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**Forensic Software Testing Support Tools
Test Summary Report**

Serban Gavrilă
VDG, Inc.

Elizabeth Fong
Information Technology Laboratory
National Institute of Standards and Technology
Gaithersburg, MD 20899

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
Arden L. Bement, Jr., Director

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ABSTRACT

The Computer Forensics Tool Testing (CFTT) project at the National Institute of Standards and Technology (NIST), an agency of the United States Department of Commerce, provides a measure of confidence in the software tools used in computer forensic investigations. CFTT focuses on a class of tools called disk-imaging tools that copy or “image” hard disk drives. Forensic Software Testing Support Tools (FS-TST) is a software package that supports the testing of disk imaging tools. FS-TST includes 15 tools that perform hard disk initialization, faulty disk simulation, hard disk comparisons, extraction of information from a hard disk, and copying of disks or disk partitions.

This NIST Interagency/Internal Report consists of two parts. Part A, covers the planning, design and specification of testing the tools included in the FS-TST package. Part B, which is this document, covers the test summary report.

The testing was independently performed by VDG, Inc. under contract to NIST.

Keywords: computer forensics; disk imaging; software testing, testing support tools.

<p>Certain trade names and company products are mentioned in the text or identified. In no case does such identification imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the products are necessarily the best available for the purpose.</p>
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*VDG, Inc. College Park, Maryland

**Information Technology Laboratory, National Institute of Standards and Technology, Gaithersburg, MD 20899

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1 Summary

1.1 Items tested

This report summarizes the forensic software testing support tools (FS-TST) version 1.0, namely: *diskwipe*, *partab*, *diskchg*, *seccmp*, *seccopy*, *baddisk*, *partcmp*, *diskcmp*, *diskhash*, *badx13*, *corrupt*, *logsetup*, *logcase*, *sechash*, *adjcmp*.

The test plans, test design specifications, and test case specifications are included in the following document:

Forensic Software Testing Support Tools 1.0. Test plan. Test Design Specification. Test Case Specification – April 2004.

1.2 Environment

The tests were run in the National Institute of Standards and Technology (NIST) CFTT Laboratory. This section describes the hardware (host computers and hard disk drives) available for testing and the software (other than FS-TST) used in test cases' setup and examination of results.

1.2.1 Used hardware

Host Computers:

Name	BIOS	HDD Slots
Beta3	Legacy	2 IDE
Beta7	Legacy	2 IDE
HecRamsey	Extended	3 IDE + 2 SCSI

Hard Disk Drives:

Label	Model	Interface	Sectors	GB
10	FUJITSU MAN3184MC	SCSI	35,885,448	17.5
13	FUJITSU MAN3184MC	SCSI	35,885,448	17.5
61	WDC WD64AA	IDE	12,594,960	6.1
63	WDC WD64AA	IDE	12,594,960	6.1
8C	WDC WD200EB-00CSF0	IDE	39,102,336	19.0
9C	WDC WD200BB-32CFC0	IDE	39,102,336	19.0
B0	FUJITSU MPF3153AT	IDE	30,023,280	13.7
D7	QUANTUM SIROCCO1700A	IDE	3,335,472	1.7

1.2.2 Used software

Partition Magic ® Pro, Version 6.0, PowerQuest Corporation.

Disk Editor (diskedit), Version 8.0, Symantec Corporation.

Disk Editor (diskedit), Norton Utilities 2002, Symantec Corporation.

Linux 7.1 Operating System.

Linux 8.2 Operating System.

2 Variances

No variances were made from the test plan or the test design specification.

3 Summary of Results

The majority of the FS-TST tools passed all tests. However, *partab*, *diskchg*, *seccopy*, *partcmp*, *sechash*, *adjcmp*, and *corrupt* did not pass some of the tests. These failure cases are outlined in Section 3.1.

A few tools failed to pass some tests *only when they were run in environments not prescribed* in their available documentation. Section 3.2 outlines these failures.

Section 3.3 includes a few observations regarding the behavior of some tools, which could be used when writing a new FS-TST version.

Section 3.4 comprises a summary of test case results.

3.1 Failed Tests

3.1.1 *Partab* Failures

1. *Partab* does not recognize a primary FAT32 partition larger than 8GB. Instead, it reports finding a primary extended partition with two sub-partitions of unknown types. This problem appears for all tools that try to display or use entries in the partition table (*partcmp*, *partab*, *adjcmp*.)

Test cases: Ptb-13.

3.1.2 *Diskchg* Failures

1. *Diskchg* feature 5 did not pass the test. Feature 5 specifies that *diskchg* must set a sector *s* to the contents that *diskwipe* would use for the sector at location *a* on a disk with the specified geometry using the specified fill value. In this test case, *s* is 5/1/1, *a* is 6/1/1, and the specified geometry is 200 heads/cylinder. With this geometry, *diskwipe* fills *a* with the header 00007/131/01 000000096453. It was expected *diskchg* to fill *s* with same header. However, *diskchg* filled *s* with the header 00006/001/01 000000096453.

Test case: Dch-09.

3.1.3 *Seccopy* Failures

1. *Seccopy* fails to copy a group of sectors containing the last sector of a disk. For a disk reported to have *n* sectors by ATA “identify device” command, the test specified the group of last 4 sectors starting at sector number *n*-4 and having length 3. *Seccopy* erroneously reported, “Copy length (4) exceeds (12594960) Source disk size (12594956)”. The error is probably due to an incorrect comparison between `start_address + count` and `last_sector` (`>=` instead of `>`).

Test case: Scy-02.

2. **Seccopy** fails to copy a group of sectors to a destination address, such that the copy would contain the last sector of the destination disk. **Seccopy** erroneously reported, “Copy length (3) exceeds (3335472) Destination disk size (3335469)”. The error is probably due to an incorrect comparison between `start_address + count` and `last_sector` for the destination drive.

Test case: Scy-03.

3.1.4 **Partcmp** Failures

1. **Partcmp** fails to recognize and correctly compare primary FAT32 partitions larger than 8GB. This problem appears for all tools that try to display or use entries in the partition table (**partcmp**, **partab**, **adjcmp**.)

Test case: Pcp-08.

3.1.5 **Sechash** Failures

1. **Sechash** fails to compute the SHA1 hash value for a sector group consisting of only one sector. Actually **sechash** terminates abnormally with the message:

Floating point error: Divide by zero.

The tester guessed that when **sechash** tries to compute the percentage of sectors processed so far, it incorrectly computes the total number of sectors to be processed by subtracting first sector address from the last sector address. This way, for a group of 1 sectors, the total number computed would be 0.

Test cases: Shs-03, Shs-06.

2. **Sechash** incorrectly assumes that it should compute the hash value of the entire disk when the sector group consists of only the first sector (LBA 0).

Test case: Shs-03.

3. **Sechash** fails to detect an incorrect range of sector addresses specified on the command line using for example a `/last` address less than the `/first` address; instead it starts computing the hash value for a sector group of incorrect length.

Test case: Shs-07.

3.1.6 **Adjcmp** Failures

1. **Adjcmp** fails to recognize and correctly compare primary FAT32 partitions larger than 8GB. This problem appears for all tools that try to display or use entries in the partition table (**partcmp**, **partab**, **adjcmp**.)

Test case: Acp-05.

3.1.7 **Corrupt** Failures

1. **Corrupt** fails to detect a byte offset outside the file range. It terminates abnormally with the message:

Z:\SS\CORRUPT.EXE: Read failed

Test case: Cor-03.

3.2 **Environment-related Failures**

The failures reported in this section occurred are the result of unintentional changes to the environment in which the tools are supposed to run. Consequently, these failures were not considered when deciding whether a tool passed or not a test case.

3.2.1 **Partab** Failures

1. **Partab** fails to distinguish a HPFS partition from a NTFS partition, because the partition type byte in the partition table entry is the same (0x07) for both types of partitions. Consequently, **partab** reports a HPFS partition as being NTFS.

Test cases: Ptb-07.

3.2.2 **Badx13** Failures

1. **Badx13** fails to detect a sector address outside the disk range.

Test cases: Bdx-08.

2. **Badx13** fails to detect it is running on a computer with legacy BIOS.

Test case: Bdx-09.

3.3 **Observations**

3.3.1 **Seccopy** and other FS-TST tools: LBA vs. CHS in partition start address
seccopy was used a few times to copy a source partition to a destination partition in order for the partitions to compare equal. The obvious way to obtain the source and destination group of sectors' start address and length is to look in the partition table displayed by **partab** or **partcmp**, where one can find the partition start address in LBA or CHS format. The tester should be aware that the CHS address found in the partition table (as displayed by FS-TST tools) cannot be used to copy the partition's sectors using **seccopy** or other FS-TST tool, because the BIOS (and hence the tools) might use a different disk geometry to compensate for its limitations, and one might end up copying the wrong source sectors to the wrong destination (see for example test case Pcp-09.)

3.3.2 **Badx13** and other FS-TST tools: write error code

Badx13 correctly monitors a sector for write commands: the FS-TST tool used to check the monitoring (*diskchg*) detects a write error, but does not display the error code. It is unclear whether this is *badx13* or *diskchg* fault. See test cases Bdx-01, Bdx-03.

3.3.3 **Badx13** and other FS-TST tools: residual warning

Badx13 correctly monitors a sector for read commands: the FS-TST tool used to check the monitoring (*diskchg*) detects a read error and displays the correct error code. However, when the same tool is used to read a neighboring sector supposedly not monitored by *badx13*, it displays a warning on the standard output (the warning is not logged – see test cases Bdx-03, Bdx-06):

RD: make bad

Z:\SS\DISKCHG.EXE could not access drive 81 status code 32

Still, *diskchg* is able to read and display that sector.

3.4 Test Case Results

The table below provides a description of the headings used in the test results summaries:

Heading	Description
First Line:	Test case ID, Name and version of software tool tested.
Case Summary:	Test case summary from <i>Test Design Specification</i> for the tool under test.
Tester Name:	Name or initials of person executing test procedure.
Test Date:	Time and date that test was started.
PC:	Name and BIOS of computer where tool under test was executed.
Disks:	Description of the hard disks used in the test as the source, destination, and media. The BIOS-assigned drive number is in hexadecimal.
Execute:	Documentation of each command executed during the test.
Log files and location:	Name and location of the log files in the test file archive.
Log File Highlights:	Selected entries from the test case log files.
Expected Results:	Expected results as listed in <i>Test Design Specification</i> for the tool under test.
Actual Results:	List of anomalies observed.
Analysis:	Whether or not the expected results were achieved.

3.3.1 **Diskwipe** Test Results Summary

Case Dkw-01	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE hard drive that uses LBA addressing and

	<p>has no more than 1024 cylinders, 256 heads, and 63 sectors per track.</p> <ul style="list-style-type: none"> - Fill value is 0x00. - Use the /src switch. - Use the /comment switch followed by a one-word comment that does not contain spaces or quotes.
Tester Name:	SIG
Test Date:	Tue May 20 13:01:59 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Boot to DOS.</p> <p>Run <i>diskwipe</i> to wipe the source: Z:\SS\DISKWIPE.EXE DKW-01 beta3 80 00 /src /comment TestNumber01</p>
Log Files location:	Test-archive\Diskwipe\Dkw-01\
Log File Highlights:	<p>WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-01 beta3 80 00 /src /comment TestNumber01 TEST DKW-01 HOST beta3 Comment: TestNumber01 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with 0 run start Tue May 20 13:01:59 2003 run finish Tue May 20 13:16:39 2003 elapsed time 0:14:40 Normal exit</p>
Expected Results:	<p>Log file for /src created. Logged information is correct. Disk was initialized correctly.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-02	
Case Summary:	<p>Run <i>Diskwipe</i>:</p> <ul style="list-style-type: none"> - After Dkw-01 without deleting the log file. - On a computer with legacy BIOS. - For an IDE hard drive that uses LBA addressing

	<p>and has no more than 1024 cylinders, 256 heads, and 63 sectors per track.</p> <ul style="list-style-type: none"> - Fill value is 0x00. - Use the /src switch. - Use the /comment switch followed by a multi-word comment that is enclosed in quotes and does not contain quotes.
Tester Name:	SIG
Test Date:	Tue May 20 13:33:45 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS Run <i>diskwipe</i> to wipe the source disk: Z:\SS\DISKWIPE.EXE DKW-02 beta3 80 00 /src /comment "Test number 02"
Log Files location:	Test-archive\Diskwipe\Dkw-02\
Log File Highlights:	<p>WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-02 beta3 80 00 /src /comment Test number 02 TEST DKW-02 HOST beta3 Comment: Test number 02 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with 0 run start Tue May 20 13:33:45 2003 run finish Tue May 20 13:48:24 2003 elapsed time 0:14:39 Normal exit</p>
Expected Results:	<p>Log appended to the log file created for /src by test Dkw-01. Logged information is correct. Disk was initialized correctly.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-03	
Case Summary:	<p>Run <i>Diskwipe</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS

	<ul style="list-style-type: none"> - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track. - Fill value is 0x99. - Use the /media switch.
Tester Name:	SIG
Test Date:	Tue May 20 13:55:37 2003
PC:	Beta3
Disks:	Media: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Run <i>diskwipe</i> to wipe the media disk: Z:\ss\DISKWIPE.EXE DKW-03 beta3 80 99 /media
Log Files location:	Test-archive\Diskwipe\Dkw-03\
Log File Highlights:	<p>WIPEMLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-03 beta3 80 99 /media TEST DKW-03 HOST beta3 Comment: Test number 03 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with 99 run start Tue May 20 13:55:37 2003 run finish Tue May 20 14:10:08 2003 elapsed time 0:14:31 Normal exit</p>
Expected Results:	Log file for /media created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-04	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track.

	<ul style="list-style-type: none"> - Fill value is 0x99. - Use the /dst switch.
Tester Name:	SIG
Test Date:	Tue May 20 14:38:44 2003
PC:	Beta3
Disks:	Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Run <i>diskwipe</i> to wipe the destination disk: Z:\ss\DISKWIFE.EXE DKW-03 beta3 80 aa /dst
Log Files location:	Test-archive\Diskwipe\Dkw-04\
Log File Highlights:	<p>WIPEDLOG.TXT: cmd: Z:\SS\DISKWIFE.EXE DKW-04 beta3 80 aa /dst TEST DKW-04 HOST beta3 Comment: Test number 04 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with AA run start Tue May 20 14:38:44 2003 run finish Tue May 20 14:53:18 2003 elapsed time 0:14:34 Normal exit</p>
Expected Results:	Log file for /dst created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-05	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track. - Fill value is 0x99. - Use the /dst and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 20 15:11:16 2003
PC:	Beta3

Disks:	Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Run <i>diskwipe</i> to wipe the destination disk: Z:\SS\DISKWIPE.EXE DKW-05 beta3 80 FF /dst /new_log
Log Files location:	Test-archive\Diskwipe\Dkw-05\
Log File Highlights:	WIPELOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-05 beta3 80 FF /dst /new_log TEST DKW-05 HOST beta3 Comment: Test number 05 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with FF run start Tue May 20 15:11:16 2003 run finish Tue May 20 15:25:50 2003 elapsed time 0:14:34 Normal exit
Expected Results:	A new log file for /dst created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-06	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track. - Fill value is 0xFF. - Use /dst, /new_log, /heads.
Tester Name:	SIG
Test Date:	Tue May 20 16:38:48 2003
PC:	Beta3
Disks:	Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS

	Run <i>diskwipe</i> : Z:\SS\DISKWIPE.EXE DKW-06 beta3 80 ff /dst /new_log /heads 200
Log Files location:	Test-archive\Diskwipe\Dkw-06\
Log File Highlights:	WIPELOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-06 beta3 80 ff /dst /new_log /heads 200 TEST DKW-06 HOST beta3 Comment: Test number 06 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Override number of heads from 255 to 200 12594960 sectors wiped with FF run start Tue May 20 16:38:48 2003 run finish Tue May 20 16:53:34 2003 elapsed time 0:14:46 Normal exit
Expected Results:	A new log file for /dst created. Logged information is correct. Disk was initialized correctly for the new geometry introduced by /heads 200.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-07	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track. - Fill value is 0xaa. - Use the /noask switch.
Tester Name:	SIG
Test Date:	Wed May 21 09:31:25 2003
PC:	Beta3
Disks:	Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Delete all log files.

	Run <i>diskwipe</i> : Z:\SS\DISKWIPE.EXE DKW-07 beta3 80 aa /noask
Log Files location:	Test-archive\Diskwipe\Dkw-07\
Log File Highlights:	WIPELOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-07 beta3 80 aa /noask TEST DKW-07 HOST beta3 Comment: Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with AA run start Wed May 21 09:31:25 2003 run finish Wed May 21 09:45:55 2003 elapsed time 0:14:30 Normal exit
Expected Results:	A new log file for /dst (by default) is created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-08	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with any BIOS type. - Any hard disk type. - Use the /? switch (and any other switches).
Tester Name:	SIG
Test Date:	Tue May 20 15:11:16 2003
PC:	Beta3
Disks:	Any
Execute:	Boot to DOS. Run <i>diskwipe</i> and capture its stdout: Z:\SS\DISKWIPE.EXE DKW-08 beta3 80 FF /? > A:\wipeout.txt
Log Files location:	Test-archive\Diskwipe\Dkw-08\
Log File Highlights:	WIPEOUT.TXT containing stdout: Z:\SS\DISKWIPE.EXE Thu Jan 01 00:00:00 1970 @(#) diskwipe.cpp Version 3.1 Created 10/11/01 at 12:40:23 Compiled Oct 11 2001 12:46:47 with BCC Version 460

	Drive 0x80 Usage: Z:\SS\DISKWIPE.EXE test-case host drive Fill [/options] /src Wipe a source disk /media Wipe a media disk /dst Wipe a destination disk (default) /heads nnn Override number of heads from BIOS with nnn /comment " ... " Give a comment on command line /noask Supress confirmation dialog /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	Diskwipe prints its usage mode on the standard output.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-09	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive that uses physical addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track. - Fill value is 0x00.
Tester Name:	SIG
Test Date:	Wed May 21 10:00:13 2003
PC:	Beta3
Disks:	Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS and set addressing mode to physical. Delete all log files. Z:\SS\DISKWIPE.EXE DKW-09 beta3 80 00
Log Files location:	Test-archive\Diskwipe\Dkw-09\
Log File Highlights:	WIPEDLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-09 beta3 80 00 TEST DKW-09 HOST beta3 Comment: Test number 9, C/H/S addressing Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 1022/014/63 (max cyl/hd values) Interrupt 13 ext 01023/015/63 (number of cyl/hd) 966735 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960

	12594960 sectors wiped with 0 run start Wed May 21 10:00:13 2003 run finish Wed May 21 10:42:33 2003 elapsed time 0:42:20 Normal exit
Expected Results:	A new log file for /dst created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-10	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with extended BIOS - An IDE hard drive that uses LBA addressing and has more than 8GB. - Fill value is 0xAA. - Use the /src and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 27 10:53:23 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)
Execute:	Boot to DOS Z:\SS\DISKWIPE.EXE DKW-10 HecRamsey 80 aa /src /new_log /comment "Ext BIOS, large disk"
Log Files location:	Test-archive\Diskwipe\Dkw-10\
Log File Highlights:	WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-10 HecRamsey 80 aa /src /new_log /comment Ext BIOS, large disk TEST DKW-10 HOST HecRamsey Comment: Ext BIOS, large disk Wipe Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 39102336 sectors wiped with AA run start Tue May 27 10:53:23 2003 run finish Tue May 27 11:04:56 2003 elapsed time 0:11:33

	Normal exit
Expected Results:	A new log file for /src created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-11	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with extended BIOS - A SCSI hard drive with more than 8GB. - Fill value is 0xCC. - Use the /src and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 27 13:16:11 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 82 Physical Label 10 Model Fujitsu MAN3184MC, SCSI, 17GB.
Execute:	Boot to DOS Z:\SS\DISKWIPE.EXE DKW-11 HecRamsey 82 cc /src /new_log /comment "BIOS ext, SCSI large disk"
Log Files location:	Test-archive\Diskwipe\Dkw-11\
Log File Highlights:	WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-11 HecRamsey 82 cc /src /new_log /comment BIOS ext, SCSI large disk TEST DKW-11 HOST HecRamsey Comment: BIOS ext, SCSI large disk Wipe Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk 35885448 sectors wiped with CC run start Tue May 27 13:16:11 2003 run finish Tue May 27 13:25:12 2003 elapsed time 0:9:1 Normal exit
Expected Results:	A new log file for /src created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dkw-12	
Case Summary:	Run <i>Diskwipe</i> on:

	<ul style="list-style-type: none"> - A computer with extended BIOS - A SCSI hard drive with more than 8GB. - Fill value is 0xCC. - Use the /src and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 27 13:16:11 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label B0 Model (FUJITSU MPF3153AT) serial # (05031661).
Execute:	Boot to DOS Z:\SS\DISKWIPE.EXE DKW-12 Beta3 80 77 /comment "Wiping a large disk (>8GB), legacy BIOS"
Log Files location:	Test-archive\Diskwipe\Dkw-11\
Log File Highlights:	<p>WIPELOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-12 Beta3 80 77 /comment Wiping a large disk (>8GB), legacy BIOS /new_log /noask TEST DKW-12 HOST Beta3 Comment: Wiping a large disk (>8GB), legacy BIOS Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 16434495 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (FUJITSU MPF3153AT) serial # (05031661) Max number of user addressable sectors reported by ATA identify device command 30023280 30023280 sectors wiped with 77 run start Mon Jun 02 09:16:46 2003 run finish Mon Jun 02 09:51:43 2003 elapsed time 0:34:57 Normal exit</p>
Expected Results:	A new log file for /src created. Logged information is correct. Disk was initialized correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

3.3.2 *Partab* Test Results Summary

Case Ptb-01	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a FAT16 partition. - Use the /all switch.
Tester Name:	SIG
Test Date:	Thu May 22 09:21:37 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create a FAT16 partition using PartitionMagic. Run <i>partab</i>: Z:\SS\PARTAB.EXE PTB-01 beta3 80 /all
Log Files location:	Test-archive\Partab\Ptb-01\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-01 beta3 80 /all TEST PTB-01 HOST beta3 Comment: Test number 01 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000176652 0000/001/01 0010/254/63 06 Fat16 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 09:21:37 2003

	run finish Thu May 22 09:21:54 2003 elapsed time 0:0:17 Normal exit
Expected Results:	Log file created. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-02	
Case Summary:	Run <i>Partab</i> : <ul style="list-style-type: none"> - On a computer with legacy BIOS. - For an IDE hard drive with only a FAT32 partition. - Use the /all switch. - Use the /comment switch followed by a one-word comment that does not contain spaces, tabs, or quotes.
Tester Name:	SIG
Test Date:	Thu May 22 12:25:16 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create a FAT32 partition. Z:\SS\PARTAB.EXE PTB-02 beta3 80 /all /comment TestNumber02
Log Files location:	Test-archive\Partab\Ptb-02\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-02 beta3 80 /all /comment TestNumber02 TEST PTB-02 HOST beta3 Comment: TestNumber02 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63

	0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:25:16 2003 run finish Thu May 22 12:25:23 2003 elapsed time 0:0:7 Normal exit
Expected Results:	Log file created. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-03	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a FAT32 partition. - Use the /all switch. - Use the /comment switch followed by a multi-word comment enclosed in quotes, which does not contain quotes. - Run this test after <i>Ptb-02</i> without deleting the log file.
Tester Name:	SIG
Test Date:	Thu May 22 12:27:11 2003
PC:	Beta3
Disks:	Media: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create or use an existing FAT32 partition. Z:\ss\PARTAB.EXE PTB-03 beta3 80 /all /comment "Test number 03"
Log Files location:	Test-archive\Partab\Ptb-03\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-03 beta3 80 /all /comment Test number 03 TEST PTB-03 HOST beta3

	<p>Comment: Test number 03 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:27:11 2003 run finish Thu May 22 12:27:17 2003 elapsed time 0:0:6 Normal exit</p>
Expected Results:	<p>Log appended to the log file created by <i>Ptb-02</i>. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-04	
Case Summary:	<p>Run <i>Partab</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a NTFS partition. - Use the /all and /new_log switches. - Run this test case after Ptb-03 without deleting the log file.
Tester Name:	SIG
Test Date:	Thu May 22 12:30:33 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61

	Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create or use an existing NTFS partition. Z:\SS\PARTAB.EXE PTB-04 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\PtB-04
Log File Highlights:	<p>PT80LOG.TXT</p> <p>cmd: Z:\SS\PARTAB.EXE PTB-04 beta3 80 /all /new_log TEST PTB-04 HOST beta3 Comment: Test number 04 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 07 NTFS 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:30:33 2003 run finish Thu May 22 12:30:45 2003 elapsed time 0:0:12 Normal exit</p>
Expected Results:	New log file created. User is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-05	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a Linux Ext2 partition. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 12:33:08 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create or use an existing Linux Ext2 partition. Z:\ss\PARTAB.EXE PTB-04 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-05\
Log File Highlights:	<p>PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-05 beta3 80 /all /new_log TEST PTB-05 HOST beta3 Comment: Test number 05 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 83 Linux 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:33:08 2003 run finish Thu May 22 12:33:22 2003 elapsed time 0:0:14 Normal exit</p>

Expected Results:	New log file is created. User is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-06	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a Linux Swap partition. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 12:35:28 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create or use an existing Linux Swap partition. Z:\ss\PARTAB.EXE PTB-06 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-06
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-06 beta3 80 /all /new_log TEST PTB-06 HOST beta3 Comment: Test number 06 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 82 Linux swap 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00

	00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:35:28 2003 run finish Thu May 22 12:35:39 2003 elapsed time 0:0:11 Normal exit
Expected Results:	A new log file is created. User is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-07	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a HPFS partition. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 12:37:18 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create or use an existing HPFS partition. Z:\SS\PARTAB.EXE PTB-07 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-07
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-07 beta3 80 /all /new_log TEST PTB-07 HOST beta3 Comment: Test number 07 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot

	Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 07 NTFS 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:37:18 2003 run finish Thu May 22 12:37:30 2003 elapsed time 0:0:12 Normal exit
Expected Results:	A new log file is created. The user is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	The HPFS partition is detected as NTFS due to the fact that the 1-byte partition type code is identical for NTFS and HPFS partitions.
Analysis:	Expected results NOT achieved.

Case Ptb-08	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with only a hidden HPFS or other partition. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 12:39:41 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create and hide a (HPFS) partition. Z:\SS\PARTAB.EXE PTB-08 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-08\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-08 beta3 80 /all /new_log TEST PTB-08 HOST beta3

	<p>Comment: Test number 08 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000208782 0000/001/01 0012/254/63 17 other 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:39:41 2003 run finish Thu May 22 12:39:53 2003 elapsed time 0:0:12 Normal exit</p>
Expected Results:	<p>A new log file is created. The user is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.</p>
Actual Results:	<p>No anomalies detected (hidden partitions are detected as being of "other" types).</p>
Analysis:	<p>Expected results achieved.</p>

Case Ptb-09	
Case Summary:	<p>Run <i>Partab</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with multiple primary and one logical partition (a primary Linux Ext2 active, a hidden primary NTFS, a logical Linux Ext2 in a primary extended). - Use the /all and /new_log switches.

Tester Name:	SIG
Test Date:	Thu May 22 12:59:20 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create: one primary Linux Ext2, one primary NTFS, one primary extended with a logical Linux Ext2 within it, make the first Linux Ext2 partition active (this will hide the NTFS partition). Z:\ss\PARTAB.EXE PTB-09 beta3 80 /all /new_log
Log Files location:	Test-archive\partab\PtB-09\
Log File Highlights:	<p>PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-09 beta3 80 /all /new_log TEST PTB-09 HOST beta3 Comment: Test number 09 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000176652 0000/001/01 0010/254/63 Boot 83 Linux 2 P 000176715 000208845 0011/000/01 0023/254/63 17 other 3 X 000385560 000208845 0024/000/01 0036/254/63 05 extended 4 S 000000063 000208782 0024/001/01 0036/254/63 83 Linux 5 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 12:59:20 2003 run finish Thu May 22 12:59:33 2003 elapsed time 0:0:13</p>

	Normal exit
Expected Results:	A new log file is created. User is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-10	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - Two IDE hard drives with numerous partitions. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 13:29:40 2003
PC:	Beta3
Disks:	Target 1: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD- WM6533500903) Target 2: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Create numerous primary and logical partitions on two IDE drives. Z:\SS\PARTAB.EXE PTB-10 beta3 80 /all /new_log Z:\SS\PARTAB.EXE PTB-10 beta3 81 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-10\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-10 beta3 80 /all /new_log TEST PTB-10 HOST beta3 Comment: Test number 10 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000176652 0000/001/01 0010/254/63 Boot 83 Linux

	<p> 2 P 000176715 000208845 0011/000/01 0023/254/63 17 other 3 X 000385560 001140615 0024/000/01 0094/254/63 05 extended 4 S 000000063 000208782 0024/001/01 0036/254/63 83 Linux 5 x 000208845 000192780 0037/000/01 0048/254/63 05 extended 6 S 000000063 000192717 0037/001/01 0048/254/63 82 Linux swap 7 x 000755055 000176715 0071/000/01 0081/254/63 05 extended 8 S 000000063 000176652 0071/001/01 0081/254/63 06 Fat16 9 x 000931770 000208845 0082/000/01 0094/254/63 05 extended 10 S 000000063 000208782 0082/001/01 0094/254/63 0B Fat32 11 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 12 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu May 22 13:29:40 2003 run finish Thu May 22 13:29:51 2003 elapsed time 0:0:11 Normal exit PT81LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-10 beta3 81 /all /new_log TEST PTB-10 HOST beta3 Comment: Test number 10 Partition table Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type </p>
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	<p>1 P 000000063 001229697 0000/001/01 0304/063/63 Boot 06 Fat16</p> <p>2 X 001431360 001290240 0355/000/01 0674/063/63 05 extended</p> <p>3 S 000000063 000205569 0355/001/01 0405/063/63 83 Linux</p> <p>4 x 000205632 000145152 0406/000/01 0441/063/63 05 extended</p> <p>5 S 000000063 000145089 0406/001/01 0441/063/63 06 Fat16</p> <p>6 x 000762048 000185472 0544/000/01 0589/063/63 05 extended</p> <p>7 S 000000063 000185409 0544/001/01 0589/063/63 16 other</p> <p>8 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>9 P 002721600 000064512 0675/000/01 0690/063/63 83 Linux</p> <p>10 P 002923200 000411264 0725/000/01 0826/063/63 82 Linux swap</p> <p>P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition</p> <p>run start Thu May 22 13:33:40 2003 run finish Thu May 22 13:33:54 2003 elapsed time 0:0:14 Normal exit</p>
Expected Results:	<p>Two log files with different names are created for the two disk drives. User is prompted for a comment. Logged information is correct. The occupied partition table entries are logged correctly. The empty entries are logged correctly.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-11	
Case Summary:	<p>Run <i>Partab</i> on:</p> <ul style="list-style-type: none"> - A computer with any BIOS type. - A hard drive with any partitions. - Use the <i>/?</i> switch.
Tester Name:	SIG
Test Date:	Thu May 22 12:27:11 2003
PC:	Beta3

Disks:	Media: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Use existing partitions. Z:\SS\PARTAB.EXE PTB-09 beta3 80 /? /all /new_log > A:\PTB-11.TXT
Log Files location:	Test-archive\Partab\Ptb-11\
Log File Highlights:	Z:\SS\PARTAB.EXE compiled at 12:47:44 on Oct 11 2001 Usage: Z:\SS\PARTAB.EXE test-case host drive [/options] /all List extended partitions /comment " ... " Comment for log file /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	Partab prints its usage mode on the standard output.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-12	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive with one primary partition and multiple logical partitions. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu May 22 14:18:42 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Create one primary partition and multiple logical partitions on the same hard disk drive. Z:\ss\PARTAB.EXE PTB-12 beta3 80 /all /new_log
Log Files location:	Test-archive\Partab\Ptb-12\
Log File Highlights:	PT80LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-12 beta3 80 /new_log /all TEST PTB-12 HOST beta3 Comment: Test number 12 Partition table Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS

	<p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>N Start LBA Length Start C/H/S End C/H/S boot Partition type</p> <p>1 X 000016065 000626535 0001/000/01 0039/254/63 05 extended</p> <p>2 S 000000063 000208782 0001/001/01 0013/254/63 07 NTFS</p> <p>3 x 000208845 000208845 0014/000/01 0026/254/63 05 extended</p> <p>4 S 000000063 000208782 0014/001/01 0026/254/63 06 Fat16</p> <p>5 x 000417690 000208845 0027/000/01 0039/254/63 05 extended</p> <p>6 S 000000063 000208782 0027/001/01 0039/254/63 82 Linux swap</p> <p>7 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>8 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>9 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>10 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>P primary partition (1-4)</p> <p>S secondary (sub) partition</p> <p>X primary extended partition (1-4)</p> <p>x secondary extended partition</p> <p>run start Thu May 22 14:18:42 2003</p> <p>run finish Thu May 22 14:18:54 2003</p> <p>elapsed time 0:0:12</p> <p>Normal exit</p>
Expected Results:	<p>A new log file is created.</p> <p>The user is prompted for a comment.</p> <p>Logged information is correct.</p> <p>The occupied partition table entries are logged correctly.</p> <p>The empty entries are logged correctly.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Ptb-13	
Case Summary:	Run <i>Partab</i> on: - A computer with extended BIOS

	<ul style="list-style-type: none"> - An IDE hard drive with a primary FAT32 partition larger than 8GB. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu Jul 03 09:55:30 2003
PC:	HecRamsey
Disks:	Media: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).
Execute:	<p>Boot to DOS. Use PartitionMagic to create a primary FAT32 partition with size > 8GB.</p> <p>Run <i>partab</i>: Z:\SS\PARTAB.EXE PTB-13 HecRamsey 81 /all /new_log</p>
Log Files location:	Test-archive\Partab\PtB-13
Log File Highlights:	<p>PT81LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-13 HecRamsey 81 /all /new_log TEST PTB-13 HOST HecRamsey Comment: Extended BIOS, IDE disk, FAT32 > 8GB. Partition table Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 X 000000063 024772167 0000/001/01 1023/254/63 0C extended 2 S -151587082 -151587082 1014/246/54 1014/246/54 Boot F6 other 3 S -151587082 -151587082 1014/246/54 1014/246/54 Boot F6 other 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition</p>

	X primary extended partition (1-4) x secondary extended partition run start Thu Jul 03 09:55:30 2003 run finish Thu Jul 03 09:56:15 2003 elapsed time 0:0:45 Normal exit
Expected Results:	A new log file is created. Logged information is correct. The partition table entry for the FAT32 partition is correctly logged. The empty entries are logged correctly.
Actual Results:	Partab does not recognize the large FAT32 primary partition correctly. Instead, it logs a primary extended partition with two sub-partitions of unknown types.
Analysis:	Expected results NOT achieved.

Case Ptb-14	
Case Summary:	Run <i>Partab</i> on: <ul style="list-style-type: none"> - A computer with extended BIOS. - A SCSI hard disk drive with a primary Linux Ext2 partition larger than 8GB. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu Jul 03 12:42:15 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 82 Physical Label 10 Model Fujitsu MAN3184MC, SCSI, 17GB.
Execute:	Boot to DOS. Use PartitionMagic to create a large (>8GB) primary Linux Ext2 partition on a SCSI disk. Run partab : Z:\SS\PARTAB.EXE PTB-14 HecRamsey 82 /all /new_log /comment "Big Linux ext2 partition"
Log Files location:	Test-archive\Partab\Ptb-14\
Log File Highlights:	PT82LOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-14 HecRamsey 82 /new_log /all TEST PTB-14 HOST HecRamsey Comment: Extended BIOS, SCSI disk, large Ext2 partition. Partition table Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13

	<p>from the BIOS Non-IDE disk N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 020482812 0000/001/01 1023/254/63 83 Linux 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu Jul 03 12:42:15 2003 run finish Thu Jul 03 12:42:49 2003 elapsed time 0:0:34 Normal exit</p>
Expected Results:	<p>A new log file is created. Logged information is correct. The entry for the Linux Ext2 partition is logged correctly. The empty entries are logged correctly.</p>
Actual Results:	<p>No anomalies detected. The partition end address is not consistent with the partition size, but it seems to be like that in the partition table.</p>
Analysis:	<p>Expected results achieved.</p> <p>Note: Is partab intended to display the end address as extracted from the partition table entry, or an end address consistent with the partition size? (PartitionMagic displays an end address consistent with the partition size).</p>

Case Ptb-15	
Case Summary:	<p>Run <i>Partab</i> on:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE hard drive with a logical FAT32 partition larger than 8GB. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu Jul 03 10:12:55 2003
PC:	HecRamsey
Disks:	Media: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-

	WMAAV2431177)
Execute:	<p>Boot to DOS. Use PartitionMagic to create a logical FAT32 partition larger than 8GB.</p> <p>Run Partab: Z:\SS\PARTAB.EXE PTB-15 HecRamsey 81 /all /new_log</p>
Log Files location:	Test-archive\Partab\Ptb-15\
Log File Highlights:	<p>PT8ILOG.TXT: cmd: Z:\SS\PARTAB.EXE PTB-15 HecRamsey 81 /all /new_log TEST PTB-15 HOST HecRamsey Comment: Extended BIOS, IDE, logical FAT32 > 8GB. Partition table Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 X 000016065 024756165 0001/000/01 1023/254/63 0F extended 2 S 000000063 024756102 0001/001/01 1023/254/63 0B Fat32 3 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu Jul 03 10:12:55 2003 run finish Thu Jul 03 10:13:22 2003 elapsed time 0:0:27 Normal exit</p>
Expected Results:	A new log file is created.

	<p>Logged information is correct.</p> <p>The entries for the extended and the FAT32 partitions are logged correctly.</p> <p>The empty entries are logged correctly.</p>
Actual Results:	<p>The partition number, type, and size extracted from the partition table entries are logged correctly. The end addresses are not consistent with the partition size.</p>
Analysis:	<p>Expected results achieved.</p> <p>Note: Is partab intended to display the end address as extracted from the entry, or an end address consistent with the partition size? (PartitionMagic displays an end address consistent with the partition size).</p>

Case Ptb-16	
Case Summary:	<p>Run <i>Partab</i> on:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE hard drive with a primary NTFS partition larger than 8GB. - Use the /all and /new_log switches.
Tester Name:	SIG
Test Date:	Thu Jul 03 10:12:55 2003
PC:	HecRamsey
Disks:	Media: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Boot to DOS.</p> <p>Use PartitionMagic to create a primary NTFS partition larger than 8GB.</p> <p>Run <i>Partab</i>:</p> <p>Z:\SS\PARTAB.EXE PTB-16 HecRamsey 81 /all /new_log</p>
Log Files location:	Test-archive\Partab\Ptb-16\
Log File Highlights:	<p>PT81LOG.TXT:</p> <p>cmd: Z:\SS\PARTAB.EXE PTB-16 HecRamsey 81 /new_log /all</p> <p>TEST PTB-16 HOST HecRamsey</p> <p>Comment: Extended BIOS, IDE disk, NTFS > 8GB.</p> <p>Partition table Drive 0x81, BIOS: Extensions Present</p> <p>Interrupt 13 bios 1022/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 16383/016/63 (number of cyl/hd)</p> <p>39102336 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)</p>

	<p>Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 020482812 0000/001/01 1023/254/63 07 NTFS 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition run start Thu Jul 03 11:05:36 2003 run finish Thu Jul 03 11:06:03 2003 elapsed time 0:0:27 Normal exit</p>
Expected Results:	<p>A new log file is created. Logged information is correct. The entry for the NTFS partition is logged correctly. The empty entries are logged correctly.</p>
Actual Results:	<p>The partition type and size are detected correctly. The end address is not consistent with the partition size.</p>
Analysis:	<p>Expected results achieved.</p> <p>Note: Is partab intended to display the end address as extracted from the entry, or an end address consistent with the partition size? (PartitionMagic displays an end address consistent with the partition size).</p>

3.3.3 *Diskchg* Test Results Summary

Case Dch-01	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE hard drive. - Use the /new_log, /comment with one-word comment, and /exam switch.
Tester Name:	SIG
Test Date:	Thu May 29 12:05:20 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKWIPE.EXE DCH-01 Beta3 80 aa /src /comment "wiping disk before diskchg" /read /noask Z:\SS\DISKCHG.EXE DCH-01 Beta3 80 /new_log /comment Examining /exam
Log Files location:	Test-archive\Diskchg\Dch-01\
Log File Highlights:	cmd: Z:\SS\DISKWIPE.EXE DCH-01 Beta3 80 aa /src /comment wiping disk before diskchg /read /noask TEST DCH-01 HOST Beta3 Comment: wiping disk before diskchg /read Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with AA run start Thu May 29 12:05:20 2003 run finish Thu May 29 12:25:34 2003 elapsed time 0:20:14 Normal exit cmd: Z:\SS\DISKCHG.EXE DCH-01 Beta3 80 /new_log /comment Examining /exam TEST DCH-01 HOST Beta3 Comment: Examining Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13

	<p>from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Offset 0 length 32 Disk addr lba 0 C/H/S 0/0/1 offset 0 000: 30 30 30 30 30 2F 30 30 30 2F 30 31 20 30 30 30 016: 30 30 30 30 30 30 30 30 30 00 AA AA AA AA AA AA</p> <p>Offset 0 length 32 Disk addr lba 12594959 C/H/S 783/254/63 offset 0 000: 30 30 37 38 33 2F 32 35 34 2F 36 33 20 30 30 30 016: 30 31 32 35 39 34 39 35 39 00 AA AA AA AA AA AA</p> <p>Offset 0 length 32 Disk addr lba 12594960 C/H/S 784/0/1 offset 0 Disk read error 0x04 at sector 784/0/1 run start Thu May 29 12:50:45 2003 run finish Thu May 29 12:51:39 2003 elapsed time 0:0:54 Normal exit</p>
Expected Results:	<p>A new log file with the name CG80XLOG.TXT is created. The comment is logged. Logged information is correct. Diskchg correctly translates C/H/S addresses to LBA and back. The values displayed for the requested sectors with valid addresses are those expected (as specified in <i>Diskwipe</i> documentation). When the user requests a sector with invalid address, an error message is issued.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-02	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log, /comment with multi-word comment, and /exam switches.

	<ul style="list-style-type: none"> - Run this case right after Dch-01. - Request sectors with addresses expressed as LBA and C/H/S.
Tester Name:	SIG
Test Date:	Thu May 29 13:00:28 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-02 Beta3 80 /new_log /comment "Examining C/H/S addresses" /exam
Log Files location:	Test-archive\Diskchg\Dch-02\
Log File Highlights:	<pre> cmd: Z:\SS\DISKCHG.EXE DCH-02 Beta3 80 /new_log /comment Examining C/H/S addresses /exam TEST DCH-02 HOST Beta3 Comment: Examining C/H/S addresses Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Offset 0 length 32 Disk addr lba 0 C/H/S 0/0/1 offset 0 000: 30 30 30 30 30 2F 30 30 30 2F 30 31 20 30 30 30 016: 30 30 30 30 30 30 30 30 30 00 AA AA AA AA AA AA Offset 0 length 32 Disk addr lba 62 C/H/S 0/0/63 offset 0 000: 30 30 30 30 30 2F 30 30 30 2F 36 33 20 30 30 30 016: 30 30 30 30 30 30 30 30 36 32 00 AA AA AA AA AA AA Offset 0 length 32 Disk addr lba 63 C/H/S 0/1/1 offset 0 000: 30 30 30 30 30 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 30 30 30 30 36 33 00 AA AA AA AA AA AA Offset 0 length 32 </pre>

	<p>Disk addr lba 125 C/H/S 0/1/63 offset 0 000: 30 30 30 30 30 2F 30 30 31 2F 36 33 20 30 30 30 016: 30 30 30 30 30 30 31 32 35 00 AA AA AA AA AA AA</p> <p>Offset 0 length 32 Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA AA</p> <p>Offset 0 length 32 Disk addr lba 12594897 C/H/S 783/254/1 offset 0 000: 30 30 37 38 33 2F 32 35 34 2F 30 31 20 30 30 30 016: 30 31 32 35 39 34 38 39 37 00 AA AA AA AA AA AA</p> <p>Offset 0 length 32 Disk addr lba 12594959 C/H/S 783/254/63 offset 0 000: 30 30 37 38 33 2F 32 35 34 2F 36 33 20 30 30 30 016: 30 31 32 35 39 34 39 35 39 00 AA AA AA AA AA AA</p> <p>run start Thu May 29 13:00:28 2003 run finish Thu May 29 13:02:38 2003 elapsed time 0:2:10 Normal exit</p>
Expected Results:	<p>A new log file with the name CG80XLOG.TXT is created. The comment is logged. Logged information is correct. Diskchg correctly translates C/H/S addresses to LBA and back. The values displayed for the requested sectors with valid addresses are those expected (as specified in <i>Diskwipe</i> documentation).</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-03	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /read switch with a CHS address. - Run this case after Dch-01.
Tester Name:	SIG

Test Date:	Thu May 29 13:13:33 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-03 Beta3 80 /new_log /read 5/1/1 0 32 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-03\
Log File Highlights:	Cmd: Z:\SS\DISKCHG.EXE DCH-03 Beta3 80 /new_log /read 5/1/1 0 32 TEST DCH-03 HOST Beta3 Comment: Read C/H/S address, enter comment when prompted, new log file Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA AA run start Thu May 29 13:13:33 2003 run finish Thu May 29 13:14:21 2003 elapsed time 0:0:48 Normal exit
Expected Results:	A new log file with the name CG80RLOG.TXT is created. The user is prompted for a comment that is logged. Logged information is correct. Diskchg correctly translates the C/H/S address to LBA. Diskchg correctly displays 32 bytes starting at offset zero within the requested sector; the value displayed is the expected one (as specified in <i>Diskwipe</i> documentation).
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-04	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive.

	<ul style="list-style-type: none"> - Use the /new_log and /read switch with the LBA address for the sector specified in Dch-03. - Run this case right after Dch-03.
Tester Name:	SIG
Test Date:	Thu May 29 13:15:09 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-04 Beta3 80 /read 80388 0 32 Use Diskedit to read and display sector 80388.
Log Files location:	Test-archive\Diskchg\Dch-04\
Log File Highlights:	<p>Cmd: Z:\SS\DISKCHG.EXE DCH-04 Beta3 80 /read 80388 0 32</p> <p>TEST DCH-04 HOST Beta3</p> <p>Comment: Read LBA address, enter comment when prompted, append to log file</p> <p>Target disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0</p> <p>000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30</p> <p>016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA</p> <p>AA</p> <p>run start Thu May 29 13:15:09 2003</p> <p>run finish Thu May 29 13:15:37 2003</p> <p>elapsed time 0:0:28</p> <p>Normal exit</p>
Expected Results:	<p>The log is appended to the log file CG80RLOG.TXT created by case Dch-03.</p> <p>The user is prompted for a comment that is logged.</p> <p>Logged information is correct.</p> <p>Diskchg correctly translates the LBA address to C/H/S.</p> <p>Diskchg correctly displays 32 bytes starting at offset 0 within the requested sector; the value displayed is the expected one (as specified in <i>Diskwipe</i> documentation).</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-05	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log, /comment, and /read switch with an offset too large for the capacity of a sector. - Run this case after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 15:01:53 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-05 Beta3 80 /new_log /comment "Offset too large" /read 5/1/1 640 32 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-05\
Log File Highlights:	cmd: Z:\SS\DISKCHG.EXE DCH-05 Beta3 80 /new_log /comment Offset too large /read 5/1/1 640 32 TEST DCH-05 HOST Beta3 Comment: Offset too large Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Offset 640 not valid ([0..511]), reset to 0 Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA AA run start Thu May 29 15:01:53 2003 run finish Thu May 29 15:02:00 2003 elapsed time 0:0:7 Normal exit
Expected Results:	A new log file CG80RLOG.TXT is created. The comment is logged. Logged information is correct. Diskchg correctly translates the C/H/C address to LBA.

	Diskchg resets the incorrect offset to 0, then correctly displays the specified number of bytes from the specified sector.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-06	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /read switch with a C/H/S address and a byte count too large (going beyond the sector's end). - Run this case after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 13:23:19 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-06 Beta3 80 /new_log /comment "Read, length too large" /read 5/1/1 0 1024 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-05\
Log File Highlights:	cmd: Z:\SS\DISKCHG.EXE DCH-06 Beta3 80 /new_log /comment Read, length too large /read 5/1/1 0 1024 TEST DCH-06 HOST Beta3 Comment: Read, length too large Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Length (1024) not valid ([1..512]), resetting to 16 Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30 run start Thu May 29 13:23:19 2003 run finish Thu May 29 13:23:24 2003 elapsed time 0:0:5 Normal exit

Expected Results:	A new log file CG80RLOG.TXT is created. The comment is logged. Logged information is correct. Diskchg correctly translates the C/H/S address to LBA. Diskchg resets to 16 the count of bytes to be displayed, then correctly displays min(16, 512-offset) bytes starting at the specified offset within the specified sector.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-07	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /read switch with a C/H/S address and an offset and count such that offset+count is too large. - Run this case right after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 13:25:14 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-07 Beta3 80 /new_log /comment "Read, offset+length too large" /read 5/1/1 256 400 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-07\
Log File Highlights:	cmd: Z:\SS\DISKCHG.EXE DCH-07 Beta3 80 /new_log /comment Read, offset+length too large /read 5/1/1 256 400 TEST DCH-07 HOST Beta3 Comment: Read, offset+length too large Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Length (400) goes past end of sector (656), resetting to

	end of sector Disk addr lba 80388 C/H/S 5/1/1 offset 256 256: AA AA AA AA AA AA AA AA AA AA AA AA AA AA AA AA ... run start Thu May 29 13:25:14 2003 run finish Thu May 29 13:25:20 2003 elapsed time 0:0:6 Normal exit
Expected Results:	A new log file CG80RLOG.TXT is created. The comment is logged. Logged information is correct. Diskchg correctly translates the C/H/S address to LBA. Diskchg correctly displays only the bytes starting at the specified offset to the end of the specified sector.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-08	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /read, then only the /read switch to read and display the original values of a target sector and a “fill” sector. - Use the /new_log and /fill switch to fill the target sector with the contents of the “fill” sector as it would be filled by diskwipe, using the BIOS-reported geometry. - Use the /read switch to read and display the modified value of the target sector. - Run this case after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 13:30:49 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /new_log /comment “Read original destination sector” /read 5/1/1 0 32 Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /comment “Read source sector as written by diskwipe” /read 6/1/1 0 32 Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /new_log /comment fill dest diskwipe-style /fill 5/1/1 6/1/1 0 bb

	Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /comment read destination filled diskwipe-style /read 5/1/1 0 32 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-08\
Log File Highlights:	<p>CG80RLOG.TXT – read original target: cmd: Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /new_log /comment Read original destination sector /read 5/1/1 0 32 TEST DCH-08 HOST Beta3 Comment: Read original destination sector Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA AA run start Thu May 29 13:30:49 2003 run finish Thu May 29 13:30:54 2003 elapsed time 0:0:5 Normal exit</p> <p>CG80RLOG.TXT – read fill address: cmd: Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /comment Read source sector as written by diskwipe /read 6/1/1 0 32 TEST DCH-08 HOST Beta3 Comment: Read source sector as written by diskwipe Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 96453 C/H/S 6/1/1 offset 0 000: 30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 AA AA AA AA AA</p>

	<p>AA</p> <p>run start Thu May 29 13:32:15 2003 run finish Thu May 29 13:32:20 2003 elapsed time 0:0:5 Normal exit</p> <p>CG80FLOG.TXT – fill target sector cmd: Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /new_log /comment fill dest diskwipe-style /fill 5/1/1 6/1/1 0 bb TEST DCH-08 HOST Beta3 Comment: fill dest diskwipe-style Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 Fill addr lba 96453 C/H/S 6/1/1 Fill sector 5/1/1 OK run start Thu May 29 13:33:40 2003 run finish Thu May 29 13:33:46 2003 elapsed time 0:0:6 Normal exit</p> <p>CG80RLOG.TXT – read filled target sector: cmd: Z:\SS\DISKCHG.EXE DCH-08 Beta3 80 /comment read destination filled diskwipe-style /read 5/1/1 0 32 TEST DCH-08 HOST Beta3 Comment: read destination filled diskwipe-style Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0</p>
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	<pre> 000: 30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 BB BB BB BB BB BB run start Thu May 29 13:34:40 2003 run finish Thu May 29 13:34:45 2003 elapsed time 0:0:5 Normal exit </pre>
Expected Results:	<p>A new log file CG80RLOG.TXT is created when Diskchg is run the first time. When run the second and fourth times, diskchg should append the log to this file.</p> <p>A new log file CG80FLOG.TXT is created when Diskchg is run the third time.</p> <p>The comments are logged.</p> <p>Logged information is correct.</p> <p>Diskchg correctly fills and displays the target sector.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dch-09	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use Diskwipe to wipe the disk using a geometry different from that reported by BIOS. - Use the /new_log and /read, then only the /read switch to read and display the original values of a target sector and a “fill” sector. - Use the /new_log and /fill switch to fill the target sector with the contents of the “fill” sector as it was filled by diskwipe, using the geometry different from that reported by BIOS. - Use the /read switch to read and display the modified value of the target sector. - Run this case after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 15:14:57 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Boot to DOS.</p> <p>Run <i>diskwipe</i> to fill the disk using a new geometry: Z:\SS\DISKWIPE.EXE DCH-09 Beta3 80 aa /src /heads 200 /noask /new_log /comment “Wipe disk using new geometry”</p>

	<p>Run <i>diskchg</i> to read the original sector 5/1/1: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /new_log /comment "Read original target sector" /read 5/1/1 0 32</p> <p>Run <i>diskchg</i> to read the sector (6/1/1) which will be used as the source for the fill operation: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /read 6/1/1 0 32</p> <p>Run <i>diskchg</i> to fill sector 5/1/1: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /new_log /fill 5/1/1 6/1/1 200 bb</p> <p>Run <i>diskchg</i> to read target sector after filling: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /read 5/1/1 0 32</p> <p>Use Diskedit to read and display sector 5/1/1.</p>
Log Files location:	Test-archive\Diskchg\Dch-09\
Log File Highlights:	<p>WIPESLOG.TXT – wipe disk with new geometry cmd: Z:\SS\DISKWIPE.EXE DCH-09 Beta3 80 aa /src /heads 200 /noask /new_log /comment Wipe disk using new geometry TEST DCH-09 HOST Beta3 Comment: Wipe disk using new geometry Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Override number of heads from 255 to 200 12594960 sectors wiped with AA run start Thu May 29 15:14:57 2003 run finish Thu May 29 15:35:15 2003 elapsed time 0:20:18 Normal exit</p> <p>CG80RLOG.TXT – read original target: cmd: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /new_log /comment Read original target sector /read 5/1/1 0 32 TEST DCH-09 HOST Beta3 Comment: Read original target sector Target disk Drive 0x80, BIOS: Legacy</p>

	<p>Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 36 2F 30 37 36 2F 30 31 20 30 30 30 016: 30 30 30 30 38 30 33 38 38 00 AA AA AA AA AA AA run start Thu May 29 15:36:52 2003 run finish Thu May 29 15:36:58 2003 elapsed time 0:0:6 Normal exit</p> <p>CG80RLOG.TXT – read fill address: cmd: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /read 6/1/1 0 32 TEST DCH-09 HOST Beta3 Comment: Read source sector as filled by diskwipe with new geometry Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 96453 C/H/S 6/1/1 offset 0 000: 30 30 30 30 37 2F 31 33 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 AA AA AA AA AA AA run start Thu May 29 15:37:57 2003 run finish Thu May 29 15:38:25 2003 elapsed time 0:0:28 Normal exit</p> <p>CG80FLOG.TXT – fill target sector cmd: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /new_log /fill 5/1/1 6/1/1 200 bb</p>
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	<p>TEST DCH-09 HOST Beta3 Comment: Fill target sector as diskwipe has filled source sector using the new geometry Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 Fill addr lba 96453 C/H/S 6/1/1 Fill sector 5/1/1 OK run start Thu May 29 15:39:35 2003 run finish Thu May 29 15:41:01 2003 elapsed time 0:1:26 Normal exit</p> <p>CG80RLOG.TXT – read filled target sector: cmd: Z:\SS\DISKCHG.EXE DCH-09 Beta3 80 /read 5/1/1 0 32</p> <p>TEST DCH-09 HOST Beta3 Comment: Read target sector after filling diskwipe-style using new geometry Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 BB BB BB BB BB BB run start Thu May 29 15:41:27 2003 run finish Thu May 29 15:42:10 2003 elapsed time 0:0:43 Normal exit</p>
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Expected Results:	<p>A new log file is created by diskwipe. A new log file CG80RLOG.TXT is created when Diskchg is run the first time. When run the second and fourth times, diskchg should append the log to this file. A new log file CG80FLOG.TXT is created when Diskchg is run the third time. The comments are logged. Logged information is correct. Diskchg correctly fills and displays the target sector.</p>
Actual Results:	<p>The first 32 bytes of the target sector 5/1/1 should eventually have the following contents:</p> <pre>30 30 30 30 37 2F 31 33 31 2F 30 31 20 30 30 30 30 30 30 30 39 36 34 35 33 00 BB BB BB BB BB BB</pre> <p>Instead, they have the value:</p> <pre>30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 30 30 30 30 39 36 34 35 33 00 BB BB BB BB BB BB</pre>
Analysis:	Expected results were NOT achieved.

Case Dch-10	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /read to read and display the original values of a target sector. - Use the /new_log and /write to set a specified byte of the target sector to a specified value. - Use the /read switch to read and display the target sector after setting. - Run this case after Dch-01.
Tester Name:	SIG
Test Date:	Thu May 29 14:15:08 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Boot to DOS.</p> <pre>Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /new_log /read 5/1/1 0 32</pre> <pre>Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /new_log /write 5/1/1 26 cc</pre>

	Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /read 5/1/1 0 32 Use Diskedit to read and display sector 5/1/1.
Log Files location:	Test-archive\Diskchg\Dch-10\
Log File Highlights:	<p>Note: The results displayed assume this test case was run right after Dch-09.</p> <p>CG80RLOG.TXT – read original target: cmd: Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /new_log /read 5/1/1 0 32 TEST DCH-10 HOST Beta3 Comment: Read original destination sector Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 BB BB BB BB BB BB run start Thu May 29 14:15:08 2003 run finish Thu May 29 14:15:33 2003 elapsed time 0:0:25 Normal exit</p> <p>CG80WLOG.TXT – write a byte: cmd: Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /new_log /write 5/1/1 26 cc TEST DCH-10 HOST Beta3 Comment: Set the byte at offset 26 in the dest sector to value 0xCC Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p>

	<p>Disk addr lba 80388 C/H/S 5/1/1 offset 26 Update sector, old value 0xBB, new value 0xCC run start Thu May 29 14:16:41 2003 run finish Thu May 29 14:17:17 2003 elapsed time 0:0:36 Normal exit</p> <p>CG80RLOG.TXT – read the modified target sector cmd: Z:\SS\DISKCHG.EXE DCH-10 Beta3 80 /read 5/1/1 0 32 TEST DCH-10 HOST Beta3 Comment: Read modified destination sector Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 30 30 30 30 36 2F 30 30 31 2F 30 31 20 30 30 30 016: 30 30 30 30 39 36 34 35 33 00 CC BB BB BB BB BB run start Thu May 29 14:17:44 2003 run finish Thu May 29 14:18:03 2003 elapsed time 0:0:19 Normal exit</p>
Expected Results:	<p>A new log file CG80RLOG.TXT is created when Diskchg is run the first time. When run the third time, diskchg should append the log to this file. A new log file CG80WLOG.TXT is created when Diskchg is run the second time. The user is prompted for comments, which are logged. Logged information is correct. Diskchg correctly modifies only the byte at the specified offset.</p>
Actual Results:	No anomalies were detected.
Analysis:	Expected results were achieved.

Case Dch-11	
Case Summary:	Run <i>Diskchg</i> on:

	<ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the /new_log and /zero to set to zero an entire sector. - Use the /new_log and /read to read and display the specified sector.
Tester Name:	SIG
Test Date:	Thu May 29 14:15:08 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Boot to DOS.</p> <p>Z:\SS\DISKCHG.EXE DCH-11 Beta3 80 /new_log /comment "Zero a sector" /zero 5/1/1</p> <p>Z:\SS\DISKCHG.EXE DCH-11 Beta3 80 /new_log /comment "Read the target sector" /read 5/1/1 0 128</p> <p>Use Diskedit to read and display sector 5/1/1.</p>
Log Files location:	Test-archive\Diskchg\Dch-11\
Log File Highlights:	<p>CG80ZLOG.TXT – zero a sector: cmd: Z:\SS\DISKCHG.EXE DCH-11 Beta3 80 /new_log /comment Zero a sector /zero 5/1/1 TEST DCH-11 HOST Beta3 Comment: Zero a sector Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 Zero sector 5/1/1 OK run start Thu May 29 14:20:32 2003 run finish Thu May 29 14:20:37 2003 elapsed time 0:0:5 Normal exit</p> <p>CG80RLOG.TXT – read the modified sector cmd: Z:\SS\DISKCHG.EXE DCH-11 Beta3 80 /new_log</p>

	<pre> /comment Read the target sector /read 5/1/1 0 128 TEST DCH-11 HOST Beta3 Comment: Read the target sector Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 016: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 032: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 048: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 064: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 080: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 096: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 112: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 run start Thu May 29 14:21:19 2003 run finish Thu May 29 14:21:25 2003 elapsed time 0:0:6 Normal exit </pre>
Expected Results:	<p>A new log file CG80ZLOG.TXT is created when Diskchg is run the first time.</p> <p>A new log file CG80RLOG.TXT is created when Diskchg is run the second time.</p> <p>The comments are correctly logged.</p> <p>Logged information is correct.</p> <p>Diskchg correctly zeroes the entire and only the specified sector.</p>
Actual Results:	No anomalies were detected.
Analysis:	Expected results were achieved.

Case Dch-12	
Case Summary:	Run <i>Diskchg</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the <i>/?</i> Switch.
Tester Name:	SIG
Test Date:	Thu May 29 14:15:08 2003
PC:	Beta3

Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\DISKCHG.EXE DCH-12 Beta3 80 /? /read 5/1/1 0 32 > A:\DCHOUT.TXT Examine the standard output.
Log Files location:	Test-archive\Diskchg\Dch-12\
Log File Highlights:	Z:\SS\DISKCHG.EXE compiled at 12:45:13 on Oct 11 2001 Z:\SS\DISKCHG.EXE: select exactly one of: /read, /write, /zero, /fill or /exam Usage: Z:\SS\DISKCHG.EXE test-case host drive [opt] /comment " ... " Give comment on command line /exam Prompt for sectors to print /read addr offset length Print <length> bytes starting at <offset> from sector at <addr> /write addr offset new_value Replace byte at <offset> in sector at <addr> with <new_value> (in hex) /fill addr fill_addr heads new_value Fill sector at <addr> in DISKWIPE style for address <fill_addr> using a disk geometry of <heads> heads with fill byte of <new_value> (in hex) if <heads> is zero, then number of heads on disk is used /zero addr Set all bytes of sector at <addr> to zero <addr> can be specified as either an LBA address (an integer) or as cylinder/head/sector (three slash separated integers) /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	Diskchg displays its usage mode on the standard output.
Actual Results:	No anomalies were detected.
Analysis:	Expected results were achieved.

Case Dch-13	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with extended BIOS - An IDE hard drive. - Use the /write switch to modify a byte in the last disk sector. - Use /new_log. <p>Run <i>diskchg</i> again to read that sector using /read.</p>
Tester Name:	SIG
Test Date:	Fri Jul 18 11:02:00 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 81 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292).
Execute:	<p>Boot to DOS.</p> <p>Run <i>diskchg</i> to modify a byte in the last sector: Z:\SS\DISKCHG.EXE DCH-13 HecRamsey 81 /write 39102335 26 77 /new_log</p> <p>Run <i>diskchg</i> to read the last sector: Z:\SS\DISKCHG.EXE DCH-13 HecRamsey 81 /read 39102335 0 32 /new_log</p> <p>Examine the log files.</p>
Log Files location:	Test-archive\Diskchg\Dch-13\
Log File Highlights:	<p>CG81WLOG.TXT generated by <i>diskchg</i> with /write: cmd: Z:\SS\DISKCHG.EXE DCH-13 HecRamsey 81 /write 39102335 26 77 /new_log TEST DCH-13 HOST HecRamsey Comment: Replace byte in last sector, IDE disk, Extended BIOS Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 39102335 C/H/S 38791/15/63 offset 26 Update sector, old value 0xAA, new value 0x77 run start Fri Jul 18 11:02:00 2003 run finish Fri Jul 18 11:02:36 2003 elapsed time 0:0:36</p>

	<p>Normal exit</p> <p>CG81RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE DCH-13 HecRamsey 81 /read 39102335 0 32 /new_log TEST DCH-13 HOST HecRamsey Comment: Reading modified sector Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 39102335 C/H/S 38791/15/63 offset 0 000: 33 38 37 39 31 2F 30 31 35 2F 36 33 20 30 30 30 016: 30 33 39 31 30 32 33 33 35 00 77 AA AA AA AA AA run start Fri Jul 18 11:03:53 2003 run finish Fri Jul 18 11:04:08 2003 elapsed time 0:0:15 Normal exit</p>
Expected Results:	Diskchg creates a new log file CG81WLOG.TXT, prompts the user for a comment, logs the information prescribed by the features, reads the last sector, modifies the specified byte and writes it back to the hard disk drive.
Actual Results:	No anomalies were detected.
Analysis:	Expected results were achieved.

Case Dch-14	
Case Summary:	<p>Run <i>Diskchg</i> on:</p> <ul style="list-style-type: none"> - A computer with extended BIOS - An IDE hard drive. - Use the /write switch to modify a byte in the last disk sector. - Use /new_log. <p>Run <i>diskchg</i> again to read that sector using /read.</p>
Tester Name:	SIG
Test Date:	Fri Jul 18 11:12:28 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 83 Physical Label 13 Model (FUJITSU MAN3184MC), SCSI.
Execute:	Boot to DOS.

	<p>Run <i>diskchg</i> to zero the last sector: Z:\SS\DISKCHG.EXE DCH-14 HecRamsey 83 /zero 35885447 /new_log</p> <p>Run <i>diskchg</i> to read the last sector: Z:\SS\DISKCHG.EXE DCH-14 HecRamsey 83 /read 35885447 0 32 /new_log</p> <p>Examine the log files.</p>
Log Files location:	Test-archive\Diskchg\Dch-14\
Log File Highlights:	<p>CG83ZLOG.TXT generated by <i>diskchg</i> with /write: cmd: Z:\SS\DISKCHG.EXE DCH-14 HecRamsey 83 /zero 35885447 /new_log TEST DCH-14 HOST HecRamsey Comment: Zero last sector, SCSI disk, extended BIOS. Target disk Drive 0x83, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 35885447 C/H/S 2233/195/18 Zero sector 35885447 OK run start Fri Jul 18 11:12:28 2003 run finish Fri Jul 18 11:12:48 2003 elapsed time 0:0:20 Normal exit</p> <p>CG83RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE DCH-14 HecRamsey 83 /read 35885447 0 32 /new_log TEST DCH-14 HOST HecRamsey Comment: Reading zeroed sector Target disk Drive 0x83, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 35885447 C/H/S 2233/195/18 offset 0 000: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 016: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00</p>

	run start Fri Jul 18 11:13:27 2003 run finish Fri Jul 18 11:13:40 2003 elapsed time 0:0:13 Normal exit
Expected Results:	Diskchg creates a new log file CG83ZLOG.TXT, prompts the user for a comment, logs the information prescribed by the features, write a zero-filled sector as the last disk sector.
Actual Results:	No anomalies were detected.
Analysis:	Expected results were achieved.

3.3.4 *Seccmp* Test Results Summary

Case Scp-01	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with one-word comment. - Use /sector with two sectors, both diskwipe-style filled with different fill values.
Tester Name:	SIG
Test Date:	Tue Jun 03 14:25:52 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Wipe the source and destination disks with different values: Z:\SS\DISKWIPE.EXE SCP-01 Beta3 80 aa /src /new_log /noask /comment "Wiping the source disk" Z:\SS\DISKWIPE.EXE SCP-01 Beta3 81 bb /dst /new_log /noask /comment "Wiping destination drive" Compare two sectors: Z:\SS\SECCMP.EXE SCP-01 Beta3 80 aa 81 bb /comment OneWordComment /sector 62 63
Log Files location:	Test-archive\Seccmp\Scp-01\
Log File Highlights:	WIPESLOG.TXT: wipe the source disk cmd: Z:\SS\DISKWIPE.EXE SCP-01 Beta3 80 aa /src /new_log /noask /comment Wiping the source disk TEST SCP-01 HOST Beta3 Comment: Wiping the source disk Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd)

	<p>12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with AA run start Tue Jun 03 14:25:52 2003 run finish Tue Jun 03 14:46:08 2003 elapsed time 0:20:16 Normal exit</p> <p>WIPEDLOG.TXT: wipe the destination disk cmd: Z:\SS\DISKWIPE.EXE SCP-01 Beta3 81 bb /dst /new_log /noask /comment Wiping destination drive TEST SCP-01 HOST Beta3 Comment: Wiping destination drive Wipe Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 3335472 sectors wiped with BB run start Tue Jun 03 15:03:47 2003 run finish Tue Jun 03 15:10:44 2003 elapsed time 0:6:57 Normal exit</p> <p>SECLOG.TXT: compare two sectors cmd: Z:\SS\SECCMP.EXE SCP-01 Beta3 80 aa 81 bb /comment OneWordComment /sector 62 63 TEST SCP-01 HOST Beta3 Comment: OneWordComment Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p>
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	<p>Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 62 (62+0) Dst 63 (63+0) Src filled by AA from 00000/000/63 000000000062 Dst filled by BB from 00000/001/01 000000000063 490 bytes different</p> <p>run start Tue Jun 03 15:21:33 2003 run finish Tue Jun 03 15:21:34 2003 elapsed time 0:0:1 Normal exit</p>
Expected Results:	<p>A new log file with the name SECLOG.TXT is created. The comment is logged. Logged information is correct. Seccmp determines that the sectors are diskwipe-style filled, compares them, finds them different, and logs the number of bytes that differ.</p> <p>Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scp-02	
Case Summary:	<p>Run <i>Seccmp</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with a multi-word comment. - Use /sector with two sectors, both diskwipe-style filled with different fill values.
Tester Name:	SIG
Test Date:	Tue Jun 03 15:23:08 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	Boot to DOS.

	Z:\SS\SECCMP.EXE SCP-02 Beta3 80 aa 81 bb /comment "Appending to existing log file" /sector 62 62
Log Files location:	Test-archive\Seccmp\Scp-02\
Log File Highlights:	<p>cmd: Z:\SS\SECCMP.EXE SCP-02 Beta3 80 aa 81 bb /comment Appending to existing log file /sector 62 62 TEST SCP-02 HOST Beta3</p> <p>Comment: Appending to existing log file Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 62 (62+0) Dst 62 (62+0) Src filled by AA from 00000/000/63 0000000000062 Dst filled by BB from 00000/000/63 0000000000062 486 bytes different</p> <p>run start Tue Jun 03 15:23:08 2003 run finish Tue Jun 03 15:23:09 2003 elapsed time 0:0:1 Normal exit</p>
Expected Results:	<p>Seccmp appends the log to the existing log file. The comment is logged. Logged information is correct. Seccmp determines that the sectors are diskwipe-style filled, compares them, finds them different, and logs the number of bytes that differ.</p> <p>Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scp-03	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Use /sector with two sectors, both diskwipe-style filled with different fill values. - Specify fictitious fill values on the command line.
Tester Name:	SIG
Test Date:	Tue Jun 03 15:24:57 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCMP.EXE SCP-03 Beta3 80 cc 81 dd /new_log /sector 62 63
Log Files location:	Test-archive\Seccmp\Scp-03\
Log File Highlights:	<pre> cmd: Z:\SS\SECCMP.EXE SCP-03 Beta3 80 cc 81 dd /new_log /sector 62 63 TEST SCP-03 HOST Beta3 Comment: Comparing sectors, incorrect fills specified, new log file created Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Compare sectors at: Src 62 (62+0) Dst 63 (63+0) Src filled by AA from 00000/000/63 000000000062 </pre>

	<p>Dst filled by BB from 00000/001/01 000000000063 490 bytes different</p> <p>run start Tue Jun 03 15:24:57 2003 run finish Tue Jun 03 15:24:59 2003 elapsed time 0:0:2 Normal exit</p>
Expected Results:	<p>Seccmp creates a new log file. Seccmp prompts the user for a comment. The comment is logged. Logged information is correct. Seccmp determines that the sectors are diskwipe-style filled, BUT with fill values different from those specified on the command line. Seccmp compares the sectors, finds them different, and logs the number of bytes that differ.</p> <p>Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled.</p>
Actual Results:	It seems that Seccmp ignores the fill values specified on the command line. Otherwise, no anomalies are detected.
Analysis:	Expected results achieved, except that the fill values specified on the command line appear to be unused. Seccmp should, at least, detect that the actual fill values differ from those specified.

Case Scp-04	
Case Summary:	<p>Run <i>Seccmp</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /log switch with an alternate log file name. - Use /sector with two sectors, both diskwipe-style filled with different fill values. - Specify fictitious fill values on the command line.
Tester Name:	SIG
Test Date:	Tue Jun 03 15:29:44 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS. Z:\SS\SECCMP.EXE SCP-04 Beta3 80 cc 81 dd /log seccmp.log /comment "alternate log file name specified" /sector 62 62</p>
Log Files location:	Test-archive\Seccmp\Scp-04\
Log File Highlights:	cmd: Z:\SS\SECCMP.EXE SCP-04 Beta3 80 cc 81 dd

	<pre> /log seccmp.log /comment alternate log file name specified /sector 62 62 TEST SCP-04 HOST Beta3 Comment: alternate log file name specified Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Compare sectors at: Src 62 (62+0) Dst 62 (62+0) Src filled by AA from 00000/000/63 000000000062 Dst filled by BB from 00000/000/63 000000000062 486 bytes different run start Tue Jun 03 15:29:44 2003 run finish Tue Jun 03 15:29:45 2003 elapsed time 0:0:1 Normal exit </pre>
Expected Results:	<pre> Seccmp creates a new log file with the name specified by the /log switch. The comment is logged. Logged information is correct. Seccmp determines that the sectors are diskwipe-style filled, BUT with fill values different from those specified on the command line. Seccmp compares the sectors, finds them different, and logs the number of bytes that differ. Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled. </pre>
Actual Results:	<pre> It seems that Seccmp ignores the fill values specified on the command line. Otherwise, no anomalies are detected. </pre>
Analysis:	<pre> Expected results achieved, except that the fill values </pre>

	specified on the command line appear to be unused. Seccmp should, at least, detect that the actual fill values differ from those specified.
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Case Scp-05	
Case Summary:	<p>Run <i>Seccmp</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector specify two diskwipe-style filled sectors, identical (same fill value, same C/H/S and LBA address). - Specify the original fill values on the command line (the one for the source disk is the actual one, the one for the destination differs from the one used to fill the sector).
Tester Name:	SIG
Test Date:	Tue Jun 03 15:50:49 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS.</p> <p>Edit the destination sector so that it is identical to the source sector.</p> <p>Z:\SS\SECCMP.EXE SCP-05 Beta3 80 aa 81 bb /new_log /sector 62 62</p>
Log Files location:	Test-archive\Seccmp\Scp-05\
Log File Highlights:	<p>cmd: Z:\SS\SECCMP.EXE SCP-05 Beta3 80 aa 81 bb /new_log /sector 62 62</p> <p>TEST SCP-05 HOST Beta3</p> <p>Comment: Comparing diskwipe sectors, equal</p> <p>Source disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination disk Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13</p>

	<p>from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 62 (62+0) Dst 62 (62+0) Src filled by AA from 00000/000/63 000000000062 Dst filled by AA from 00000/000/63 000000000062 0 bytes different</p> <p>run start Tue Jun 03 15:50:49 2003 run finish Tue Jun 03 15:50:50 2003 elapsed time 0:0:1 Normal exit</p>
Expected Results:	<p>Seccmp determines that the sectors are diskwipe-style filled. Seccmp detects that the destination sector fill value differs from the one specified on the command line. Seccmp compares the sectors and finds them equal.</p> <p>Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled.</p>
Actual Results:	<p>It seems that Seccmp ignores the fill values specified on the command line. Otherwise, no anomalies are detected.</p>
Analysis:	<p>Expected results achieved, except that the fill values specified on the command line appear to be unused. Seccmp should, at least, detect that the actual fill value for the destination sector differs from that specified on the command line.</p>

Case Scp-06	
Case Summary:	<p>Run <i>Seccmp</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify two diskwipe-style filled sectors, with the same fill value, but different headers (different C/H/S and LBA addresses).
Tester Name:	SIG
Test Date:	Tue Jun 03 15:55:30 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model</p>

	(QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	<p>Boot to DOS.</p> <p>Edit the destination sector so that the fill value is the same as for the source sector, but the diskwipe-style headers (that contains the C/H/S and LBA addresses) are different.</p> <p>Z:\SS\SECCMP.EXE SCP-06 Beta3 80 aa 81 bb /new_log /sector 62 61</p>
Log Files location:	Test-archive\Seccmp\Scp-06\
Log File Highlights:	<p>cmd: Z:\SS\SECCMP.EXE SCP-06 Beta3 80 aa 81 bb /new_log /sector 62 61</p> <p>TEST SCP-06 HOST Beta3</p> <p>Comment: Comparing diskwipe sectors, equal except headers</p> <p>Source disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination disk Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 62 (62+0) Dst 61 (61+0)</p> <p>Src filled by AA from 00000/000/63 000000000062</p> <p>Dst filled by AA from 00000/000/62 000000000061</p> <p>2 bytes different</p> <p>run start Tue Jun 03 15:55:30 2003</p> <p>run finish Tue Jun 03 15:55:31 2003</p> <p>elapsed time 0:0:1</p> <p>Normal exit</p>
Expected Results:	<p>Seccmp determines that the sectors are diskwipe-style filled.</p> <p>Seccmp detects that the destination sector fill value differs from the one specified on the command line.</p> <p>Seccmp compares the sectors and finds them different.</p>

	<p>Seccmp logs the number of bytes that differ.</p> <p>Note: Actually, seccmp is not required to compare the sectors, because they are diskwipe-style filled.</p>
Actual Results:	It seems that Seccmp ignores the fill values specified on the command line. Otherwise, no anomalies are detected.
Analysis:	Expected results achieved, except that the fill values specified on the command line appear to be unused. Seccmp should, at least, detect that the actual fill value for the destination sector differs from that specified on the command line.

Case Scp-07	
Case Summary:	<p>Run <i>Seccmp</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify a source sector that is diskwipe-style filled, and a destination sector that is zero-filled.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:02:36 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS.</p> <p>Zero the destination sector:</p> <p>Z:\SS\DISKCHG.EXE SCP-07 Beta3 81 /new_log /zero 24255</p> <p>Compare the sectors:</p> <p>Z:\SS\SECCMP.EXE SCP-07 Beta3 80 aa 81 bb /new_log /sector 80388 24255</p>
Log Files location:	Test-archive\Seccmp\Scp-07\
Log File Highlights:	<p>CG81ZLOG.TXT: zero the destination sector</p> <p>cmd: Z:\SS\DISKCHG.EXE SCP-07 Beta3 81 /new_log /zero 24255</p> <p>TEST SCP-07 HOST Beta3</p> <p>Comment: Zeroing a sector for sector comparison</p> <p>Target disk Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial #</p>

```

(111615915652)
Max number of user addressable sectors reported by ATA
identify device command 3335472

Disk addr lba 24255 C/H/S 6/1/1
Zero sector 24255 OK
run start Tue Jun 03 16:02:36 2003
run finish Tue Jun 03 16:02:58 2003
elapsed time 0:0:22
Normal exit

SECLOG.TXT: compare the sectors
cmd: Z:\SS\SECCMP.EXE SCP-07 Beta3 80 aa 81 bb
/new_log /sector 80388 24255
TEST SCP-07 HOST Beta3
Comment: Comparing one sector diskwipe, one zero
Source disk Drive 0x80, BIOS: Legacy
Interrupt 13 bios 0782/254/63 (max cyl/hd values)
Interrupt 13 ext 00783/255/63 (number of cyl/hd)
12578895 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD64AA) serial # (WD-
WM6533500903)
Max number of user addressable sectors reported by ATA
identify device command 12594960
Destination disk Drive 0x81, BIOS: Legacy
Interrupt 13 bios 0825/063/63 (max cyl/hd values)
Interrupt 13 ext 00826/064/63 (number of cyl/hd)
3330432 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (QUANTUM SIROCCO1700A) serial #
(111615915652)
Max number of user addressable sectors reported by ATA
identify device command 3335472

Compare sectors at: Src 80388 (80388+0) Dst 24255
(24255+0)
Src  0: 30 30 30 30 35 2F 30 30 31 2F 30 31 20 30 30 30
diff : ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
Dst  0: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
-----
...
511 bytes different

run start Tue Jun 03 16:06:32 2003

```

	run finish Tue Jun 03 16:06:36 2003 elapsed time 0:0:4 Normal exit
Expected Results:	Seccmp compares the sectors (it should not matter that one is diskwipe-style filled and one is zero-filled) and finds them different. Seccmp logs all the differences.
Actual Results:	No anomalies are detected.
Analysis:	Expected results achieved.

Case Scp-08	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify a source sector that is diskwipe-style filled, and a destination sector that is neither zero-filled, nor diskwipe-style filled.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:23:02 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Edit the destination sector so that it is neither zero-filled, nor diskwipe-style filled. Compare the sectors: Z:\SS\SECCMP.EXE SCP-08 Beta3 80 aa 81 bb /new_log /sector 80388 24255
Log Files location:	Test-archive\Seccmp\Scp-08\
Log File Highlights:	cmd: Z:\SS\SECCMP.EXE SCP-08 Beta3 80 aa 81 bb /new_log /sector 80388 24255 TEST SCP-08 HOST Beta3 Comment: Comparing one diskwipe sector, one non-zero, non-diskwipe Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy

	Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	<p>Boot to DOS.</p> <p>Zero both the source and destination sectors: Z:\SS\DISKCHG.EXE SCP-09 Beta3 80 /new_log /zero 80388 Z:\SS\DISKCHG.EXE SCP-09 Beta3 81 /new_log /zero 24255</p> <p>Compare the sectors: Z:\SS\SECCMP.EXE SCP-09 Beta3 80 aa 81 bb /new_log /sector 80388 24255</p>
Log Files location:	Test-archive\Seccmp\Scp-09\
Log File Highlights:	<p>CG80ZLOG.TXT: zero the source sector cmd: Z:\SS\DISKCHG.EXE SCP-09 Beta3 80 /new_log /zero 80388 TEST SCP-09 HOST Beta3 Comment: Zeroing a sector for comparison Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 Zero sector 80388 OK run start Tue Jun 03 16:30:56 2003 run finish Tue Jun 03 16:31:11 2003 elapsed time 0:0:15 Normal exit</p> <p>CG81ZLOG.TXT: zero the destination sector cmd: Z:\SS\DISKCHG.EXE SCP-09 Beta3 81 /new_log /zero 24255 TEST SCP-09 HOST Beta3 Comment: Zeroing the destination sector for comparison Target disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial #</p>

	<p>(111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Disk addr lba 24255 C/H/S 6/1/1 Zero sector 24255 OK run start Tue Jun 03 16:31:33 2003 run finish Tue Jun 03 16:31:55 2003 elapsed time 0:0:22 Normal exit</p> <p>SECLOG.TXT: compare sectors cmd: Z:\SS\SECCMP.EXE SCP-09 Beta3 80 aa 81 bb /new_log /sector 80388 24255 TEST SCP-09 HOST Beta3 Comment: Comparing two zeroed sectors Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 80388 (80388+0) Dst 24255 (24255+0) 0 bytes different</p> <p>run start Tue Jun 03 16:34:14 2003 run finish Tue Jun 03 16:34:16 2003 elapsed time 0:0:2 Normal exit</p>
Expected Results:	Seccmp finds the sectors identical.
Actual Results:	No anomalies are detected.

Analysis:	Expected results achieved.
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Case Scp-10	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify a source sector that is zero-filled, and a destination sector that is neither zero-filled, nor diskwipe-style filled.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:39:59 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Zero the source sector (if run right after Scp-09, skip this step). Edit the destination sector so that it is neither zero-filled, nor diskwipe-style filled. Compare the sectors: Z:\SS\SECCMP.EXE SCP-10 Beta3 80 aa 81 bb /new_log /sector 80388 24255
Log Files location:	Test-archive\Seccmp\Scp-10\
Log File Highlights:	cmd: Z:\SS\SECCMP.EXE SCP-10 Beta3 80 aa 81 bb /new_log /sector 80388 24255 TEST SCP-10 HOST Beta3 Comment: Comparing source sector zero, dst sector non-zero, non-diskwipe Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS

	<p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 80388 (80388+0) Dst 24255 (24255+0) Src 0: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 diff : ** Dst 0: 00 00 22 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ----- Src 16: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 diff : ** Dst 16: 00 00 00 44 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ----- Src 32: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 diff : ** Dst 32: 00 00 00 00 66 00 00 00 00 00 00 00 00 00 00 00 00 00 3 bytes different</p> <p>run start Tue Jun 03 16:39:59 2003 run finish Tue Jun 03 16:40:01 2003 elapsed time 0:0:2 Normal exit</p>
Expected Results:	Seccmp compares the sectors and finds them different. Seccmp logs all the differences.
Actual Results:	No anomalies are detected.
Analysis:	Expected results achieved.

Case Scp-11	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify a source sector and a destination sector with the same contents, neither diskwipe-style filled, nor zero-filled.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:23:02 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS.

	<p>Edit the source and destination sectors so that they have the same contents, neither zero-filled, nor diskwipe-style filled.</p> <p>Compare the sectors: Z:\SS\SECCMP.EXE SCP-11 Beta3 80 aa 81 bb /new_log /sector 80388 24255</p>
Log Files location:	Test-archive\Seccmp\Scp-11\
Log File Highlights:	<p>cmd: Z:\SS\SECCMP.EXE SCP-11 Beta3 80 aa 81 bb /new_log /sector 80388 24255 TEST SCP-11 HOST Beta3 Comment: Comparing two sectors, equal Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 80388 (80388+0) Dst 24255 (24255+0) 0 bytes different</p> <p>run start Tue Jun 03 16:44:24 2003 run finish Tue Jun 03 16:44:25 2003 elapsed time 0:0:1 Normal exit</p>
Expected Results:	Seccmp compares the sectors and finds them different. Seccmp logs all the differences.
Actual Results:	No anomalies are detected.
Analysis:	Expected results achieved.

Case Scp-12	
Case Summary:	Run <i>Seccmp</i> on:

	<ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Using /sector, specify a source sector and a destination sector with the different contents, neither diskwipe-style filled, nor zero-filled.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:46:11 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	<p>Boot to DOS.</p> <p>Edit the source and destination sectors so that they have different contents, neither zero-filled, nor diskwipe-style filled.</p> <p>Compare the sectors:</p> <p>Z:\SS\SECCMP.EXE SCP-12 Beta3 80 aa 81 bb /new_log /sector 80388 24255</p>
Log Files location:	Test-archive\Seccmp\Scp-12\
Log File Highlights:	<p>cmd: Z:\SS\SECCMP.EXE SCP-12 Beta3 80 aa 81 bb /new_log /sector 80388 24255</p> <p>TEST SCP-12 HOST Beta3</p> <p>Comment: Comparing two sectors, not equal</p> <p>Source disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination disk Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Compare sectors at: Src 80388 (80388+0) Dst 24255 (24255+0)</p>

	<pre> Src 48: 00 00 00 00 00 77 00 00 00 00 00 00 00 00 00 00 diff : ** Dst 48: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ----- Src 64: 00 00 00 00 00 00 88 00 00 00 00 00 00 00 00 00 diff : ** Dst 64: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 2 bytes different run start Tue Jun 03 16:46:11 2003 run finish Tue Jun 03 16:46:13 2003 elapsed time 0:0:2 Normal exit </pre>
Expected Results:	Seccmp compares the sectors and finds them different. Seccmp logs all the differences.
Actual Results:	No anomalies are detected.
Analysis:	Expected results achieved.

Case Scp-13	
Case Summary:	Run <i>Seccmp</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /? Switch.
Tester Name:	SIG
Test Date:	Tue Jun 03 16:48:10 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCMP.EXE SCP-12 Beta3 80 aa 81 bb /? /sector 80388 24255 > A:\SECCMP.LOG
Log Files location:	Test-archive\Seccmp\Scp-13\
Log File Highlights:	Z:\SS\SECCMP.EXE compiled at 12:48:33 on Oct 11 2001 Usage: Z:\SS\SECCMP.EXE case host src-drv src-fill dst-drv dst-fill [/opts] /comment "... " Descriptive comment /sector src_lba dst_lba Specify the sectors to compare /log name.txt Specify an alternate log file name /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	Seccmp displays its usage mode on the standard output.
Actual Results:	No anomalies are detected.

Analysis:	Expected results achieved.
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3.3.5 *Seccopy* Test Results Summary

Case Scy-01	
Case Summary:	Run <i>Seccopy</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with one-word comment. - Copy a number of sectors from the beginning of the source disk to the beginning of the destination disk.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:19:57 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCOPY.EXE SCY-01 Beta3 80 0 81 0 5 /comment OneWordComment
Log Files location:	Test-archive\Seccopy\Scy-01\
Log File Highlights:	<pre> cmd: Z:\SS\SECCOPY.EXE SCY-01 Beta3 80 0 81 0 5 /comment OneWordComment TEST SCY-01 HOST Beta3 Comment: OneWordComment Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy 5 sectors from 80 0 to 81 0 </pre>

	5 sectors copied from 80 to 81 run start Wed Jun 04 12:19:57 2003 run finish Wed Jun 04 12:20:03 2003 elapsed time 0:0:6 Normal exit
Expected Results:	A new log file with the name COPYLOG.TXT is created. The comment is logged. Logged information is correct. Seccmp copies the sectors as specified.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-02	
Case Summary:	Run <i>Seccopy</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with a multi-word comment. - Copy a number of sectors from the end of the source disk to the end of the destination disk.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:23:00 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCOPY.EXE SCY-02 Beta3 80 783/254/60 81 827/15/60 4 /comment "Multi-word comment, append log, copy last 4 sectors"
Log Files location:	Test-archive\Seccopy\Scy-02\
Log File Highlights:	cmd: Z:\SS\SECCOPY.EXE SCY-02 Beta3 80 783/254/60 81 827/15/60 4 /comment Multi-word comment, append log, copy last 4 sectors TEST SCY-02 HOST Beta3 Comment: Multi-word comment, append log, copy last 4 sectors Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960

	<p>Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy length (4) exceeds (12594960) Source disk size (12594956)</p>
Expected Results:	<p>Seccopy appends the log to the existing log file created in test case Scy-01. The comment is logged. Logged information is correct. Seccmp copies the sectors as specified.</p>
Actual Results:	<p>Seccopy incorrectly detects that the source sectors extend beyond the end of the source disk, and does not copy any source sector.</p>
Analysis:	<p>The expected results were not achieved, either because diskcopy incorrectly computes the disk size (see last line in the log), or because of an incorrect comparison between the source_address+count and the last_sector_address.</p>

Case Scy-03	
Case Summary:	<p>Run <i>Seccopy</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Copy a number of sectors from the end of the source disk but not including the last sector, to the end of the destination disk not including the last sector.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:24:23 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS. Z:\SS\SECCOPY.EXE SCY-03 Beta3 80 783/254/60 81 827/15/60 3 /new_log</p>
Log Files location:	Test-archive\Seccopy\Scy-03\
Log File Highlights:	<p>cmd: Z:\SS\SECCOPY.EXE SCY-03 Beta3 80 783/254/60 81 827/15/60 3 /new_log</p>

	<p>TEST SCY-03 HOST Beta3</p> <p>Comment: Copy last 3 sectors before last, prompt for comment, new log file</p> <p>Source Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Copy 3 sectors from 80 12594956 to 81 3335468</p> <p>3 sectors copied from 80 to 81</p> <p>run start Wed Jun 04 12:24:23 2003</p> <p>run finish Wed Jun 04 12:25:11 2003</p> <p>elapsed time 0:0:48</p> <p>Normal exit</p>
Expected Results:	<p>A new log file with the name COPYLOG.TXT is created.</p> <p>The user is prompted for a comment. The comment is logged.</p> <p>Logged information is correct.</p> <p>Seccmp copies the sectors as specified.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-04	
Case Summary:	<p>Run <i>Seccopy</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /new_log switch. - Copy a number of sectors from the end of the source disk not including the last sector to the end of the destination disk including the last sector.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:26:19 2003
PC:	Beta3

Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCOPY.EXE SCY-04 Beta3 80 783/254/60 81 827/15/61 3 /new_log
Log Files location:	Test-archive\Seccopy\Scy-04\
Log File Highlights:	cmd: Z:\SS\SECCOPY.EXE SCY-04 Beta3 80 783/254/60 81 827/15/61 3 /new_log TEST SCY-04 HOST Beta3 Comment: Copy 3 sectors to the last 3 destination sectors Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy length (3) exceeds (3335472) Destination disk size (3335469)
Expected Results:	A new log file with the name COPYLOG.TXT is created. The user is prompted for a comment, which is logged. Logged information is correct. Seccmp copies the sectors as specified.
Actual Results:	Seccopy incorrectly detects that the destination sectors extend beyond the last disk sector, and does not copy any sector.
Analysis:	Expected results were not achieved, probably due to an incorrect comparison between destination_address + count and last_sector_address.

Case Scy-05	
Case Summary:	Run <i>Seccopy</i> on: - A computer with legacy BIOS

	<ul style="list-style-type: none"> - An IDE hard drive. - Use /new_log switch. - Specify a count, source and destination addresses such that the count is too large for the destination.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:28:20 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCOPY.EXE SCY-05 Beta3 80 63 81 3335465 10 /new_log
Log Files location:	Test-archive\Seccopy\Scy-05\
Log File Highlights:	<p>cmd: Z:\SS\SECCOPY.EXE SCY-05 Beta3 80 63 81 3335465 10 /new_log</p> <p>TEST SCY-05 HOST Beta3</p> <p>Comment: Count too large for destination</p> <p>Source Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Copy length (10) exceeds (3335475) Destination disk size (3335465)</p>
Expected Results:	<p>A new log file with the name COPYLOG.TXT is created.</p> <p>The user is prompted for a comment, which is logged.</p> <p>Logged information is correct.</p> <p>Seccmp detects that the sector count is too large for the destination disk and rejects the copy request.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-06	
Case Summary:	<p>Run <i>Seccopy</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with one-word comment. - Specify a count, source and destination addresses such that the destination address is too large.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:31:14 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS.</p> <p>Z:\SS\SECCOPY.EXE SCY-06 Beta3 80 63 81 3335480 10 /new_log</p>
Log Files location:	Test-archive\Seccopy\Scy-06\
Log File Highlights:	<p>cmd: Z:\SS\SECCOPY.EXE SCY-06 Beta3 80 63 81 3335480 10 /new_log</p> <p>TEST SCY-06 HOST Beta3</p> <p>Comment: Destination address too large</p> <p>Source Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Copy length (10) exceeds (3335490) Destination disk size (3335480)</p>
Expected Results:	<p>A new log file with the name COPYLOG.TXT is created.</p> <p>The user is prompted to enter a comment, which is logged.</p> <p>Logged information is correct.</p>

	Seccmp detects that the destination address is too large and rejects the copy request.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-07	
Case Summary:	<p>Run <i>Seccopy</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with one-word comment. - Specify a source address, a destination address, and a number of sectors to be copied, such that the source address is too large.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:35:08 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS.</p> <p>Z:\SS\SECCOPY.EXE SCY-07 Beta3 80 12594970 81 63 5 /new_log</p>
Log Files location:	Test-archive\Seccopy\Scy-07\
Log File Highlights:	<p>cmd: Z:\SS\SECCOPY.EXE SCY-07 Beta3 80 12594970 81 63 5 /new_log</p> <p>TEST SCY-07 HOST Beta3</p> <p>Comment: Source address too large</p> <p>Source Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Destination Drive 0x81, BIOS: Legacy</p> <p>Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p> <p>3330432 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p> <p>Max number of user addressable sectors reported by ATA identify device command 3335472</p>

	Copy length (5) exceeds (12594975) Source disk size (12594970)
Expected Results:	A new log file with the name COPYLOG.TXT is created. The user is prompted to enter a comment, which is logged. Logged information is correct. Seccmp detects that the source address is too large and rejects the copy request.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-08	
Case Summary:	Run <i>Seccopy</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use /comment with one-word comment. - Specify a source address, a destination address, and a sector count to be copied, such that the count is too large for the source.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:38:10 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Z:\SS\SECCOPY.EXE SCY-08 Beta3 80 12594950 81 63 20 /new_log
Log Files location:	Test-archive\Seccopy\Scy-08\
Log File Highlights:	cmd: Z:\SS\SECCOPY.EXE SCY-08 Beta3 80 12594950 81 63 20 /new_log TEST SCY-08 HOST Beta3 Comment: Count too large for source Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13

	<p>from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy length (20) exceeds (12594970) Source disk size (12594950)</p>
Expected Results:	<p>A new log file with the name COPYLOG.TXT is created. The user is prompted to enter a comment, which is logged. Logged information is correct. Seccmp detects that the sector count is too large for the source, and rejects the copy request.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Scy-09	
Case Summary:	<p>Run <i>Seccopy</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Use the <i>/?</i> switch.
Tester Name:	SIG
Test Date:	Wed Jun 04 12:45:14 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Boot to DOS. Z:\SS\SECCOPY.EXE SCY-09 Beta3 80 0 81 0 5 <i>/?</i> > A:\SECCOPY.LOG</p>
Log Files location:	Test-archive\Seccopy\Scy-09\
Log File Highlights:	<p>Z:\SS\SECCOPY.EXE compiled at 12:49:01 on Oct 11 2001 Usage: Z:\SS\SECCOPY.EXE test-case host src_drive src_addr dst_drive dst_addr length [/opts] /comment " ... " Give comment on command line <addr> can be specified as either an LBA address (an integer) or as cylinder/head/sector (three slash separated integers) /new_log Start a new log file (default is append to old log file) <i>/?</i> Print this option list</p>
Expected Results:	Seccopy displays its usage mode on the standard output.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

3.3.6 *Baddisk* Test Results Summary

Case Bdk-01	
Case Summary:	Run <i>Baddisk</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Mark a sector as defective for write. - Show that <i>diskchg</i> can read but not write the sector.
Tester Name:	SIG
Test Date:	Mon Jun 09 10:13:26 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Z:\SS\BADDISK 80 5 1 1 3 33 >A:\BADDISK.LOG Z:\SS\DISKCHG.EXE BDK-01 Beta3 80 /new_log /read 5/1/1 0 32 Z:\SS\DISKCHG.EXE BDK-01 Beta3 80 /write 5/1/1 26 55 /new_log
Log Files location:	Test-archive\Baddisk\Bdk-01\
Log File Highlights:	<p>BADDISK.LOG: 80 5 1 1 3 33 return code 00033 on command 00003 from disk 00080 at address 00005/00001/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/09/03 at 10:13:26) Going . . . TSR</p> <p>CG80RLOG.TXT: cmd: Z:\SS\DISKCHG.EXE BDK-01 Beta3 80 /new_log /read 5/1/1 0 32 TEST BDK-01 HOST Beta3 Comment: After BADDISK for write, reading is OK... Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p>

	<p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 000: 00 00 22 00 00 00 00 00 00 00 00 00 00 00 00 00 016: 00 00 00 44 00 00 00 00 00 00 00 00 00 00 00 00 run start Mon Jun 09 10:14:30 2003 run finish Mon Jun 09 10:15:14 2003 elapsed time 0:0:44 Normal exit</p> <p>CG80WLOG.TXT: cmd: Z:\SS\DISKCHG.EXE BDK-01 Beta3 80 /write 5/1/1 26 55 /new_log TEST BDK-01 HOST Beta3 Comment: ...but writing results in an error. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 26 write for update failed run start Mon Jun 09 10:16:42 2003 run finish Mon Jun 09 10:17:11 2003 elapsed time 0:0:29 Normal exit</p>
Expected Results:	<p>Baddisk logs its arguments on the standard output captured in BADDISK.LOG. Diskchg can read sector 5/1/1, but cannot write it.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Bdk-02	
Case Summary:	<p>Run <i>Baddisk</i> on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Mark a sector as defective for read. - Show that <i>diskchg</i> cannot read the sector, but can zero it.
Tester Name:	SIG
Test Date:	Wed Jun 11 09:58:02 2003
PC:	Beta3

Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Reboot to DOS.</p> <p>Run <i>baddisk</i> to mark a sector as read-defective: Z:\SS\BADDISK 80 5 1 1 2 32 >A:\BADDISK.LOG</p> <p>Run <i>diskchg</i> to read the sector: Z:\SS\DISKCHG.EXE BDK-02 Beta3 80 /new_log /read 5/1/1 0 32</p> <p>Run <i>diskchg</i> to zero the sector: Z:\SS\DISKCHG.EXE BDK-02 Beta3 80 /new_log /zero 5/1/1</p>
Log Files location:	Test-archive\Baddisk\Bdk-02\
Log File Highlights:	<p>BADDISK.LOG generated by <i>baddisk</i> marking a sector as read-defective: 80 5 1 1 2 32 return code 00032 on command 00002 from disk 00080 at address 00005/00001/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/11/03 at 09:58:02) Going . . . TSR</p> <p>CG80RLOG.TXT generated by <i>diskchg</i> trying to read the read-defective sector: cmd: Z:\SS\DISKCHG.EXE BDK-02 Beta3 80 /new_log /read 5/1/1 0 32 TEST BDK-02 HOST Beta3 Comment: Cannot read the sector marked as read-defective with BADDISK. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 offset 0 Disk read error 0x20 at sector 5/1/1 run start Wed Jun 11 10:02:09 2003 run finish Wed Jun 11 10:02:33 2003</p>

	<p>elapsed time 0:0:24 Normal exit</p> <p>CG80ZLOG.TXT generated by <i>diskchg</i> trying to zero the read-defective sector: cmd: Z:\SS\DISKCHG.EXE BDK-02 Beta3 80 /new_log /zero 5/1/1 TEST BDK-02 HOST Beta3 Comment: Can zero the sector marked as defective for read. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 80388 C/H/S 5/1/1 Zero sector 5/1/1 OK run start Wed Jun 11 10:00:49 2003 run finish Wed Jun 11 10:01:30 2003 elapsed time 0:0:41 Normal exit</p>
Expected Results:	<p>Baddisk logs its arguments on the standard output captured in BADDISK.LOG. Diskchg cannot read sector 5/1/1, but can zero it.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Bdk-03	
Case Summary:	<p>Run <i>Baddisk</i> multiple times on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - Mark different sectors as defective for read. - By examining those sectors with <i>diskchg</i>, show that <i>baddisk</i> correctly installs as multiple TSR.
Tester Name:	SIG
Test Date:	Wed Jun 11 10:10:46 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Reboot to DOS.

	Z:\SS\BADDISK 80 5 1 1 2 32 >A:\BADDISK.LOG Z:\SS\BADDISK 80 5 1 2 2 32 >>A:\BADDISK.LOG Z:\SS\DISKCHG.EXE BDK-03 Beta3 80 /new_log /exam
Log Files location:	Test-archive\Baddisk\Bdk-03\
Log File Highlights:	<p>BADDISK.LOG: 80 5 1 1 2 32 return code 00032 on command 00002 from disk 00080 at address 00005/00001/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/11/03 at 10:09:35) Going . . . TSR</p> <p>80 5 1 2 2 32 return code 00032 on command 00002 from disk 00080 at address 00005/00001/00002 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/11/03 at 10:10:46) Going . . . TSR</p> <p>CG80XLOG.TXT: cmd: Z:\SS\DISKCHG.EXE BDK-03 Beta3 80 /new_log /exam TEST BDK-03 HOST Beta3 Comment: Checking two or more BADDISK TSR are installed OK. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Offset 0 length 32 Disk addr lba 80388 C/H/S 5/1/1 offset 0 Disk read error 0x20 at sector 5/1/1</p> <p>Offset 0 length 32 Disk addr lba 80389 C/H/S 5/1/2 offset 0 Disk read error 0x20 at sector 5/1/2</p>

	<p>Offset 0 length 32 Disk addr lba 80390 C/H/S 5/1/3 offset 0 000: 30 30 30 30 35 2F 30 30 31 2F 30 33 20 30 30 30 016: 30 30 30 30 38 30 33 39 30 00 AA AA AA AA AA AA run start Wed Jun 11 10:11:30 2003 run finish Wed Jun 11 10:12:23 2003 elapsed time 0:0:53 Normal exit</p>
Expected Results:	<p>Baddisk logs its arguments on the standard output captured in BADDISK.LOG. Diskchg cannot read the sectors marked as defective, but can read neighboring sectors.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Bdk-04	
Case Summary:	<p>Run <i>Baddisk</i> specifying the last sector of the disk as reported by BIOS int13 and a sector outside the range, on:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive.
Tester Name:	SIG
Test Date:	Wed Jul 16 14:07:23 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	<p>Reboot to DOS.</p> <p>Run <i>baddisk</i> twice: Z:\SS\BADDISK 80 782 254 63 2 32 >A:\BADDISK.LOG Z:\SS\BADDISK 80 783 0 1 2 32 >>A:\BADDISK.LOG</p> <p>Run <i>diskchg</i> with /read for the two sectors: Z:\SS\DISKCHG.EXE BDK-04 Beta3 80 /read 782/254/63 0 32 /new_log Z:\SS\DISKCHG.EXE BDK-04 Beta3 80 /read 783/0/1 0 32</p>
Log Files location:	Test-archive\Baddisk\Bdk-04\
Log File Highlights:	<p>BADDISK.LOG: 80 782 254 63 2 32 return code 00032 on command 00002 from disk 00080 at address 00782/00254/00063</p>

	<p>Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (07/16/03 at 14:07:23) Going . . . TSR</p> <p>80 783 0 1 2 32 return code 00032 on command 00002 from disk 00080 at address 00783/00000/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 NOTE: requested cylinder beyond end of BIOS Now (07/16/03 at 14:08:03) Going . . . TSR</p> <p>CG80RLOG.TXT generated by <i>diskchg</i>: cmd: Z:\SS\DISKCHG.EXE BDK-04 Beta3 80 /read 782/254/63 0 32 /new_log TEST BDK-04 HOST Beta3 Comment: Trying to read a sector marked as read- defective. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 12578894 C/H/S 782/254/63 offset 0 Disk read error 0x20 at sector 782/254/63 run start Wed Jul 16 14:12:45 2003 run finish Wed Jul 16 14:13:07 2003 elapsed time 0:0:22 Normal exit ... cmd: Z:\SS\DISKCHG.EXE BDK-04 Beta3 80 /read 783/0/1 0 32 TEST BDK-04 HOST Beta3 Comment: Trying to read a sector beyond BIOS marked as read-defective. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p>
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	<p>Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 12578895 C/H/S 783/0/1 offset 0 Disk read error 0x20 at sector 783/0/1 run start Wed Jul 16 14:13:25 2003 run finish Wed Jul 16 14:13:50 2003 elapsed time 0:0:25 Normal exit</p>
Expected Results:	<p>Baddisk logs its arguments on the standard output captured in BADDISK.LOG, installs itself as a TSR, and begin monitoring disk read commands for the specified sectors.</p>
Actual Results:	<p>No anomalies detected.</p> <p>Note. It was expected baddisk to detect and use the disk geometry like the other FS-TST tools (e.g., diskchg, viz. running it in this test case). Seems that baddisk warns the user if a specified sector lies outside the range reported by BIOS interrupt 13, but still monitors I/O commands for that sector.</p>
Analysis:	<p>Expected results achieved.</p>

3.3.7 *Partcmp* Test Results Summary

Case Pcp-01	
Case Summary:	Compare two primary FAT32 partitions using: <ul style="list-style-type: none"> - A computer with legacy BIOS - IDE source and destination hard drives. - Source partition smaller than destination partition. - Partition contents equal on the length of the smaller one. - Use /comment with one-word comment. - Select partitions interactively.
Tester Name:	SIG
Test Date:	Wed Jun 11 11:00:57 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Create source partition smaller than destination partition using PartitionMagic. Run <i>seccopy</i> to copy the source partition onto destination: Z:\SS\SECCOPY.EXE PCP-01 Beta3 80 0/1/1 81 0/1/1 80262 /new_log Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-01 Beta3 80 AA 81 BB /comment InteractivePartitionSelection
Log Files location:	Test-archive\Partcmp\Pcp-01\
Log File Highlights:	COPYLOG.TXT generated by <i>seccopy</i>: cmd: Z:\SS\SECCOPY.EXE PCP-01 Beta3 80 0/1/1 81 0/1/1 80262 /new_log TEST PCP-01 HOST Beta3 Comment: Copying the source partition onto the dest. partition. Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd)

	<p>3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy 80262 sectors from 80 63 to 81 63 80262 sectors copied from 80 to 81 run start Wed Jun 11 10:56:56 2003 run finish Wed Jun 11 10:58:54 2003 elapsed time 0:1:58 Normal exit</p> <p>CMPPTLOG.TXT generated by <i>partcmp</i>: cmd: Z:\SS\PARTCMP.EXE PCP-01 Beta3 80 AA 81 BB /comment InteractivePartitionSelection TEST PCP-01 HOST Beta3 Comment: InteractivePartitionSelection Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000080262 0000/001/01 0004/254/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 1 at 63 for 80262 Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13</p>
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	<p>from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000084609 0000/001/01 0020/063/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 1 at 63 for 84609 Source base sector 63 Destination base sector 63 Sectors compared: 80262 Sectors match: 80262 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (80262) has 4347 fewer sectors than destination (84609) Zero fill: 0 Src Byte fill (AA): 0 Dst Byte fill (BB): 4347 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 80262-84608 Other fill range: Other not filled range: run start Wed Jun 11 11:00:57 2003 run finish Wed Jun 11 11:01:23 2003 elapsed time 0:0:26 Normal exit</p>
<p>Expected Results:</p>	<p>Partcmp prompts the user to select each partition by entering an index in the partition table. A new log file with the name CMPPTLOG.TXT is created.</p>

	The comment and program execution are logged. Logged information is correct. <i>Partcmp</i> determines that the partitions are equal on the length of the smallest (the source).
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-02	
Case Summary:	<p>Compare two primary FAT32 partitions using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination disks. - The source partition smaller than destination, with equal contents on the length of the smaller, except a few predetermined sectors (for example, use same partitions as in Pcp-01, and modify the contents of a sector of the source partition using <i>diskchg</i>). - Use /comment with multi-word comment. - Use /select to select partitions. - Append the log to the log file created in the previous test case.
Tester Name:	SIG
Test Date:	Wed Jun 11 11:09:02 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Run this test case after Pcp-01, without deleting the log file.</p> <p>Run <i>diskchg</i> to modify a sector of the source partition: Z:\SS\DISKCHG.EXE PCP-02 Beta3 80 /new_log /write 2/1/1 0 CC</p> <p>Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-02 Beta3 80 AA 81 BB /select 1 1 /comment "Comparing partitions, source modified, log appended"</p>
Log Files location:	Test-archive\Partcmp\Pcp-02\
Log File Highlights:	<p>CG80WLOG.TXT created by <i>diskchg</i>:</p> <p>cmd: Z:\SS\DISKCHG.EXE PCP-02 Beta3 80 /new_log /write 2/1/1 0 CC</p> <p>TEST PCP-02 HOST Beta3</p> <p>Comment: Modify a sector in the source partition.</p> <p>Target disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p>

	<p>12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 32193 C/H/S 2/1/1 offset 0 Update sector, old value 0x30, new value 0xCC run start Wed Jun 11 11:09:02 2003 run finish Wed Jun 11 11:09:23 2003 elapsed time 0:0:21 Normal exit</p> <p>CMPPTLOG.TXT created by <i>partcmp</i>: cmd: Z:\SS\PARTCMP.EXE PCP-02 Beta3 80 AA 81 BB /select 1 1 /comment Comparing partitions, source modified, log appended TEST PCP-02 HOST Beta3 Comment: Comparing partitions, source modified, log appended Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <table border="1"> <thead> <tr> <th>N</th> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot</th> <th>Partition type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>P 00000000</td> <td>63</td> <td>000080262</td> <td>0000/001/01</td> <td>0004/254/63</td> <td>0B Fat32</td> </tr> <tr> <td>2</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00</td> <td>empty entry</td> </tr> <tr> <td>3</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00</td> <td>empty entry</td> </tr> <tr> <td>4</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00</td> <td>empty entry</td> </tr> </tbody> </table> <p>P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 1 at 63 for 80262 Destination disk Drive 0x81, BIOS: Legacy</p>	N	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type	1	P 00000000	63	000080262	0000/001/01	0004/254/63	0B Fat32	2	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry	3	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry	4	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry
N	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type																														
1	P 00000000	63	000080262	0000/001/01	0004/254/63	0B Fat32																														
2	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry																														
3	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry																														
4	P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry																														

	<p>Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000084609 0000/001/01 0020/063/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 1 at 63 for 84609 Source base sector 63 Destination base sector 63 Sectors compared: 80262 Sectors match: 80261 Sectors differ: 1 Bytes differ: 1 Diffs range: 32130 Source (80262) has 4347 fewer sectors than destination (84609) Zero fill: 0 Src Byte fill (AA): 0 Dst Byte fill (BB): 4347 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 80262-84608 Other fill range: Other not filled range: run start Wed Jun 11 11:10:40 2003 run finish Wed Jun 11 11:11:02 2003 elapsed time 0:0:22 Normal exit</p>
Expected Results:	The log is appended to the log file CMPPTLOG.TXT

	created in the previous test case. The comment and program execution are logged. Logged information is correct. Partcmp determines that the partitions are equal on the length of the smallest one, except the modified sector.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-03	
Case Summary:	Compare two primary FAT32 partitions. Include the boot sectors in the comparison. Use: <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination disks. - The source partition smaller than destination. - /select to select partitions. - /new_log to force creation of a new log file, even if the old one exists. - /boot to force comparison of the boot sectors.
Tester Name:	SIG
Test Date:	
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Run this test case after Pcp-02, without deleting the log file. Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-03 Beta3 80 AA 81 BB /select 1 1 /boot /new_log
Log Files location:	Test-archive\Partcmp\Pcp-03\
Log File Highlights:	CMPPTLOG.TXT created by <i>partcmp</i>:
Expected Results:	A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp compares the partitions and their boot sectors and logs the results that are correct.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-04	
Case Summary:	<p>Compare a primary Linux ext2 and a primary FAT32 partitions, using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination disks. - The source partition larger than destination, with equal contents on the length of the smaller. - Use /new_log to force creation of a new log file. - Use /select to select partitions.
Tester Name:	SIG
Test Date:	Wed Jun 11 11:28:35 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Run this test case after Pcp-03, without deleting the log file.</p> <p>Use PartitionMagic to create the source (primary Linux ext2) and destination (primary FAT32) partitions, with the source larger than destination.</p> <p>Run <i>seccopy</i> to copy the destination sectors onto the source partition: Z:\SS\SECCOPY.EXE PCP-04 Beta3 81 0/1/1 80 0/1/1 84609 /new_log</p> <p>Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-04 Beta3 80 AA 81 BB /select 1 1 /new_log</p>
Log Files location:	Test-archive\Partcmp\Pcp-04\
Log File Highlights:	<p>COPYLOG.TXT created by seccopy: cmd: Z:\SS\SECCOPY.EXE PCP-04 Beta3 81 0/1/1 80 0/1/1 84609 /new_log TEST PCP-04 HOST Beta3 Comment: Copying the dest. partition onto the source partition (which is larger). Source Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p>

	<p>Destination Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Copy 84609 sectors from 81 63 to 80 63 84609 sectors copied from 81 to 80 run start Wed Jun 11 11:28:35 2003 run finish Wed Jun 11 11:32:01 2003 elapsed time 0:3:26 Normal exit</p> <p>CMPPTLOG.TXT created by partcmp: cmd: Z:\SS\PARTCMP.EXE PCP-04 Beta3 80 AA 81 BB /select 1 1 /new_log TEST PCP-04 HOST Beta3 Comment: Comparing source > destination. Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000096327 0000/001/01 0005/254/63 83 Linux 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 1 at 63 for 96327 Destination disk Drive 0x81, BIOS: Legacy</p>
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	<p>Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000084609 0000/001/01 0020/063/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 1 at 63 for 84609 Source base sector 63 Destination base sector 63 Sectors compared: 84609 Sectors match: 84609 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (96327) has 11718 more sectors than destination (84609) run start Wed Jun 11 11:42:59 2003 run finish Wed Jun 11 11:43:39 2003 elapsed time 0:0:40 Normal exit</p>
Expected Results:	<p>A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp determines that the partitions are equal on the length of the smallest one.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-05	
Case Summary:	When comparing two partitions, select an inexistent

	<p>partition. Use:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination disks. - Run <i>partcmp</i> with /new_log, and use the /select switch with an incorrect index. 																																			
Tester Name:	SIG																																			
Test Date:	Wed Jun 11 11:47:41 2003																																			
PC:	Beta3																																			
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>																																			
Execute:	<p>Run <i>partcmp</i> and select as destination an index that corresponds to an empty entry in the partition table:</p> <p>Z:\SS\PARTCMP.EXE PCP-05 Beta3 80 AA 81 BB /select 1 2 /new_log</p>																																			
Log Files location:	Test-archive\Partcmp\Pcp-05\																																			
Log File Highlights:	<p>cmd: Z:\SS\PARTCMP.EXE PCP-05 Beta3 80 AA 81 BB /select 1 2 /new_log</p> <p>TEST PCP-05 HOST Beta3</p> <p>Comment: Selecting inexisting partition.</p> <p>Source disk Drive 0x80, BIOS: Legacy</p> <p>Interrupt 13 bios 0782/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 00783/255/63 (number of cyl/hd)</p> <p>12578895 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903)</p> <p>Max number of user addressable sectors reported by ATA identify device command 12594960</p> <table border="1"> <thead> <tr> <th>N</th> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot</th> <th>Partition type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>P 000000063</td> <td>000096327</td> <td>0000/001/01</td> <td>0005/254/63</td> <td></td> <td>83 Linux</td> </tr> <tr> <td>2</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td></td> <td>00 empty entry</td> </tr> <tr> <td>3</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td></td> <td>00 empty entry</td> </tr> <tr> <td>4</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td></td> <td>00 empty entry</td> </tr> </tbody> </table> <p>P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition</p> <p>Source disk partition 1 at 63 for 96327</p> <p>Destination disk Drive 0x81, BIOS: Legacy</p>	N	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type	1	P 000000063	000096327	0000/001/01	0005/254/63		83 Linux	2	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry	3	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry	4	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry
N	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type																														
1	P 000000063	000096327	0000/001/01	0005/254/63		83 Linux																														
2	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry																														
3	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry																														
4	P 000000000	000000000	0000/000/00	0000/000/00		00 empty entry																														

	<p>Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000084609 0000/001/01 0020/063/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 2 at 0 for 0 Source base sector 63 Destination base sector 0 Sectors compared: 0 Sectors match: 0 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (96327) has 96327 more sectors than destination (0) run start Wed Jun 11 11:47:41 2003 run finish Wed Jun 11 11:48:15 2003 elapsed time 0:0:34 Normal exit</p>
Expected Results:	<p>A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp determines that the destination entry is empty, so it does not perform comparisons.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-06	
Case Summary:	Compare two primary FAT32 partitions of equal size,

	<p>with the same contents, using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source and destination disks. - Use /new_log to force creation of a new log file. - Use /select to select partitions.
Tester Name:	SIG
Test Date:	Wed Jun 11 12:07:47 2003
PC:	HecRamsey
Disks:	<p>Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)</p> <p>Destination: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)</p>
Execute:	<p>Use PartitionMagic to create same size FAT32 partitions (the disks have the same geometry).</p> <p>Run <i>seccopy</i> to copy the source sectors onto the destination partition: Z:\SS\SECCOPY.EXE PCP-06 HecRamsey 80 0/1/1 81 0/1/1 96327 /new_log</p> <p>Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-06 HecRamsey 80 AA 81 BB /select 1 1 /new_log</p>
Log Files location:	Test-archive\Partcmp\Pcp-06\
Log File Highlights:	<p>COPYLOG.TXT created by seccopy: cmd: Z:\SS\SECCOPY.EXE PCP-06 HecRamsey 80 0/1/1 81 0/1/1 96327 /new_log TEST PCP-06 HOST HecRamsey Comment: Copying source partition sectors onto destination. Source Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 Destination Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial #</p>

	<p>(WD-WMAAV2431177)</p> <p>Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Copy 96327 sectors from 80 63 to 81 63</p> <p>96327 sectors copied from 80 to 81</p> <p>run start Wed Jun 11 12:07:47 2003</p> <p>run finish Wed Jun 11 12:08:42 2003</p> <p>elapsed time 0:0:55</p> <p>Normal exit</p> <p>CMPPTLOG.TXT created by partcmp:</p> <p>cmd: Z:\SS\PARTCMP.EXE PCP-06 HecRamsey 80 AA 81 BB /select 1 1 /new_log</p> <p>TEST PCP-06 HOST HecRamsey</p> <p>Comment: Comparing two partition of the same size.</p> <p>Source disk Drive 0x80, BIOS: Extensions Present</p> <p>Interrupt 13 bios 1022/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 16383/016/63 (number of cyl/hd)</p> <p>39102336 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)</p> <p>Max number of user addressable sectors reported by ATA identify device command 39102336</p> <table border="1"> <thead> <tr> <th>N</th> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot Partition type</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>P 000000063</td> <td>000096327</td> <td>0000/001/01</td> <td>0005/254/63</td> <td>0B Fat32</td> </tr> <tr> <td>2</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00 empty entry</td> </tr> <tr> <td>3</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00 empty entry</td> </tr> <tr> <td>4</td> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00 empty entry</td> </tr> </tbody> </table> <p>P primary partition (1-4)</p> <p>S secondary (sub) partition</p> <p>X primary extended partition (1-4)</p> <p>x secondary extended partition</p> <p>Source disk partition 1 at 63 for 96327</p> <p>Destination disk Drive 0x81, BIOS: Extensions Present</p> <p>Interrupt 13 bios 1022/254/63 (max cyl/hd values)</p> <p>Interrupt 13 ext 16383/016/63 (number of cyl/hd)</p> <p>39102336 total number of sectors reported via interrupt 13 from the BIOS</p> <p>IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)</p>	N	Start LBA	Length	Start C/H/S	End C/H/S	boot Partition type	1	P 000000063	000096327	0000/001/01	0005/254/63	0B Fat32	2	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry	3	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry	4	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry
N	Start LBA	Length	Start C/H/S	End C/H/S	boot Partition type																										
1	P 000000063	000096327	0000/001/01	0005/254/63	0B Fat32																										
2	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry																										
3	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry																										
4	P 000000000	000000000	0000/000/00	0000/000/00	00 empty entry																										

	<p>Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>N Start LBA Length Start C/H/S End C/H/S boot Partition type</p> <p>1 P 000000063 000096327 0000/001/01 0005/254/63 0B Fat32</p> <p>2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</p> <p>P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition</p> <p>Destination disk partition 1 at 63 for 96327 Source base sector 63 Destination base sector 63 Sectors compared: 96327 Sectors match: 96327 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Wed Jun 11 12:09:12 2003 run finish Wed Jun 11 12:09:35 2003 elapsed time 0:0:23 Normal exit</p>
Expected Results:	<p>A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp determines that the partitions are the same size and equal.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-07	
Case Summary:	<p>Compare two primary FAT32 partitions of equal size, with the same contents. Include THE BOOT SECTORS in the comparison. Use:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source and destination disks. - /new_log to force creation of a new log file. - /select to select partitions.

	- /boot to force comparison of boot sectors.
Tester Name:	SIG
Test Date:	Wed Jun 11 12:16:12 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Destination: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	Use the partitions of test case PCP-06. Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-07 HecRamsey 80 AA 81 BB /select 1 1 /boot /new_log
Log Files location:	Test-archive\Partcmp\Pcp-07\
Log File Highlights:	CMPPTLOG.TXT created by <i>partcmp</i>: cmd: Z:\SS\PARTCMP.EXE PCP-07 HecRamsey 80 AA 81 BB /select 1 1 /boot /new_log TEST PCP-07 HOST HecRamsey Comment: Compare the boot sector too when two partitions have the same size. Source disk Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000096327 0000/001/01 0005/254/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 1 at 63 for 96327 Destination disk Drive 0x81, BIOS: Extensions Present

	<p>Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000096327 0000/001/01 0005/254/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 1 at 63 for 96327 Source base sector 0 Destination base sector 0 Sectors compared: 96390 Sectors match: 96328 Sectors differ: 62 Bytes differ: 30132 Diffs range: 1-62 run start Wed Jun 11 12:16:12 2003 run finish Wed Jun 11 12:16:45 2003 elapsed time 0:0:33 Normal exit</p>
Expected Results:	<p>A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp determines that the partitions are the same size and equal, but also compare the boot sectors, which most probably are different (use <i>diskedit</i> to examine them).</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Pcp-08	
Case Summary:	Compare two primary FAT32 large (>8GB) partitions.

	<p>Use:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source and destination disks. - /new_log to force creation of a new log file. - /select to select partitions.
Tester Name:	SIG
Test Date:	Wed Jun 11 12:51:09 2003
PC:	HecRamsey
Disks:	<p>Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)</p> <p>Destination: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)</p>
Execute:	<p>Use PartitionMagic to create two large (>8GB) primary FAT32 partitions.</p> <p>Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-08 HecRamsey 80 AA 81 BB /select 1 1 /new_log</p>
Log Files location:	Test-archive\Partcmp\Pcp-08\
Log File Highlights:	<p>CMPPTLOG.TXT created by <i>partcmp</i>: cmd: Z:\SS\PARTCMP.EXE PCP-08 HecRamsey 80 AA 81 BB /select 1 1 /new_log TEST PCP-08 HOST HecRamsey Comment: Comparing two large FAT32 partitions. Source disk Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 X 000000063 020482812 0000/001/01 1023/254/63 0C extended 2 S -151587082 -151587082 1014/246/54 1014/246/54 Boot F6 other 3 S -151587082 -151587082 1014/246/54 1014/246/54 Boot F6 other 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 5 P 000000000 000000000 0000/000/00 0000/000/00</p>

```

00 empty entry
 6 P 000000000 000000000 0000/000/00 0000/000/00
00 empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Source disk partition 1 at 63 for 20482812
Destination disk Drive 0x81, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 16383/016/63 (number of cyl/hd)
39102336 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD200EB-00CSF0) serial #
(WD-WMAAV2431177)
Max number of user addressable sectors reported by ATA
identify device command 39102336
 N Start LBA Length Start C/H/S End C/H/S boot
Partition type
 1 X 000000063 020482812 0000/001/01 1023/254/63
0C extended
 2 S -151587082 -151587082 1014/246/54 1014/246/54
Boot F6 other
 3 S -151587082 -151587082 1014/246/54 1014/246/54
Boot F6 other
 4 P 000000000 000000000 0000/000/00 0000/000/00
00 empty entry
 5 P 000000000 000000000 0000/000/00 0000/000/00
00 empty entry
 6 P 000000000 000000000 0000/000/00 0000/000/00
00 empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Destination disk partition 1 at 63 for 20482812
Source base sector 63 Destination base sector 63
Sectors compared: 20482812
Sectors match: 96327
Sectors differ: 20386485
Bytes differ: 1347350762
Diffs range: 96327-20482811
run start Wed Jun 11 12:51:09 2003
run finish Wed Jun 11 13:01:32 2003
elapsed time 0:10:23
Normal exit

```

Expected Results:	A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp compares the partitions on the length of the smaller one and correctly reports the sizes and the number of equal and different sectors.
Actual Results:	Partcmp displays an incorrect partition table (like partab) for both disks. However, it compares sectors starting at the correct address, but the test cannot trust the number of sectors being compared or the comparison results.
Analysis:	Expected results NOT achieved.

Case Pcp-09	
Case Summary:	Compare two logical FAT16 partitions with the same size and contents. Use: <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source disk. - SCSI destination disk. - /new_log to force creation of a new log file. - /select to select partitions.
Tester Name:	SIG
Test Date:	Thu Jul 17 09:54:30 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 82 Physical Label 8C (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Destination: DOS Drive 83 Physical Label 13 Model (FUJITSU MAN3184MC), SCSI.
Execute:	Use PartitionMagic to create two logical FAT16 partitions, with the same size. Run seccopy to copy the source partition onto the destination: Z:\SS\SECCOPY.EXE PCP-09 HecRamsey 82 16128 83 16128 96327 /new_log Run partcmp to compare the partitions: Z:\SS\PARTCMP.EXE PCP-09 HecRamsey 82 AA 83 BB /select 2 2 /new_log
Log Files location:	Test-archive\Partcmp\Pcp-09\
Log File Highlights:	COPYLOG.TXT created by seccopy: cmd: Z:\SS\SECCOPY.EXE PCP-09 HecRamsey 82 16128 83 16128 96327 /new_log TEST PCP-09 HOST HecRamsey Comment: Copy src partition to dst

Source Drive 0x82, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 16383/016/63 (number of cyl/hd)
39102336 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD200EB-00CSF0) serial #
(WD-WMAAV2431177)
Max number of user addressable sectors reported by ATA
identify device command 39102336
Destination Drive 0x83, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 01023/255/63 (number of cyl/hd)
35885448 total number of sectors reported via interrupt 13
from the BIOS
Non-IDE disk
Copy 96327 sectors from 82 16128 to 83 16128
96327 sectors copied from 82 to 83
run start Thu Jul 17 09:54:30 2003
run finish Thu Jul 17 09:55:26 2003
elapsed time 0:0:56
Normal exit

CMPPTLOG.TXT created by *partcmp*:
cmd: Z:\SS\PARTCMP.EXE PCP-09 HecRamsey 82 AA
83 BB /select 2 2 /new_log
TEST PCP-09 HOST HecRamsey
Comment: Compare src partition to dst (logical FAT16,
same contents).
Source disk Drive 0x82, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 16383/016/63 (number of cyl/hd)
39102336 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD200EB-00CSF0) serial #
(WD-WMAAV2431177)
Max number of user addressable sectors reported by ATA
identify device command 39102336

N	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type
1	X 000016065	000096390	0001/000/01	0006/254/63		05 extended
2	S 000000063	000096327	0001/001/01	0006/254/63		06 Fat16
3	S 000000000	000000000	0000/000/00	0000/000/00		00 empty entry
4	P 000000000	000000000	0000/000/00	0000/000/00		

	<pre> 00 empty entry 5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 2 at 16128 for 96327 Destination disk Drive 0x83, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 X 000016065 000096390 0001/000/01 0006/254/63 05 extended 2 S 000000063 000096327 0001/001/01 0006/254/63 06 Fat16 3 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 2 at 16128 for 96327 Source base sector 16128 Destination base sector 16128 Sectors compared: 96327 Sectors match: 96327 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Thu Jul 17 09:56:05 2003 run finish Thu Jul 17 09:56:49 2003 elapsed time 0:0:44 Normal exit </pre>
Expected Results:	A new log file CMPPTLOG.TXT is created.

	<p>The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp compares the partitions and correctly reports the sizes and the number of equal and different sectors. Since the test copied the partitions, this should expect partition contents to be equal.</p>
Actual Results:	<p>No anomalies were detected.</p> <p>Note. Run <i>seccopy</i> using LBA sector addressing. Do not use C/H/S addresses in the partition table as displayed by <i>partcmp</i> or <i>partab</i> or other tools like PartitionMagic. FS-TST tools might use different disk geometry, and you might end up copying the wrong source sectors to the wrong destination.</p>
Analysis:	Expected results achieved.

Case Pcp-10	
Case Summary:	<p>Compare a Linux ext2 primary partition to a FAT32 primary partition when a few sectors were marked as read-defective. Use:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE disks. - /new_log to force creation of a new log file. - /select to select partitions.
Tester Name:	SIG
Test Date:	Wed Jun 11 13:21:04 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)</p>
Execute:	<p>Use PartitionMagic to create two logical FAT16 partitions.</p> <p>Run <i>baddisk</i> to mark some sectors of the source partition as read-defective: Z:\SS\BADDISK 80 2 1 1 2 32 >A:\BADDISK.LOG Z:\SS\BADDISK 80 3 1 1 2 32 >>A:\BADDISK.LOG</p> <p>Run <i>partcmp</i> to compare the partitions: Z:\SS\PARTCMP.EXE PCP-10 Beta3 80 AA 81 BB /select 1 1 /new_log</p>
Log Files location:	Test-archive\Partcmp\Pcp-10\
Log File Highlights:	BADDISK.LOG created by <i>baddisk</i>: 80 2 1 1 2 32

	<pre> return code 00032 on command 00002 from disk 00080 at address 00002/00001/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/11/03 at 13:28:34) Going . . . TSR 81 3 1 1 2 32 return code 00032 on command 00002 from disk 00081 at address 00003/00001/00001 Bios disk geometry: 00825/00063/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/11/03 at 13:28:51) Going . . . TSR CMPPTLOG.TXT created by partcmp: cmd: Z:\SS\PARTCMP.EXE PCP-10 Beta3 80 AA 81 BB /select 1 1 /new_log TEST PCP-10 HOST Beta3 Comment: Comparing partitions with disk read errors. Source disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000096327 0000/001/01 0005/254/63 83 Linux 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk partition 1 at 63 for 96327 </pre>
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	<p>Destination disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 000084609 0000/001/01 0020/063/63 0B Fat32 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Destination disk partition 1 at 63 for 84609 Source base sector 63 Destination base sector 63 read error at lba 12096, src 0 dst 32</p>
Expected Results:	<p>A new log file CMPPTLOG.TXT is created. The user is prompted to enter a comment. The comment and program execution are logged. Logged information is correct. Partcmp starts comparing the partitions. It abandons the comparison at the first read error encountered, which is reported.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

3.3.8 *Diskcmp* Test Results Summary

Case Dcp-01	
Case Summary:	Compare a source and a destination disk drives using: <ul style="list-style-type: none"> - A computer with legacy BIOS - IDE source and destination hard drives. - Source bigger than destination. - Source and destination have identical contents on the length of the smaller disk. - Use /comment with one-word comment. - No log files present.
Tester Name:	SIG
Test Date:	Thu Jun 12 11:16:16 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Run <i>seccopy</i> to copy first <i>count</i> sectors of the source disk to the destination disk, where <i>count</i> is the number of sectors of the destination: cmd: Z:\SS\SECCOPY.EXE DCP-01 Beta3 80 0 81 0 3335471 /new_log Run <i>diskcmp</i> to compare the disks: Z:\SS\DISKCMP.EXE DCP-01 Beta3 80 AA 81 BB /comment CompareDisks
Log Files location:	Test-archive\Diskcmp\Dcp-01\
Log File Highlights:	COPYLOG.TXT generated by <i>seccopy</i>: cmd: Z:\SS\SECCOPY.EXE DCP-01 Beta3 80 0 81 0 3335471 /new_log TEST DCP-01 HOST Beta3 Comment: Copy disks for disk compare testing. Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13

	<p>from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Copy 3335471 sectors from 80 0 to 81 0 3335471 sectors copied from 80 to 81 run start Thu Jun 12 11:16:16 2003 run finish Thu Jun 12 12:18:00 2003 elapsed time 1:1:44 Normal exit</p> <p>CMPLOG.TXT generated by <i>diskcmp</i>: cmd: Z:\SS\DISKCOMP.EXE DCP-01 Beta3 80 AA 81 BB /comment CompareDisks TEST DCP-01 HOST Beta3 Comment: CompareDisks Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Sectors compared: 3335472 Sectors match: 3335471 Sectors differ: 1 Bytes differ: 491 Diffs range 3335471 Source (12594960) has 9259488 more sectors than destination (3335472) 0 source read errors, 0 destination read errors run start Thu Jun 12 14:36:56 2003 run finish Thu Jun 12 14:48:29 2003 elapsed time 0:11:33</p>
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	Normal exit
Expected Results:	<i>Diskcmp</i> creates a new log file with the name CMPLOG.TXT is created. The comment and program execution are logged. Logged information is correct. <i>Diskcmp</i> compares the disks and logs the capacities, the number of sectors compared, and the number of equal and different sectors.
Actual Results:	No anomalies detected. Note: The test copied <i>count</i> – 1 sectors instead of <i>count</i> from the source to the destination because of <i>seccopy</i> limitations.
Analysis:	Expected results achieved.

Case Dcp-02	
Case Summary:	Compare a source and a destination disk drives using: <ul style="list-style-type: none"> - A computer with legacy BIOS - IDE source and destination hard drives. - Source smaller than destination. - Source and destination have identical contents on the length of the smaller disk. - Use /comment with multi-word comment. - Append the log to the existing log file.
Tester Name:	SIG
Test Date:	Thu Jun 12 16:30:44 2003
PC:	Beta3
Disks:	Source: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652) Destination: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Run <i>diskcmp</i> to compare the disks: Z:\SS\DISKCOMP.EXE DCP-02 Beta3 81 BB 80 AA /comment "Compare source < dest"
Log Files location:	Test-archive\Diskcmp\Dcp-02\
Log File Highlights:	CMPLOG.TXT generated by <i>diskcmp</i>: cmd: Z:\SS\DISKCOMP.EXE DCP-02 Beta3 81 BB 80 AA /comment Compare source < dest TEST DCP-02 HOST Beta3 Comment: Compare source < dest Source Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial #

	<p>(111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Destination Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Sectors compared: 3335472 Sectors match: 3335471 Sectors differ: 1 Bytes differ: 491 Diffs range 3335471 Source (3335472) has 9259488 fewer sectors than destination (12594960) Zero fill: 0 Src Byte fill (BB): 0 Dst Byte fill (AA): 9259488 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 3335472-12594959 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors run start Thu Jun 12 16:30:44 2003 run finish Thu Jun 12 17:10:13 2003 elapsed time 0:39:29 Normal exit</p>
Expected Results:	<p>Diskcmp appends the log to the existing log file created in the test case DCP-01. The comment and program execution are logged. Logged information is correct. Diskcmp compares the disks and logs the capacities, the number of sectors compared, and the number of equal and different sectors.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dcp-03	
Case Summary:	Compare a source and a destination disk drives using:

	<ul style="list-style-type: none"> - A computer with legacy BIOS - IDE source and destination hard drives. - Source and/or destination have sectors marked as read-defective by using <i>baddisk</i>. - Use /new_log.
Tester Name:	SIG
Test Date:	Fri Jun 13 11:15:38 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Run <i>baddisk</i> to mark a source sector as read-defective: Z:\SS\BADDISK 80 5 1 1 2 32 > A:\BADDISK.LOG Run <i>diskcmp</i> to compare the disks: Z:\SS\DISKCMP.EXE DCP-03 Beta3 80 AA 81 BB /new_log
Log Files location:	Test-archive\Diskcmp\Dcp-03\
Log File Highlights:	<p>BADDISK.LOG generated by <i>baddisk</i>: 80 5 1 1 2 32 return code 00032 on command 00002 from disk 00080 at address 00005/00001/00001 Bios disk geometry: 00782/00254/00063 Monitor BIOS interrupt 13h (disk service) baddisk compiled on 10/11/01 at 12:43:50 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Now (06/13/03 at 11:15:38) Going . . . TSR</p> <p>CMPLOG.TXT generated by <i>diskcmp</i>: cmd: Z:\SS\DISKCMP.EXE DCP-03 Beta3 80 AA 81 BB /new_log TEST DCP-03 HOST Beta3 Comment: Compare disk, where the source has a bad sector. Check interactive comment, new log file. Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy</p>

	<p>Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 src read error 0x20 on track starting at lba 80388 Sectors compared: 3335472 Sectors match: 3335470 Sectors differ: 1 Sectors skipped: 1 (due to 1 src & 0 dst I/O errors) Bytes differ: 491 Diffs range 3335471 Source (12594960) has 9259488 more sectors than destination (3335472) 1 source read errors, 0 destination read errors run start Fri Jun 13 11:16:43 2003 run finish Fri Jun 13 11:29:05 2003 elapsed time 0:12:22 Normal exit</p>
Expected Results:	<p><i>Diskcmp</i> appends the log to the existing log file created in the test case DCP-01. The comment and program execution are logged. Logged information is correct. <i>Diskcmp</i> compares the disks and logs the capacities, the number of sectors compared, the number of tracks with read errors, and the number of equal and different sectors.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dcp-04	
Case Summary:	<p>Compare a source and a destination disk drives using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS - IDE source and destination hard drives. - Source and destination disks have the same capacity. - Use /new_log.
Tester Name:	SIG
Test Date:	Fri Jun 13 11:15:38 2003
PC:	HecRamsey
Disks:	<p>Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD- WMA9L1986292) Destination: DOS Drive 81 Physical Label 8C Model</p>

	(WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Boot to DOS.</p> <p>Run <i>seccopy</i> to copy source disk to destination disk: Z:\SS\SECCOPY.EXE DCP-04 HecRamsey 80 0 81 0 39102335 /new_log</p> <p>Run <i>diskcmp</i> to compare the disks: Z:\SS\DISKCOMP.EXE DCP-04 HecRamsey 80 AA 81 BB /new_log</p>
Log Files location:	Test-archive\Diskcmp\Dcp-04\
Log File Highlights:	<p>COPYLOG.TXT generated by <i>seccopy</i>: cmd: Z:\SS\SECCOPY.EXE DCP-04 HecRamsey 80 0 81 0 39102335 /new_log TEST DCP-04 HOST HecRamsey Comment: Copy source disk onto dest. disk, for comparison. Source Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 Destination Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Copy 39102335 sectors from 80 0 to 81 0 39102335 sectors copied from 80 to 81 run start Fri Jun 13 14:01:06 2003 run finish Fri Jun 13 16:47:48 2003 elapsed time 2:46:42 Normal exit</p> <p>CMPLOG.TXT generated by <i>diskcmp</i>: cmd: Z:\SS\DISKCOMP.EXE DCP-04 HecRamsey 80 AA 81 BB /new_log TEST DCP-04 HOST HecRamsey</p>

	<p>Comment: Comparing two disks with same geometry. Their contents is the same, except last sector. Source Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 Destination Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Sectors compared: 39102336 Sectors match: 39102335 Sectors differ: 1 Bytes differ: 486 Diffs range 39102335 0 source read errors, 0 destination read errors run start Mon Jun 16 09:15:59 2003 run finish Mon Jun 16 09:37:11 2003 elapsed time 0:21:12 Normal exit</p>
Expected Results:	<p>Diskcmp creates a new log file. The user is prompted for a comment. The comment and program execution are logged. Logged information is correct. Diskcmp compares the disks and logs the capacities, the number of sectors compared, and the number of equal and different sectors.</p>
Actual Results:	No anomalies detected. Note: again, only <i>count</i> -1 sectors were equal due to <i>seccopy</i> 's limitations.
Analysis:	Expected results achieved.

Case Dcp-05	
Case Summary:	<p>Compare a source and a destination disk drives using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - IDE source and destination hard drives. - Source and destination disks are filled in <i>diskwipe</i>

	style. - Use /new_log.
Tester Name:	SIG
Test Date:	Fri Jun 13 12:02:44 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Run <i>diskwipe</i> to wipe out both the source and destination disks: Z:\SS\DISKWIPE.EXE DCP-05 Beta3 80 AA /src /noask /new_log Z:\SS\DISKWIPE.EXE DCP-05 Beta3 81 BB /dst /noask /new_log Run <i>diskcmp</i> to compare the disks: Z:\SS\DISKCOMP.EXE DCP-05 Beta3 80 AA 81 BB /new_log
Log Files location:	Test-archive\Diskcmp\Dcp-05\
Log File Highlights:	WIPESLOG.TXT generated by <i>diskwipe</i>: cmd: Z:\SS\DISKWIPE.EXE DCP-05 Beta3 80 AA /src /noask /new_log TEST DCP-05 HOST Beta3 Comment: Fill source with AA for disk comparison. Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD-WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with AA run start Fri Jun 13 12:02:44 2003 run finish Fri Jun 13 12:17:10 2003 elapsed time 0:14:26 Normal exit WIPEDLOG.TXT generated by <i>diskwipe</i>: cmd: Z:\SS\DISKWIPE.EXE DCP-05 Beta3 81 BB /dst /noask /new_log TEST DCP-05 HOST Beta3 Comment: Fill dest. disk for comparison.

	<p>Wipe Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 3335472 sectors wiped with BB run start Fri Jun 13 12:28:29 2003 run finish Fri Jun 13 12:35:17 2003 elapsed time 0:6:48 Normal exit</p> <p>CMPLOG.TXT generated by <i>diskcmp</i>: cmd: Z:\SS\DISKCOMP.EXE DCP-05 Beta3 80 AA 81 BB /new_log TEST DCP-05 HOST Beta3 Comment: Comparing disks filled diskwipe-style. Source Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Destination Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Sectors compared: 3335472 Sectors match: 0 Sectors differ: 3335472 Bytes differ: 1637912934 Diffs range 0-3335471 Source (12594960) has 9259488 more sectors than destination (3335472) 0 source read errors, 0 destination read errors</p>
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	run start Fri Jun 13 13:50:02 2003 run finish Fri Jun 13 14:06:00 2003 elapsed time 0:15:58 Normal exit
Expected Results:	<i>Diskcmp</i> creates a new log file. The user is prompted for a comment. The comment and program execution are logged. Logged information is correct. <i>Diskcmp</i> compares the disks and logs the capacities, the number of sectors compared, and the number of equal and different sectors. Due to filling the disks with different values, the test expect all compared sectors to be different.
Actual Results:	No anomalies detected. Note: It was expected that the fill values entered as arguments on <i>diskcmp</i> 's command line to be used in some way. It seems that they are not used in this case. However, in case Dcp-02 when the destination was larger, <i>diskcmp</i> displayed a count of zero- and <i>diskwipe</i> style filled sectors.
Analysis:	Expected results achieved.

Case Dcp-06	
Case Summary:	Run <i>diskcmp</i> with the /? switch.
Tester Name:	SIG
Test Date:	Fri Jun 13 14:10:00 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Boot to DOS. Run <i>diskcmp</i> : Z:\SS\DISKCOMP.EXE DCP-05 Beta3 80 AA 81 BB /new_log /? >A:\DISKCOMP.LOG
Log Files location:	Test-archive\Diskcmp\Dcp-06\
Log File Highlights:	DISKCOMP.LOG obtained redirecting stdout: Src drive 80 dst drive 81 Src fill 0xAA dst fill 0xBB Usage: Z:\SS\DISKCOMP.EXE test-case host src-drive src-fill dst-drive dst-fill [/options] /comment " ... " Descriptive comment /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	<i>Diskcmp</i> writes its usage mode to the standard output.
Actual Results:	No anomalies detected.

Analysis:	Expected results achieved.
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3.3.9 *Diskhash* Test Results Summary

Case Dhs-01	
Case Summary:	<p>Compute the SHA1 hash of a disk before running a forensic tool, using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS - An IDE hard drive. - /before. - /comment with one-word comment. - No log files present.
Tester Name:	SIG
Test Date:	Mon Jun 16 09:23:48 2003
PC:	Beta3
Disks:	Target: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	<p>Boot to DOS.</p> <p>Run <i>diskhash</i> to compute the hash of the target drive: Z:\SS\DISKHASH.EXE DKH-01 Beta3 81 /before /comment OneWordComment</p>
Log Files location:	Test-archive\Diskhash\Dhs-01\
Log File Highlights:	<p>HASHBLOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DKH-01 Beta3 81 /before /comment OneWordComment TEST DKH-01 HOST Beta3 Comment: OneWordComment Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) = 462B27F77D248013B1BAC4FFC7EE98DA26B83BEA run start Mon Jun 16 09:23:48 2003 run finish Mon Jun 16 10:28:32 2003 elapsed time 1:4:44 Normal exit</p>
Expected Results:	<p><i>Diskhash</i> creates a new log file with the name HASHBLOG.TXT. The comment and program execution are logged. Logged information is correct. <i>Diskhash</i> logs the number of sectors hashed and the hash value as a string of 40 hex digits (20 bytes).</p>

Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-02	
Case Summary:	<p>Modify a byte of a disk whose hash value was computed, and recompute the SHA1 hash after modifying the byte, using:</p> <ul style="list-style-type: none"> - The same disk as in Dhs-01, right after Dhs-01. - The /after switch. - The /comment switch with a multi-word comment.
Tester Name:	SIG
Test Date:	Mon Jun 16 13:37:35 2003
PC:	Beta3
Disks:	Target: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	<p>Run this test case right after Dhs-01. Run <i>diskchg</i> to view and change a byte of the target disk:</p> <pre>Z:\SS\DISKCHG.EXE DHS-02 Beta3 81 /read 100/0/1 0 32 /new_log Z:\SS\DISKCHG.EXE DHS-02 Beta3 81 /write 100/0/1 26 FF /new_log</pre> <p>Run <i>diskhash</i> to compute the hash of the target drive:</p> <pre>Z:\SS\DISKHASH.EXE DHS-02 Beta3 81 /after /comment "hash disk after changing one byte"</pre>
Log Files location:	Test-archive\Diskhash\Dhs-02\
Log File Highlights:	<p>CG80RLOG.TXT generated by <i>diskchg</i>: cmd: Z:\SS\DISKCHG.EXE DHS-02 Beta3 81 /read 100/0/1 0 32 /new_log TEST DHS-02 HOST Beta3 Comment: Read the initial contents of a sector. Target disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <pre>Disk addr lba 403200 C/H/S 100/0/1 offset 0 000: 30 30 31 30 30 2F 30 30 30 2F 30 31 20 30 30 30 016: 30 30 30 34 30 33 32 30 30 00 BB BB BB BB BB</pre>

	<p>BB</p> <p>run start Mon Jun 16 13:37:35 2003 run finish Mon Jun 16 13:37:59 2003 elapsed time 0:0:24 Normal exit</p> <p>CG80WLOG.TXT generated by <i>diskchg</i>: cmd: Z:\SS\DISKCHG.EXE DHS-02 Beta3 81 /write 100/0/1 26 FF /new_log TEST DHS-02 HOST Beta3 Comment: Modifying a single byte. Target disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472</p> <p>Disk addr lba 403200 C/H/S 100/0/1 offset 26 Update sector, old value 0xBB, new value 0xFF run start Mon Jun 16 13:39:15 2003 run finish Mon Jun 16 13:39:45 2003 elapsed time 0:0:30 Normal exit</p> <p>HASHALOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DHS-02 Beta3 81 /after /comment "hash disk after changing one byte" TEST DHS-02 HOST Beta3 Comment: hash disk after changing one byte Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) = 8A5CE23DD7723BDB3C6583B02286A2719395FE62 run start Mon Jun 16 13:43:01 2003 run finish Mon Jun 16 14:47:48 2003</p>
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	elapsed time 1:4:47 Normal exit
Expected Results:	Diskhash creates a new log file with the name HASHALOG.TXT. The comment and program execution are logged. Logged information is correct. Diskhash logs the number of sectors hashed and the hash value as a string of 40 hex digits (20 bytes). The hash value is different from the reference hash value computed in test case Dhs-01.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-03	
Case Summary:	Run diskhash again on the same disk as in Dhs-02, without modifications, in order to test the consistency of the hash computation, using: <ul style="list-style-type: none"> - The same disk as in Dhs-02, right after Dhs-02. - /after.
Tester Name:	SIG
Test Date:	Mon Jun 16 16:14:23 2003
PC:	Beta3
Disks:	Target: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Run this test case right after Dhs-02. Run diskhash to compute the hash of the target drive: Z:\SS\DISKHASH.EXE DHS-03 Beta3 81 /after
Log Files location:	Test-archive\Diskhash\Dhs-03\
Log File Highlights:	HASHALOG.TXT generated by diskhash: cmd: Z:\SS\DISKHASH.EXE DHS-03 Beta3 81 /after TEST DHS-03 HOST Beta3 Comment: Compute the hash again, disk contents unchanged. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) = 8A5CE23DD7723BDB3C6583B02286A2719395FE62 run start Mon Jun 16 16:14:23 2003

	run finish Mon Jun 16 17:19:58 2003 elapsed time 1:5:35 Normal exit
Expected Results:	<i>Diskhash</i> appends the log to the existing log file HASHALOG.TXT. <i>Diskhash</i> prompts the user for a comment. The comment and program execution are logged. Logged information is correct. <i>Diskhash</i> computes and logs the same hash value as that of test case Dhs-02.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-04	
Case Summary:	Modify one bit in the last byte of the same disk as in Dhs-03, and run <i>diskhash</i> again on the same disk. Use /after and /new_log.
Tester Name:	SIG
Test Date:	Tue Jun 17 16:01:34 2003
PC:	Beta3
Disks:	Source/target: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652)
Execute:	Run this test case right after Dhs-02. Run <i>diskchg</i> to modify the last byte of the disk: Z:\SS\DISKCHG.EXE DHS-04 Beta3 81 /write 827/15/63 511 ba /new_log Run <i>diskhash</i> to compute the hash of the source drive: Z:\SS\DISKHASH.EXE DHS-04 Beta3 81 /after /new_log
Log Files location:	Test-archive\Diskhash\Dhs-04\
Log File Highlights:	CG81WLOG.TXT generated by <i>diskchg</i>: cmd: Z:\SS\DISKCHG.EXE DHS-04 Beta3 81 /write 827/15/63 511 ba /new_log TEST DHS-04 HOST Beta3 Comment: Modifying last byte of the disk (from BB to BA). Target disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472

	<p>Disk addr lba 3335471 C/H/S 827/15/63 offset 511 Update sector, old value 0xBB, new value 0xBA run start Tue Jun 17 16:01:34 2003 run finish Tue Jun 17 16:02:18 2003 elapsed time 0:0:44 Normal exit</p> <p>HASHALOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DHS-04 Beta3 81 /after /new_log TEST DHS-04 HOST Beta3 Comment: Hash after modifying the last byte of the disk. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) = DF3F853CD78C092946A77ABD341230D004D0B55E run start Tue Jun 17 16:04:39 2003 run finish Tue Jun 17 17:10:14 2003 elapsed time 1:5:35 Normal exit</p>
Expected Results:	<p><i>Diskhash</i> creates a new log file HASHALOG.TXT. <i>Diskhash</i> prompts the user for a comment. The comment and program execution are logged. Logged information is correct. <i>Diskhash</i> computes and logs a hash value different from that of test case Dhs-03.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-05	
Case Summary:	<p>Run <i>diskhash</i> using:</p> <ul style="list-style-type: none"> - A PC with extended BIOS. - An IDE hard disk drive. - The /before and /new_log switches. <p>Use the Linux tool sha1sum to compute the SHA1 hash of the same disk. Compare the two hashes.</p>
Tester Name:	SIG
Test Date:	Mon Jun 16 13:54:12 2003

PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Boot to DOS using the FS-TST boot diskette. Run <i>diskhash</i> to compute the hash of the target drive: Z:\SS\DISKHASH.EXE DHS-05 HecRamsey 81 /before /new_log</p> <p>Reboot to Linux from the boot hard drive. Login as root. Mount the floppy drive /dev/fd0 on a directory "floppy". Run <i>sha1sum</i> to hash the source disk 81 (device /dev/hdd): sha1sum < /dev/hdd > floppy/SHA1SUM.LOG Unmount the floppy drive /dev/fd0.</p> <p>Reboot to DOS and compare the two hashes.</p>
Log Files location:	Test-archive\Diskhash\Dhs-05\
Log File Highlights:	<p>HASHBLOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DHS-05 HecRamsey 81 /before /new_log TEST DHS-05 HOST HecRamsey Comment: Computing the SHA1 sum for comparison with Linux's sha1sum result. Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Disk hash (39102336 sectors) = 392716FEBEE5F39EC6093E5A4820EBD0A2749005 run start Mon Jun 16 13:54:12 2003 run finish Mon Jun 16 19:28:42 2003 elapsed time 5:34:30 Normal exit</p> <p>SHA1SUM.LOG generated by <i>sha1sum</i>: 392716FEBEE5F39EC6093E5A4820EBD0A2749005 -</p>
Expected Results:	<i>Diskhash</i> creates a new log file HASHBLOG.TXT. <i>Diskhash</i> prompts the user for a comment.

	The comment and program execution are logged. Logged information is correct. The two hashes computed by <i>diskhash</i> and <i>sha1sum</i> are identical.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-06	
Case Summary:	Run <i>diskhash</i> using: <ul style="list-style-type: none"> - A PC with extended BIOS. - An SCSI hard disk drive. - The /before and /new_log switches. Use the Linux tool sha1sum to compute the SHA1 hash of the same disk. Compare the two hashes.
Tester Name:	SIG
Test Date:	Thu Jun 19 13:00:59 2003
PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Boot to DOS using the FS-TST boot diskette. Run <i>diskhash</i> to compute the hash of the target drive: Z:\SS\DISKHASH.EXE DHS-06 HecRamsey 82 /before /new_log Reboot to Linux from the boot hard drive. Login as root. Mount the floppy drive /dev/fd0 on a directory "floppy". Run <i>sha1sum</i> to hash the source disk 82 (device /dev/sda): sha1sum < /dev/sda > floppy/SHA1SUM.LOG Unmount the floppy drive /dev/fd0. Reboot to DOS and compare the two hashes.
Log Files location:	Test-archive\Diskhash\Dhs-06\
Log File Highlights:	HASHBLOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DHS-06 HecRamsey 82 /before /new_log TEST DHS-06 HOST HecRamsey Comment: Hashing a SCSI disk. Hash Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13

	<p>from the BIOS Non-IDE disk Disk hash (35885448 sectors) = EEB865B062C22BB8CCA485AB6E695481F44CF80F run start Thu Jun 19 13:00:59 2003 run finish Thu Jun 19 18:10:57 2003 elapsed time 5:9:58 Normal exit</p> <p>SHA1SUM.LOG generated by sha1sum: EEB865B062C22BB8CCA485AB6E695481F44CF80F -</p>
Expected Results:	<p><i>Diskhash</i> creates a new log file HASHBLOG.TXT. <i>Diskhash</i> prompts the user for a comment. The comment and program execution are logged. Logged information is correct. The two hashes computed by <i>diskhash</i> and <i>sha1sum</i> are identical.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-07	
Case Summary:	<p>Run <i>diskhash</i> using:</p> <ul style="list-style-type: none"> - A PC with legacy BIOS. - An IDE hard disk drive. - The /before and /new_log switches. <p>Use the Linux tool sha1sum to compute the SHA1 hash of the same disk. Compare the two hashes.</p>
Tester Name:	SIG
Test Date:	Wed Jul 09 10:06:50 2003
PC:	Beta3
Disks:	<p>Boot: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) - Linux. Source/target: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).</p>
Execute:	<p>Boot to DOS using the FS-TST boot diskette. Run <i>diskhash</i> to compute the hash of the target drive: Z:\SS\DISKHASH.EXE DHS-07 Beta3 81 /before /new_log</p> <p>Reboot to Linux from the boot hard drive. Login as root. Mount the floppy drive /dev/fd0 on a directory "floppy". Run <i>sha1sum</i> to hash the source disk 81 (device /dev/hdb): sha1sum < /dev/hdb > floppy/SHA1SUM.LOG Unmount the floppy drive /dev/fd0.</p>

	Reboot to DOS and compare the two hashes.
Log Files location:	Test-archive\Diskhash\Dhs-07\
Log File Highlights:	<p>HASHBLOG.TXT generated by <i>diskhash</i>: cmd: Z:\SS\DISKHASH.EXE DHS-07 Beta3 81 /before /new_log TEST DHS-07 HOST Beta3 Comment: Hash IDE disk, legacy BIOS, follow with sha1sum. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) = A8289A35B64D03802332BCD29581CDF981100F99 run start Wed Jul 09 10:06:50 2003 run finish Wed Jul 09 11:12:21 2003 elapsed time 1:5:31 Normal exit</p> <p>SHA1SUM.LOG generated by <i>sha1sum</i>: a8289a35b64d03802332bcd29581cdf981100f99 -</p>
Expected Results:	<p><i>Diskhash</i> creates a new log file HASHBLOG.TXT. <i>Diskhash</i> prompts the user for a comment. The comment and program execution are logged. Logged information is correct. The two hashes computed by <i>diskhash</i> and <i>sha1sum</i> are identical.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Dhs-08	
Case Summary:	Run <i>diskhash</i> using: - The <i>/?</i> switch.
Tester Name:	SIG
Test Date:	Thu Jun 19 13:00:59 2003
PC:	Any.
Disks:	Any.
Execute:	Boot to DOS using the FS-TST boot diskette. Run <i>diskhash</i> using the <i>/?</i> switch: Z:\SS\DISKHASH.EXE DHS-08 Beta3 81 /before

	<pre>/new_log /? > A:\DISKHASH.LOG</pre> <p>Examine the contents of A:\DISKHASH.LOG</p>
Log Files location:	Test-archive\Diskhash\Dhs-08\
Log File Highlights:	<p>DISKHASH.LOG containing <i>diskhash</i>'s stdout:</p> <p>Z:\SS\DISKHASH.EXE compiled at 12:46:10 on Oct 11 2001</p> <p>Usage: Z:\SS\DISKHASH.EXE test-case host drive [/options]</p> <p>/before Name logfile hashblog.txt (before test)</p> <p>/comment " ..." Give comment on command line</p> <p>/after Name logfile hashalog.txt (after test)</p> <p>Note that one of /before & /after is required</p> <p>/new_log Start a new log file (default is append to old log file)</p> <p>/? Print this option list</p>
Expected Results:	<i>Diskhash</i> displays its usage mode on the stdout.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

3.3.10 *Badx13* Test Results Summary

Case Bdx-01	
Case Summary:	Test how <i>badx13</i> behaves for IDE disks on a computer with extended BIOS. Specifically, try to simulate a write error on the first disk sector.
Tester Name:	SIG
Test Date:	Thu Jun 19 11:59:47 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Reboot to DOS.</p> <p>Run <i>badx13</i> to simulate a write error on the first sector: Z:\SS\BADX13 81 43 33 0 > A:\BADX13.LOG</p> <p>Run <i>diskchg</i> to write that sector: Z:\SS\DISKCHG.EXE BDX-01 HecRamsey 81 /new_log /write 0 0 77</p>
Log Files location:	Test-archive\Badx13\Bdx-01\
Log File Highlights:	<p>BADX13.LOG generated by <i>badx13</i>: Monitor BIOS interrupt 13h (disk service) <i>badx13</i> compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 33 for X13 command 43 from drive 81 at LBA sector 0 Now (06/19/03 at 11:59:47) Going . . . TSR</p> <p>CG81WLOG.TXT generated by <i>diskchg</i> with /write: cmd: Z:\SS\DISKCHG.EXE BDX-01 HecRamsey 81 /new_log /write 0 0 77 TEST BDX-01 HOST HecRamsey Comment: Reading and writing sector 0, which was marked as bad for writing (code 0x43). Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 0 C/H/S 0/0/1 offset 0</p>

	<p>write for update failed run start Thu Jun 19 12:01:53 2003 run finish Thu Jun 19 12:02:23 2003 elapsed time 0:0:30 Normal exit</p>
Expected Results:	Badx13 logs the command line arguments. It monitors the specified sector for write commands and returns the specified error code.
Actual Results:	<p>No anomalies detected.</p> <p>Note. Although <i>diskchg</i> reports a write failure, it does not report an error code. It is unclear whether this is a badx13 or a <i>diskchg</i> anomaly.</p>
Analysis:	Expected results were achieved.

Case Bdx-02	
Case Summary:	Test how badx13 behaves for IDE disks on a computer with extended BIOS. Specifically, try to simulate a read error on the last disk sector.
Tester Name:	SIG
Test Date:	Thu Jun 19 12:19:20 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Reboot to DOS.</p> <p>Run badx13 to simulate a read error on the last sector: Z:\SS\BADX13 81 42 32 39102335 > A:\BADX13.LOG</p> <p>Run <i>diskchg</i> to read that sector: Z:\SS\DISKCHG.EXE BDX-02 HecRamsey 81 /new_log /read 39102335 0 32</p> <p>Run <i>diskchg</i> to zero that sector: Z:\SS\DISKCHG.EXE BDX-02 HecRamsey 81 /new_log /zero 39102335</p>
Log Files location:	Test-archive\Badx13\Bdx-02\
Log File Highlights:	<p>BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 81 at LBA sector 39,102,335 Now (06/19/03 at 12:19:20) Going . . . TSR</p>

	<p>CG81RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE BDX-02 HecRamsey 81 /new_log /read 39102335 0 32 TEST BDX-02 HOST HecRamsey Comment: Trying to read last sector, which was marked as bad for reading. Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 39102335 C/H/S 38791/15/63 offset 0 Disk read error 0x20 at sector 38791/15/63 run start Thu Jun 19 12:21:35 2003 run finish Thu Jun 19 12:22:05 2003 elapsed time 0:0:30 Normal exit</p> <p>CG81ZLOG.TXT generated by <i>diskchg</i> with /zero: cmd: Z:\SS\DISKCHG.EXE BDX-02 HecRamsey 81 /new_log /zero 39102335 TEST BDX-02 HOST HecRamsey Comment: Trying to zero last sector, which was marked as bad for reading. Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 39102335 C/H/S 38791/15/63 Zero sector 39102335 OK run start Thu Jun 19 12:23:57 2003 run finish Thu Jun 19 12:24:24 2003 elapsed time 0:0:27 Normal exit</p>
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Expected Results:	Badx13 logs the command line arguments. It monitors the specified sector for read commands and returns the specified error code. The same sector can be written.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Bdx-03	
Case Summary:	Test how badx13 behaves for IDE disks on a computer with extended BIOS. Specifically, try to simulate a read error on the first disk sector. Then try to read first two sectors.
Tester Name:	SIG
Test Date:	Tue Jul 01 at 08:50:57 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	<p>Reboot to DOS.</p> <p>Run badx13 to simulate a read error on the first sector: Z:\SS\BADX13 81 42 32 0 > A:\BADX13.LOG</p> <p>Run diskchg to read the first two sectors, and capture the standard output:</p> <p>Z:\SS\DISKCHG.EXE BDX-03 HecRamsey 81 /new_log /read 0 0 32 /comment "Read sector 0 marked as bad for reading" >A:\READ0.TXT</p> <p>Z:\SS\DISKCHG.EXE BDX-03 HecRamsey 81 /read 1 0 32 /comment "Read sector 1" >A:\READ1.TXT</p>
Log Files location:	Test-archive\Badx13\Bdx-03\
Log File Highlights:	<p>BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 81 at LBA sector 0 Now (07/01/03 at 08:50:57) Going . . . TSR</p> <p>CG81RLOG.TXT generated by diskchg with /read for sector 0, sector 1, sector 2: cmd: Z:\SS\DISKCHG.EXE BDX-03 HecRamsey 81 /new_log /read 0 0 32 /comment Read sector 0 marked as bad for reading TEST BDX-03 HOST HecRamsey</p>

	<p>Comment: Read sector 0 marked as bad for reading Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 0 C/H/S 0/0/1 offset 0 Disk read error 0x20 at sector 0/0/1 run start Tue Jul 01 08:52:19 2003 run finish Tue Jul 01 08:52:26 2003 elapsed time 0:0:7 Normal exit</p> <p>...</p> <p>cmd: Z:\SS\DISKCHG.EXE BDX-03 HecRamsey 81 /read 1 0 32 /comment Read sector 1 TEST BDX-03 HOST HecRamsey Comment: Read sector 1 Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 1 C/H/S 0/0/2 offset 0 000: 30 30 30 30 30 2F 30 30 30 2F 30 32 20 30 30 30 016: 30 30 30 30 30 30 30 30 31 00 AA AA AA AA AA AA run start Tue Jul 01 08:53:14 2003 run finish Tue Jul 01 08:53:20 2003 elapsed time 0:0:6 Normal exit</p> <p>READ0.TXT containing the standard output of the first <i>diskchg</i> run: RD: make bad RD: make bad Z:\SS\DISKCHG.EXE compiled at 12:45:13 on Oct 11</p>
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	<p>2001 BIOS get_disk_parms 0 Open disk 0x81, of 3 disks, BIOS: Extensions Present Open WDC WD200EB-00CSF0 WD-WMAAV2431177 39102336 on drive 0x81 Z:\SS\DISKCHG.EXE could not access drive 81 status code 32 Target disk Drive 0x81, BIOS: Extensions Present ERROR: Carry flag set on disk I/O op Disk read error 0x20 at sector 0/0/1 elapsed time 0:0:7 Normal exit</p> <p>READ1.TXT containing the standard output of the second diskchg run: RD: make bad Z:\SS\DISKCHG.EXE compiled at 12:45:13 on Oct 11 2001 BIOS get_disk_parms 0 Open disk 0x81, of 3 disks, BIOS: Extensions Present Open WDC WD200EB-00CSF0 WD-WMAAV2431177 39102336 on drive 0x81 Z:\SS\DISKCHG.EXE could not access drive 81 status code 32 Target disk Drive 0x81, BIOS: Extensions Present 000: 30 30 30 30 30 2F 30 30 30 2F 30 32 20 30 30 30 016: 30 30 30 30 30 30 30 30 31 00 AA AA AA AA AA AA elapsed time 0:0:6 Normal exit</p>
Expected Results:	Badx13 logs the command line arguments. It monitors the specified sector for read commands and returns the specified error code. Other sectors should be readable.
Actual Results:	Diskchg reports the correct error code when it tries to read sector 0. It reads and displays sector 1. Note. However, diskchg complains that it “could not access drive 81 status code 32” – see READ1.TXT above.
Analysis:	Expected results were achieved. Note. Need to determine the source of the warning “could not access drive 81 status code 32”.

Case Bdx-04	
Case Summary:	Test how badx13 behaves for a SCSI hard drive mounted on a computer with extended BIOS. Specifically, use

	<i>badx13</i> to simulate a write error on the first sector of a SCSI disk, and then try to read that sector.
Tester Name:	SIG
Test Date:	Tue Jul 01 09:03:32 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	<p>Reboot to DOS.</p> <p>Run <i>badx13</i> to simulate a write error at the first sector: Z:\SS\BADX13 82 43 33 0 > A:\BADX13.LOG</p> <p>Run <i>diskchg</i> to read/write that sector and the next: Z:\SS\DISKCHG.EXE BDX-04 HecRamsey 82 /new_log /write 0 26 77 Z:\SS\DISKCHG.EXE BDX-04 HecRamsey 82 /write 1 26 77</p>
Log Files location:	Test-archive\Badx13\Bdx-04\
Log File Highlights:	<p>BADX13.LOG generated by <i>badx13</i>: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 33 for X13 command 43 from drive 82 at LBA sector 0 Now (07/01/03 at 09:03:32) Going . . . TSR</p> <p>CG82WLOG.TXT generated by <i>diskchg</i> with /write: cmd: Z:\SS\DISKCHG.EXE BDX-04 HecRamsey 82 /new_log /write 0 26 77 TEST BDX-04 HOST HecRamsey Comment: Read/write a sector marked as defective for write. Target disk Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 0 C/H/S 0/0/1 offset 26 write for update failed run start Tue Jul 01 09:05:46 2003 run finish Tue Jul 01 09:06:26 2003 elapsed time 0:0:40 Normal exit ...</p>

	<p>cmd: Z:\SS\DISKCHG.EXE BDX-04 HecRamsey 82 /write 1 26 77 TEST BDX-04 HOST HecRamsey Comment: Read/write next sector. Target disk Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 1 C/H/S 0/0/2 offset 26 Update sector, old value 0xCC, new value 0x77 run start Tue Jul 01 09:07:13 2003 run finish Tue Jul 01 09:07:45 2003 elapsed time 0:0:32 Normal exit</p>
Expected Results:	Badx13 logs the command line arguments. It monitors the specified sector for write commands and returns the specified error code. Sector 0 should be readable but not writeable. Other sectors should be writeable.
Actual Results:	No anomalies detected. Diskchg does not report the specified error code.
Analysis:	Expected results achieved.

Case Bdx-05	
Case Summary:	Test how badx13 behaves for a SCSI hard drive mounted on a computer with extended BIOS. Specifically, use badx13 to simulate a read error on the last sector of a SCSI disk, and then try to read and zero that sector by using diskchg .
Tester Name:	SIG
Test Date:	Tue Jul 01 09:16:02 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	<p>Reboot to DOS.</p> <p>Run badx13 to simulate a read error at the last sector: Z:\SS\BADX13 82 42 32 35885447 > A:\BADX13.LOG</p> <p>Run diskchg to read that sector: Z:\SS\DISKCHG.EXE BDX-05 HecRamsey 82 /new_log /read 35885447 0 32</p>

	<p>Run <i>diskchg</i> to zero that sector: Z:\SS\DISKCHG.EXE BDX-05 HecRamsey 82 /new_log /zero 35885447</p>
Log Files location:	Test-archive\Badx13\Bdx-05\
Log File Highlights:	<p>BADX13.LOG generated by <i>badx13</i>: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 82 at LBA sector 35,885,447 Now (07/01/03 at 09:16:02) Going . . . TSR</p> <p>CG82RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE BDX-05 HecRamsey 82 /new_log /read 35885447 0 32 TEST BDX-05 HOST HecRamsey Comment: Read last sector marked as read-defective. Target disk Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 35885447 C/H/S 2233/195/18 offset 0 Disk read error 0x20 at sector 2233/195/18 run start Tue Jul 01 09:17:54 2003 run finish Tue Jul 01 09:18:19 2003 elapsed time 0:0:25 Normal exit</p> <p>CG82ZLOG.TXT generated by <i>diskchg</i> with /zero: cmd: Z:\SS\DISKCHG.EXE BDX-05 HecRamsey 82 /new_log /zero 35885447 TEST BDX-05 HOST HecRamsey Comment: Zero last sector marked as read-defective. Target disk Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk</p> <p>Disk addr lba 35885447 C/H/S 2233/195/18 Zero sector 35885447 OK</p>

	run start Tue Jul 01 09:19:06 2003 run finish Tue Jul 01 09:19:24 2003 elapsed time 0:0:18 Normal exit
Expected Results:	Badx13 logs the command line arguments. It monitors the specified sector for read commands and returns the specified error code. Diskchg should be able to zero the specified sector.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Bdx-06	
Case Summary:	Test how badx13 behaves for a SCSI drive on a computer with extended BIOS. Specifically, use badx13 to simulate a read error on the first sector of a SCSI disk, and then try to read that sector and next few sectors.
Tester Name:	SIG
Test Date:	Tue Jul 01 09:24:06 2003
PC:	HecRamsey
Disks:	Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Reboot to DOS. Run badx13 to simulate a read error at the last sector: Z:\SS\BADX13 82 42 32 0 > A:\BADX13.LOG Run diskchg to read that sector and few next sectors: Z:\SS\DISKCHG.EXE BDX-06 HecRamsey 82 /new_log /read 0 0 32 > A:\READ0.TXT Z:\SS\DISKCHG.EXE BDX-06 HecRamsey 82 /read 1 0 32 > A:\READ1.TXT
Log Files location:	Test-archive\Badx13\Bdx-06\
Log File Highlights:	BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 82 at LBA sector 0 Now (07/01/03 at 09:24:06) Going . . . TSR CG80RLOG.TXT generated by diskchg with /read: cmd: Z:\SS\DISKCHG.EXE BDX-06 HecRamsey 82 /new_log /read 0 0 32 TEST BDX-06 HOST HecRamsey Comment: Read sector 0 marked as read-defective.

```
Target disk Drive 0x82, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 01023/255/63 (number of cyl/hd)
35885448 total number of sectors reported via interrupt 13
from the BIOS
Non-IDE disk

Disk addr lba 0 C/H/S 0/0/1 offset 0
Disk read error 0x20 at sector 0/0/1
run start Tue Jul 01 09:24:38 2003
run finish Tue Jul 01 09:25:10 2003
elapsed time 0:0:32
Normal exit
...
cmd: Z:\SS\DISKCHG.EXE BDX-06 HecRamsey 82
/read 1 0 32
TEST BDX-06 HOST HecRamsey
Comment: Read sector 1.
Target disk Drive 0x82, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 01023/255/63 (number of cyl/hd)
35885448 total number of sectors reported via interrupt 13
from the BIOS
Non-IDE disk

Disk addr lba 1 C/H/S 0/0/2 offset 0
000: 30 30 30 30 30 2F 30 30 30 2F 30 32 20 30 30 30
016: 30 30 30 30 30 30 30 30 31 00 77 CC CC CC CC
CC
run start Tue Jul 01 09:25:33 2003
run finish Tue Jul 01 09:25:44 2003
elapsed time 0:0:11
Normal exit

READ1.TXT containing the standard output of the
second diskchg run:
RD: make bad
Z:\SS\DISKCHG.EXE compiled at 12:45:13 on Oct 11
2001
BIOS get_disk_parms 0
Open disk 0x82, of 3 disks, BIOS: Extensions Present
Open non-IDE (SCSI?) disk on drive 0x82
Z:\SS\DISKCHG.EXE could not access drive 82 status
code 32
Insert a log disk, type a descriptive comment and press
ENTER
```

	Target disk Drive 0x82, BIOS: Extensions Present 000: 30 30 30 30 30 2F 30 30 30 2F 30 32 20 30 30 30 016: 30 30 30 30 30 30 30 30 31 00 77 CC CC CC CC CC elapsed time 0:0:11 Normal exit
Expected Results:	Badx13 logs the command line arguments. It monitors the read commands for the first disk sector and returns the specified error code. Diskchg can read the next sector.
Actual Results:	No anomalies detected. Although diskchg correctly reads and displays sector 1, first it complains that it “could not access drive 82 status code 32” – see READ1.TXT above.
Analysis:	Expected results achieved. Further analysis may be required to detect the source of the above warning.

Case Bdx-07	
Case Summary:	Test whether badx13 installs as multiple TSRs when run multiple times for different sectors and commands, for an IDE disk on a PC with extended BIOS.
Tester Name:	SIG
Test Date:	Tue Jul 01 09:31:02 2003
PC:	HexRamsey
Disks:	Target: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177)
Execute:	Reboot to DOS. Run badx13 multiple times: Z:\SS\BADX13 81 42 32 0 > A:\BADX13.LOG Z:\SS\BADX13 81 43 33 1 >> A:\BADX13.LOG Z:\SS\BADX13 81 43 33 2 >> A:\BADX13.LOG Run diskchg to read/write the sectors: Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /new_log /read 0 0 32 Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /new_log /write 1 26 77 Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /write 2 26 77
Log Files location:	Test-archive\Badx13\Bdx-07\
Log File Highlights:	BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 81 at LBA sector 0

	<p>Now (07/01/03 at 09:31:02) Going . . . TSR</p> <p>Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 33 for X13 command 43 from drive 81 at LBA sector 1 Now (07/01/03 at 09:31:26) Going . . . TSR</p> <p>Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 33 for X13 command 43 from drive 81 at LBA sector 2 Now (07/01/03 at 09:31:39) Going . . . TSR</p> <p>CG81RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /new_log /read 0 0 32 TEST BDX-07 HOST HecRamsey Comment: Read sector 0. Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 0 C/H/S 0/0/1 offset 0 Disk read error 0x20 at sector 0/0/1 run start Tue Jul 01 09:32:06 2003 run finish Tue Jul 01 09:32:26 2003 elapsed time 0:0:20 Normal exit</p> <p>CG81WLOG.TXT generated by <i>diskchg</i> with /zero: cmd: Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /new_log /write 1 26 77 TEST BDX-07 HOST HecRamsey Comment: Write sector 1. Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd)</p>
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	<p>39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 1 C/H/S 0/0/2 offset 26 write for update failed run start Tue Jul 01 09:32:55 2003 run finish Tue Jul 01 09:33:10 2003 elapsed time 0:0:15 Normal exit</p> <p>cmd: Z:\SS\DISKCHG.EXE BDX-07 HecRamsey 81 /write 2 26 77 TEST BDX-07 HOST HecRamsey Comment: Write sector 2. Target disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p> <p>Disk addr lba 2 C/H/S 0/0/3 offset 26 write for update failed run start Tue Jul 01 09:33:36 2003 run finish Tue Jul 01 09:34:00 2003 elapsed time 0:0:24 Normal exit</p>
Expected Results:	Badx13 logs the command line arguments. It monitors all specified commands for the specified sectors.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Bdx-08	
Case Summary:	Test whether badx13 detects a LBA address outside the correct range for a SCSI disk mounted on a computer with extended BIOS.
Tester Name:	SIG
Test Date:	Tue Jul 01 09:36:10 2003

PC:	HecRamsey
Disks:	Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Reboot to DOS. Run badx13 to simulate a read error at a sector outside the disk range: Z:\SS\BADX13 82 42 32 35885448 > A:\BADX13.LOG
Log Files location:	Test-archive\Badx13\Bdx-08\
Log File Highlights:	BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21 @(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 82 at LBA sector 35,885,448 Now (07/01/03 at 09:36:10) Going . . . TSR
Expected Results:	Detecting LBA addresses outside the correct range for a disk is not one of the requirements of Badx13 .
Actual Results:	Badx13 logs the arguments and installs itself as a TSR monitoring the specified address, although the address is outside the disk's range of addresses.
Analysis:	Unclear whether expected results were achieved.

Case Bdx-09	
Case Summary:	Test how badx13 behaves on a computer with legacy BIOS. Specifically, use badx13 to simulate a read error on the last sector of an IDE disk, as reported by ATA identify device command, and then try to read that sector.
Tester Name:	SIG
Test Date:	Tue Jul 01 09:37:46 2003
PC:	Beta3
Disks:	Target: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Reboot to DOS. Run badx13 to simulate a read error at the last sector: Z:\SS\BADX13 80 42 32 12594959 > A:\BADX13.LOG Run diskchg to read that sector: Z:\SS\DISKCHG.EXE BDX-09 Beta3 80 /new_log /read 12594959 0 32
Log Files location:	Test-archive\Badx13\Bdx-09\
Log File Highlights:	BADX13.LOG generated by badx13: Monitor BIOS interrupt 13h (disk service) badx13 compiled on 10/11/01 at 12:43:21

	<p>@(#) Version 3.1 Created 10/11/01 at 12:41:45 Return error code 32 for X13 command 42 from drive 80 at LBA sector 12,594,959 Now (07/01/03 at 09:37:46) Going . . . TSR</p> <p>CG80RLOG.TXT generated by <i>diskchg</i> with /read: cmd: Z:\SS\DISKCHG.EXE bdx-09 Beta3 80 /new_log /read 12594959 0 32 TEST bdx-09 HOST Beta3 Comment: Trying to read last sector, marked as defective. Target disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960</p> <p>Disk addr lba 12594959 C/H/S 783/254/63 offset 0 000: 30 30 37 38 33 2F 32 35 34 2F 36 33 20 30 30 30 016: 30 31 32 35 39 34 39 35 39 00 AA AA AA AA AA AA run start Tue Jul 01 09:38:28 2003 run finish Tue Jul 01 09:39:05 2003 elapsed time 0:0:37 Normal exit</p>
Expected Results:	<p><i>Badx13</i> logs the command line arguments. It either should detect a legacy BIOS and reject the request, or install itself as a TSR, monitor read commands for the last sector of the disk, and return the specified error code.</p>
Actual Results:	<p><i>Badx13</i> logged the arguments and installed itself as a TSR. However, <i>diskchg</i> was able to read the sector.</p>
Analysis:	<p>Unclear whther the expected results were achieved.</p>

3.3.11 *Corrupt* Test Results Summary

Case Cor-01	
Case Summary:	<p>Run <i>corrupt</i> to alter a byte of a file:</p> <ul style="list-style-type: none"> - Use a computer with extended BIOS. - Use a SCSI disk as media drive. - Use the /comment switch with a one-word comment.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:01:26 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux.</p> <p>Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>Create a primary FAT32 partition on the media disk (DOS drive C:).</p> <p>Create an image file A1.IMG on the media disk (any file can serve as image file).</p> <p>Copy the image file to CopyOfA1.IMG.</p> <p>Run <i>corrupt</i> to alter a byte of the image file: Z:\SS\CORRUPT.EXE COR-01 HecRamsey C:\A1.IMG 15000000 78 /comment AlterAByte</p> <p>Boot to Linux from the boot disk "63".</p> <p>Login as root.</p> <p>Mount the partition of drive 82 containing the altered image file and its copy (device /dev/sda1) on a directory "images":</p> <pre>mkdir images mount /dev/sda1 images</pre> <p>Run the <i>cmp</i> command to compare the altered image file to the copy:</p> <pre>cmp -l images/a1.img images/copyofa1.img > images/diff-a1.txt</pre> <p>Reboot to DOS using the FS-TST diskette.</p> <p>Capture the contents of C:\diff-a1.txt.</p> <p>Note: the <i>cmp</i> command outputs the bytes that differ in octal.</p>
Log Files location:	Test-archive\Corrupt\Cor-01\
Log File Highlights:	<p>CORLOG.TXT generated by <i>corrupt</i>:</p> <pre>cmd: Z:\SS\CORRUPT.EXE COR-01 HecRamsey C:\A1.IMG 15000000 78 /comment AlterAByte TEST COR-01 HOST HecRamsey</pre>

	<p>Comment: AlterMiddleByte Change byte 15000000 of file C:\A1.IMG from 0x73 to 0x78 run start Fri Jun 20 13:01:26 2003 run finish Fri Jun 20 13:01:27 2003 elapsed time 0:0:1 Normal exit</p> <p>Diff-a1.txt containing the output of the <i>cmp</i> command: 15000001 170 163</p>
Expected Results:	<i>Corrupt</i> creates a new log file CORLOG.TXT. It logs the program execution, the original and new value of the byte to be altered, and alters the byte in the file.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Cor-02	
Case Summary:	<p>Run <i>corrupt</i> to alter the first byte of an image file:</p> <ul style="list-style-type: none"> - Use a computer with extended BIOS. - Use a SCSI disk. - Use the /comment switch with a multi-word comment. - Do not delete the previous log file.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:03:21 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette. Create a primary FAT32 partition on the media disk (DOS drive C:). Create an image file A2.IMG on the media disk (any file can serve as image file). Copy the image file to CopyOfA2.IMG. Run <i>corrupt</i> to alter a byte of the image file: Z:\SS\CORRUPT.EXE COR-02 HecRamsey C:\A2.IMG 0 78 /comment "Altering first byte"</p> <p>Boot to Linux from the boot disk "63". Login as root. Mount the partition of drive 82 containing the altered image file and its copy (device /dev/sda1) on a directory "images": mount /dev/sda1 images</p>

	<p>Run the cmp command to compare the altered image file to the copy:</p> <pre>cmp -l images/a2.img images/copyofa2.img > images/diff-a2.txt</pre> <p>Reboot to DOS using the FS-TST diskette. Capture the contents of C:\diff-a2.txt. Note: the cmp command outputs the bytes that differ in octal.</p>
Log Files location:	Test-archive\Corrupt\Cor-02\
Log File Highlights:	<p>CORLOG.TXT generated by corrupt: cmd: Z:\SS\CORRUPT.EXE COR-02 HecRamsey C:\A2.IMG 0 78 /comment Altering first byte TEST COR-02 HOST HecRamsey Comment: Altering first byte Change byte 0 of file C:\A2.IMG from 0x54 to 0x78 run start Fri Jun 20 13:03:21 2003 run finish Fri Jun 20 13:03:21 2003 elapsed time 0:0:0 Normal exit</p> <p>Diff-a2.txt containing the output of the cmp command: 1 170 124</p>
Expected Results:	Corrupt appends the log to the existing log file created in the previous test case. It logs the program execution, the original and new value of the byte to be altered, and alters the byte in the file.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Cor-03	
Case Summary:	<p>Run corrupt to alter the last byte of an image file.</p> <ul style="list-style-type: none"> - Use a computer with extended BIOS. - Use a SCSI disk. - Use the /new_log switch to test creation of a new log file. - Test if corrupt prompts the user to enter a comment.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:04:58 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	Boot from FS-TST diskette.

	<p>Create a primary FAT32 partition on the media disk (DOS drive C:).</p> <p>Create an image file A3.IMG on the media disk (any file can serve as image file).</p> <p>Copy the image file to CopyOfA3.IMG.</p> <p>Run <i>corrupt</i> to alter a byte of the image file: Z:\SS\CORRUPT.EXE COR-03 HecRamsey C:\A3.IMG 1559999999 78 /new_log</p> <p>Boot to Linux from the boot disk “63”.</p> <p>Log as root.</p> <p>Mount the FAT32 partition of drive 82 containing the altered image file and its copy (device /dev/sda1) on a directory “images”: mount /dev/sda1 images</p> <p>Run the <i>cmp</i> command to compare the altered image file to the copy: cmp -l images/a3.img images/copyofa3.img > images/diff-a3.txt</p> <p>Reboot to DOS using the FS-TST diskette.</p> <p>Capture the contents of C:\diff-a3.txt.</p> <p>Note: the <i>cmp</i> command outputs the bytes that differ in octal.</p>
Log Files location:	Test-archive\Corrupt\Cor-03\
Log File Highlights:	<p>CORLOG.TXT generated by corrupt: cmd: Z:\SS\CORRUPT.EXE COR-03 HecRamsey C:\A3.IMG 1559999999 78 /new_log TEST COR-03 HOST HecRamsey Comment: Altering last byte of the file, interactive comment, new log file. Change byte 1559999999 of file C:\A3.IMG from 0x0A to 0x78 run start Fri Jun 20 13:04:58 2003 run finish Fri Jun 20 13:05:47 2003 elapsed time 0:0:49 Normal exit</p> <p>Diff-a3.txt containing the output of the cmp command: 1560000000 170 12</p>
Expected Results:	<i>Corrupt</i> creates a new log file. It prompts the user to enter a comment. It logs the comment and program execution, the original and new value of the byte to be altered, and alters the byte in the file.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Cor-04	
Case Summary:	Run <i>corrupt</i> : <ul style="list-style-type: none"> - Use a computer with extended BIOS. - Use a SCSI disk. - Use the image file of Cor-03. - Use an invalid byte offset (outside the image file). - Use the /new_log switch to create a new log file.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:07:00 2003
PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Boot from FS-TST diskette. Run <i>corrupt</i> to alter a byte with invalid offset: Z:\SS\CORRUPT.EXE COR-04 HecRamsey C:\A3.IMG 1560000000 78 /new_log > A:\COR-03.LOG
Log Files location:	Test-archive\Corrupt\Cor-04\
Log File Highlights:	COR-03.LOG containing the standard output generated by <i>corrupt</i>: Z:\SS\CORRUPT.EXE compiled at 12:44:57 on Oct 11 2001 Z:\SS\CORRUPT.EXE: Read failed
Expected Results:	<i>Corrupt</i> creates a new log file. It prompts the user to enter a comment. It logs the comment and program execution, detects the invalid byte offset, and logs the fact.
Actual Results:	No log file was created. The only indication of an incorrect offset is the “Read failed” message on the stdout.
Analysis:	Unclear whether expected results were achieved.

Case Cor-05	
Case Summary:	Run <i>corrupt</i> using the /? switch.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:10:00 2003
PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Target: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Boot from FS-TST diskette. Run <i>corrupt</i> to alter a byte of the image file:

	Z:\SS\CORRUPT.EXE COR-05 HecRamsey C:\A3.IMG 1000000000 78 /new_log /?> A:\COR-05.LOG
Log Files location:	Test-archive\Corrupt\Cor-05\
Log File Highlights:	COR-05.LOG containing the standard output generated by <i>corrupt</i>: Z:\SS\CORRUPT.EXE compiled at 12:44:57 on Oct 11 2001 Usage: Z:\SS\CORRUPT.EXE test-case host file_name offset hex_value /comment " ... " Give comment on command line /new_log Start a new log file (default is append to old log file) /? Print this option list
Expected Results:	Corlog displays its usage mode.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

3.3.12 *Logsetup* Test Results Summary

Case Lgs-01	
Case Summary:	Run <i>logsetup</i> to log information about the setup of a source disk.
Tester Name:	SIG
Test Date:	Fri Jun 20 09:09:59 2003
PC:	Beta3
Disks:	None.
Execute:	Boot from FS-TST diskette. Run <i>logsetup</i> to log the setup of a source disk: Z:\SS\LOGSETUP.EXE 80:61 Beta3 SIG None “Diskwiped entire disk”
Log Files location:	Test-archive\Logsetup\LGS-01\
Log File Highlights:	SETUP.TXT generated by <i>logsetup</i>: Disk: 80:61 Host: Beta3 Operator: SIG OS: none Options: Diskwiped entire disk Date: Fri Jun 20 09:09:59 2003
Expected Results:	<i>Logsetup</i> creates a new log file SETUP.TXT. It records the disk to be setup, the host, the operator, and the operating system loaded to the disk.
Actual Results:	No anomalies detected. Note: The actual command used to run <i>logsetup</i> does not conform to the documentation: there is a supplementary parameter “Options”, which can contain any string as long as it does not contain white space and quotes, or it is included in quotes.
Analysis:	Expected results were achieved.

3.3.13 *Logcase* Test Results Summary

Case Lgc-01	
Case Summary:	Run <i>logcase</i> to log information about a test case.
Tester Name:	SIG
Test Date:	Fri Jun 20 09:12:41 2003
PC:	Beta3
Disks:	None.
Execute:	Boot from FS-TST diskette. Run <i>logcase</i> : Z:\SS\LOGCASE.EXE LGC-01 Beta3 SIG none 80:61 none
Log Files location:	Test-archive\Logcase\Lgc-01\
Log File Highlights:	CASE.TXT generated by <i>logcase</i>: Case: LGC-01 Host: Beta3 Operator: SIG Disks: src(none) dst (80:61) other (none) Date: Fri Jun 20 09:12:41 2003
Expected Results:	<i>Logcase</i> creates a new log file CASE.TXT. It records the test case identifier, the operator, the source, destination, and media disks for the test.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

3.3.14 *Sechash* Test Results Summary

Case Shs-01	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - The selected sectors start with the first disk sector. - The /comment switch with a one-word comment. - The /before switch.
Tester Name:	SIG
Test Date:	Fri Jun 20 13:43:59 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>Create a FAT32 partition on the media disk using PartitionMagic.</p> <p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors starting with sector 0 of the source disk: A:\SECHASH.EXE SHS-01 HecRamsey 81 /before /comment FirstTest /first 0 /last 1000000</p> <p>Boot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive 82 (device /dev/sda1) on a directory "media": mkdir media mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=1000001 skip=0 of=media/file1.img < /dev/hdd</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file1.img > media/hash1.log</p>

	Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>shalsum</i> in C:\hash1.log.
Log Files location:	Test-archive\Sechash\Shs-01\
Log File Highlights:	<p>HASHBSEC.TXT generated by <i>sechash</i>: cmd: A:\SECHASH.EXE SHS-01 HecRamsey 81 /before /comment FirstTest /first 0 /last 1000000 TEST SHS-01 HOST HecRamsey Comment: FirstTest Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Disk hash (1000001 sectors) [0,1000000] Hash = 1CDBD036A86CE4908ED0E86E4C14D2B5AC793523 run start Fri Jun 20 13:43:59 2003 run finish Fri Jun 20 13:52:37 2003 elapsed time 0:8:38 Normal exit</p> <p>HASH1.LOG containing the output of the <i>shalsum</i> command: 1cdbd036a86ce4908ed0e86e4c14d2b5ac793523 *media/file1.img</p>
Expected Results:	<i>Sechash</i> creates a new log file HASHBSEC.TXT, with the name corresponding to the /before switch. <i>Sechash</i> logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the SHA1 hash computed by the <i>shalsum</i> command.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Shs-02	
Case Summary:	Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using: <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - The group of sectors ends with the last disk sector.

	<ul style="list-style-type: none"> - The switch /comment with a multi-word comment. - The /before switch. - Run the case right after SHS-01, to use its setup and to test appending the log to an existing log file.
Tester Name:	SIG
Test Date:	Fri Jun 20 14:33:44 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux.</p> <p>Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).</p> <p>Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01).</p> <p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors ending with the last sector of the source disk: A:\SECHASH.EXE SHS-02 HecRamsey 81 /first 38102335 /last 39102335 /before /comment "Append log, hash last sectors"</p> <p>Boot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/sda1) on a directory "media": [mkdir media] mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=1000001 skip=38102335 of=media/file2.img < /dev/hdd</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file2.img > media/hash2.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in C:\hash2.log.</p>
Log Files location:	Test-archive\Sechash\Shs-02\
Log File Highlights:	HASHBSEC.TXT generated by sechash: cmd: A:\SECHASH.EXE SHS-02 HecRamsey 81 /first

	<p>38102335 /last 39102335 /before /comment Append log, hash last sectors TEST SHS-02 HOST HecRamsey Comment: Append log, hash last sectors Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Disk hash (1000001 sectors) [38102335,39102335] Hash = 8E281FED1DF3FA113593DA37D961EDF55192C842 run start Fri Jun 20 14:33:44 2003 run finish Fri Jun 20 14:42:22 2003 elapsed time 0:8:38 Normal exit</p> <p>HASH2.LOG containing the output of the <i>sha1sum</i> command: 8e281fed1df3fa113593da37d961edf55192c842 *media/file2.img</p>
Expected Results:	<p><i>Sechash</i> appends the log to the log file HASHBSEC.TXT created in the previous test case. It logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the hash computed by the <i>sha1sum</i> command.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Shs-03	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - A group of sectors that consists of only the last disk sector. - The /new_log and /before switches. - The /first switch with the last disk sector address. - Omit the /last switch. - Run the case right after SHS-02, to use its setup and to test the creation of a new log file.

Tester Name:	SIG
Test Date:	Mon Jun 23 16:39:44 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette. The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01).</p> <p>Run <i>sechash</i> to compute the SHA1 hash of the last sector of the source disk: A:\BATCH\SECHASH.EXE SHS-03 HecRamsey 81 /new_log /before /first 39102335</p> <p>Boot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/sda1) on a directory "media": [mkdir media] mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=1 skip=39102335 of=media/file3.img < /dev/hdd</p> <p>Run the <i>shasum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file3.img > media/hash3.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>shasum</i> in C:\hash3.log.</p>
Log Files location:	Test-archive\Sechash\Shs-03\
Log File Highlights:	<p>HASHBSEC.TXT generated by sechash: cmd: A:\BATCH\SECHASH.EXE SHS-03 HecRamsey 81 /new_log /before /first 39102335 TEST SHS-03 HOST HecRamsey Comment: Omit /last, hash only last sector. Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max c</p>

	Note: The log file is truncated because <i>sechash</i> terminated abnormally and did not close the file.
Expected Results:	<i>Sechash</i> creates a new log file HASHBSEC.TXT. <i>Sechash</i> prompts the user for a comment, logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the hash computed by the sha1sum command.
Actual Results:	<i>Sechash</i> terminated abnormally with the following message displayed on the <i>stderr</i> : “Floating point error: Divide by zero.” An estimate is when <i>sechash</i> tries to compute the percentage of sectors processed so far, it incorrectly computes the total number of sectors to be processed by subtracting first sector address from the last sector address (in this case the total number would be 0).
Analysis:	Expected results were NOT achieved.

Case Shs-04	
Case Summary:	Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using: <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - A group of sectors that consists of only the first disk sector. - The /new_log and /before switches. - The /last switch with the sector address 0. - Omit the /first switch. - SHS-01 setup.
Tester Name:	SIG
Test Date:	Mon Jun 23 16:43:00 2003
PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Boot from FS-TST diskette. The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01). Run <i>sechash</i> to compute the SHA1 hash of the first sector

	<p>of the source disk: A:\BATCH\SECHASH.EXE SHS-04 HecRamsey 81 /new_log /before /last 0</p> <p>Boot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/sda1) on a directory “media”: [mkdir media] mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=1 skip=0 of=media/file3.img < /dev/hdd Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file3.img > media/hash3.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in C:\hash3.log.</p>
Log Files location:	Test-archive\Sechash\Shs-04\
Log File Highlights:	The log file content is not relevant; please see Actual results.
Expected Results:	<i>Sechash</i> creates a new log file HASHBSEC.TXT. <i>Sechash</i> prompts the user for a comment, logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the hash computed by the sha1sum command.
Actual Results:	<i>Sechash</i> tries to compute the hash of the entire disk instead of the hash of the first sector. The program was terminated, and neither a relevant log file nor the stdout could be captured.
Analysis:	Expected results were NOT achieved.

Case Shs-05	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - A group of sectors that consists of only the first two disk sectors.

	<ul style="list-style-type: none"> - The /new_log and /before switches. - The /last switch with the sector address 1. - Omit the /first switch. - SHS-01 setup.
Tester Name:	SIG
Test Date:	Mon Jun 23 16:52:33 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux.</p> <p>Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).</p> <p>Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette. The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01).</p> <p>Run <i>sechash</i> to compute the SHA1 hash of the first two sectors of the source disk: A:\BATCH\SECHASH.EXE SHS-05 HecRamsey 81 /new_log /before /last 1</p> <p>Boot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/sda1) on a directory "media": [mkdir media] mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=2 skip=0 of=media/file5.img < /dev/hdd</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file5.img > media/hash5.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in C:\hash5.log.</p>
Log Files location:	Test-archive\Sechash\Shs-05\
Log File Highlights:	<p>HASHBSEC.TXT generated by sechash: cmd: A:\BATCH\SECHASH.EXE SHS-05 HecRamsey 81 /new_log /before /last 1</p>

	<p>TEST SHS-05 HOST HecRamsey Comment: Hash first two sectors, omit /first. Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336 Disk hash (2 sectors) [0,1] Hash = 7958B5D3408149BB47321C7C3CE371805871D42E run start Mon Jun 23 16:52:33 2003 run finish Mon Jun 23 16:53:03 2003 elapsed time 0:0:30 Normal exit</p> <p>HASH5.LOG containing the output of the <i>shalsum</i> command: 7958b5d3408149bb47321c7c3ce371805871d42e *media/file5.img</p>
Expected Results:	<p><i>Sechash</i> creates a new log file HASHBSEC.TXT. <i>Sechash</i> prompts the user for a comment, logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the hash computed by the <i>shalsum</i> command.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Case Shs-06	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - A single disk sector, neither the first nor the last. - The /new_log and /before switches. - SHS-01 setup.
Tester Name:	SIG
Test Date:	Mon Jun 23 17:10:00 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC</p>

	WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	<p>Reboot from FS-TST diskette. The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01).</p> <p>Run <i>sechash</i> to compute the SHA1 hash of a single sector, which is not the first or last sector of the source disk: A:\BATCH\SECHASH.EXE SHS-05 HecRamsey 81 /new_log /before /first 1000000 /last 1000000</p> <p>Reboot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/sda1) on a directory “media”: [mkdir media] mount /dev/sda1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdd): dd ibs=512 count=2 skip=1000000 of=media/file6.img < /dev/hdd</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file6.img > media/hash6.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in C:\hash6.log.</p>
Log Files location:	Test-archive\Sechash\Shs-06\
Log File Highlights:	HASHBSEC.TXT generated by sechash: Its content is not relevant. Please see Actual Results.
Expected Results:	<i>Sechash</i> creates a new log file HASHBSEC.TXT. <i>Sechash</i> prompts the user for a comment, logs the comment, the source drive, the program execution, and computes and logs the SHA1 hash of the specified group of sectors. The hash is identical to the hash computed by the sha1sum command.
Actual Results:	<i>Sechash</i> terminates abnormally, with the following error: “Floating point error: Divide by zero.”

	See also case SHS-03.
Analysis:	Expected results were NOT achieved.

Case Shs-07	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - An IDE source hard disk drive. - A last sector address smaller than the first sector address. - The /new_log and /before switches. - SHS-01 setup.
Tester Name:	SIG
Test Date:	Mon Jun 23 17:04:58 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.</p>
Execute:	<p>Boot from FS-TST diskette. The media disk should contain a FAT32 partition (one can use the partition created in the setup of case SHS-01).</p> <p>Run <i>sechash</i> to compute the SHA1 hash of a group of sectors with invalid range of addresses: /first > /last: A:\BATCH\SECHASH.EXE SHS-07 HecRamsey 81 /new_log /before /first 38000000 /last 37500000</p> <p>Examine the results displayed by <i>sechash</i>.</p>
Log Files location:	Test-archive\Sechash\Shs-07\
Log File Highlights:	<p>HASHBSEC.TXT generated by <i>sechash</i>: cmd: A:\BATCH\SECHASH.EXE SHS-07 HecRamsey 81 /new_log /before /first 38000000 /last 37500000 TEST SHS-07 HOST HecRamsey Comment: Invalid range. Hash Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177) Max number of user addressable sectors reported by ATA identify device command 39102336</p>

	Disk hash (4294467297 sectors) [38000000,37500000] Hash = DA39A3EE5E6B4B0D3255BF95601890AFD80709 run start Mon Jun 23 17:04:58 2003 run finish Mon Jun 23 17:05:10 2003 elapsed time 0:0:12 Normal exit.
Expected Results:	<i>Sechash</i> creates a new log file HASHBSEC.TXT. <i>Sechash</i> prompts the user for a comment, logs the comment, the source drive, the program execution, and rejects the hashing request because of an invalid range of sectors.
Actual Results:	<i>Sechash</i> does not warn about the incorrect range; instead it starts computing a hash for an imaginary number of sectors.
Analysis:	Expected results were NOT achieved.

Case Shs-08	
Case Summary:	Run <i>sechash</i> to test the effect of the /? switch.
Tester Name:	SIG
Test Date:	Mon Jun 23 17:07:00 2003
PC:	HecRamsey
Disks:	Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177). Media: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI.
Execute:	Boot from FS-TST diskette. Run <i>sechash</i> with the /? switch: A:\BATCH\SECHASH.EXE SHS-07 HecRamsey 81 /new_log /before /first 10000 /last 20000 /? >A:\SHS-08.TXT Examine the standard output.
Log Files location:	Test-archive\Sechash\Shs-08\
Log File Highlights:	SHS-08.TXT containing the stdout from <i>sechash</i>: A:\BATCH\SECHASH.EXE compiled at 20:40:20 on Mar 3 2002 Usage: A:\BATCH\SECHASH.EXE test-case host drive [/options] /before Name logfile hashblog.txt (before test) /comment " ... " Give comment on command line /after Name logfile hashalog.txt (after test)

	<p>Note that one of /before, /after or /log is required</p> <p>/new_log Start a new log file (default is append to old log file)</p> <p>/log log_file_name Name the logfile: log_file_name</p> <p>/first nnn Start hashing at sector LBA nnn</p> <p>/last nnn Hash sector LBA nnn and then stop if nnn < 0 then omit the last nnn disk sectors from the hash</p> <p>/? Print this option list</p>
Expected Results:	Sechash displays its usage mode on the standard output.
Actual Results:	No anomalies were detected.
Analysis:	Expected results achieved.

Case Shs-09	
Case Summary:	<p>Run sechash to compute the SHA1 hash of a group of sectors, using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE source hard disk. - The /log switch.
Tester Name:	SIG
Test Date:	Tue Jul 01 10:37:18 2003
PC:	Beta3
Disks:	<p>Boot: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) - Linux.</p> <p>Source: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).</p> <p>Media: Same as boot disk.</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>Run sechash with the /log switch: A:\BATCH\SECHASH.EXE SHS-09 Beta3 81 /log SHS-09B.LOG /last 1</p> <p>Run sechash again with the /log switch: A:\BATCH\SECHASH.EXE SHS-09 Beta3 81 /log SHS-09A.LOG /last 1</p> <p>Boot to Linux from the boot hard disk drive. Login as root.</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk 81 (device /dev/hdb): dd ibs=512 count=2 skip=0 of=file09.img < /dev/hdb</p> <p>Create a directory floppy/ and mount the floppy drive</p>

	<p>containing the FS-TST diskette on floppy/ mount /dev/fd0 floppy</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output to a file on the floppy disk: sha1sum -b file09.img > floppy/hash09.log</p> <p>Unmount the floppy drive: umount /dev/fd0</p> <p>Reboot to DOS using the FS-TST diskette. Compare the two hashes computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in A:\hash09.log.</p>
Log Files location:	Test-archive\Sechash\Shs-09\
Log File Highlights:	<p>SHS-09B.LOG generated by first sechash run:</p> <p>cmd: A:\BATCH\SECHASH.EXE SHS-09 Beta3 81 /log SHS-09B.LOG /last 1 TEST SHS-09 HOST Beta3 Comment: Hash first 2 sectors, custom log file name, IDE, legacy. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (2 sectors) [0,1] Hash = 2B0DA7EEAB16810CB220A2FECA1BB1E4DE28715F run start Tue Jul 01 10:37:18 2003 run finish Tue Jul 01 10:38:07 2003 elapsed time 0:0:49 Normal exit</p> <p>SHS-09A.LOG generated by second sechash run: cmd: A:\BATCH\SECHASH.EXE SHS-09 Beta3 81 /log SHS-09A.LOG /last 1 TEST SHS-09 HOST Beta3 Comment: Hash first 2 sectors again, to test consistency. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values)</p>

	<p>Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (2 sectors) [0,1] Hash = 2B0DA7EEAB16810CB220A2FECA1BB1E4DE28715F run start Tue Jul 01 10:38:40 2003 run finish Tue Jul 01 10:39:01 2003 elapsed time 0:0:21 Normal exit</p> <p>HASH09.LOG containing sha1sum's output: 2b0da7eeab16810cb220a2feca1bb1e4de28715f *file09.img</p>
Expected Results:	<p><i>Sechash</i> prompts the user to enter a comment. <i>Sechash</i> creates a log file with the name specified in the /log switch. It logs the comment, the disk, and the program execution. <i>Sechash</i> computes the hash of the specified group of sectors and logs the computed value. The two hashes computed by <i>sechash</i> and the hash computed by <i>sha1sum</i> are identical.</p>
Actual Results:	No anomalies were detected.
Analysis:	Expected results achieved.

Case Shs-10	
Case Summary:	<p>Run <i>sechash</i> to compute the SHA1 hash of an entire source disk, using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE source hard disk. - The /new_log and /after switches. - Omit /first and /last to hash the entire disk.
Tester Name:	SIG
Test Date:	Tue Jul 01 10:42:59 2003
PC:	Beta3
Disks:	<p>Boot: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903) - Linux. Source: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652). Media: Same as boot disk.</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>Run <i>sechash</i> with the /after switch; omit /first and /last to</p>

	<p>hash the entire disk: A:\BATCH\SECHASH.EXE SHS-10 Beta3 81 /new_log /after</p> <p>Boot to Linux from the boot hard disk drive. Login as root.</p> <p>Run the dd command to create an image file on the media disk for the entire source disk 81 (device /dev/hdb): dd ibs=512 count=3335472 skip=0 of=file10.img < /dev/hdb</p> <p>Create a directory floppy/ and mount the floppy drive containing the FS-TST diskette on floppy/: mount /dev/fd0 floppy</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output to a file on the floppy disk: sha1sum -b file10.img > floppy/hash10.log</p> <p>Unmount the floppy drive: umount /dev/fd0</p> <p>Reboot to DOS using the FS-TST diskette. Compare the two hashes computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in A:\hash10.log.</p>
Log Files location:	Test-archive\Sechash\Shs-10\
Log File Highlights:	<p>HASHASEC.LOG generated by <i>sechash</i>:</p> <p>cmd: A:\BATCH\SECHASH.EXE SHS-10 Beta3 81 /new_log /after TEST SHS-10 HOST Beta3 Comment: Hash entire disk, IDE, legacy. Hash Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Disk hash (3335472 sectors) [0,3335471] Hash = A8289A35B64D03802332BCD29581CDF981100F99</p>

	<p>run start Tue Jul 01 10:42:59 2003 run finish Tue Jul 01 11:47:46 2003 elapsed time 1:4:47 Normal exit</p> <p>HASH10.LOG containing <i>sha1sum</i>'s output: a8289a35b64d03802332bcd29581cdf981100f99 *file10.img</p>
Expected Results:	<p><i>Sechash</i> prompts the user to enter a comment. <i>Sechash</i> creates a log file with the name HASHASEC.TXT corresponding to the /after switch. It logs the comment, the disk, and the program execution. <i>Sechash</i> computes the hash of the entire source disk and logs the computed value. The hash is identical to the hash computed by <i>sha1sum</i>.</p>
Actual Results:	No anomalies were detected.
Analysis:	Expected results achieved.

Case Shs-11	
Case Summary:	<p>Run <i>sechash</i> to hash a group of sectors using:</p> <ul style="list-style-type: none"> - A computer with extended BIOS. - A SCSI source hard disk. - The /new_log and /after switches.
Tester Name:	SIG
Test Date:	Fri Jun 27 17:33:44 2003
PC:	HecRamsey
Disks:	<p>Boot: DOS Drive 80 Physical Label 63 Model (WDC WD64AA) serial # (WD-WM6530916400) - Linux. Source: DOS Drive 82 Physical Label 10 Model (FUJITSU MAN3184MC) serial # (99009830), SCSI. Media: DOS Drive 81 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).</p>
Execute:	<p>Reboot from FS-TST diskette. The media disk should contain a FAT32 partition. Assume that the drive letter for this partition is C:.</p> <p>Run <i>sechash</i> to compute the SHA1 hash of the first 1000000 sectors of the source disk: A:\SECHASH.EXE SHS-11 HecRamsey 82 /after /new_log /last 999999</p> <p>Reboot to Linux from the boot hard disk drive. Login as root. Mount the FAT32 partition of the media drive (device /dev/hdd1) on a directory "media": [mkdir media]</p>

	<p>mount /dev/hdd1 media</p> <p>Run the dd command to create an image file on the media disk for the group of sectors on the source disk (device /dev/sda): dd ibs=512 count=2 skip=0 of=media/file11.img < /dev/sda</p> <p>Run the <i>sha1sum</i> command to compute the SHA1 hash of the image file created in the previous step, and capture its output in a file: sha1sum -b media/file11.img > media/hash11.log</p> <p>Reboot to DOS using the FS-TST diskette. Compare the hash computed by <i>sechash</i> to the hash computed by <i>sha1sum</i> in C:\hash11.log.</p>
Log Files location:	Test-archive\Sechash\Shs-11\
Log File Highlights:	<p>HASHASEC.LOG generated by <i>sechash</i>: cmd: A:\SECHASH.EXE SHS-11 HecRamsey 82 /after /new_log /last 999999 TEST SHS-11 HOST HecRamsey Comment: SCSI source disk, extended BIOS. Hash Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk Disk hash (1000000 sectors) [0,999999] Hash = 364240DAB5312CD9EC51FE2DA3D9568EF645FBDD run start Fri Jun 27 17:33:44 2003 run finish Fri Jun 27 17:42:45 2003 elapsed time 0:9:1 Normal exit</p> <p>HASH11.LOG containing <i>sha1sum</i>'s output: 364240dab5312cd9ec51fe2da3d9568ef645fbdd *media/file11.img</p>
Expected Results:	<p><i>Sechash</i> prompts the user to enter a comment. <i>Sechash</i> creates a log file with the name HASHASEC.TXT corresponding to the /after switch. It logs the comment, the disk, and the program execution. <i>Sechash</i> computes the hash of the specified group of sectors and logs the computed value. The hash is identical to the hash computed by <i>sha1sum</i>.</p>

Actual Results:	No anomalies were detected.
Analysis:	Expected results achieved.

3.3.15 *Adjcmp* Test Results Summary

Case Acp-01	
Case Summary:	<p>Run <i>adjcmp</i> to compare the “chunks” of two disks using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination hard disk drives. - Multiple primary partitions on each disk. - Automatic assignment of disk chunks. - Corresponding chunks with source chunk < destination chunk and also source chunk > destination chunk. - Delete all log files. - The /comment switch with one word comment.
Tester Name:	SIG
Test Date:	Thu Jul 10 14:24:07 2003
PC:	Beta3
Disks:	<p>Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903). Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).</p>
Execute:	<p>Boot from FS-TST diskette.</p> <p>Run diskwipe to initialize the source disk with the value 0xAA and the destination disk with the value 0xBB: Z:\SS\DISKWIPE.EXE ACP-01 Beta3 80 AA /src /noask /new_log Z:\SS\DISKWIPE.EXE ACP-01 Beta3 81 BB /dst /noask /new_log</p> <p>Use PartitionMagic to create the following partitions on the source disk: primary FAT16 (39.2MB), primary Linux Ext2 (47.1MB), primary FAT32 - hidden (47.1MB), all separated by unallocated space.</p> <p>Use PartitionMagic to create the following partitions on the destination disk: primary FAT16 (45.3MB), primary Linux Ext2 (39.4MB), FAT32 (51.2MB), and NTFS (49.2MB), all separated by unallocated space.</p> <p>Run <i>seccopy</i> to copy the source FAT16 partition onto the destination FAT16 partition (use the length of the smaller partition, which in this case is the source FAT16): Z:\SS\SECCOPY.EXE ACP-01 Beta3 80 63 81 63 80262 /new_log</p> <p>Run <i>adjcmp</i>: Z:\SS\ADJCMP.EXE ACP-01 Beta3 80 AA 81 BB</p>

	/comment FirstTestCase																																																																											
Log Files location:	Test-archive\Adjcmp\Acp-01\																																																																											
Log File Highlights:	<p>CMPALOG.TXT generated by <i>adjcmp</i>: cmd: Z:\SS\ADJCMP.EXE ACP-01 Beta3 80 AA 81 BB /comment FirstTestCase TEST ACP-01 HOST Beta3 Comment: FirstTestCase Source Disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Source disk partition table</p> <table border="1"> <thead> <tr> <th></th> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot</th> <th>Partition type</th> </tr> </thead> <tbody> <tr> <td>P</td> <td>000000063</td> <td>000080262</td> <td>0000/001/01</td> <td>0004/254/63</td> <td>06</td> <td>Fat16</td> </tr> <tr> <td>P</td> <td>000128520</td> <td>000096390</td> <td>0008/000/01</td> <td>0013/254/63</td> <td>83</td> <td>Linux</td> </tr> <tr> <td>P</td> <td>000257040</td> <td>000096390</td> <td>0016/000/01</td> <td>0021/254/63</td> <td>1B</td> <td>other</td> </tr> <tr> <td>P</td> <td>000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00</td> <td>empty entry</td> </tr> </tbody> </table> <p>P primary partition (1-4) S secondary (sub) partition X primary extended partition (1-4) x secondary extended partition Source disk layout: 00783/255/63 12578895 total sectors on disk</p> <table border="1"> <thead> <tr> <th></th> <th>Start LBA</th> <th>End LBA</th> <th>Length</th> <th>Size: MB (binary)</th> </tr> </thead> <tbody> <tr> <td>0 B</td> <td>0</td> <td>62</td> <td>63</td> <td>0.03MB 0.03BMB</td> </tr> <tr> <td>1 P</td> <td>63</td> <td>80324</td> <td>80262</td> <td>41.09MB 39.19BMB</td> </tr> <tr> <td>2 U</td> <td>80325</td> <td>128519</td> <td>48195</td> <td>23.68MB 23.53BMB</td> </tr> <tr> <td>3 P</td> <td>128520</td> <td>224909</td> <td>96390</td> <td>49.35MB 47.07BMB</td> </tr> <tr> <td>4 U</td> <td>224910</td> <td>257039</td> <td>32130</td> <td>16.45MB 15.69BMB</td> </tr> <tr> <td>5 P</td> <td>257040</td> <td>353429</td> <td>96390</td> <td>49.35MB 47.07BMB</td> </tr> <tr> <td>6 U</td> <td>353430</td> <td>12594959</td> <td>12241530</td> <td>6267.66MB 5977.31BMB</td> </tr> </tbody> </table> <p>Destination Disk Drive 0x81, BIOS: Legacy Interrupt 13 bios 0825/063/63 (max cyl/hd values) Interrupt 13 ext 00826/064/63 (number of cyl/hd)</p>		Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type	P	000000063	000080262	0000/001/01	0004/254/63	06	Fat16	P	000128520	000096390	0008/000/01	0013/254/63	83	Linux	P	000257040	000096390	0016/000/01	0021/254/63	1B	other	P	000000000	000000000	0000/000/00	0000/000/00	00	empty entry		Start LBA	End LBA	Length	Size: MB (binary)	0 B	0	62	63	0.03MB 0.03BMB	1 P	63	80324	80262	41.09MB 39.19BMB	2 U	80325	128519	48195	23.68MB 23.53BMB	3 P	128520	224909	96390	49.35MB 47.07BMB	4 U	224910	257039	32130	16.45MB 15.69BMB	5 P	257040	353429	96390	49.35MB 47.07BMB	6 U	353430	12594959	12241530	6267.66MB 5977.31BMB
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	<p>104832 6 U 353430 12594959 12241530 => 6 U 330624 346751 16128 Unmatched destination regions</p> <table border="1"> <thead> <tr> <th></th> <th>Start</th> <th>End</th> <th>Length</th> </tr> </thead> <tbody> <tr> <td>7P</td> <td>346752</td> <td>447551</td> <td>100800</td> </tr> <tr> <td>8U</td> <td>447552</td> <td>3335471</td> <td>2887920</td> </tr> </tbody> </table> <p>Chunk class codes: b/B Boot track, P partition, U unallocated</p> <p>=====</p> <p>Compare region 0 of 6: src(0,63,B) dst (0,63,B) Src base 0 Dst base 0 Sectors compared: 63 Sectors match: 0 Sectors differ: 63 Bytes differ: 30163 Diffs range: 0-62</p> <p>=====</p> <p>Compare region 1 of 6: src(63,80262,P) dst (63,92673,P) Src base 63 Dst base 63 Sectors compared: 80262 Sectors match: 80262 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (80262) has 12411 fewer sectors than destination (92673) scanning 12411 unmatched sectors: 80325--92736 Zero fill: 456 Src Byte fill (AA): 0 Dst Byte fill (BB): 11934 Other fill (FF): 2 Other no fill: 19 Zero fill range: 84675, 84677, 84679, 84683, 84685-85123, 85125, 85127, 85129, 85131, 85133, 85135, 85137, 85139, 85141, 85143, 85145, 85147, 85149 Src fill range: Dst fill range: 80325-84671, 84673, 85150-92735 Other fill range: 84672, 84681 Other not filled range: 84674, 84676, 84678, 84680, 84682, 84684, 85124, 85126, 85128, 85130, 85132, 85134, 85136, 85138, 85140, 85142, 85144, 85146, 85148</p> <p>=====</p>		Start	End	Length	7P	346752	447551	100800	8U	447552	3335471	2887920
	Start	End	Length										
7P	346752	447551	100800										
8U	447552	3335471	2887920										

Compare region 2 of 6: src(80325,48195,U) dst
(92736,36288,U)
Src base 80325 Dst base 92736
Sectors compared: 36288
Sectors match: 0
Sectors differ: 36288
Bytes differ: 18013350
Diffs range: 0-36287
Source (48195) has 11907 more sectors than destination
(36288)

=====
Compare region 3 of 6: src(128520,96390,P) dst
(129024,80640,P)
Src base 128520 Dst base 129024
Sectors compared: 80640
Sectors match: 2241
Sectors differ: 78399
Bytes differ: 38749905
Diffs range: 1-2, 4, 6, 8, 10, 12, 452, 454, 456,
458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478-
16386. . . + 62470 more
Source (96390) has 15750 more sectors than destination
(80640)

=====
Compare region 4 of 6: src(224910,32130,U) dst
(209664,16128,U)
Src base 224910 Dst base 209664
Sectors compared: 16128
Sectors match: 0
Sectors differ: 16128
Bytes differ: 7980210
Diffs range: 0-16127
Source (32130) has 16002 more sectors than destination
(16128)

=====
Compare region 5 of 6: src(257040,96390,P) dst
(225792,104832,P)
Src base 257040 Dst base 225792
Sectors compared: 96390
Sectors match: 1512
Sectors differ: 94878
Bytes differ: 47019375
Diffs range: 0-1, 6-7, 32, 775, 840, 1519-96389

	<p>Source (96390) has 8442 fewer sectors than destination (104832) scanning 8442 unmatched sectors: 322182--330624 Zero fill: 0 Src Byte fill (AA): 0 Dst Byte fill (BB): 8442 Other fill (00): 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 322182-330623 Other fill range: Other not filled range:</p> <p>=====</p> <p>Compare region 6 of 6: src(353430,12241530,U) dst (330624,16128,U) Src base 353430 Dst base 330624 Sectors compared: 16128 Sectors match: 0 Sectors differ: 16128 Bytes differ: 7973837 Diffs range: 0-16127 Source (12241530) has 12225402 more sectors than destination (16128)</p> <p>Examine unmatched regions of destination</p> <p>=====</p> <p>Examine: 7P 346752-- 447551 100800 scanning 100800 unmatched sectors: 346752--447552 Zero fill: 86 Src Byte fill (AA): 0 Dst Byte fill (BB): 100365 Other fill (FF): 15 Other no fill: 334 Zero fill range: 359352-359353, 359355-359360, 359362-359374, 391148-391212 Src fill range: Dst fill range: 346753-346783, 346816-354814, 354816-359350, 359376-389086, 389119-389126, 389135-391142, 391214-391234, 391499-447550 Other fill range: 389112-389118, 389127-389134</p>
--	---

	<p>Other not filled range: 346752, 346784-346815, 354815, 359351, 359354, 359361, 359375, 389087-389111, 391143-391147, 391213, 391235-391498, 447551</p> <p>=====</p> <p>Examine: 8U 447552-- 3335471 2887920 scanning 2887920 unmatched sectors: 447552--3335472 Zero fill: 0 Src Byte fill (AA): 0 Dst Byte fill (BB): 2887920 Other fill (00): 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 447552-3335471 Other fill range: Other not filled range:</p> <p>Summary</p> <table border="0"> <tr> <td>Boot tracks</td> <td>1</td> <td>63 diffs</td> <td>63</td> </tr> <tr> <td>Partitions</td> <td>3</td> <td>257292 diffs</td> <td>173277</td> </tr> <tr> <td>Unallocated</td> <td>3</td> <td>68544 diffs</td> <td>68544</td> </tr> <tr> <td>Total src sectors</td> <td></td> <td>325899</td> <td></td> </tr> <tr> <td>Partition excess</td> <td></td> <td>20853 zero</td> <td>456 non-zero 20397</td> </tr> <tr> <td>Disk excess</td> <td></td> <td>2988720 zero</td> <td>86 non-zero</td> </tr> <tr> <td></td> <td></td> <td>2988634</td> <td></td> </tr> <tr> <td>Total dst sectors</td> <td></td> <td>3335472</td> <td></td> </tr> </table> <p>run start Thu Jul 10 14:24:07 2003 run finish Thu Jul 10 14:34:16 2003 elapsed time 0:10:9 Normal exit</p>	Boot tracks	1	63 diffs	63	Partitions	3	257292 diffs	173277	Unallocated	3	68544 diffs	68544	Total src sectors		325899		Partition excess		20853 zero	456 non-zero 20397	Disk excess		2988720 zero	86 non-zero			2988634		Total dst sectors		3335472	
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Expected Results:	<p><i>Adjcmp</i> creates a new log file CMPALOG.TXT. <i>Adjcmp</i> logs the comment, the source and destination drives, the program execution, logs the boot tracks, partitions and unallocated space of each disk, automatically assigns source disk chunks to destination chunks, compares them, and logs the comparison result and a summary as described in the features.</p>																																
Actual Results:	No anomalies detected.																																
Analysis:	Expected results were achieved.																																
Case Acp-02																																	
Case Summary:	<p>Run <i>adjcmp</i> to compare the “chunks” of two disks using:</p> <ul style="list-style-type: none"> - A computer with legacy BIOS. 																																

	<ul style="list-style-type: none"> - IDE source and destination hard disk drives. - The setup of test case Acp-01. - Do not delete any log file. - Use /new_log to test creation of a new log file. - Use /comment with a multi-word comment. - Use /layout to display the disks layout only. 																																																							
Tester Name:	SIG																																																							
Test Date:	Thu Jul 10 14:50:21 2003																																																							
PC:	Beta3																																																							
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903). Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).																																																							
Execute:	Use the partition setup of previous case, Acp-01. Run <i>adjcmp</i> : Z:\SS\ADJCMP.EXE ACP-02 Beta3 80 AA 81 BB /new_log /layout /comment "Display layout only"																																																							
Log Files location:	Test-archive\Adjcmp\Acp-02\																																																							
Log File Highlights:	<p>CMPALOG.TXT generated by <i>adjcmp</i>: cmd: Z:\SS\ADJCMP.EXE ACP-02 Beta3 80 AA 81 BB /new_log /layout /comment Display layout only TEST ACP-02 HOST Beta3 Comment: Display layout only Source Disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 Source disk partition table</p> <table border="1"> <thead> <tr> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot</th> </tr> </thead> <tbody> <tr> <td>P 000000063</td> <td>000080262</td> <td>0000/001/01</td> <td>0004/254/63</td> <td>06</td> </tr> <tr> <td colspan="5">Fat16</td> </tr> <tr> <td>P 000128520</td> <td>000096390</td> <td>0008/000/01</td> <td>0013/254/63</td> <td>83</td> </tr> <tr> <td colspan="5">Linux</td> </tr> <tr> <td>P 000257040</td> <td>000096390</td> <td>0016/000/01</td> <td>0021/254/63</td> <td>1B</td> </tr> <tr> <td colspan="5">other</td> </tr> <tr> <td>P 000000000</td> <td>000000000</td> <td>0000/000/00</td> <td>0000/000/00</td> <td>00</td> </tr> <tr> <td colspan="5">empty entry</td> </tr> <tr> <td colspan="5">P primary partition (1-4)</td> </tr> <tr> <td colspan="5">S secondary (sub) partition</td> </tr> </tbody> </table>	Start LBA	Length	Start C/H/S	End C/H/S	boot	P 000000063	000080262	0000/001/01	0004/254/63	06	Fat16					P 000128520	000096390	0008/000/01	0013/254/63	83	Linux					P 000257040	000096390	0016/000/01	0021/254/63	1B	other					P 000000000	000000000	0000/000/00	0000/000/00	00	empty entry					P primary partition (1-4)					S secondary (sub) partition				
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S secondary (sub) partition																																																								

```

X primary extended partition (1-4)
x secondary extended partition
Source disk layout: 00783/255/63 12578895 total sectors
on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0    62    63    0.03MB  0.03BMB
1 P    63   80324  80262  41.09MB 39.19BMB
2 U   80325 128519  48195  23.68MB 23.53BMB
3 P  128520 224909  96390  49.35MB
47.07BMB
4 U  224910 257039  32130  16.45MB
15.69BMB
5 P  257040 353429  96390  49.35MB
47.07BMB
6 U  353430 12594959 12241530 6267.66MB
5977.31BMB
Destination Disk Drive 0x81, BIOS: Legacy
Interrupt 13 bios 0825/063/63 (max cyl/hd values)
Interrupt 13 ext 00826/064/63 (number of cyl/hd)
3330432 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (QUANTUM SIROCCO1700A) serial #
(111615915652)
Max number of user addressable sectors reported by ATA
identify device command 3335472
Destination disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot
Partition type
P 000000063 000092673 0000/001/01 0022/063/63  06
Fat16
P 000129024 000080640 0032/000/01 0051/063/63  83
Linux
P 000225792 000104832 0056/000/01 0081/063/63  0B
Fat32
P 000346752 000100800 0086/000/01 0110/063/63  07
NTFS
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Destination disk layout: 00826/064/63 3330432 total
sectors on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0    62    63    0.03MB  0.03BMB
1 P    63   92735  92673  47.45MB 45.25BMB
2 U   92736 129023  36288  18.58MB 17.72BMB

```

	3 P 129024 209663 80640 41.29MB 39.38BMB 4 U 209664 225791 16128 8.26MB 7.88BMB 5 P 225792 330623 104832 53.67MB 51.19BMB 6 U 330624 346751 16128 8.26MB 7.88BMB 7 P 346752 447551 100800 51.61MB 49.22BMB 8 U 447552 3335471 2887920 1478.62MB 1410.12BMB run start Thu Jul 10 14:50:21 2003 run finish Thu Jul 10 14:50:22 2003 elapsed time 0:0:1 Normal exit
Expected Results:	<i>Adjcmp</i> creates a new log file CMPALOG.TXT, even if an old log file with the same name exists. <i>Adjcmp</i> logs the comment, the source and destination drives, the program execution, logs the boot tracks, partitions and unallocated space of each disk.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Acp-03	
Case Summary:	Run <i>adjcmp</i> to compare the “chunks” of two disks using: <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination hard disk drives. - The setup of test case Acp-01. - Do not delete any log file. - Use both /layout and /assign to test their precedence. - Do not use /new_log to test appending the log to the existing log file. - Do not use /comment to test interactive comments.
Tester Name:	SIG
Test Date:	Thu Jul 10 14:52:07 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903). Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).
Execute:	Use the partition setup of previous case, Acp-01. Run <i>adjcmp</i> : Z:\SS\ADJCMP.EXE ACP-03 Beta3 80 AA 81 BB /layout /assign
Log Files location:	Test-archive\Adjcmp\Acp-03\

Log File Highlights:

CMPALOG.TXT generated by *adjcmp*:

```

cmd: Z:\SS\ADJCMP.EXE ACP-03 Beta3 80 AA 81 BB
/layout /assign
TEST ACP-03 HOST Beta3
Comment: Interactive comment, /layout has precedence
over /assign, append log.
Source Disk Drive 0x80, BIOS: Legacy
Interrupt 13 bios 0782/254/63 (max cyl/hd values)
Interrupt 13 ext 00783/255/63 (number of cyl/hd)
12578895 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD64AA) serial # (WD-
WM6533500903)
Max number of user addressable sectors reported by ATA
identify device command 12594960
Source disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot
Partition type
P 000000063 000080262 0000/001/01 0004/254/63  06
Fat16
P 000128520 000096390 0008/000/01 0013/254/63  83
Linux
P 000257040 000096390 0016/000/01 0021/254/63  1B
other
P 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Source disk layout: 00783/255/63 12578895 total sectors
on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0    62    63    0.03MB  0.03BMB
1 P    63   80324  80262  41.09MB  39.19BMB
2 U   80325 128519  48195  23.68MB  23.53BMB
3 P  128520 224909  96390  49.35MB
47.07BMB
4 U  224910 257039  32130  16.45MB
15.69BMB
5 P  257040 353429  96390  49.35MB
47.07BMB
6 U  353430 12594959 12241530 6267.66MB
5977.31BMB
Destination Disk Drive 0x81, BIOS: Legacy
Interrupt 13 bios 0825/063/63 (max cyl/hd values)

```

	<p>Interrupt 13 ext 00826/064/63 (number of cyl/hd) 3330432 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (QUANTUM SIROCCO1700A) serial # (111615915652) Max number of user addressable sectors reported by ATA identify device command 3335472 Destination disk partition table</p> <table border="1"> <thead> <tr> <th>Start LBA</th> <th>Length</th> <th>Start C/H/S</th> <th>End C/H/S</th> <th>boot</th> </tr> </thead> <tbody> <tr> <td colspan="5">Partition type</td> </tr> <tr> <td>P 000000063</td> <td>000092673</td> <td>0000/001/01</td> <td>0022/063/63</td> <td>06</td> </tr> <tr> <td colspan="5">Fat16</td> </tr> <tr> <td>P 000129024</td> <td>000080640</td> <td>0032/000/01</td> <td>0051/063/63</td> <td>83</td> </tr> <tr> <td colspan="5">Linux</td> </tr> <tr> <td>P 000225792</td> <td>000104832</td> <td>0056/000/01</td> <td>0081/063/63</td> <td>0B</td> </tr> <tr> <td colspan="5">Fat32</td> </tr> <tr> <td>P 000346752</td> <td>000100800</td> <td>0086/000/01</td> <td>0110/063/63</td> <td>07</td> </tr> <tr> <td colspan="5">NTFS</td> </tr> <tr> <td colspan="5">P primary partition (1-4)</td> </tr> <tr> <td colspan="5">S secondary (sub) partition</td> </tr> <tr> <td colspan="5">X primary extended partition (1-4)</td> </tr> <tr> <td colspan="5">x secondary extended partition</td> </tr> <tr> <td colspan="5">Destination disk layout: 00826/064/63 3330432 total sectors on disk</td> </tr> <table border="1"> <thead> <tr> <th>Start LBA</th> <th>End LBA</th> <th>Length</th> <th>Size: MB (binary)</th> </tr> </thead> <tbody> <tr> <td>0 B</td> <td>0 62 63</td> <td>0.03MB</td> <td>0.03BMB</td> </tr> <tr> <td>1 P</td> <td>63 92735 92673</td> <td>47.45MB</td> <td>45.25BMB</td> </tr> <tr> <td>2 U</td> <td>92736 129023 36288</td> <td>18.58MB</td> <td>17.72BMB</td> </tr> <tr> <td>3 P</td> <td>129024 209663 80640</td> <td>41.29MB</td> <td>39.38BMB</td> </tr> <tr> <td>4 U</td> <td>209664 225791 16128</td> <td>8.26MB</td> <td>7.88BMB</td> </tr> <tr> <td>5 P</td> <td>225792 330623 104832</td> <td>53.67MB</td> <td>51.19BMB</td> </tr> <tr> <td>6 U</td> <td>330624 346751 16128</td> <td>8.26MB</td> <td>7.88BMB</td> </tr> <tr> <td>7 P</td> <td>346752 447551 100800</td> <td>51.61MB</td> <td>49.22BMB</td> </tr> <tr> <td>8 U</td> <td>447552 3335471 2887920</td> <td>1478.62MB</td> <td>1410.12BMB</td> </tr> </tbody> </table> <p>run start Thu Jul 10 14:52:07 2003 run finish Thu Jul 10 14:52:08 2003 elapsed time 0:0:1 Normal exit</p> </tbody></table>	Start LBA	Length	Start C/H/S	End C/H/S	boot	Partition type					P 000000063	000092673	0000/001/01	0022/063/63	06	Fat16					P 000129024	000080640	0032/000/01	0051/063/63	83	Linux					P 000225792	000104832	0056/000/01	0081/063/63	0B	Fat32					P 000346752	000100800	0086/000/01	0110/063/63	07	NTFS					P primary partition (1-4)					S secondary (sub) partition					X primary extended partition (1-4)					x secondary extended partition					Destination disk layout: 00826/064/63 3330432 total sectors on disk					Start LBA	End LBA	Length	Size: MB (binary)	0 B	0 62 63	0.03MB	0.03BMB	1 P	63 92735 92673	47.45MB	45.25BMB	2 U	92736 129023 36288	18.58MB	17.72BMB	3 P	129024 209663 80640	41.29MB	39.38BMB	4 U	209664 225791 16128	8.26MB	7.88BMB	5 P	225792 330623 104832	53.67MB	51.19BMB	6 U	330624 346751 16128	8.26MB	7.88BMB	7 P	346752 447551 100800	51.61MB	49.22BMB	8 U	447552 3335471 2887920	1478.62MB	1410.12BMB
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Expected Results:	<p><i>Adjcmp</i> appends the log to the existing log file CMPALOG.TXT created in the previous test case. <i>Adjcmp</i> prompts the user for a comment, logs the comment, the source and destination drives, the program</p>																																																																																																																			

	execution, logs the boot tracks, partitions and unallocated space of each disk, proving that /layout has precedence over /assign.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Acp-04	
Case Summary:	Run <i>adjcmp</i> to compare the “chunks” of two disks using: <ul style="list-style-type: none"> - A computer with legacy BIOS. - IDE source and destination hard disk drives. - The setup of test case Acp-01. - Use /assign to test interactive assignment of disk chunks. - Use /new_log.
Tester Name:	SIG
Test Date:	Thu Jul 10 14:54:15 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903). Destination: DOS Drive 81 Physical Label D7 Model (QUANTUM SIROCCO1700A) serial # (111615915652).
Execute:	Use the partition setup of Acp-01. Run <i>adjcmp</i> : Z:\SS\ADJCMP.EXE ACP-04 Beta3 80 AA 81 BB /assign /new_log When prompted, use the following assignment: 0 (b) → 0 (b) 1 (FAT16) → 7 (NTFS) 2 (U) → 2 (U) 3 (Linux) → 3 (Linux) 4 (U) → 4 (U) 5 (FAT32) → 1 (FAT16) 6 (U) → 6 (U)
Log Files location:	Test-archive\Adjcmp\Acp-04\
Log File Highlights:	CMPALOG.TXT generated by adjcmp: cmd: Z:\SS\ADJCMP.EXE ACP-04 Beta3 80 AA 81 BB /assign /new_log TEST ACP-04 HOST Beta3 Comment: Interactive comment, interactive assignment. Source Disk Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS

```

IDE disk: Model (WDC WD64AA) serial # (WD-
WM6533500903)
Max number of user addressable sectors reported by ATA
identify device command 12594960
Source disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot Partition
type
P 000000063 000080262 0000/001/01 0004/254/63  06
Fat16
P 000128520 000096390 0008/000/01 0013/254/63  83
Linux
P 000257040 000096390 0016/000/01 0021/254/63  1B
other
P 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Source disk layout: 00783/255/63 12578895 total sectors
on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0    62    63    0.03MB  0.03BMB
1 P    63   80324   80262  41.09MB  39.19BMB
2 U   80325  128519   48195  23.68MB  23.53BMB
3 P  128520  224909   96390  49.35MB  47.07BMB
4 U  224910  257039   32130  16.45MB  15.69BMB
5 P  257040  353429   96390  49.35MB  47.07BMB
6 U  353430 12594959 12241530 6267.66MB
5977.31BMB
Destination Disk Drive 0x81, BIOS: Legacy
Interrupt 13 bios 0825/063/63 (max cyl/hd values)
Interrupt 13 ext 00826/064/63 (number of cyl/hd)
3330432 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (QUANTUM SIROCCO1700A) serial #
(111615915652)
Max number of user addressable sectors reported by ATA
identify device command 3335472
Destination disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot Partition
type
P 000000063 000092673 0000/001/01 0022/063/63  06
Fat16
P 000129024 000080640 0032/000/01 0051/063/63  83
Linux

```

```

P 000225792 000104832 0056/000/01 0081/063/63 0B
Fat32
P 000346752 000100800 0086/000/01 0110/063/63 07
NTFS
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Destination disk layout: 00826/064/63 3330432 total
sectors on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0    62    63  0.03MB  0.03BMB
1 P    63   92735  92673  47.45MB  45.25BMB
2 U   92736 129023  36288  18.58MB  17.72BMB
3 P  129024 209663  80640  41.29MB  39.38BMB
4 U  209664 225791  16128   8.26MB   7.88BMB
5 P  225792 330623 104832  53.67MB  51.19BMB
6 U  330624 346751  16128   8.26MB   7.88BMB
7 P  346752 447551 100800  51.61MB  49.22BMB
8 U  447552 3335471 2887920 1478.62MB
1410.12BMB
Matching regions
  Start  End Length      Start  End Length
0 B    0    62    63 => 0 B    0    62    63
1 P    63   80324  80262 => 7 P  346752  447551
100800
2 U   80325  128519  48195 => 2 U   92736  129023
36288
3 P  128520  224909  96390 => 3 P  129024  209663
80640
4 U  224910  257039  32130 => 4 U  209664
225791  16128
5 P  257040  353429  96390 => 1 P    63   92735
92673
6 U  353430 12594959 12241530 => 6 U  330624
346751  16128
Unmatched destination regions
  Start  End Length
5P  225792  330623 104832
8U  447552  3335471 2887920
Chunk class codes: b/B Boot track, P partition, U
unallocated

=====
Compare region 0 of 6: src(0,63,B) dst (0,63,B)
Src base 0 Dst base 0

```

	<p>Sectors compared: 63 Sectors match: 0 Sectors differ: 63 Bytes differ: 30163 Diffs range: 0-62</p> <p>=====</p> <p>Compare region 1 of 6: src(63,80262,P) dst (346752,100800,P) Src base 63 Dst base 346752 Sectors compared: 80262 Sectors match: 0 Sectors differ: 80262 Bytes differ: 39816685 Diffs range: 0-80261 Source (80262) has 20538 fewer sectors than destination (100800) scanning 20538 unmatched sectors: 427014--447552 Zero fill: 0 Src Byte fill (AA): 0 Dst Byte fill (BB): 20537 Other fill (00): 0 Other no fill: 1 Zero fill range: Src fill range: Dst fill range: 427014-447550 Other fill range: Other not filled range: 447551</p> <p>=====</p> <p>Compare region 2 of 6: src(80325,48195,U) dst (92736,36288,U) Src base 80325 Dst base 92736 Sectors compared: 36288 Sectors match: 0 Sectors differ: 36288 Bytes differ: 18013350 Diffs range: 0-36287 Source (48195) has 11907 more sectors than destination (36288)</p> <p>=====</p> <p>Compare region 3 of 6: src(128520,96390,P) dst (129024,80640,P) Src base 128520 Dst base 129024 Sectors compared: 80640</p>
--	--

	<p>Sectors match: 2241 Sectors differ: 78399 Bytes differ: 38749905 Diffs range: 1-2, 4, 6, 8, 10, 12, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478- 16386. . . + 62470 more Source (96390) has 15750 more sectors than destination (80640)</p> <p>=====</p> <p>Compare region 4 of 6: src(224910,32130,U) dst (209664,16128,U) Src base 224910 Dst base 209664 Sectors compared: 16128 Sectors match: 0 Sectors differ: 16128 Bytes differ: 7980210 Diffs range: 0-16127 Source (32130) has 16002 more sectors than destination (16128)</p> <p>=====</p> <p>Compare region 5 of 6: src(257040,96390,P) dst (63,92673,P) Src base 257040 Dst base 63 Sectors compared: 92673 Sectors match: 211 Sectors differ: 92462 Bytes differ: 7462732 Diffs range: 0-7, 32, 81, 221-92672 Source (96390) has 3717 more sectors than destination (92673)</p> <p>=====</p> <p>Compare region 6 of 6: src(353430,12241530,U) dst (330624,16128,U) Src base 353430 Dst base 330624 Sectors compared: 16128 Sectors match: 0 Sectors differ: 16128 Bytes differ: 7973837 Diffs range: 0-16127 Source (12241530) has 12225402 more sectors than destination (16128)</p> <p>Examine unmatched regions of destination</p>
--	---

```

=====
Examine: 5P 225792-- 330623 104832
scanning 104832 unmatched sectors: 225792--330624
Zero fill:      1743
Src Byte fill (AA): 0
Dst Byte fill (BB): 102729
Other fill (FF): 15
Other no fill:   345
Zero fill range: 225800-225823, 225825-226631, 226633-
227439,
227441, 266616-266617, 266619-266624, 266626-266638,
298412-298476, 298479-298487, 298489-298497
Src fill range:
Dst fill range: 227440, 227442-254015, 254017-254047,
254080-266614, 266640-296350, 296383-296390, 296399-
298406,
298763-330623
Other fill range: 296376-296382, 296391-296398
Other not filled range: 225792-225799, 225824, 226632,
254016, 254048-254079, 266615, 266618, 266625, 266639,
296351-296375, 298407-298411, 298477-298478, 298488,
298498-298762

```

```

=====
Examine: 8U 447552-- 3335471 2887920
scanning 2887920 unmatched sectors: 447552--3335472
Zero fill:      0
Src Byte fill (AA): 0
Dst Byte fill (BB): 2887920
Other fill (00): 0
Other no fill:   0
Zero fill range:
Src fill range:
Dst fill range: 447552-3335471
Other fill range:
Other not filled range:

```

```

Summary
Boot tracks 1      63 diffs      63
Partitions  3     253575 diffs  251123
Unallocated 3      68544 diffs   68544
Total src sectors 322182
Partition excess 20538 zero      0 non-zero  20538
Disk excess    2992752 zero    1743 non-zero
2991009

```

	Total dst sectors 3335472 run start Thu Jul 10 14:54:15 2003 run finish Thu Jul 10 15:09:55 2003 elapsed time 0:15:40 Normal exit
Expected Results:	<i>Adjcmp</i> creates a new log file CMPALOG.TXT, prompts the user to enter a comment, logs the comment, the source and destination drives, the program execution, logs the boot tracks, partitions and unallocated space of each disk, prompts the user for the assignment of source disk chunks to destination chunks, compares the disk chunks according to the assignment provided by the user, logs the comparison results and a summary, as detailed in the features.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

Case Acp-05	
Case Summary:	Run <i>adjcmp</i> to compare the “chunks” of two disks using: <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source and destination hard disk drives. - Large (>8GB) primary FAT32 partitions on source and destination disks. - Use automatic assignment of disk chunks. - Use /new_log.
Tester Name:	SIG
Test Date:	Thu Jul 14 15:28:00 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 81 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292). Dest.: DOS Drive 82 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).
Execute:	Use PartitionMagic to create a 10GB primary FAT32 partition on both source and destination drives. Run <i>seccopy</i> to copy the source FAT32 partition to the destination FAT32 partition (in this case they have the same size): Z:\SS\SECCOPY.EXE ACP-05 HecRamsey 81 63 82 63 20482812 /new_log Run <i>adjcmp</i> : Z:\SS\ADJCMP.EXE ACP-05 HecRamsey 81 AA 82 BB /new_log
Log Files location:	Test-archive\Adjcmp\Acp-05\
Log File Highlights:	CMPALOG.TXT generated by <i>adjcmp</i>:

	<pre> cmd: Z:\SS\ADJCMP.EXE ACP-05 HecRamsey 81 AA 82 BB /new_log TEST ACP-05 HOST HecRamsey Comment: Compare FAT32 partitions > 8GB Source Disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 Source disk partition table Start LBA Length Start C/H/S End C/H/S boot Partition type X 000000063 020482812 0000/001/01 1023/254/63 0C extended S -151587082 -151587082 1014/246/54 1014/246/54 Boot F6 other S -151587082 -151587082 Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö UoG,î Ê:PyP5÷öööö Source disk layout: 63222/1867841536/183381063 -151587019 total sectors on disk Start LBA End LBA Length Size: MB (binary) 0 5 -151587081 -151586836 246 0.13MB 0.12BMB 1 , 151587566 -754381066 -905968631 1735167.32MB 1654783.50BMB </pre>
<p>Expected Results:</p>	<p><i>Adjcmp</i> creates a new log file CMPALOG.TXT, prompts the user to enter a comment, logs the comment, the source and destination drives, the program execution, logs the boot tracks, partitions and unallocated space of each disk, automatically assigns source disk chunks to destination</p>

	chunks, compares the disk chunks according to the assignment, logs the comparison results and a summary, as detailed in the features.
Actual Results:	<i>Adjcmp</i> does not detect the correct number and size of the partitions when a primary FAT32 partition is involved. Also, when logging the disk layout, it seems to enter a long (infinite?) loop, displaying incorrect chunk information.
Analysis:	Expected results were NOT achieved.

Case Acp-06	
Case Summary:	Run <i>adjcmp</i> to compare the “chunks” of two disks using: <ul style="list-style-type: none"> - A computer with extended BIOS. - IDE source and destination hard disk drives. - Large (>8GB) logical FAT32 partitions on source and destination disks. - Use automatic assignment of disk chunks. - Use /new_log.
Tester Name:	SIG
Test Date:	Thu Jul 14 15:28:00 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 81 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292). Dest.: DOS Drive 82 Physical Label 8C Model (WDC WD200EB-00CSF0) serial # (WD-WMAAV2431177).
Execute:	Use the setup of previous test case, Acp-05. Use PartitionMagic to convert the primary FAT32 partitions to logical FAT32 partitions. Run <i>adjcmp</i> : Z:\SS\ADJCMP.EXE ACP-06 HecRamsey 81 AA 82 BB /new_log
Log Files location:	Test-archive\Adjcmp\Acp-06\
Log File Highlights:	CMPALOG.TXT generated by <i>adjcmp</i>: cmd: Z:\SS\ADJCMP.EXE ACP-06 HecRamsey 81 AA 82 BB /new_log TEST ACP-06 HOST HecRamsey Comment: Compare logical FAT32 partitions > 8GB Source Disk Drive 0x81, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)

```

Max number of user addressable sectors reported by ATA
identify device command 39102336
Source disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot Partition
type
X 000016065 020466810 0001/000/01 1023/254/63  0F
extended
S 000000063 020466747 0001/001/01 1023/254/63  0B
Fat32
S 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00  00
empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Source disk layout: 16383/016/63 39102336 total sectors
on disk
  Start LBA  End LBA  Length  Size: MB (binary)
0 B    0  16064  16065  8.23MB  7.84BMB
1 b   16065  16127    63  0.03MB  0.03BMB
2 P   16128 20482874 20466747 10478.97MB
9993.53BMB
3 U 20482875 39102335 18619461 9533.16MB
9091.53BMB
Destination Disk Drive 0x82, BIOS: Extensions Present
Interrupt 13 bios 1022/254/63 (max cyl/hd values)
Interrupt 13 ext 16383/016/63 (number of cyl/hd)
39102336 total number of sectors reported via interrupt 13
from the BIOS
IDE disk: Model (WDC WD200EB-00CSF0) serial # (WD-
WMAAV2431177)
Max number of user addressable sectors reported by ATA
identify device command 39102336
Destination disk partition table
  Start LBA Length  Start C/H/S End C/H/S  boot Partition
type
X 000016065 020466810 0001/000/01 1023/254/63  0F
extended
S 000000063 020466747 0001/001/01 1023/254/63  0B
Fat32

```

```

S 000000000 000000000 0000/000/00 0000/000/00 00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00 00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00 00
empty entry
P 000000000 000000000 0000/000/00 0000/000/00 00
empty entry
P primary partition (1-4)
S secondary (sub) partition
X primary extended partition (1-4)
x secondary extended partition
Destination disk layout: 16383/016/63 39102336 total
sectors on disk
  Start LBA End LBA Length Size: MB (binary)
0 B 0 16064 16065 8.23MB 7.84BMB
1 b 16065 16127 63 0.03MB 0.03BMB
2 P 16128 20482874 20466747 10478.97MB
9993.53BMB
3 U 20482875 39102335 18619461 9533.16MB
9091.53BMB
Matching regions
  Start End Length Start End Length
0 B 0 16064 16065 => 0 B 0 16064
16065
1 b 16065 16127 63 => 1 b 16065 16127
63
2 P 16128 20482874 20466747 => 2 P 16128
20482874 20466747
3 U 20482875 39102335 18619461 => 3 U 20482875
39102335 18619461
Unmatched destination regions
  Start End Length
Chunk class codes: b/B Boot track, P partition, U
unallocated

=====
Compare region 0 of 3: src(0,16065,B) dst (0,16065,B)
Src base 0 Dst base 0
Sectors compared: 16065
Sectors match: 16065
Sectors differ: 0
Bytes differ: 0
Diffs range:
=====

```

	<pre> Compare region 1 of 3: src(16065,63,b) dst (16065,63,b) Src base 16065 Dst base 16065 Sectors compared: 63 Sectors match: 63 Sectors differ: 0 Bytes differ: 0 Diffs range: ===== Compare region 2 of 3: src(16128,20466747,P) dst (16128,20466747,P) Src base 16128 Dst base 16128 Sectors compared: 20466747 Sectors match: 20466747 Sectors differ: 0 Bytes differ: 0 Diffs range: ===== Compare region 3 of 3: src(20482875,18619461,U) dst (20482875,18619461,U) Src base 20482875 Dst base 20482875 Sectors compared: 18619461 Sectors match: 18619460 Sectors differ: 1 Bytes differ: 511 Diffs range: 18619460 Summary Boot tracks 2 126 diffs 0 Partitions 1 20466747 diffs 0 Unallocated 1 18619461 diffs 1 Total src sectors 39086334 Partition excess 0 zero 0 non-zero 0 Disk excess 0 zero 0 non-zero 0 Total dst sectors 39086334 run start Mon Jul 14 15:36:08 2003 run finish Mon Jul 14 15:56:08 2003 elapsed time 0:20:0 Normal exit </pre>
<p>Expected Results:</p>	<p><i>Adjcmp</i> creates a new log file CMPALOG.TXT, prompts the user to enter a comment, logs the comment, the source and destination drives, the program execution, logs the boot tracks, partitions and unallocated space of each disk, automatically assigns source disk chunks to destination</p>

	chunks, compares the disk chunks according to the assignment, logs the comparison results and a summary, as detailed in the features.
Actual Results:	No anomalies detected.
Analysis:	Expected results were achieved.

3.3.16 Disk Logging Test Results Summary

Case Dkw-01	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with legacy BIOS. - An IDE hard drive that uses LBA addressing and has no more than 1024 cylinders, 256 heads, and 63 sectors per track.
Tester Name:	SIG
Test Date:	Tue May 20 13:01:59 2003
PC:	Beta3
Disks:	Source: DOS Drive 80 Physical Label 61 Model (WDC WD64AA) serial # (WD-WM6533500903)
Execute:	Boot to DOS. Run <i>diskwipe</i> to wipe the source: Z:\SS\DISKWIPE.EXE DKW-01 beta3 80 00 /src /comment TestNumber01
Log Files location:	Test-archive\Diskwipe\Dkw-01\
Log File Highlights:	WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-01 beta3 80 00 /src /comment TestNumber01 TEST DKW-01 HOST beta3 Comment: TestNumber01 Wipe Drive 0x80, BIOS: Legacy Interrupt 13 bios 0782/254/63 (max cyl/hd values) Interrupt 13 ext 00783/255/63 (number of cyl/hd) 12578895 total number of sectors reported via interrupt 13 from the BIOS IDE disk: Model (WDC WD64AA) serial # (WD- WM6533500903) Max number of user addressable sectors reported by ATA identify device command 12594960 12594960 sectors wiped with 0 run start Tue May 20 13:01:59 2003 run finish Tue May 20 13:16:39 2003 elapsed time 0:14:40 Normal exit
Expected Results:	<i>Diskwipe</i> logs a legacy BIOS in the log file. <i>Diskwipe</i> logs reasonable values as the maximum C/H/S

	values. <i>Diskwipe</i> logs reasonable C/H/S values as the values reported by int. 13h function 08h. <i>Diskwipe</i> logs the correct model and serial numbers. <i>Diskwipe</i> logs correct maximum number of sectors as reported by ATA identify device command.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Note. It cannot be checked that the C/H/S values logged by *diskwipe* are the values returned by interrupt 13h function 08h, but they appear to be reasonable. The argument is based on the real and computed capacity of the hard disk drive based on the reported figures. 783 cyls * 255 heads * 63 sectors/track = 12578895 sectors = 6142 MB, while the known capacity of the disk is 6149MB. Probably the legacy BIOS cannot represent the real geometry in the 10, 8 and 6 bits reserved for cylinder, head, and sector, so it adjusts the disk geometry to a new one (783/255/63) and translates the sector addresses conform to the new geometry. As a result, some sectors are no longer addressable. The capacity loss is about 0.1%, which seems reasonable.

Case Dkw-10	
Case Summary:	Run <i>Diskwipe</i> on: <ul style="list-style-type: none"> - A computer with extended BIOS - An IDE hard drive that uses LBA addressing and has more than 8GB. - Fill value is 0xAA. - Use the /src and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 27 10:53:23 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 80 Physical Label 9C Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292)
Execute:	Boot to DOS Z:\SS\DISKWIPE.EXE DKW-10 HecRamsey 80 aa /src /new_log /comment "Ext BIOS, large disk"
Log Files location:	Test-archive\Diskwipe\Dkw-10\
Log File Highlights:	WIPESLOG.TXT: cmd: Z:\SS\DISKWIPE.EXE DKW-10 HecRamsey 80 aa /src /new_log /comment Ext BIOS, large disk TEST DKW-10 HOST HecRamsey Comment: Ext BIOS, large disk Wipe Drive 0x80, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 16383/016/63 (number of cyl/hd) 39102336 total number of sectors reported via interrupt 13

	<p>from the BIOS IDE disk: Model (WDC WD200BB-32CFC0) serial # (WD-WMA9L1986292) Max number of user addressable sectors reported by ATA identify device command 39102336 39102336 sectors wiped with AA run start Tue May 27 10:53:23 2003 run finish Tue May 27 11:04:56 2003 elapsed time 0:11:33 Normal exit</p>
Expected Results:	<p>Diskwipe logs an extended BIOS in the log file. Diskwipe logs reasonable values as the maximum C/H/S values. Diskwipe logs reasonable C/H/S values as the values reported by int. 13h function 48h. Diskwipe logs the correct model and serial numbers. Diskwipe logs correct maximum number of sectors as reported by ATA identify device command.</p>
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Note. The C/H/S values logged as being returned by function 48h of interrupt 13h can be verified by observing that they are the same values that are recorded on the hard disk cover.

The C/H/S values returned by function 08h cannot be correct, the number of cylinders being too large to be represented in 10 bits. Therefore, to access as many sectors as possible in CHS mode, BIOS must translate addresses using the geometry reported of 1023/255/63 (cylinders in the 0-1022 range, heads in the 0-254 range, sectors in the 1-63 range). Therefore, the maximum number of sectors addressable that way is $1023 * 255 * 63 = 16,434,495$ sectors, versus 16,514,064 sectors, number computed using the geometry reported by function 48h. The capacity loss is less than 0.5%, which seems reasonable.

The maximum number of user addressable sectors reported by ATA identify device command, 39,102,336, is also reasonable, because it indicates a disk capacity of about 19093MB, and the known capacity of the disk is 19GB.

Note. One can also test whether the maximum number of user addressable sectors logged is reasonable by trying to read the sectors 39102335 and 39102336 using the *diskchg* tool for example. While it should be possible to read the first sector, trying to read the second one should fail. This was tried and the expectations were confirmed.

Case Dkw-11	
Case Summary:	<p>Run <i>Diskwipe</i> on:</p> <ul style="list-style-type: none"> - A computer with extended BIOS - A SCSI hard drive.

	<ul style="list-style-type: none"> - Fill value is 0xCC. - Use the /src and /new_log switches.
Tester Name:	SIG
Test Date:	Tue May 27 13:16:11 2003
PC:	HecRamsey
Disks:	Source: DOS Drive 82 Physical Label 10 Model Fujitsu MAN3184MC, SCSI, 17GB.
Execute:	Boot to DOS Z:\SS\DISKWIBE.EXE DKW-11 HecRamsey 82 cc /src /new_log /comment "BIOS ext, SCSI large disk"
Log Files location:	Test-archive\Diskwipe\Dkw-11\
Log File Highlights:	WIPESLOG.TXT: cmd: Z:\SS\DISKWIBE.EXE DKW-11 HecRamsey 82 cc /src /new_log /comment BIOS ext, SCSI large disk TEST DKW-11 HOST HecRamsey Comment: BIOS ext, SCSI large disk Wipe Drive 0x82, BIOS: Extensions Present Interrupt 13 bios 1022/254/63 (max cyl/hd values) Interrupt 13 ext 01023/255/63 (number of cyl/hd) 35885448 total number of sectors reported via interrupt 13 from the BIOS Non-IDE disk 35885448 sectors wiped with CC run start Tue May 27 13:16:11 2003 run finish Tue May 27 13:25:12 2003 elapsed time 0:9:1 Normal exit
Expected Results:	Diskwipe logs an extended BIOS in the log file. Diskwipe logs reasonable values as the maximum C/H/S values. Diskwipe logs reasonable C/H/S values as the values reported by int. 13h function 48h. Diskwipe logs the correct model and serial numbers. Diskwipe logs correct maximum number of sectors as reported by ATA identify device command.
Actual Results:	No anomalies detected.
Analysis:	Expected results achieved.

Note. SCSI drives use the LBA addressing scheme. Therefore, it suffices that the total number of sectors logged, 35,885,448, be reasonable. According to this number of sectors, the disk should have about 17522MB, which is close to the known capacity of 17.5GB. Accordingly, this figure is considered to be reasonable. One can also test whether the total number of sectors logged by *diskwipe* is reasonable by trying to read the sectors 35885447 and 35885448 using the *diskchg* tool for example. While it should be possible to read the first sector, trying to read the second one should fail. This was tried and the expectations were confirmed.