capacity is restored. Set Capacity Manually. Allows you to set a specific size.

G. Erase Drive

ZERO FILL DATA PATTERN WRITING IS A DATA DESTRUCTIVE OPERATION EQUIVALENT TO ERASING THE DATA OFF THE DRIVE.

Seagate is not responsible for lost user data. Erase Drive is available for Seagate or Maxtor drives only.

Five choices are available under this section:
- **Secure Erase.** This method uses the drive firmware to erase the data by overwriting the data with zeros. In Enhanced Erase mode, all previously written user data shall be overwritten, including sectors that are no longer in use due to reallocation. Secure Erase requires a user password to run which is deleted at the conclusion of the procedure. If your drive does not have a user password, SeaTools for DOS will set a temporary password "idrive" without the quotes. This password will be removed at the end of the Secure Erase so you never need to actually use it to access your drive. If the Secure Erase procedure is interrupted then the temporary user password will still be active. If your drive has an active user password, you must be able to supply the appropriate password to begin the secure erase. User passwords which are set in the system BIOS are saved to the hard drive usually as ASCII text characters. However, some systems are known to save the passwords as keyboard scan codes or even encrypted. SeaTools for DOS will attempt to send passwords to the drive as ASCII characters first then as keyboard scan codes second, if the first is not accepted.
- **Erase Track Zero**. Use this to clear out an old operating system installation. Very quick.
- **Timed Erase**. Using the time value set under the T selection, the drive will erase sectors for that time duration.
- **Full Erase**. This command writes zeros to every sector on the hard drive. This test may take several hours to complete.
- **FDE Crypto Erase**. If the drive is a Full Disk Encryption model disk drive, then this option will be available. You must be able to supply the appropriate password or SID (printed on the drive's top label) to begin the cryptographic erase.

You must type YES to confirm erasing the drive.
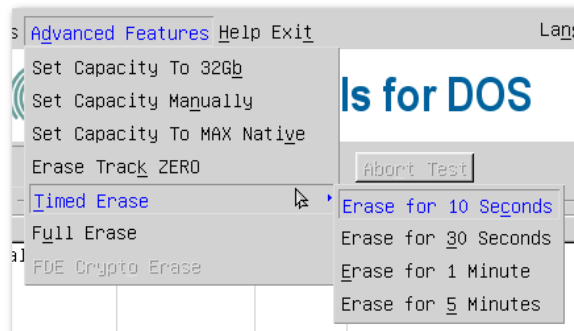
A "Defective drive" can often be revived with a data-destructive zero fill data pattern or a low level format. This is because today's modern disk drives contain thousands of spare sectors which are automatically reallocated if the drive senses difficulty reading or writing. Since SeaTools is read- only (data safe) occasionally a drive with many problem sectors that have not reallocated to a spare sectors can be forced to do so by writing to the sectors. Spare sector reallocation is a normal intelligent drive operation.

See section 4 "Help Topic: Bad Sector Found" for more information on this topic.

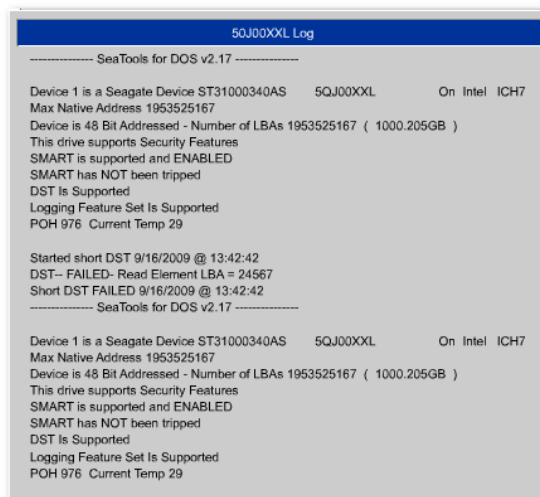Seagate is not responsible for lost user data.

H. Acoustic Test

Sometimes a defective hard drive makes unusual noise. However, often the power supply or CPU fans are mistaken for the hard drive. This test will spin down the drive just like a power management idle condition. If the drive was the source of the noise then the sound will stop. If the noise continues, you can eliminate the hard drive as the source.

I. View Log

Test results are saved in a log file with a file name based on the drive serial number. This report can be saved to a floppy disk or printed.

**** NOTE ****
After exiting SeaTools, if not saved to a floppy, this report will be on the RAM drive until the system is rebooted. If you booted from a CD then the floppy drive is usually B:\. Some systems do not have any floppy diskette drive. Unfortunately, in this case it may be difficult saving the test log files. Some suggestions on using a USB storage device for log files are given in the Troubleshooting section #5 below (topic: CANNOT SAVE or PRINT LOG FILES).

**** NOTE ****
If your printer attaches to the computer through the USB port then you will not be able to print in DOS applications. Printing from SeaTools is supported when the printer is attached to the parallel printer port (LPT1).

I. Quit

To exit the program, select "Exit" from the main menu. Press [CTRL]-[ALT]-[DEL] to reboot, or power off your system.

3. Error Codes

SeaTools for DOS may display a variety of error codes depending on the interface and which test module was running when the error or status occurred. In some situations when the drive is offline running a Drive Self Test, the drive gives its own DST result code.

Drive Self Test (DST) is a thorough diagnostic routine that is built in to the hard drive's firmware. Firmware is the machine language programming the controls the disk drive. DST is completely data safe. SMART (Self Monitoring, Analysis and Reporting Technology) is also built in to the firmware and these errors provide advanced warning about developing problems - such as excessive retries while reading data. A SMART error is a prediction of possible drive failure in the future. Be sure to back up your data regularly.

When a drive is completely non-functional, no make, model or error codes are available.

Beginning with the most common error codes (these codes may display briefly on the screen during the test):

ATA Drive Self Test (DST)

Self-test execution status values:
0h   The previous self-test routine completed without error or no self-test has ever been run

1h   The self-test routine was aborted by the host

2h   The self-test routine was interrupted by the host with a hardware or software reset

3h   A fatal error or unknown test error occurred while the device was executing its self-test routine and the device was unable to complete the self-test routine.

4h   The previous self-test completed having a test element that failed and the test element that failed is not known.

5h   The previous self-test completed having the electrical element of the test failed.

6h   The previous self-test completed having the servo (and/or seek) test element of the test failed.

7h   The previous self-test completed having the read element of the test failed. Log file says: DST - Errors - Status: 07

Off-line data collection status byte values:
01h   Reserved

02h or 82h   Off-line data collection activity was completed without error.

03h   Reserved

04h or 84h   Off-line data collection activity was suspended by an interrupting command from host.

05h or 85h   Off-line data collection activity was aborted by an interrupting command from host.

06h or 86h   Off-line data collection activity was aborted by the device with a fatal error.

4. Help Topic: "Bad Sector Found"

IMPORTANT:
Please read and carefully consider all of the following information about your "Bad Sector Found" options.

A bad sector is a small area on the disk drive that is reporting errors and cannot be accessed properly. New bad sectors, sometimes called grown defects, are often caused by some kind of physical damage. If a file or folder uses this sector, then the file is already incomplete or corrupt because the bytes are not readable.

**** NOTE ****
The following information applies only to Seagate Technology or Maxtor brand disk drives:

When SeaTools discovers a bad sector through reading, at the end of the scan it displays a list of the bad sectors.

If a sector is in use, then that file is incomplete or corrupt. When a bad sector happens to align with a folder or directory listing structure, then the links to files and sub-folders it manages may be broken. Sectors are often not in use.

You should carefully consider the importance of your data. While the sector is currently unreadable, if the file or folder is important to you then you may need professional recovery services to possibly reclaim the data. In this case, select NO to exit without trying to reallocate blank replacement sectors on the drive.

If you have decided that the file or folder is replaceable, already backed up or just not important to you, then you can tell SeaTools to attempt to overwrite the sector.

By design, modern disk drives maintain spare sectors for reallocation purposes. Usually, sectors become difficult to read long before they become impossible to read. In this situation the actual data bytes in the sector are preserved and transferred to the new spare during a sector reallocation. Similarly, when a disk drive writes data and encounters a problem, the drive firmware retires the problem sector and activates a replacement before giving successful write status.

If you give permission to overwrite a bad sector SeaTools will attempt to write a pattern of zeros to that sector. Usually, this action will assist the disk drive firmware in managing the problem by retiring the problem LBA and activating a spare in its place.

Note: Seagate Technology is not responsible for lost user data.

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5. Troubleshooting

DRIVE NOT DETECTED

- Understandably, a dead drive cannot communicate with the system or software and will not be detected. A drive with damaged electronics may have the appearance of running but be broken in the ability to communicate with the system. Either of these cases is a failed drive.

- One of the most common reasons for a new drive to not be detected is with the setup of the cables and jumpers, if any. Another common area is with the system BIOS setup. The drive needs to be set to ON in the BIOS, this is especially true when adding a second drive. Be sure to double check if these items are correct.

- Occasionally, a working drive will not be detected by the software. Disk drives attach to the computer through a section of circuitry on the motherboard called a controller. The software is designed to be as

up-to-date as possible with known controllers. The drive is not by detectable in this case because of an unknown controller.

SeaTools WILL NOT LOAD

- If when you insert the SeaTools CD and power on the computer, it does not load SeaTools, the "boot sequence" may be set to boot to the hard disk drive first.

To change the boot sequence to boot from the CD drive first, you must enter the "Setup" or "CMOS Setup" of your computer. Methods for entering the Setup or CMOS Setup vary depending on your computer's make and model, but most methods consist of pressing a key or key sequence during the initial power on boot sequence.

Watch the screen closely during boot up for a message like "Press F2 to enter Setup" or something similar to determine which key or key sequence to press for your computer. Nearly all systems will continue on automatically after a brief period of time if the key is not pressed, so act quickly. You may have only a few seconds to find and press the appropriate key or key sequence.

  The most common keys or key sequences to enter setup are:
  - [F2]
  - [DELETE]
  - [F1]
  - [CTRL]-[ALT]-[S]
  - [CTRL]-[ALT]-[ESC]
  - [CTRL]-[ALT]-[ENTER]

NOTE: Some computers that use the "[CTRL]-[ALT]-[___]" sequences must be at a prompt before pressing the keys. If you are unsure about how to enter the setup, see the owner's manual for your computer or seek assistance from your computer manufacturer or the store where you purchased the computer.

CD ROM WILL NOT BOOT

- Booting to a CD requires that the system BIOS is compatible with the operating system on the CD. In rare cases that seem tied to older system.This indicates an incompatibility with the boot CD. In this situation, the solution is to use the SeaTools v2.18 boot floppy diskettes instead of the boot CD. Contact Seagate Technical Support for a copy of this earlier version.

CANNOT SAVE or PRINT LOG FILES

- Many systems no longer have floppy diskette drives. This makes it difficult to save the test results log files. Similarly, systems usually have a USB printer which only prints from Windows. This eliminates printing in DOS.

One possible solution for both of these conditions, only on systems with the right SETUP options, is to attach a USB Storage Device to the system. The SETUP options must support booting to a USB Storage Device. Two examples if systems with USB support:

  -->>Dell Optiplex GX270 example

        when booting you see in the upper RH corner:

        F2 = Setup
        F12 = Boot Menu

        When you press F2 you can set up the following order:

Hard Disk Drive Sequence
    1. USB device
    2. System BIOS boot devices
Boot Sequence (BIOS devices)
    1. Diskette Drive
    2. IDE CD-ROM Device
    3. Hard-Disk Drive C:

-->>Dell Inspiron 1150 example:

when booting you see in the upper RH corner:

F2 = Setup
F12 = Boot Menu

When you press F2 on Setup Page 2 you can set up the
following order:

***** Boot Order *****
Diskette Drive
USB Storage Device
CD/DVD/CD-RW Drive
Internal HDD

With both of these system examples, the requirement is to put the USB device ahead of the CD which itself should be ahead of the Hard Disk Drive (HDD). Your choice of USB storage device opens a wide range of alternatives. The simplest and least expensive are the USB Flash Drives. USB external hard drives are another possibility. However in some cases the system BIOS may have compatibility problems with large hard drives and no problems with Flash devices.

Put in the SeaTools bootable CD and plug in a USB storage device. Reboot. With the order set above, the system will attempt to boot from the USB device first but cannot since there is no operating system on it. After that it looks to the BIOS and sees the IDE CD- ROM Device where it boots into SeaTools. If the USB device was detected it will be mounted as a (non-booting, assuming FAT) C: where we can save the log files.

After you run SeaTools, exit and copy *.log to C: and you have just saved the logs without using a floppy. If your RAM drive is shown as C: then the SETUP does not support USB storage in DOS. The file system on the USB device must be either FAT16 or FAT32. DOS does not recognize NTFS.

IF YOU CALL

- If you call to report problems please provide as much information as possible. If you can, please provide the following details:

When does the problem occur?
On the boot up of the diagnostic operating system?
During the hard disk drive tests?
After exiting SeaTools?

- Can the problem be recreated? If so, please outline the steps necessary to recreate it.

- What is your system configuration? List the details about your system as tested. Such as:
    - Make, model, processor and system memory
    - Hard disk drives (internal and external) connected to the

system, including make, model, size, and type
- Make and model of hard disk drive controllers
- Make and model of the video adapter
- Additional adapter cards, including sound and multimedia
- Peripherals attached (mouse, tape backup, printer, etc).

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6. Known Limitations

* SeaTools may not find or access hard disk drives when CMOS is set to "none" for those drives.

* *SeaTools for DOS* cannot find a drive that is completely non- functional. No make, model or error codes are available. If the drive is under warranty, you can contact your system supplier.

* SeaTools may not find a drive that is connected to an unsupported, usually very new, chipset.

Check http://www.seagate.com often for new and updated versions of *SeaTools for DOS* software as well as updates to the "Frequently Asked Questions" (FAQ's) list. Seagate will continue to add new features, functions and capabilities to this software.

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7. System Requirements

* IBM-compatible PC with a Pentium or greater processor
* VGA 640 x 480 or greater graphics capability
* 64 megabytes of RAM
* Bootable CD support

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8. Seagate Technology Support Services

Online Services

Internet
www.seagate.com for information about Seagate products and services. Worldwide support is available 24 hours daily by e-mail for your questions.

Technical Support:
http://www.seagate.com/www/en-us/about/contact_us or email to DiscSupport@Seagate.com

SEAGATE SERVICE CENTERS

Presales Support
Our Presales Support staff can help you determine which Seagate products are best suited for your specific application or computer system, as well as drive availability and compatibility.

Technical Support
If you need help installing your drive, consult your system's documentation or contact the dealer's support services department for assistance specific to your system. Seagate technical support is also available to assist you online at support.seagate.com or through one of our call centers. Have your system configuration information and your drive's "ST" model number available.

<u>CUSTOMER SERVICE OPERATIONS</u>

Warranty Service
Seagate offers worldwide customer support for Seagate drives. Seagate distributors, OEMs and other direct customers should contact their Seagate service center representative for warranty-related issues. Resellers or end users of drive products should contact their place of purchase or one of the Seagate warranty service centers for assistance. Have your drive's "ST" model number and serial number available.

Data Recovery Services
Seagate offers data recovery services for all formats and all brands of storage media. Our Data Recovery Services labs are currently located in North America and Europe. To get a free quick quote or speak with a case management representative, call 1-800-475-0143. Additional information, including an online request form and data loss prevention resources, is available at http://services.seagate.com.

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<u>USA/Canada/Latin America Support Services</u>

Americas   1-800-SEAGATE   +1-405-324-4700 +1-405-324-3339

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<u>Worldwide Support Services</u>

For the most current list of telephone numbers please see the Contact Us section on www.seagate.com.

Contact Information Rev 8.1, 10-Jan-2006

SeaTools for DOS is a product of Seagate, a leading provider of technology and products enabling people to store, access, and manage information. Seagate is committed to providing best-in-class products to help people get their information when, where and how they want it.

The Company is recognized as the world's largest manufacturer of disk drives, magnetic disks and read-write heads. Founded in 1979, Seagate can be found around the globe and on the World Wide Web at www.seagate.com.

9. Product Return Procedure

<u>Service by Seagate</u>

A. Seagate Disk Return Procedure
B. Shipping and Handling Information - Packaging Instructions
C. Seagate Approved Packaging
D. Limited Warranty
E. Service Warranty Terms

<u>A. Seagate Disk Drive Return Procedure</u>

Seagate offers comprehensive worldwide customer support for all Seagate disk drives both online and through our regional Seagate Customer Service Centers and Authorized Service Providers (see "Seagate Technology Support Services" section, above). Drive return procedures can vary by geographical location and are subject to current International Trade Regulations.

1. Before you return a disk for warranty service, verify whether a replacement drive is necessary to solve the problem you are experiencing. If so, contact your place of purchase; if they have an exchange policy, it may be your most convenient solution.

2. Read the appropriate Seagate Warranty Statement for new or replacement products (see "Service Warranty Terms" section, below).

3. Know your Seagate product model number and serial number. See the label on the top of the drive.

4. Verify the warranty status of the drive you wish to return. If the product is still under warranty, obtain an RMA (step 5). If the warranty is expired, contact a local service facility, a Seagate Service Center Representative, or an Authorized Service Provider. If Seagate records indicate that the warranty is expired and you believe this is incorrect, contact your place of purchase or a Seagate Service Center Representative.

5. Obtain an RMA. To obtain an RMA online, use the Warranty Validation application at www.seagate.com/support. It will lead you into the RMA request application. To obtain an RMA by phone or fax, contact an Authorized Service Center (see "Seagate Technology Support Services" section above).

6. Obtain a "ship to" address. Service Centers are located throughout the world. The ship to address of the facility nearest you will be included with the RMA.

7. Package and return the drive. IMPROPER PACKAGING WILL VOID THE WARRANTY. Be sure to read the Shipping and Handling Information (below). Your original drive will NOT be returned to you, so be sure to backup any data you wish to keep and return only the bare drive. If you are unable to retrieve needed data, you may want to consider data recovery services.

Once Seagate Technology receives your drive for service, Seagate will ship you a replacement drive. You may check the status of your replacement drive RMA shipment online or by contacting a Seagate Service Center Representative to obtain that information.

B. Shipping and Handling Information - Packaging Instructions

1. When you return a drive for replacement, all data and software will be lost. The replacement drive will be low-level formatted. If you need the data on the drive and do not have a backup copy, you may want to consider data recovery services before shipping the drive to Seagate for replacement.

2. Remove all accessories or spare parts and return only the bare drive! Accessories include, but are not limited to, side rails, manuals, removable media, cables, mounting brackets, face plates, and controller cards. Accessories will not be returned.

3. Enclose the drive in an anti-static container. If packaging more than one drive, use a separate bag for each drive.

4. Secure the drive in Seagate approved packaging. Use 2-inch thick foam rubber in a corrugated box. Multiple drives in a single box should be packaged with foam rubber between each drive. Do NOT use foam packing pellets, bubble wrap, or newspaper. (See Seagate Approved Packaging section, below.)

5. Write the RMA number on the outside of each box.

6. A shipping address will be given to you along with the RMA number. Ship the drive to the address provided using the carrier of your choice. You should choose a carrier with the ability to trace the shipment. Seagate Technology will not be responsible for shipments for which the carrier cannot provide proof of delivery.

C. Seagate Approved Packaging

Shipping a drive in an unapproved container voids the warranty. Any product returned to Seagate must be properly packaged in the original box or a Seagate-approved container to prevent physical and electrical damage while in transit. FAILURE TO PROPERLY PACKAGE THE DRIVE WILL VOID THE WARRANTY.

What is Seagate Approved Packaging?

We recommend you ship your drive in its original box and packing materials, which you should always keep for storing and shipping purposes. If you do not have your original packaging materials, use 2-inch thick foam rubber in a corrugated box. Multiple drives in a single box should be packaged with foam rubber between each drive. Do NOT use foam packing pellets, bubble wrap, or newspaper.

Where can I get Seagate Approved Packaging?

Seagate does not separately sell packaging materials. While Seagate does not endorse any one third party vendor, companies that provide packaging materials can be found at:

Western Industries - For additional information, see https://www.wicokc.com/orderform/seagate.html

SiongBee - For additional information, see https://www.siongbee.com/sgorder.nsf

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D. Limited Drive Warranty ("Products")

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10. Revision History

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Text
v1.08      30-Jan-2007    Initial public release SeaTools
                          for DOS.
v1.09      28-Feb-2007    Added Help option to main menu.
v1.10      11-Jul-2007    Added support for Intel ICH8 SATA
                          controller chipset.  New EULA.


GUI
v2.05      09-May-2007    Multi-language graphic version.
                          English, French, Italian, German,
                          Spanish, Portuguese, Japanese,
                          Chinese Simplified, Chinese Traditional.
v2.07      11-Jul-2007    Added support for Intel ICH8 SATA
                          controller chipset.  New EULA.
v2.13b     16-Dec-2008    Added support for Intel ICH9 and ICH10
                          SATA controller chipsets.  Added FDE
                          Crypto Erase for Seagate FDE disk
                          drives.
v2.14      21-Jan-2009    Added support for keyboard scan codes
v2.15      10-Sep-2009    Added firmware reminder check
v2.16      28-Sep-2009    Refined Long Test sequence
v2.17      01-Oct-2009    Added SeaTools Test Code to display
                          after a valid warranty test fails.  This
                          code is used to help process the
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                                 warranty return.
    v2.18      05-Jan-2010       Added Korean language.  Translations
                                 for SeaTools Test Code verbiage.
    v2.19      05-Apr-2010       Help content now translated.
    v2.20      25-Apr-2010       Bug fix when calculating large
                                 drive capacity.
    v2.21      04-Jun-2010       Adding Vietnamese language.
    v2.22      28-Jun-2010       Adding Russian and Thai languages.
    v2.23      31-Dec-2010       Added Long Test time out failure for
                                 drives that take too long to complete
                                 the Long Test.
    v2.24      25-Jun-2011       Add Fix All Fast and Fix All Long.
                                 Add Secure Erase.
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