

# SEPT. 2012 NIJ Special REPORT Test Results for Digital Data Acquisition Tool: ASR Data SMART version 2010-11-03 nij.gov

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September 2011

### **Test Results for Digital Data Acquisition Tool:** ASR Data SMART Version 2010-11-03



#### U.S. Department of Justice Office of Justice Programs

810 Seventh Street N.W.

Washington, DC 20531

**Eric H. Holder, Jr.** *Attorney General* 

Mary Lou Leary Acting Assistant Attorney General

John H. Laub Director, National Institute of Justice

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	Test Results for Digital Data Acquisition Tool: ASR Data SMART version 2010-11-03
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# NIJ

#### John Laub Director, National Institute of Justice

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# Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the National Institute of Justice (NIJ), the Department of Homeland Security (DHS), and the National Institute of Standards and Technology's (NIST's) Law Enforcement Standards Office (OLES) and Information Technology Laboratory (ITL). CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, the U.S. Internal Revenue Service Criminal Investigation Division Electronic Crimes Program, the Bureau of Immigration and Customs Enforcement and the U.S. Secret Service. The objective of the CFTT program is to provide measurable assurance to practitioners, researchers and other applicable users that the tools used in computer forensics investigations provide accurate results. Accomplishing this requires the development of specifications and test methods for computer forensics tools and subsequent testing of specific tools against those specifications.

Test results provide the information necessary for developers to improve tools, users to make informed choices, and the legal community and others to understand the tools' capabilities. The CFTT approach to testing computer forensic tools is based on well-recognized methodologies for conformance and quality testing. The specifications and test methods are posted on the CFTT Web site (<u>http://www.cftt.nist.gov/</u>) for review and comment by the computer forensics community.

This document reports the results from testing ASR Data SMART version 2010-11-03 against the *Digital Data Acquisition Tool Assertions and Test Plan Version 1.0*, available at the CFTT Web site (<u>http://www.cftt.nist.gov/DA-ATP-pc-01.pdf</u>).

Test results from other tools and the CFTT tool methodology can be found on NIJ's CFTT Web page,

http://www.nij.gov/nij/topics/forensics/evidence/digital/standards/cftt.htm.

# How to Read This Report

This report is divided into five sections. The first section is a summary of the results from the test runs. This section is sufficient for most readers to assess the suitability of the tool for its intended use. The remaining sections of the report describe how the tests were conducted, discuss any anomalies that were encountered and provide documentation of test case run details that support the report summary. Section 2 gives justification for the selection of test cases from the set of possible cases defined in the test plan for Digital Data Acquisition tools. The test cases are selected, in general, based on features offered by the tool. Section 3 describes in more depth any anomalies summarized in the first section. Section 4 lists hardware and software used to run the test cases with links to additional information about the items used. Section 5 contains a description of each test case run. The description of each test run lists all test assertions used in the test case, the expected result and the actual result. Please refer to the vendor's owner manual for guidance on using the tool.

# **Test Results for Digital Data Acquisition Tool**

Tool Tested:	SMART
Software Version:	2010-11-03
Execution	SMART Linux live CD version 2011-01
Environment:	
Supplier:	ASR Data, Data Acquisition and Analysis, LLC.
Address:	3505 Cumberland Gap
	Cedar Park, Texas 78613
Tel:	(512) 918-9227
Fax:	(512) 918-9393
Web:	http://www.asrdata.com

# 1 Results Summary

The tool, SMART, acquired visible and hidden sectors from the test media completely and accurately with the exception of the following cases: DA-08-DCO and DA-09. In both test cases the test results document tool features and not errors in the tool.

It was also observed that the execution environment, the SMART Linux live CD version 2011-01, modified a particular source drive containing an NTFS partition that was used in three cases: DA-02-F12, DA-02-F32, and DA-06-ATA28. CFTT has verified that the problem with NTFS partitions has been fixed in the current release of SMART Linux (August 2011). Upgrading the version of the SMART Linux live CD from the version shipped to NIST by the vendor resulted in an environment that appeared to be SMART Linux, but where the treatment of Linux swap files was misconfigured. Such an environment can under certain conditions manifest anomalies with acquiring Linux swap partitions. This Linux environment displayed anomalies with the following cases: DA-02-SWAP, DA-02-SWAP-ALT, DA-07-SWAP, and DA-14-SWAP. CFTT has verified that these swap anomalies are not present in either the original version of the SMART Linux live CD shipped to NIST by the vendor (May 6, 2010) or the current version of SMART Linux (August 2011).

The following anomalies were observed:

- The sectors hidden by a *device configuration overlay* (DCO) were not acquired (DA-08-DCO).
- Some readable sectors that were near faulty sectors on the test drive were replaced by zeros in the clone that was created in test case DA-09. The number of readable sectors missed varied between 6 and 206 sectors.

- The SMART Linux live CD execution environment modified 88 sectors of the NTFS file system on the source drive used in test cases DA-02-F12, DA-02-F32, and DA-06-ATA28. In DA-06-ATA28 this resulted in 88 sectors differing between the image file created by the tool and the original unaltered source.
- In test case DA-02-SWAP, when cloning a source swap partition to a destination swap partition of the same size, the clone operation aborted without copying the last seven sectors of the source partition.
- When restoring the image of a swap partition to a destination partition that was the same size as the source, the restore operation aborted and did not copy the last seven sectors (DA-14-SWAP).
- When a source swap partition was cloned to a larger destination swap partition in test case DA-02-SWAP-ALT, the clone differed from the source by seven sectors.
- Seven sectors of the image file differed from the source when a swap partition was acquired to an image file (DA-07-SWAP).

# 2 Test Case Selection

Test cases used to test disk imaging tools are defined in *Digital Data Acquisition Tool Assertions and Test Plan Version 1.0.* To test a tool, test cases are selected from the *Test Plan* document based on the features offered by the tool. Not all test cases or test assertions are appropriate for all tools. There is a core set of base cases (DA-06, DA-07 and DA-08) that are executed for every tool tested. Tool features guide the selection of additional test cases. If a given tool implements a given feature then the test cases linked to that feature are run. Table 1 lists the features available in SMART and the linked test cases selected for execution. Table 2 lists the features not available in SMART and the test cases not executed.

Supported Optional Feature	Cases selected for execution
Create a clone during acquisition	01
Create an unaligned clone from a digital source	02
Create a truncated clone from a physical device	04
Base Cases	06, 07 and 08
Read error during acquisition	09
Create an image file in more than one format	10
Insufficient space for image file	12
Destination Device Switching	13
Create a clone from an image file	14 and 17
Create a clone from a subset of an image file	16
Detect a corrupted (or changed) image file	24 and 25
Convert an image file from one format to	26
another	

 Table 1. Selected Test Cases

#### Table 2. Omitted Test Cases

Unsupported Optional Feature	Cases omitted (not executed)
Create cylinder aligned clones	03, 15, 21 and 23
Device I/O error generator available	05, 11 and 18
Fill excess sectors on a clone acquisition	19
Fill excess sectors on a clone device	20, 21, 22 and 23

Some test cases have different forms to accommodate parameters within test assertions. These variations cover the acquisition interface to the source drive, the type of digital object acquired, image file format, and the way that sectors are hidden on a drive. Additional parameters that were varied between test cases were number of target devices (one device or two), interface to destination device(s), type(s) of hash algorithm calculated, method for segmenting image files, and media drive file system type.

The following source access interfaces were tested: ATA28, ATA48, SATA28, SATA48, ESATA, SCSI, FW, and USB. These are noted as variations on test cases DA-01, DA-06, and DA-08.

The following digital source types were tested: partitions (EXT2, Linux swap, FAT12, FAT16, FAT32, FAT32X, NTFS, OSX or HFS, OSXC or HFS+ case sensitive, OSXCJ or HFS+ case sensitive journaled, OSXJ or HFS+ journaled, and OSXU or UFS), compact flash (CF), and thumb drive (Thumb). There are two FAT 32 variations testing acquisition of both FAT 32 partition codes 0x0B (FAT32) and 0x0C (FAT32X). These digital source types are noted as variations on test cases DA-02 and DA-07.

The following types of image file compression are supported by the tool: bzip2, gzip, and Ewcompress. These were tested as alternate image file formats and are noted as variations on test case DA-10.

Four methods for segmenting image files were available: Standard, Partition Aligned, Fixed Size, and Transport Media. These were tested and varied across test cases DA-06, DA-07, and DA-12.

The SMART tool allows a source drive to be acquired to more than one target clone device or image file set at a time. Except for two instances, all acquisitions and restores involved the use of one target device or image file set. Test cases DA-01-ATA28 and DA-01-ATA28-CLONE2 document the acquisition of an ATA28 device to two target clone devices. Test cases DA-06-SATA28 and DA-06-SATA28-IMAGE2 document the acquisition of a SATA28 device to two destination image file sets.

The following hash algorithms were used in testing: md5 and sha1.

# 3 Results by Test Assertion

A test assertion is a verifiable statement about a single condition after an action is performed by the tool under test. A test case usually checks a group of assertions after the

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action of a single execution of the tool under test. Test assertions are defined and linked to test cases in *Digital Data Acquisition Tool Assertions and Test Plan Version 1.0*. Table 3 summarizes the test results for all the test cases by assertion. The column labeled **Assertions Tested** gives the text of each assertion. The column labeled **Tests** gives the number of test cases that use the given assertion. The column labeled **Anomaly** gives the section number in this report where any observed anomalies are discussed.

See section 2 for a discussion of source access interface and digital source. See section 4 for more information on execution environment.

Assertions Tested	Tests	Anomaly
AM-01 The tool uses access interface SRC-AI to access	63	
the digital source.		
AM-02 The tool acquires digital source DS.	63	
AM-03 The tool executes in execution environment XE.	104	
AM-04 If clone creation is specified, the tool	27	
creates a clone of the digital source.		
AM-05 If image file creation is specified, the tool	36	
creates an image file on file system type FS.		
AM-06 All visible sectors are acquired from the	60	3.1 and
digital source.		3.4
AM-07 All hidden sectors are acquired from the	3	3.3
digital source.		
AM-08 All sectors acquired from the digital source	60	3.1 and
are acquired accurately.		1.1
AM-09 If unresolved errors occur while reading from	1	
the selected digital source, the tool notifies the		
user of the error type and location within the		
digital source.		
AM-10 If unresolved errors occur while reading from	1	
the selected digital source, the tool uses a benign		
fill in the destination object in place of the		
inaccessible data.		
AO-01 If the tool creates an image file, the data	33	
represented by the image file are the same as the		
data acquired by the tool.		
AO-02 If an image file format is specified, the tool	3	
creates an image file in the specified format.		
AO-04 If the tool is creating an image file and there	4	
is insufficient space on the image destination device		
to contain the image file, the tool shall notify the		
user.		
AO-05 If the tool creates a multifile image of a	33	
requested size then all the individual files shall be		
no larger than the requested size.		
AO-06 If the tool performs an image file integrity	2	
check on an image file that has not been changed		
since the file was created, the tool shall notify the		
user that the image file has not been changed.		
AO-07 If the tool performs an image file integrity	2	
check on an image file that has been changed since		

#### Table 3. Assertions Tested

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Assertions Tested	Tests	Anomaly
the file was created, the tool shall notify the user		
that the image file has been changed.		
AO-08 If the tool performs an image file integrity	2	
check on an image file that has been changed since		
the file was created, the tool shall notify the user		
of the affected locations.		
AO-09 If the tool converts a source image file from	6	
one format to a target image file in another format,		
the acquired data represented in the target image		
file are the same as the acquired data in the source		
image file.		
AO-10 If there is insufficient space to contain all	1	
files of a multifile image and if destination device		
switching is supported, the image is continued on		
another device.		
AO-11 If requested, a clone is created during an	27	
acquisition of a digital source.		
AO-12 If requested, a clone is created from an image	31	3.1
file.		
AO-13 A clone is created using access interface DST-	58	
AI to write to the clone device.		
AO-14 If an unaligned clone is created, each sector	56	3.1
written to the clone is accurately written to the		
same disk address on the clone that the sector		
occupied on the digital source.		
AO-16 If a subset of an image or acquisition is	1	
specified, all the subset is cloned.		
AO-17 If requested, any excess sectors on a clone	28	
destination device are not modified.		
AO-19 If there is insufficient space to create a	2	
complete clone, a truncated clone is created using		
all available sectors of the clone device.		
AO-20 If a truncated clone is created, the tool	2	
notifies the user.		
AO-22 If requested, the tool calculates block hashes	8	
for a specified block size during an acquisition for		
each block acquired from the digital source.		
AO-23 If the tool logs any log significant	104	3.1
information, the information is accurately recorded		
in the log file.		
AO-24 If the tool executes in a forensically safe	63	1.1
execution environment, the digital source is		
unchanged by the acquisition process.		

Two test assertions only apply in special circumstances. The assertion AO-22 is checked only for tools that create block hashes. The assertion AO-24 is only checked if the tool is executed in a runtime environment that does not modify attached storage devices, such as MS-DOS. In normal operation, an imaging tool is used in conjunction with a write block device to protect the source drive; however, a blocker was not used during the tests so that assertion AO-24 could be checked (note: in several test cases the test environment was observed to have modified the source. These cases were rerun with the use of a write

blocker). Table 4 lists the assertions that were not tested, usually due to the tool not supporting some optional feature, e.g., creation of cylinder-aligned clones.

#### Table 4. Assertions Not Tested

Assertions Not Tested
AO-03 If there is an error while writing the image file, the tool
notifies the user.
AO-15 If an aligned clone is created, each sector within a contiguous
span of sectors from the source is accurately written to the same disk
address on the clone device relative to the start of the span as the
sector occupied on the original digital source. A span of sectors is
defined to be either a mountable partition or a contiguous sequence of
sectors not part of a mountable partition. Extended partitions, which
may contain both mountable partitions and unallocated sectors, are not
mountable partitions.
AO-18 If requested, a benign fill is written to excess sectors of a
clone.
AO-21 If there is a write error during clone creation, the tool
notifies the user.

#### 3.1 Swap Partitions

Upgrading the version of the SMART Linux live CD from the version shipped to NIST by the vendor resulted in an environment that appeared to be SMART Linux, but where the treatment of Linux swap files was misconfigured. Such an environment can under certain conditions manifest anomalies with acquiring Linux swap partitions. This Linux environment displayed anomalies with the following cases: DA-02-SWAP, DA-02-SWAP-ALT, DA-07-SWAP, and DA-14-SWAP. CFTT has verified that these swap anomalies are not present in either the original version of the SMART Linux live CD shipped to NIST by the vendor (May 6, 2010) or the current version of SMART Linux (August 2011).

Test cases DA-02-SWAP and DA-14-SWAP both involved creating a clone of a swap partition on a destination swap partition that was the same size as the source. In both cases, the clone operations aborted without copying the last seven sectors of the source partition.

In test case DA-02-SWAP-ALT, which acquired a source swap partition to a larger destination swap partition, and test case DA-07-SWAP, where a swap partition was acquired to an image file, the clone and imaging operations completed without error. However, the last seven sectors of the clone (DA-02-SWAP-ALT) and the image file (DA-07-SWAP) differed from the source. The tool wrote zeros for these last seven sectors in place of the appropriate source drive content.

These behaviors related to swap seemed to be connected to the execution environment, the SMART Linux live CD version 2011-01, mounting available swap partitions. These

behaviors were not observed in alternate execution environments that had been configured to disable mounting of swap.

# 3.2 Source Media Modified by Test Environment

The execution environment, the SMART Linux live CD version 2011-01, not the tool, modified the source drive in test cases DA-02-F12, DA-02-F32, and DA-06-ATA28. The source drive, 01-IDE, contained an NTFS and several other file systems. In each case 88 sectors belonging to the NTFS file system journal were changed. Since the execution environment's changes were limited to the NTFS partition, the accuracy of the DA-02-F12 and DA-02-F32 acquisitions (acquisitions of the drive's FAT 12 and FAT 32 partitions) were not affected. However, in DA-06-ATA28 this resulted in 88 sectors differing between the image file created by the tool and the original unaltered source. When the test cases were rerun with the source attached via hardware write block (DA-02-F12-WB, DA-02-F32-WB and DA-06-ATA28-WB), the tests completed without anomaly.

It should be noted that in testing SMART, other drives that contained NTFS file systems were imaged but were not modified by the SMART Linux environment. This behavior of SMART Linux changing the source was only seen with the NTFS file system on drive 01-IDE.

# 3.3 Acquisition of HPA and DCO

The tool does not remove either *Host Protected Areas* (HPAs) or DCOs. However, the Linux test environment automatically removed the HPA on the test drives, allowing the tool to image sectors hidden by an HPA. The tool did not acquire sectors hidden by a DCO (DA-08-DCO).

# 3.4 Readable Sectors Near Faulty Sectors

In test case DA-09 the tool was used to image a hard drive with 35 faulty sectors to a clone. In the clone, faulty sectors were replaced with zeros, as were some readable sectors near the faulty sectors. The number of readable sectors missed varied between 6 and 206 sectors.

# 4 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the selected test execution environment, test computers available for testing, using the support software, and notes on other test hardware.

# 4.1 Execution Environment

SMART executes in the Linux environment. All test cases were executed with the SMART Linux live CD version 2011-01 as the test execution environment.

#### 4.2 Test Computers

Three test computers were used. Bold lettering indicates the computer name (unique identifier), and is followed by the computer's configuration.

WoFat and McGarrett have the following configuration: Intel® Desktop Motherboard DX48BT2 BIOS Version BTX3810J.86A.1554.2008.0501.1628 Intel® Core<sup>™</sup> 2 Extreme QX9770 CPU 3.20Ghz 4GB DDR3 RAM Diamond Radeon<sup>™</sup> HD3450 PCI-E graphics card SIIG® 3-Port IEEE1395 PCI-E card LG Blu-Ray Super multi drive BD/HD-DVD/DVD/CD Three slots for removable SATA hard disk drives Two slots for removable IDE hard disk drives

Max has the following configuration: Intel Desktop Motherboard D865GB/D865PERC (with ATA-6 IDE on board controller) BIOS Version BF86510A.86A.0053.P13 Adaptec SCSI BIOS V3.10.0 Intel® Pentium<sup>™</sup> 4 CPU 3.4Ghz 2577972KB RAM SONY DVD RW DRU-530A, ATAPI CD/DVD-ROM drive 1.44 MB floppy drive Two slots for removable IDE hard disk drives Two slots for removable SATA hard disk drives Two slots for removable SATA hard disk drives

#### 4.3 Support Software

A package of programs to support test analysis, FS-TST Release 2.0, was used. The software can be obtained from: <u>http://www.cftt.nist.gov/diskimaging/fs-tst20.zip</u>.

#### 4.4 Test Drive Creation

There are three ways that a hard drive may be used in a tool test case: as a source drive that is imaged by the tool, as a media drive that contains image files created by the tool under test, or as a destination drive on which the tool under test creates a clone of the source drive. In addition to the operating system drive formatting tools, some tools (**diskwipe** and **diskhash**) from the FS-TST package are used to setup test drives.

To setup a media drive, the drive is formatted with one of the supported file systems. A media drive may be used in several test cases.

The setup of most source drives follows the same general procedure, but there are several steps that may be varied depending on the needs of the test case.

1. The drive is filled with known data by the **diskwipe** program from FS-TST. The **diskwipe** program writes the sector address to each sector in both C/H/S and LBA

format. The remainder of the sector bytes is set to a constant fill value unique for each drive. The fill value is noted in the **diskwipe** tool log file.

- 2. The drive may be formatted with partitions as required for the test case.
- 3. An operating system may optionally be installed.
- 4. A set of reference hashes is created by the FS-TST **diskhash** tool. These include both SHA1 and MD5 hashes. In addition to full drive hashes, hashes of each partition may also be computed.
- 5. If the drive is intended for hidden area tests (DA-08), an HPA, a DCO or both may be created. The **diskhash** tool is then used to calculate reference hashes of just the visible sectors of the drive.

The source drives for DA-09 are created such that there is a consistent set of faulty sectors on the drive. Each of these source drives is initialized with **diskwipe** and then their faulty sectors are activated. For each of these source drives, a second drive of the same size with the same content as the faulty sector drive, but with no faulty sectors serves as a reference drive for images made from the faulty drive.

To setup a destination drive, the drive is filled with known data by the **diskwipe** program from FS-TST. Partitions may be created if the test case involves restoring from the image of a logical acquire.

#### 4.5 Test Drive Analysis

For test cases that create a clone of a physical device, e.g., DA-01, DA-04, etc., the destination drive is compared to the source drive with the **diskcmp** program from the FS-TST package; for test cases that create a clone of a logical device, i.e., a partition, e.g., DA-02, DA-20, etc., the destination partition is compared to the source partition with the **partcmp** program. For a destination created from an image file, e.g., DA-14, the destination is compared, using either **diskcmp** (for physical device clones) or **partcmp** (for partition clones), to the source that was acquired to create the image file. Both **diskcmp** and **partcmp** note differences between the source and destination. If the destination is larger than the source it is scanned and the excess destination sectors are categorized as either, undisturbed (still containing the fill pattern written by **diskwipe**), zero filled or changed to something else.

For test case DA-09, imaging a drive with known faulty sectors, the program **anabad** is used to compare the faulty sector reference drive to a cloned version of the faulty sector drive.

For test cases such as DA-06 and DA-07 any acquisition hash computed by the tool under test is compared to the reference hash of the source to check that the source is completely and accurately acquired.

#### 4.6 Note on Test Drives

The testing uses several test drives from a variety of vendors. The drives are identified by an external label that consists of a two digit hexadecimal value and an optional tag, e.g., 25-SATA. The combination of hex value and tag serves as a unique identifier for each

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drive. The two digit hex value is used by the FS-TST **diskwipe** program as a sector fill value. The FS-TST compare tools, **diskcmp** and **partcmp**, count sectors that are filled with the source and destination fill values on a destination that is larger than the original source.

# 5 Test Results

The main item of interest for interpreting the test results is determining the conformance of the device with the test assertions. Conformance with each assertion tested by a given test case is evaluated by examining the **Log Highlights** box of the test case details.

# 5.1 Test Results Report Key

A summary of the actual test results is presented in this report. The following table presents a description of each section of the test report summary. The Tester Name, Test Host, Test Date, Drives, Source Setup and Log Highlights sections for each test case are populated by excerpts taken from the log files produced by the tool under test and the FS-TST tools that were executed in support of test case setup and analysis.

Heading	Description	
First Line:	Test case ID, name, and version of tool tested.	
Case Summary:	Test case summary from <i>Digital Data Acquisition Tool</i>	
	Assertions and Test Plan Version 1.0.	
Assertions:	The test assertions applicable to the test case, selected from	
	Digital Data Acquisition Tool Assertions and Test Plan	
	Version 1.0.	
Tester Name:	Name or initials of person executing test procedure.	
Test Host:	Host computer executing the test.	
Test Date:	Time and date that test was started.	
Drives:	Source drive (the drive acquired), destination drive (if a	
	clone is created) and media drive (to contain a created	
	image).	
Source Setup: Layout of partitions on the source drive and the expected		
	hash of the drive.	
Log Highlights: Information extracted from various log files to illustrate		
	conformance or non-conformance to the test assertions.	
Results:	Expected and actual results for each assertion tested.	
Analysis:	Whether or not the expected results were achieved.	

# 5.2 Test Details

#### 5.2.1 DA-01-ATA28

Test Case DA-	01-ATA28 Smart Version 2010/11/03
Case	DA-01 Acquire a physical device using access interface AI to an unaligned
Summary:	clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.

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Test Case DA-01-ATA28 Smart Version 2010/11/03		
	AM-04 If clone creation is specified, the tool creates a clone of the digital source	
	AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired accurately. AO-11 If requested, a clone is created during an acquisition of a digital	
	source.	
	clone device.	
	A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source	
	AO-17 If requested, any excess sectors on a clone destination device are	
	AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.	
	AU-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Tue Feb 1 14:10:45 2011	
Drives:	<pre>src(41) dst (02-IDE) other (none)</pre>	
Source	<pre>src hash (SHA1): &lt; 15CAA1A307271160D8372668BF8A03FC45A51CC9 &gt;</pre>	
Setup:	src hash (MD5): < 0A6A8EF78BDC14E2026710D8CCB5607C >	
	/8125000 total sectors (4000000000 bytes)	
	65535/016/63 (number of cyl/hd)	
	TDF disk: Model (WDC WDA008E-75.1400) serial # (WD-WMAMC4658355)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS	
	2 P 00000000 00000000 0000/000/00 0000/000/00 00	
	3 P 000000000 00000000 0000/000/00 0000/000/00 00	
	4 P 000000000 00000000 0000/000/00 0000/000/00 00	
	1 078107967 sectors 39991279104 bytes	
Log Highlights:	===== Destination drive setup ===== 78165360 sectors wiped with 2	
5 5 6 6		
	====== Comparison of original to clone drive ======	
	Sectors compared: 78125000	
	Sectors match: 78125000	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range	
	Zero fill: 0	
	Src Byte fill (41): 0	
	Dst Byte fill (02): 40360	
	Other fill: 0	
	Other no fill: 0	
	Zero fill range:	
	Src fill range:	
	Dst fill range: 78125000-78165359	
	Other fill range:	
	Uther not filled range:	
	o source read errors, o descination read errors	
	===== Tool Settings: ===== dst-interface ATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux	
	====== Excerpt from SMART log =======	

Test Case DA-01-ATA28 Smart Version 2010/11/03			
	MD5 Span Hashes		
	total span hash: 0a6a8ef78bdc14e2026710d8ccb5607c		
	IO Summary:(Time: Tue Feb 1 14:52:44 2011)		
	Bytes Read: 40,000,000,000		
	40,000,000,000 bytes written to /dev/sdb		
	40,000,000,000 bytes written to /dev/sde		
	====== End of Excerpt from SMART log =======		
	Course divisor unbrok		
	===== Source drive renash =====		
	Kendon (ShAI) OI SUULCE: ISCAAIASU/2/1100D03/2	UUDFURUJFCHJAJICCJ	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.2 DA-01-ATA28-CLONE2

Test Case DA-01-ATA28-CLONE2 Smart Version 2010/11/03		
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.	
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the</li> </ul>	
	clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.	
	AO-17 If requested, any excess sectors on a clone destination device are not modified. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Tue Feb 1 14:12:17 2011	
Drives:	<pre>src(41) dst (4E-SATA) other (none)</pre>	
Source Setup:	<pre>src hash (SHA1): &lt; 15CAAlA307271160D8372668BF8A03FC45A51CC9 &gt; src hash (MD5): &lt; 0A6A8EF78BDC14E2026710D8CCB5607C &gt; 78125000 total sectors (4000000000 bytes) 65534/015/63 (max cyl/hd values) 65535/016/63 (number of cyl/hd) IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 0000/000 00</pre>	
Log Highlights:	<pre>====== Destination drive setup ====== 156301488 sectors wiped with 4E ====== Comparison of original to clone drive ====== Sectors compared: 78125000 Sectors match: 78125000 Sectors differ: 0 Bytes differ: 0 Diffs range Source (78125000) has 78176488 fewer sectors than destination (156301488) Zero fill: 0 Src Byte fill (41): 0 Dst Byte fill (41): 0 Dst Byte fill (41): 78176488 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 78125000-156301487 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors ====== Tool Settings: =====</pre>	
	dst-interface ESATA	

Test Case DA-01-ATA28-CLONE2 Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2 2010 i686 GNU/Linux ======= Excerpt from SMART log =======	SMP Fri Apr 16 08:10:02 UTC
	<pre>MD5 Span Hashes total span hash: 0a6a8ef78bdc14e2026710d8ccb5 IO Summary:(Time: Tue Feb 1 14:52:44 2011) Bytes Read: 40,000,000,000 40,000,000 bytes written to /dev/sdb 40,000,000 bytes written to /dev/sde ======= End of Excerpt from SMART log ======= e==== Source drive rehash ====== Rehash (SHA1) of source: 15CAA1A307271160D8372</pre>	607c = 668BF8A03FC45A51CC9
Dogulta:		
Results.	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	A0-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

#### 5.2.3 DA-01-ATA48

Case D	A-01 Acquire a physical device using access interface AI to an unaligned
Dammary	lone.
Assertions: AI AA AI AI AI AI AI AI AI AI AI AI AI A	<ul> <li>M-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>M-02 The tool acquires digital source DS.</li> <li>M-03 The tool executes in execution environment XE.</li> <li>M-04 If clone creation is specified, the tool creates a clone of the ligital source.</li> <li>M-06 All visible sectors are acquired from the digital source.</li> <li>M-08 All sectors acquired from the digital source are acquired accurately.</li> <li>A0-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>A0-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector accupied on the digital source.</li> <li>A0-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>A0-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name: b:	prl Jefet
Test Date: T	NFAL The Feb 1 08:37:39 2011
Drives: s:	src(4C) dst (32-IDE) other (none)
Source s: Setup: 3 2 1	<pre>Sected (SHA1): &lt; 8FF620D2BEDCCAFE8412EDAAD56C8554F872EFBF &gt; src hash (MD5): &lt; D10F763B56D4CEBA2D1311C61F9FB382 &gt; 390721968 total sectors (200049647616 bytes) 4320/254/63 (max cyl/hd values) 4321/255/63 (number of cyl/hd) DE disk: Model (WDC WD2000JB-00KFA0) serial # (WD-WMAMR1031111) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 390700737 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 0000/000 00</pre>
Highlights: 4 Highlights: 4 =: S: S: B: D: S: D: C: D: C: D: C: C: C: C: C: C: C: C: C: C	<pre>#88397168 sectors wiped with 32 ####################################</pre>

Test Case DA-	Case DA-01-ATA48 Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Excerpt from SMART log =======		
	SHA1 Span Hashes total span hash: 8ff620d2 bedccafe 8412edaa d56c8554 f872efbf IO Summary:(Time: Tue Feb 1 13:07:38 2011) Bytes Read: 200,049,647,616 200,049,647,616 bytes written to /dev/sdb ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Behach (SHA1) of source: 8FF620D2FFDCCAFF8412FDAD56C8554F872FFFF		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	AO-24 Source is unchanged by acquisition.	as expected	
		an on Feeera	

# 5.2.4 DA-01-ESATA

Test Case DA-01-ESATA Smart Version 2010/11/03			
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.		
	AM-02 The tool acquires digital source DS.		
	AM-03 The tool executes in execution environment XE.		
	AM-04 If clone creation is specified, the tool creates a clone of the		
	digital source.		
	AM-06 All visible sectors are acquired from the digital source.		
	AM-08 All sectors acquired from the digital source are acquired accurately.		
	A0-11 If requested, a clone is created during an acquisition of a digital		
	source.		
	AO-13 A clone is created using access interface DST-AI to write to the		
	clone device.		
	A0-14 If an unaligned clone is created, each sector written to the clone is		
	accurately written to the same disk address on the clone that the sector		
	occupied on the digital source.		
	A0-17 If requested, any excess sectors on a clone destination device are		
	not modified.		
	AO-22 If requested, the tool calculates block hashes for a specified block		
	size during an acquisition for each block acquired from the digital source.		
	A0-23 If the tool logs any log significant information, the information is		
	accurately recorded in the log file.		
	AO-24 If the tool executes in a forensically safe execution environment.		
	the digital source is unchanged by the acquisition process.		
	ene argreat boares to anomargea 27 ene acquipteren Freedeb.		
Tester Name:	brl		
Test Host:	McGarrett		
Test Date:	Mon Jan 31 11:15:56 2011		
Drives:	src(07-SATA) dst (50-IDE) other (none)		
Source	src hash (SHA1): < 655E9BDDB36A3E9C5C4CC8BE32B8C5B41AF9E52E >		
Setup:	src hash (MD5): < 2EAF712DAD&0F6E30DEA00365B4579B >		
Decup	156301488 total sectors (80026361856 bytes)		
	Model (WDC WD800,TD-32HK) serial # (WD-WMAJ91510044)		
	N Start LBB Length Start C/H/S End C/H/S boot Partition type		
	1 B 00000063 156280257 0000/001/01 1023/254/63 Boot 07 NTES		
	2 P 00000000 000000000 0000/00 0000/00 0000/00 00		
	3 P 00000000 00000000 0000/00 0000/00 000 00		
	4 P 00000000 00000000 0000/000 0000/000 00		
	1 156280257 sectors 80015491584 bytes		
roa	====== Destination drive setup ======		
Highlights:	156301488 sectors wiped with 50		
5 5			
	====== Comparison of original to clone drive ======		
	Sectors compared: 156301488		
	Sectors match: 156301488		
	Sectors differ: 0		
	Bytes differ: 0		
	Diffs range		
	0 source read errors, 0 destination read errors		
	===== Tool Settings: ======		
	dst-interface ATA28		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC		
	2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	SHA1 Span Hashes		
	total span hash: 655e9bdd b36a3f9c 5c4cc8bf 32b8c5b4 1af9f52e		
	MD5 Span Hashes		
	total span hash: 2eaf712dad80f66e30dea00365b4579b		
	IO Summary:(Time: Mon Jan 31 15:21:43 2011)		

Test Case DA-01-ESATA Smart Version 2010/11/03			
	Bytes Read: 80,026,361,856		
	======= End of Excerpt from SMART log =======	=	
	F*F*		
	====== Source drive rehash ======		
	Rehash (SHA1) of source: 655E9BDDB36A3F9C5C4CC	8BF32B8C5B41AF9F52E	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	A0-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.5 DA-01-FW

Test Case DA-01-FW Smart Version 2010/11/03		
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.	
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>	
Tester Name:	brl	
Test Host:	Max	
Test Date:	Fri Jan 28 10:02:20 2011	
Drives:	src(63-FU2) dst (84-FU2) other (none)	
Source Setup:	<pre>src hash (SHA1): &lt; F7069EDCBEAC863C88DECED82159F22DA96BE99B &gt; src hash (MD5): &lt; EE217BC4FA4F3D1B4021D29B065AA9EC &gt; 117304992 total sectors (60060155904 bytes) Model (SP0612N ) serial # () N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16 2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended 3 S 00000063 113097537 0261/001/01 1023/254/63 0B Fat32 4 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>	
Highlights:	<pre>160836480 sectors wiped with 84 ====== Comparison of original to clone drive ====== Sectors compared: 117304992 Sectors match: 117304992 Sectors match: 117304992 Sectors differ: 0 Bytes differ: 0 Diffs range Source (117304992) has 43531488 fewer sectors than destination (160836480) Zero fill: 0 Src Byte fill (63): 0 Dst Byte fill (84): 43531488 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Src fill range: Other not filled range: 0 source read errors, 0 destination read errors </pre>	

Test Case DA-	01-FW Smart Version 2010/11/03		
	dst-interface FW		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	<pre>SHA1 Span Hashes total span hash: f7069edc beac863c 88deced8 2 IO Summary:(Time: Fri Jan 28 15:40:49 2011) Bytes Read: 60,060,155,904 60,060,155,904 bytes written to /dev/sdg ======= End of Excerpt from SMART log ======= e==== Source drive rehash ====== Rehash (SHA1) of source: F7069EDCBEAC863C88DEC</pre>	159f22d a96be99b = ED82159F22DA96BE99B	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	A0-11 A clone is created during acquisition.	as expected	
	A0-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.6 DA-01-SATA28

Test Case DA-	01-SATA28 Smart Version 2010/11/03
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital
	source.
	AO-13 A clone is created using access interface DST-AI to write to the
	clone device.
	AO-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	A0-17 If requested, any excess sectors on a clone destination device are
	not modified.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Fri Jan 28 09:22:17 2011
Drives:	<pre>src(07-SATA) dst (04-SATA) other (none)</pre>
Source	src hash (SHA1): < 655E9BDDB36A3F9C5C4CC8BF32B8C5B41AF9F52E >
Setup:	src hash (MD5): < 2EAF712DAD80F66E30DEA00365B4579B >
	156301488 total sectors (80026361856 bytes)
	Model (WDC WD800JD-32HK) serial # (WD-WMAJ91510044)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 156280257 0000/001/01 1023/254/63 Boot 07 NTFS
	2 P 000000000 000000000 0000/000/00 0000/000/00 00
	3 P 000000000 000000000 0000/000/00 0000/000/00 00
	4 P 000000000 000000000 0000/000/00 0000/000/00 00
	1 156280257 sectors 80015491584 bytes
Log	===== Destination drive setup ======
Highlights:	156301488 sectors wiped with 4
	Comparison of original to along drive
	Contrar compared: 156201400
	Sectors match: 156201400
	Sectors differ: 0
	Button differ: 0
	Difference
	Distribution read errors 0 destinction read errors
	o source read errors, o descination read errors
	===== Tool Settings: =====
	dst-interface SATA28
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	SHAl Span Hashes
	total span hash: 655e9bdd b36a319c 5c4cc8bf 32b8c5b4 laf9f52e
	10 Summary: (Time: Fri Jan 28 12:13:04 2011)
	By Les Reau. $\delta U$ , $U20$ , $301$ , $\delta 300$
1	00,020,301,030 Dyles Wiillen LU /dev/Sad

Test Case DA-01-SATA28 Smart Version 2010/11/03			
	======= End of Excerpt from SMART log ========		
	====== Source drive rehash ======		
	Rehash (SHA1) of source: 655E9BDDB36A3F9C5C4CC	8BF32B8C5B41AF9F52E	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	A0-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.7 DA-01-SATA48

Test Case DA-01-SATA48 Smart Version 2010/11/03			
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.		
	AM-02 The tool acquires digital source DS.		
	AM-03 The tool executes in execution environment XE.		
	AM-04 If clone creation is specified, the tool creates a clone of the		
	digital source.		
	AM-06 All visible sectors are acquired from the digital source.		
	AM-08 All sectors acquired from the digital source are acquired accurately.		
	A0-11 If requested, a clone is created during an acquisition of a digital		
	source.		
	clone device		
	AO-14 If an unaligned clone is created, each sector written to the clone is		
	accurately written to the same disk address on the clone that the sector		
	occupied on the digital source.		
	AO-17 If requested, any excess sectors on a clone destination device are		
	not modified.		
	AO-22 If requested, the tool calculates block hashes for a specified block		
	size during an acquisition for each block acquired from the digital source.		
	A0-23 If the tool logs any log significant information, the information is		
	accurately recorded in the log file.		
	A0-24 If the tool executes in a forensically safe execution environment,		
	the digital source is unchanged by the acquisition process.		
Tester Name .	brl		
Test Host:	WoFat WoFat		
Test Date:	Mon Jan 31 09:15:59 2011		
Drives:	src(OD-SATA) dst (46-SATA) other (none)		
Source	src hash (SHA1): < BAAD80E8781E55F2E3EF528CA73BD41D228C1377 >		
Setup:	<pre>src hash (MD5): &lt; 1FA7C3CBE60EB9E89863DED2411E40C9 &gt;</pre>		
_	488397168 total sectors (250059350016 bytes)		
	30400/254/63 (max cyl/hd values)		
	30401/255/63 (number of cyl/hd)		
	Model (WDC WD2500JD-22F) serial # (WD-WMAEH2678216)		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type		
	1 P 000000063 4883/593/ 0000/001/01 1023/254/63 BOOT 0/ NTFS		
	2 P 00000000 00000000 0000/00 0000/00 000/00 00		
	4 P 00000000 00000000 0000/00/00 0000/00 000/00 00		
	1 488375937 sectors 250048479744 bytes		
	•		
Log	===== Destination drive setup ======		
Highlights:	488397168 sectors wiped with 46		
	===== Comparison of original to clone drive ======		
	Sectors match: 488397168		
	Sectors differ: 0		
	Bytes differ: 0		
	Diffs range		
	0 source read errors, 0 destination read errors		
	===== Tool Settings: ======		
	dst-interface SATA48		
	US: Linux upuntu 2.0.32-21-generic #32-Upuntu SMP Fri Apr 16 08:10:02 UTC		
	ZOTO TOOD GMO/ITHINX		
	====== Excerpt from SMART log =======		
	SHA1 Span Hashes		
	total span hash: baad80e8 781e55f2 e3ef528c a73bd41d 228c1377		
	IO Summary:(Time: Mon Jan 31 15:22:19 2011)		

Test Case DA-01-SATA48 Smart Version 2010/11/03			
	Bytes Read: 250,059,350,016		
	250,059,350,016 bytes written to /dev/sdb		
	====== End of Excerpt from SMART log =======	=	
	====== Source drive rehash ======		
	Rehash (SHA1) of source: BAAD80E8781E55F2E3EF5	28CA73BD41D228C1377	
-			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.8 DA-01-SCSI

Test Case DA-01-SCSI Smart Version 2010/11/03			
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.		
	AM-02 The tool acquires digital source DS.		
	AM-03 The tool executes in execution environment XE.		
	AM-04 If clone creation is specified, the tool creates a clone of the		
	digital source.		
	AM-06 All visible sectors are acquired from the digital source.		
	AM-08 All sectors acquired from the digital source are acquired accurately.		
	AO-11 If requested, a clone is created during an acquisition of a digital		
	source.		
	Alone device		
	$\Delta 0 - 14$ If an unaligned clone is created each sector written to the clone is		
	accurately written to the same disk address on the clone that the sector		
	occupied on the digital source.		
	AO-17 If requested, any excess sectors on a clone destination device are		
	not modified.		
	AO-22 If requested, the tool calculates block hashes for a specified block		
	size during an acquisition for each block acquired from the digital source.		
	A0-23 If the tool logs any log significant information, the information is		
	accurately recorded in the log file.		
	A0-24 If the cool executes in a forensically safe execution environment,		
	the digital source is unchanged by the acquisition process.		
Tester Name:	brl		
Test Host:	Max		
Test Date:	Mon Jan 31 09:36:19 2011		
Drives:	<pre>src(E0) dst (CC) other (none)</pre>		
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >		
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F938 >		
	17938985 total sectors (9184760320 bytes)		
	Model (ATLAS10K2-TY092J) serial # (169028142436)		
T	Prosting time duty we we		
LOg Highlights:	===== Destination drive setup ======		
ingini giics.	/ib/s// sectors wiped with ce		
	===== Comparison of original to clone drive ======		
	Sectors compared: 17938985		
	Sectors match: 17938985		
	Sectors differ: 0		
	Bytes differ: 0		
	Diffs range		
	Source (17938985) has 53748385 fewer sectors than destination (71687370)		
	Zero fill: 0		
	Src Byte fill (EU): 0		
	Other fill: 0		
	Other no fill: 0		
	Zero fill range:		
	Src fill range:		
	Dst fill range: 17938985-71687369		
	Other fill range:		
	Other not filled range:		
	0 source read errors, 0 destination read errors		
	Tool Sottings:		
	det-interface SCSI		
	ADC INCCIDED COT		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC		
	2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	OUNI Gran Hacker		
	SHAI Span Hashes		

Test Case DA-01-SCSI Smart Version 2010/11/03			
	total span hash: 4a6941f1 337a8a22 b10fc844 b	4d7fa61 58becb82	
	IO Summary:(Time: Mon Jan 31 11:52:46 2011)		
	Bytes Read: 9,184,760,320		
	9,184,760,320 bytes written to /dev/sdf		
	====== End of Excerpt from SMART log ======	=	
	Course duine ushesh		
	====== Source arive remasm ======		
	REHASH (SHAL) OF SOULCE: 4A0941F153/A8A22B10FC	04404D/FA0130BFCB02	
Results:			
Repares	Assertion and Expected Result	Actual Result	1
	AM-01 Source acquired using interface AI.	as expected	1
	AM-02 Source is type DS.	as expected	1
	AM-03 Execution environment is XE.	as expected	1
	AM-04 A clone is created.	as expected	1
	AM-06 All visible sectors acquired.	as expected	1
	AM-08 All sectors accurately acquired.	as expected	1
	AO-11 A clone is created during acquisition.	as expected	1
	AO-13 Clone created using interface AI.	as expected	1
	AO-14 An unaligned clone is created.	as expected	1
	A0-17 Excess sectors are unchanged.	as expected	1
	AO-22 Tool calculates hashes by block.	option not tested	1
	AO-23 Logged information is correct.	as expected	1
	A0-24 Source is unchanged by acquisition.	as expected	I
Analysis:	Expected results achieved		

#### 5.2.9 DA-01-USB

Test Case DA-01-USB Smart Version 2010/11/03		
Case Summary:	DA-01 Acquire a physical device using access interface AI to an unaligned clone.	
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>	
Tester Name:	brl	
Test Host:	Max	
Test Date:	Tue Feb 1 09:05:07 2011	
Drives:	<pre>src(63-FU2) dst (84-FU2) other (none) are back (SUA1); &lt; F7060FDCPFAC962C00DFCFD02150F22DA06PF00P &gt;</pre>	
Setup:	<pre>src hash (MD5): &lt; EE217BC4FA4F3D1B4021D29B065AA9EC &gt; 117304992 total sectors (60060155904 bytes) Model (SP0612N ) serial # () N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16 2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended 3 S 00000063 113097537 0261/001/01 1023/254/63 0B Fat32 4 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>	
Log Highlights:	===== Destination drive setup ===== 160836480 sectors wiped with 84	
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 117304992 Sectors match: 117304992 Sectors differ: 0 Diffs range Source (117304992) has 43531488 fewer sectors than destination (160836480) Zero fill: 0 Src Byte fill (63): 0 Dst Byte fill (84): 43531488 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Src fill range: 117304992-160836479 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>	
	===== Tool Settings: =====	
Test Case DA-	01-USB Smart Version 2010/11/03	
---------------	--	-----------------------------
	dst-interface USB	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu	SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux	
	Event from CMART log	
	Excerpt from SMARI 10g	
	SHA1 Span Hashes	
	total span hash: f7069edc beac863c 88deced8 2	159f22d a96be99b
	IO Summary:(Time: Tue Feb 1 12:27:14 2011)	
	Bytes Read: 60,060,155,904	
	60,060,155,904 bytes written to /dev/sdg	
	======= End OI Excerpt from SMART log =======	=
	===== Source drive rehash ======	
	Rebash (SHA1) of source: F7069EDCBEAC863C88DEC	ED82159F22DA96BE99B
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	A0-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected

# 5.2.10 DA-02-CF

Test Case DA-	02-CF Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital source.
	AO-13 A clone is created using access interface DST-AI to write to the clone device.
	A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
	A0-17 If requested, any excess sectors on a clone destination device are not modified
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	the digital source is unchanged by the acquisition process.
Tester Name.	brl
Test Host:	Max Max
Test Date:	Wed Feb 2 12:27:40 2011
Drives:	src(Cl-CF) dst (C2-CF) other (none)
Source	src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
Setup:	<pre>src hash (MD5): &lt; 776DF8B4D2589E21DEBCF589EDC16D78 &gt;</pre>
_	503808 total sectors (257949696 bytes)
	Model ( CF) serial # ()
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 778135908 1141509631 0357/116/40 0357/032/45 Boot 72 other
	2 P 168689522 1936028240 0288/115/43 0367/114/50 Boot 65 other
	3 P 1869881465 1936028192 0366/032/33 0357/032/43 Boot 79 other
	4 P 2885681152 000055499 03/2/09//50 000/010/00 Boot 0D other
	1 1141509051 Sectors 904522510/2 bytes
	2 1930020240 Sectors 99124043000 bytes
	4 000055499 sectors 28415488 bytes
Log	===== Destination drive setup ======
Highlights:	503808 sectors wiped with C2
	===== Comparison of original to clone drive ======
	Sectors compared: 503808
	Sectors match: 503808
	Sectors differ: 0
	Diffs range
	0 source read errors. 0 destination read errors
	===== Tool Settings: ======
	dst-interface USB
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	SHAI Span Hasnes total span hash: 5b823517 8df99fa3 07430c08 8f817466 06638a0b
1	

Test Case DA-02-CF Smart Version 2010/11/03			
	IO Summary:(Time: Wed Feb 2 13:28:33 2011)		
	Bytes Read: 257,949,696		
	257,949,696 bytes written to /dev/sde		
	====== End of Excerpt from SMART log =======	=	
	====== Source drive rehash ======		
	Rehash (SHA1) of source: 5B8235178DF99FA307430	C088F81746606638A0B	
-			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-11 A clone is created during acquisition.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	A0-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.11 DA-02-EXT2

Test Case DA-	02-EXT2 Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-11 If requested, a clone is created during an acquisition of a digital source.	
	AO-13 A clone is created using access interface DST-AI to write to the clone device.	
	AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector	
	AO-17 If requested, any excess sectors on a clone destination device are	
	not modified.	
	AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file	
	AO-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	WoFat	
Test Date:	Thu Feb 3 15:46:46 2011	
Drives:	src(43) dst (49-SATA) other (none)	
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >	
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >	
	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 00000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fatto	
	6 x 002136645 004192965 1023/001/01 1023/254/63 05 extended	
	/ 5 000000063 004192902 1023/001/01 1023/254/63 16 Other	
	8 X 000329510 008401995 1023/001/01 1023/254/63 05 extended	
	9 5 0000000003 008401932 1023/001/01 1023/254/63 0B Fals2	
	10 x 014/31005 010490445 1023/000/01 1023/254/63 05 extended	
	12 x 02522050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 00000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 00000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/000/00 00	
	18 P 000000000 00000000 0000/000/00 0000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 UU84U1932 sectors 43U1/89184 bytes	
	11 010490382 Sectors 33/10/5584 Dytes	
	15 00420070/ Sectors 11188575744 bytes	
	43evt 2-md5cum 5371075583 C7384DF9ACBCB05463604CF8833D0874	
	43ext2_sha1sum_5371075583_283BCC32DE802012C276981F7F28703619F57F57	
	Excess destination partition sectors hash:	
	SHA1 5371075584 - 5872817663 = 58344A633C5DF644ECC51E253BBC26E29BECF224 -	
Log	===== Destination drive setup =====	
nightights.	I ISOSOII400 SECLOIS WIPED WILL 49	

September 2012

Test Case DA-02-EXT2 Smart Version 2010/11/03 ===== Comparison of original to clone drive ====== Sectors compared: 10490382 Sectors match: 10490382 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (10490382) has 979965 fewer sectors than destination (11470347) Zero fill: 30839 Src Byte fill (43): 0 Dst Byte fill (49): 946245 Other fill: 61 Other no fill: 2820 Zero fill range: 10502147, 10502193, 10502196-10502707, 10518531, 10518577, 10518580-10519091, 10534915, 10534961, 10534964-10535475, 10551299, 10551345, 10551348-10551859, 10567683, 10567729, 10567732-10568243, 10584067, 10584113, 10584116-10584627, 10600451, 10600497. . . + 27753 more Src fill range: Dst fill range: 10490382-10502145, 10502708-10518529, 10519092-10534913, 10535476-10551297, 10551860-10567681, 10568244-10584065, 10584628-10600449, 10601012-10616833, 10617396-10633217, 10633780-10649601, 10650164-10665985, 10666548-10682369, 10682932-10698753, 10699316-10715137, 10715700-10731521, 10732084-10747905, 10748468-10764289, 10764852-10780673, 10781236-10797057, 10797620-10813441. . . + 633863 more Other fill range: 10502195, 10518579, 10534963, 10551347, 10567731, 10584115, 10600499, 10616883, 10633267, 10649651, 10666035, 10682419, 10698803, 10715187, 10731571, 10747955, 10764339, 10780723, 10797107, 10813491. . . + 41 more Other not filled range: 10502146, 10502148-10502192, 10502194, 10518530, 10518532-10518576, 10518578, 10534914,  $10534916-10534960\,,\ 10534962\,,\ 10551298\,,\ 10551300-10551344\,,$ 10551346, 10567682, 10567684-10567728, 10567730, 10584066, 10584068-10584112, 10584114, 10600450, 10600452-10600496. . . + 2492 more run start Thu Feb 3 16:23:38 2011 run finish Thu Feb 3 16:27:23 2011 elapsed time 0:3:45 Normal exit ===== Tool Settings: ====== dst-interface SATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Excerpt from SMART log ======= SHA1 Span Hashes total span hash: 283bcc32 de892c12 c37698af 7e387036 19e57f57 IO Summary: (Time: Thu Feb 3 16:04:12 2011) Bytes Read: 5,371,075,584 5,371,075,584 bytes written to /dev/sda9 ====== End of Excerpt from SMART log ======= Excess destination partition sectors hash: SHA1 5371075584 - 5872817663 = 58344A633C5DF644ECC51E253BBC26E29BECF224 -===== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD93F325065E5871 Results: Assertion and Expected Result Actual Result AM-01 Source acquired using interface AI. as expected AM-02 Source is type DS. as expected AM-03 Execution environment is XE. as expected

Test Case DA-02-EXT2 Smart Version 2010/11/03		
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.12 DA-02-F12

Test Case DA-	02-F12 Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 II CIONE Creation IS specified, the tool creates a cione of the	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-11 If requested, a clone is created during an acquisition of a digital source.	
	AO-13 A clone is created using access interface DST-AI to write to the clone device.	
	AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector	
	A0-17 If requested, any excess sectors on a clone destination device are	
	AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.	
	A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file	
	AO-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Thu Feb 3 11:20:53 2011	
Drives:	src(01-IDE) dst (4D-SATA) other (none)	
Source Setup:	<pre>src hash (SHAI): &lt; A488B5665D6DC57C22DB68E2F723DA9AA8DF82B9 &gt; src hash (MD5): &lt; F458F673894753F7670FC8B8FC63848F &gt;</pre>	
Secup:	78165360 total sectors (40020664320 bytes)	
	Model (0BB-00JHC0 ) serial # ( WD-WMAMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	$3 \times 0000000053 000032067 1023/001/01 1023/254/63 01 Fat12$	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 00000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 02//44255 1023/000/01 1023/254/63 05 extended	
	16 S 00000000 00000000 0000/00/00 0000/00/00	
	17 P 000000000 00000000 0000/000/00 0000/000/00 00	
	18 P 000000000 000000000 0000/000/00 0000/000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	/ UU41929U2 sectors 2146765824 bytes	
	ש טעסייטאט און און און אין און און און און אין און און און און אין און אין אין אין אין אין אין אין אין אין אי	
	13 004208967 sectors 2154991104 bytes	
	15 027744192 sectors 14205026304 bytes	
	01F12-md5 16418303 E20E3CFEA80BF6F2D2AA75E829CC8CD9	
	01F12-shal 16418303 F8B72B65436DE3BD394ACFF71D405D0389C0E9B7	
Log	Destination drive setup	
Highlights:	156301488 sectors wiped with 4D	
	====== Comparison of original to clone drive ======	

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Test Case DA-	02-F12 Smart Version 2010/11/03	
	Sectors compared: 32067 Sectors match: 32067 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Thu Feb 3 15:08:39 2011 run finish Thu Feb 3 15:08:41 2011 elapsed time 0:0:2 Normal exit	
	===== Tool Settings: ====== dst-interface SATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu a 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHAl Span Hashes total span hash: f8b72b65 436de3bd 394acff7 10	d405d03 89c0e9b7
	IO Summary:(Time: Thu Feb 3 14:50:10 2011) Bytes Read: 16,418,304	
	16,418,304 bytes written to /dev/sda5 ======= End of Excerpt from SMART log =======	=
	====== Source drive rehash ====== Rehash (SHA1) of source: A96A7193E1D9C270587B2	BE7098638AC048221D1
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	source changed
Analysis:	Expected results not achieved	

### 5.2.13 DA-02-F12-WB

Test Case DA-	02-F12-WB Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	$\alpha_{131La1}$ source. $\Delta M_{-}06$ All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired acquirately	
	A0-11 If requested, a clone is created during an acquisition of a digital	
	source.	
	AO-13 A clone is created using access interface DST-AI to write to the	
	clone device.	
	accurately written to the same disk address on the clone that the sector	
	occupied on the digital source.	
	AO-17 If requested, any excess sectors on a clone destination device are	
	not modified.	
	AU-22 II requested, the tool calculates block hashes for a specified block	
	Size during an acquisition for each proce acquired from the information is $10-23$ If the tool logs any log significant information the information is	
	accurately recorded in the log file.	
	AO-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Name:	hr]	
Test Host:	WoFat	
Test Date:	Mon Mar 14 11:13:53 2011	
Drives:	src(01-IDE) dst (46-SATA) other (none)	
Source	<pre>src hash (SHA1): &lt; A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 &gt;</pre>	
Setup:	src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >	
	78165360 total sectors (40020664320 bytes)	
	Model (0BB-00JHCO ) serial # (WD-WMAMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	2 ¥ 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014/31005 010490445 1023/000/01 1023/254/63 05 extended	
	12 x 02522050 004209030 1023/001/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 000000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/000/00 00	
	18 P 000000000 00000000 0000/000/00 0000/000/00 00	
	1 020980827 Sectors 10/42183424 Dytes	
	5 000104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027744192 sectors 14205026304 bytes	
	01F12-md5 16418303 E20E3CFEA80BF6F2D2AA75E829CC8CD9	
	UIFIZ-SNAI 16418303 F8B/2B65436DE3BD394ACFF/1D405D0389C0E9B/	
Log	===== Destination drive setup ======	
Highlights:	40397168 sectors wiped with 46	
-		
	====== Comparison of original to clone drive ======	

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Test Case DA-	02-F12-WB Smart Version 2010/11/03	
	Sectors compared: 32067	
	Sectors match: 32067	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start Mon Mar 14 10:40:57 2011	
	run finish Mon Mar 14 10:41:11 2011	
	elapsed time 0:0:14	
	Normal exit	
	===== Tool Settings: ======	
	dst-interface SATA28	
	Write Block: 3 FastBloc IDE	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8	SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux	
	====== Excerpt from SMART log =======	
	SHAL Span Hasnes	
	total span hash: 180/2065 436de3Dd 394acii/ 10	1405d03 89C0E9b7
	TO Commence (Wine: New Mere 14 11:00:00 0011)	
	10 Summary (11me, Mon Mar 14 11.23.08 2011)	
	By Les Redu: $10,410,504$ 16 419 204 by tog written to /dow/ada5	
	End of Excernt from SMART log	_
	End of Excerpt from SMART 109	_
Regulta:		
Rebuieb.	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AT	as expected
	AM-02 Source is type DS	as expected
	AM-02 Source is type bs.	as expected
	AM 04 A globe is greated	as expected
	AM-04 A CIONE IS Created.	as expected
	AM-06 All VISIBLE Sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AU-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

# 5.2.14 DA-02-F16

Test Case DA-	02-F16 Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital
	source.
	A0-13 A clone is created using access interface DST-AI to write to the
	clone device.
	A0-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	AU-1/ 11 requested, any excess sectors on a clone destination device are
	not modified. $D_{1}(2)$ If requested the tool galaxietes block hashes for a specified block
	A0-22 in requester, the tool calculates block hashes for a specified block
	10-23 If the tool logs any log significant information the information is
	accurately recorded in the log file
	AO-24 If the tool executes in a forensically safe execution environment.
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Thu Feb 3 11:32:04 2011
Drives:	src(43) dst (49-SATA) other (none)
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >
	78125000 total sectors (40000000000 bytes)
	Model (0BB-75JHCO) serial # (WD-WMAMC46588)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X
	2 A 02090090 05/143205 1023/001/01 1023/254/63 0f Extended
	4 v 000032130 002104515 1023/000/01 1023/254/63 05 extended
	5 \$ 00000063 002104452 1023/001/01 1023/254/63 06 Fat16
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap
	$14 \times 029431080 02/712125 1023/000/01 1023/254/63 05 extended$
	15 5 000000005 02/712002 1025/001/01 1025/254/05 07 NIFS
	17 P 00000000 00000000 0000/00 000000000 00
	18 P 00000000 00000000 0000/00 0000000 00 empty entry
	1 020980827 sectors 10742183424 bytes
	3 000032067 sectors 16418304 bytes
	5 002104452 sectors 1077479424 bytes
	7 004192902 sectors 2146765824 bytes
	9 008401932 sectors 4301789184 bytes
	11 010400292 gogtoma 5271075594 bytog
	11 010490362 Sectors 53/10/5564 bytes
	13 004208967 sectors 2154991104 bytes
	13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes
	13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E
	13 004208967 sectors 3371075384 bytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B
	13 004208967 sectors 3371075384 bytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E 43F16-shalsum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B 43F16-shalsum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B
Log	11 010490382 Sectors 3371075384 bytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B
Log	11 010490382 Sectors 3571075384 Dytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B 43F16-sha1sum 1077479423 443CCEC9A22F726DAF6CE384817151C83B3EBC8B ====== Destination drive setup ====== 156301488 sectors wiped with 49

**39** of **217** Results of ASR Data SMART version 2010-11-03

Test Case DA-	02-F16 Smart Version 2010/11/03	
	====== Comparison of original to clone drive =	====
	Sectors compared: 2104452	
	Sectors match: 2104452	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	Source (2104452) has 208845 fewer sectors than	destination (2313297)
	Zero fill: 0	
	Src Byte fill (43): 0	
	Dst Byte fill (49): 208845	
	Other fill: 0	
	Other no fill: 0	
	Zero fill range:	
	Src fill range:	
	Dst fill range: 2104452-2313296	
	Other fill range:	
	Other not filled range:	
	run start Fri Feb 4 11:11:47 2011	
	run finish Fri Feb 4 11:12:32 2011	
	elapsed time 0:0:45	
	Normal exit	
	====== Tool Settings: ======	
	dst-interface SATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-0buntu	SMP Fri Apr 16 08:10:02 01C
	2010 1686 GNU/LINUX	
	======= Excerpt from SMART log ========	
	SUA1 Snan Hached	
	total span hash: 443ccec9 a22f726d affice384 8	17151c8 3h3ebc8h
	10001 Span nash: 4450000 a2217200 a1000504 0	1/13168 30369666
	IO Summary: (Time: Fri Feb 4 10:56:16 2011)	
	Bytes Read: 1.077.479.424	
	1.077.479.424 bytes written to /dev/sda6	
	====== End of Excerpt from SMART log =======	=
	2110 01 211001p0 110m 011111 109	
	====== Source drive rehash ======	
	Rehash (SHA1) of source: 888E2E7F7AD237DC7A732	281DD93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition	as expected
	A0-13 Clone created using interface AT	as expected
	AO-14 An unaligned clone is created	as expected
	A0-17 Excess sectors are unchanged	as expected
	A0-22 Tool galgulates bashes by block	option not tested
	A0-22 Logged information is correct	ag expected
	AC 25 Logged Information is correct.	as expected
	AU-24 Source is unchanged by acquisition.	as expected
7	The set of more than a shi or	
ANALYSIS:	Expected results achieved	

# 5.2.15 DA-02-F32

Test Case DA-	02-F32 Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-11 If requested, a clone is created during an acquisition of a digital	
	source.	
	AO-13 A clone is created using access interface DST-AI to write to the	
	clone device.	
	A0-14 II an unaligned clone is created, each sector written to the clone is	
	accurately written to the same disk address on the clone that the sector	
	0.17 If requested on even a sector on a slope destination device are	
	not modified	
	10-20 If requested the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	AO-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	A0-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Fri Feb 4 13:59:45 2011	
Drives:	<pre>src(01-IDE) dst (4D-SATA) other (none)</pre>	
Source	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 >	
Setup:	src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >	
	78165360 total sectors (40020664320 bytes)	
	Model (0BB-00JHCO) serial # (WD-WMAMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 A 02090090 05/1/5555 1023/00/01 1023/254/65 0F Extended	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000 0000/000/	
	1 02080827 sectors 10742183424 bytes	
	3 00032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027744192 sectors 14205026304 bytes	
	01F32-md5 4301789183 BFF7DC64C54339DA2A9D7972C076B514	
	01F32-sha1 4301789183 B861D9E999F39750B484FFB693FF69DEC090C6B8	
Log	===== Destination drive setup =====	
Highlights:	156301488 sectors wiped with 4D	
	Companian of original to slave drive	
	===== comparison of original to clone drive ======	

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Test Case DA-	02-F32 Smart Version 2010/11/03	
	Sectors compared: 8401932	
	Sectors match: 8401932	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start Fri Feb 4 14:30:23 2011	
	run finish Fri Feb 4 14:33:13 2011	
	elapsed time 0:2:50	
	Normal exit	
	Teel Cathings	
	det interface CATA28	
	USI-INCEFIACE SATAZO	
	OS: Linux ubuntu 2 6 32-21-generic #32-Ubuntu	SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux	oni 111 npi 10 00 10 01 010
	====== Excerpt from SMART log =======	
	SHA1 Span Hashes	
	total span hash: b861d9e9 99f39750 b484ffb6 9	3ff69de c090c6b8
	TO Commence (Edward, East, East, A 14,16,04, 2011)	
	TO Summary. (Time. Fri Feb 4 14.16.24 2011)	
	4 301 789 184 bytes written to /dev/sda8	
	====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ======	
	Rehash (SHA1) of source: A96A7193E1D9C270587B2	BE7098638AC048221D1
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-UD ALL VISIBLE Sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AU-11 A clone is created during acquisition.	as expected
	AU-13 Clone created using interface AI.	as expected
	AU-14 An unaligned clone is created.	as expected
	AU-17 Excess sectors are unchanged.	as expected
	A0-22 Logged information is correct	as expected
	A0-24 Source is unchanged by acquisition	as expected
	LAS 21 Source is unchanged by acquisition.	Source changed
Analysis:	Expected results not achieved	
-	-	

### 5.2.16 DA-02-F32-WB

Test Case DA-	02-F32-WB Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-UD ALL VISIBLE Sectors are acquired from the digital source.	
	AO-11 If requested, a clone is created during an acquisition of a digital source.	
	AO-13 A clone is created using access interface DST-AI to write to the clone device.	
	AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source	
	A0-17 If requested, any excess sectors on a clone destination device are not modified	
	not modified. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is	
	A0-24 If the tool executes in a forensically safe execution environment,	
	the argument bourde is unchanged by the acquisition process.	
Tester Name:	brl	
Test Host:	WoFat	
Drives:	src(01-IDE) dst (46-SATA) other (none)	
Source	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 >	
Setup:	<pre>src hash (MD5): &lt; F458F673894753FA6A0EC8B8EC63848E &gt;</pre>	
	78165360 total sectors (40020664320 bytes) Model (ARR-00.THCO) serial # ( WD-WMMMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12 4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9  S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	11 S 00000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 00000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	16 S 000000000 027/44192 1023/001/01 1023/254/03 07 MIFS	
	17 P 000000000 00000000 0000/00/00 0000/00/0	
	18 P 000000000 00000000 0000/000/00 0000/000 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes 5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 00420890/ Sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes	
	01F32-md5 4301789183 BFF7DC64C54339DA2A9D7972C076B514	
	01F32-sha1 4301789183 B861D9E999F39750B484FFB693FF69DEC090C6B8	
roa	===== Destination drive setup =====	
Highlights:	40397168 sectors wiped with 46	
	====== Comparison of original to clone drive ======	

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Test Case DA-	t Case DA-02-F32-WB Smart Version 2010/11/03	
	Sectors compared: 8401932	
	Sectors match: 8401932	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	Source (8401932) has 1044225 fewer sectors that	n destination (9446157)
	Zero fill: 0	
	Src Byte fill (01): 0	
	Dst Byte fill (46): 1044225	
	Other fill: 0	
	Jone fill renge:	
	Sra fill range:	
	Dst fill range: $8401932-9446156$	
	Other fill range:	
	Other not filled range:	
	run start Mon Mar 14 12:27:31 2011	
	run finish Mon Mar 14 12:30:47 2011	
	elapsed time 0:3:16	
	Normal exit	
	====== Tool Settings: ======	
	dst-interface SATA28	
	Write Plock: 3 FactPloc IDF	
	WITCE BIOCK. 5 FASCBIOC IDE	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu	SMP Fri Apr 16 08:10:02 UTC
	2010 1000 GNO/LIMAX	
	====== Excerpt from SMART log =======	
	SHA1 Span Hashes	
	total span hash: b861d9e9 99f39750 b484ffb6 9	3ff69de c090c6b8
	TO Oursel (There is Nov. 14, 11,07,50, 0011)	
	10 Summary: (Time: Mon Mar 14 11:07:58 2011)	
	Byles Read: $4,301,789,184$	
	======= End of Excernt from SMART log =======	_
	Bild of Excerpt from Diract rog	
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

### 5.2.17 DA-02-F32X

Test Case DA-	02-F32X Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-11 If requested, a clone is created during an acquisition of a digital source.	
	AO-13 A clone is created using access interface DST-AI to write to the clone device.	
	AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector	
	AO-17 If requested, any excess sectors on a clone destination device are	
	not modified.	
	AO-22 If requested, the tool calculates block hasnes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	AU-24 II the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Nome:	br]	
Test Host:		
Test Date:	Fri Feb 4 14:46:57 2011	
Drives:	$\operatorname{src}(43)$ dst $(49-\operatorname{SATA})$ other (none)	
Source	src bash (SHA1): < 888E2E7F7AD237DC7A732281DD93E325065E5871 >	
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >	
	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHCO) serial # (WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	$10 \times 014/31605 010490445 1023/000/01 1023/254/63 05 extended$	
	11 5 000000005 010490382 1025/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209050 1025/000/01 1025/254/65 05 extended	
	14 v 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 00000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 00000000 000000000 0000/000/00 00000000	
	17 P 00000000 00000000 0000/000/00 0000/00 00	
	18 P 000000000 00000000 0000/000/00 0000/000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 U27/12U62 sectors 141885/5/44 bytes	
	43F32X-ma5sum 10742183424 5980CBUFA68E9862C65765DF50F00906	
	43F32X-SHALSUM 10/42183423 3/9CLAC4/AF956FC8C80389C2A/42/A/F8FB4E89	
1	45F52X-SHAISUM 10/42163423 3/9CIAC4/AF956FC8C80389C2A/42/A/F8FB4E89	
Log	Dectination drive setup	
Log Highlights:	===== Destination drive setup ======	

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Test Case DA-	02-F32X Smart Version 2010/11/03	
	====== Comparison of original to clone drive =	=====
	Sectors compared: 20980827	
	Sectors match: 20980827	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	Source (20980827) has 1558305 fewer sectors th	an destination (22539132)
	Zero fill: 0	
	Src Byte fill (43): 0	
	Dst Byte fill (49): 1558305	
	Other fill: 0	
	Other no fill: 0	
	Zero fill range:	
	Src fill range:	
	Dst fill range: 20980827-22539131	
	Other fill range:	
	Other not filled range:	
	run start Fri Feb 4 15:42:28 2011	
	run finish Fri Feb 4 15:57:08 2011	
	elapsed time 0:14:40	
	Normal exit	
	====== Tool Settings: ======	
	dst-interface SATA28	
	00. Linux harts 0. C 20. 01. sevents #20. II	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu	SMP Fri Apr 16 08:10:02 01C
	2010 1686 GNU/LIMUX	
	Even MADE log	
	====== Excerpt from SMARI 10g =======	
	SHA1 Span Hashes	
	total span hash: 379clac4 7af956fc 8c80389c 2	a7427a7 f8fb4e89
	IO Summary:(Time: Fri Feb 4 15:21:36 2011)	
	Bytes Read: 10,742,183,424	
	10,742,183,424 bytes written to /dev/sda1	
	====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ======	
	Rehash (SHA1) of source: 888E2E7F7AD237DC7A732	281DD93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block	option not tested
	AO-23 Logged information is correct	as expected
	AO-24 Source is unchanged by acquisition	as expected
		Supered
Analysis:	Expected results achieved	

### 5.2.18 DA-02-NTFS

Test Case DA-	02-NTFS Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-UG ALL VISIBLE SECTORS are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	source	
	source.	
	done device	
	$\Delta 0 = 14$ If an unaligned clone is created each sector written to the clone is	
	accurately written to the same disk address on the clone that the sector	
	occupied on the digital source.	
	A0-17 If requested, any excess sectors on a clone destination device are	
	not modified.	
	AO-22 If requested, the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	AO-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	AO-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tostan Nama	hul	
Tester Name.	bri MeCarrott	
Test Date:	Mon Feb 7 00-31-47 2011	
Drives:	r(43) dst $(4D-STT)$ other (none)	
Source	src hash (SHAI): < 888E2E7E7AD237DC7A732281DD93E325065E5871 >	
Setup:	<pre>src hash (MD5): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt;</pre>	
beeup	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	/ S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/001/01 1023/254/63 05 extended	
	9 5 000000005 006401952 1025/001/01 1022/254/65 05 extended	
	10 x 01751005 010490445 1025/000/01 1025/254/65 05 extended	
	12 x 02522050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 00000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 00000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/00 00	
	18 P 000000000 00000000 0000/000/00 0000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 UU84U1932 sectors 43U1/89184 bytes	
	11 ULU49U302 SECTORS 53/LU/5584 DYTES	
	13 UU42U890/ SECTORS 21549911U4 Dytes 15 027712062 sectors 14188575744 bytes	
	13 02//12002 SECLOIS 141003/3/44 Dyles A2mtfa_md5aum 14188575744 5540957170000000000000000000000000000000000	
	Excess destination partition sectors hash:	
	SHA1 14188575744 - 14205026303 = 827CF7F19C380D204700B479398C184664C662AE -	
Log	===== Destination drive setup ======	
Highlights:	156301488 sectors wiped with 4D	

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Test Case DA-02-NTFS Smart Version 2010/11/03			
Test Case DA-	02-NTFS Smart Version 2010/11/03 ====== Comparison of original to clone drive = Sectors compared: 27712062 Sectors match: 27712062 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (27712062) has 32130 fewer sectors than Zero fill: 0 Src Byte fill (43): 0 Dst Byte fill (4D): 32129 Other fill: 0 Other no fill: 1 Zero fill range: Src fill range: 27712062-27744190 Other fill range: 27712062-27744190 Other fill range: 27744191 run start Tue Feb 8 10:57:07 2011 run finish Tue Feb 8 11:06:31 2011 elapsed time 0:9:24 Normal exit ====== Tool Settings: ====== dst-interface SATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux ====== Excerpt from SMART log ======= SHA1 Span Hashes total span hash: 73eb2d27 564b060d b796efb7 8 IO Summary:(Time: Mon Feb 7 14:33:03 2011) Bytes Read: 14.188,575,744 14.188,575,744 bytes written to /dev/sdb11 ======= End of Excerpt from SMART log ========	====== destination (277441 SMP Fri Apr 16 08:10 694al0e 6b43d23f = D204700B479398C18466	92) :02 UTC 4C662AE -
	====== Source drive rehash ====== Rehash (SHA1) of source: 88882227F7AD237DC7A732	281DD93F325065E5871	
Regulta			
ICDUICD.	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AT	as expected	
	AM-02 Source is type DS	as expected	
	AM-03 Execution environment is XE	as expected	
	$\Delta M = 0.4$ A clone is created	as expected	
	AM-06 All visible sectors acquired	as expected	
	AM 00 All costors acquired.	as expected	
	AM-uo All sectors accurately acquired.	as expected	
	AU-II A CIONE IS Created during acquisition.	as expected	
	AU-13 Clone created using interface AI.	as expected	
	AU-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	AO-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

# 5.2.19 DA-02-OSX

Test Case DA-	02-OSX Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital
	source.
	AO-13 A clone is created using access interface DST-AI to write to the
	clone device.
	AO-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	A0-17 If requested, any excess sectors on a clone destination device are
	not modified.
	A0-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	A0-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	AO-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tostor News:	hvl
Tester Name:	
Test Host:	Worat
Test Date:	Inu FED 24 09:46:22 2011
Drives.	SFC(4B-SAIA) dSt (IA-SAIA) Other (IONE)
Source	src hash (SHAI): < /UCC62E43F6A41CA4D6/6UAAUB9B4C415D3F48E2 >
secup.	SIC HASH (MDS) < /4084C00CDD5FB0/C0020DB4325840C >
	Model (ST2001ED) corriel # ( 607E001E)
	N Start IB Longth Start C/U/S End (U/S host Dartition time
	h Bandonolog 202071520 000/001/01 1022/254/62 Ar other
	2 D 020071620 01048536 1023/254/63 1023/254/63 AF other
	2 = 0.21457223 = 0.06201456 = 1023/254/05 = 1023/254/05 = A = 0.0000000000000000000000000000000
	4 ¥ 037748670 008388604 1023/254/63 1023/254/63 AG Extended
	$5 \leq 0.0000039 = 0.04194304 = 1023/254/63 = 1023/254/63 at other$
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	7 S 00000047 004194304 1023/254/63 1023/254/63 AF other
	8 5 00000000 000000000 0000/000/00 0000/000/00 00
	1 020971520 sectors 10737418240 bytes
	2 010485536 sectors 5368594432 bytes
	3 006291456 sectors 3221225472 bytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSX-sha1 5368594432 3DE70998AD136E66CD09B9B4F2F5164E77B3B705
	Excess destination partition sectors hash:
	SHA1 5368594432 - 5368709119 = 4E92C62451C88F7C744055796B6DA3110B34582E -
Log	===== Destination drive setup ======
Highlights:	234441648 sectors wiped with IA
	Comparison of original to glone drive
	Sectors comparison of original to clone drive =====
	Sectors match: 10485536
	Sectors differ: 0
	Bytes differ: 0
	Diffs range:
	Source (10485536) has 224 fewer sectors than destination (10485760)
	Zero fill: 7
	Src Byte fill (4B): 0
	Dst Byte fill (1A): 216
	Other fill: 0
	Other no fill: 1
	Zero fill range: 10485752-10485757, 10485759

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Test Case DA-	02-OSX Smart Version 2010/11/03	
	Src fill range: Dst fill range: 10485536-10485751 Other fill range: Other not filled range: 10485758 run start Thu Feb 24 10:10:33 2011 run finish Thu Feb 24 10:14:24 2011 elapsed time 0:3:51 Normal exit	
	===== Tool Settings: ===== dst-interface SATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu a 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHAl Span Hashes total span hash: 3de70998 ad136e66 cd09b9b4 f.	2f5164e 77b3b705
	IO Summary:(Time: Thu Feb 24 09:56:37 2011) Bytes Read: 5,368,594,432 5,368,594,432 bytes written to /dev/sdb2 ======= End of Excerpt from SMART log =======	=
	Excess destination partition sectors hash: SHA1 5368594432 - 5368709119 = 4E92C62451C88F70 ====== Source drive rehash ===== Rehash (SHA1) of source: 70CC62B43F6A41CA4D676	C744055796B6DA3110B34582E - 0AA0B9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AU-17 Excess sectors are unchanged.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AU-23 Logged information is correct.	as expected
	AU-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.20 DA-02-OSXC

Test Case DA-	02-OSXC Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	A0-11 If requested, a clone is created during an acquisition of a digital
	source.
	alone device
	$\Delta 0-14$ If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	AO-17 If requested, any excess sectors on a clone destination device are
	not modified.
	A0-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	A0-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name.	brl
Test Host:	WoFat
Test Date:	Fri Feb 25 10:39:59 2011
Drives:	src(4B-SATA) dst (1A-SATA) other (none)
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >
Setup:	src hash (MD5): < 746B4C06CDD5FBD67C0820DB4325B40C >
-	156301488 total sectors (80026361856 bytes)
	Model (ST380815AS ) serial # ( 6QZ5C9V5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020971520 0000/001/01 1023/254/63 AF other
	2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
	3 P 031457223 006291456 10237254763 1023/254763 A8 other
	4 X 03/1480/9 008388094 1023/254/03 1023/254/03 05 extended
	5 00000003 004194304 1023/234/03 1023/254/03 AF Other
	7 S 000000047 004194304 1023/254/63 1023/254/63 AF other
	8 S 00000000 000000000 0000/00 0000/00 0000/00 00
	1 020971520 sectors 10737418240 bytes
	2 010485536 sectors 5368594432 bytes
	3 006291456 sectors 3221225472 bytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSXC-shal 2147483648 2D6303D74F9EDE617639643DCCF41EC2091D5F37
T o a	Destination drive setur
LOG Highlighte:	234441648 sectors wiped with 10
	TOLITOLO DECEDID MIDER MIEL IN
	====== Comparison of original to clone drive ======
	Sectors compared: 4194304
	Sectors match: 4194304
	Sectors differ: 0
	Bytes differ: 0
	Diffs range:
	run start Fri Feb 25 11:07:30 2011
	run finish Fri Feb 25 11:09:00 2011
	elapsed time 0:1:30
	Normal exit
	===== Tool Settings: =====
	dst-interface SATA28
1	

Test Case DA-	02-OSXC Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHA1 Span Hashes total span hash: 2d6303d7 4f9ede61 7639643d c	cf41ec2 091d5f37
	IO Summary:(Time: Fri Feb 25 10:52:43 2011) Bytes Read: 2,147,483,648	
	2,147,483,648 bytes written to /dev/sdb5 ====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ====== Rehash (SHA1) of source: 70CC62B43F6A41CA4D676	0AA0B9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	A0-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.21 DA-02-OSXCJ

Test Case DA-	02-OSXCJ Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital source.
	AO-13 A clone is created using access interface DST-AI to write to the clone device.
	A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector
	AO-17 If requested, any excess sectors on a clone destination device are
	not modified. $\lambda_0 = 22$ if requested the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log iiie. $\lambda_{0-2}$ if the tool execution environment
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Fri Feb 25 11:49:12 2011
Drives:	src(4B-SATA) dst (1A-SATA) other (none)
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >
Setup:	src hash (MD5): < 746B4C06CDD5FBD67C0820DB4325B40C >
	156301488 total sectors (80026361856 bytes)
	Model (ST380815AS) serial $\#$ (6Q25C9V5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 0209/1520 0000/001/01 1023/254/63 AF other
	2 P 0209/1029 010485556 1023/254/65 1023/254/65 AF Other
	4 V 027748670 00029450 1023/254/05 1023/254/05 A0 Other
	5 S 00000039 004194304 1023/254/63 1023/254/63 JF other
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	7 S 00000047 004194304 1023/254/63 1023/254/63 AF other
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	1 020971520 sectors 10737418240 bytes
	2 010485536 sectors 5368594432 bytes
	3 006291456 sectors 3221225472 bytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSXCJ-shal 2147483648 29EA089958EF2A695081712FFBA68BA5164C980B
Log	Destination drive setur
Highlights:	234441648 sectors wiped with 1A
	====== Comparison of original to clone drive ======
	Sectors compared: 4194304
	Sectors match: 4194304
	Sectors differ: 0
	Bytes differ: 0
	Diffs range:
	run start Fri Feb 25 14:26:55 2011
	run finish Fri Feb 25 14:28:27 2011
	elapsed time 0:1:32
	Normal exit
1	
	Tool Sottings:
	===== Tool Settings: =====

Test Case DA-	02-OSXCJ Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHAl Span Hashes total span hash: 29ea0899 58ef2a69 5081712f fl	ba68ba5 164c980b
	IO Summary:(Time: Fri Feb 25 12:00:57 2011)	
	Bytes Read: 2,147,483,648	
	2,147,483,648 bytes written to /dev/sdb6	
	======= End of Excerpt from SMART log =======	=
	Course drive rehead	
	===== Source arrive remain ===== Pehash (SHA1) of source: 700062B43E6A410A4D676	077088404150354852
	Kenash (Shar) of Source: /occo2545F0A41CA4D0/0	URAUBJB4C415D5F40E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	A0-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	A0-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### 5.2.22 DA-02-OSXJ

Test Case DA-	02-OSXJ Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	angular source. $M = 0$ and
	AM-00 All sectors acquired from the digital source are acquired acquirately
	A0-11 If requested, a clone is created during an acquisition of a digital
	source.
	AO-13 A clone is created using access interface DST-AI to write to the
	clone device.
	A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	not modified.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Thu Feb 24 13:01:20 2011
Drives:	<pre>src(4B-SATA) dst (1A-SATA) other (none)</pre>
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >
Setup:	src nasn (MD5): < /46B4CU6CDD5FBD6/CU82DDB4325B40C >
	Model (ST38081535) seriel # (602501030 Dy(5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 00000063 020971520 0000/001/01 1023/254/63 AF other
	2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
	3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other
	4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended
	5 S 00000039 004194304 1023/254/63 1023/254/63 AF other
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	/ S 00000004/ 004194304 1023/254/63 1023/254/63 AF other
	8 5 00000000 00000000 000/00/00 000/00 00 empty entry
	2 010485536 sectors 5368594432 bytes
	3 006291456 sectors 3221225472 bytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSXJ-sha1 10737418240 37311859444BD914EDAD43D93F2862E76B279A87
Tax	Deskinski su Julius astur
LOG Highlights:	234441648 sectors wiped with 1A
5 5	
	====== Comparison of original to clone drive ======
	Sectors compared: 20971520
	Sectors match: 20971520
	Button differ: 0
	Diffe range:
	run start Thu Feb 24 14:07:58 2011
	run finish Thu Feb 24 14:15:19 2011
	elapsed time 0:7:21
	Normal exit
	Teel Orthings
	e===== TOO1 Settings: ======
	USC INCOLLAGE DATA20

OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Excerpt from SMART log ======= SHA1 Span Hashes total span hash: 37311859 444bd914 edad43d9 3f2862e7 6b279a87 IO Summary:(Time: Thu Feb 24 13:15:07 2011) Bytes Read: 10,737,418,240	
<pre>====== Excerpt from SMART log ======= SHA1 Span Hashes total span hash: 37311859 444bd914 edad43d9 3f2862e7 6b279a87 IO Summary:(Time: Thu Feb 24 13:15:07 2011) Bytes Read: 10,737,418,240</pre>	
<pre>SHA1 Span Hashes    total span hash: 37311859 444bd914 edad43d9 3f2862e7 6b279a87 IO Summary:(Time: Thu Feb 24 13:15:07 2011) Bytes Read: 10,737,418,240</pre>	
IO Summary:(Time: Thu Feb 24 13:15:07 2011) Bytes Read: 10,737,418,240	
Bytes Read: 10,/3/,418,240	
10.727.419.240 byteg written to $/dow/adh1$	1
======= End of Excerpt from SMART log =======	
End of Enderpe from brand rog	
====== Source drive rehash ======	
Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2	
Pogulta	
Assertion and Expected Result Actual Result	
AM-01 Source acquired using interface AL as expected	
AM-02 Source is type DS. as expected	
AM-03 Execution environment is XE. as expected	
AM-04 A clone is created. as expected	
AM-06 All visible sectors acquired. as expected	
AM-08 All sectors accurately acquired. as expected	
AO-11 A clone is created during acquisition. as expected	
AO-13 Clone created using interface AI. as expected	
AO-14 An unaligned clone is created. as expected	
A0-17 Excess sectors are unchanged. as expected	
A0-22 Tool calculates hashes by block. Option not tested	
AO-23 Logged information is correct. as expected	
A0-24 Source is unchanged by acquisition. As expected	
Analysis: Expected results achieved	

### 5.2.23 DA-02-OSXU

Test Case DA-02-OSXU Smart Version 2010/11/03		
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.	
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>	
Destau News	h1	
Test Host:	WoFat	
Test Date:	Fri Feb 25 09:09:41 2011	
Drives:	<pre>src(4B-SATA) dst (1A-SATA) other (none)</pre>	
Source	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt;</pre>	
Setup:	<pre>src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 O5 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 AF other 6 x 004194343 004194351 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/00 0000/00 000 empty entry 1 020971520 sectors 10737418240 bytes 2 010485536 sectors 5368594432 bytes 3 006291456 sectors 2147483648 bytes 7 004194304 sectors 2147483648 bytes 4BOSXU-shal 3221225472 D102A01562C82533C052CE6CFBB1D467EC9B5BC6 ====== Destination drive setup ======</pre>	
Log Highlights:	===== Destination drive setup ===== 234441648 sectors wiped with 1A	
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 6291456 Sectors match: 6291456 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Fri Feb 25 09:35:31 2011 run finish Fri Feb 25 09:37:47 2011 elapsed time 0:2:16 Normal exit ====== Tool Settings: ====== dst-interface SATA28</pre>	

Test Case DA-	02-OSXU Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHA1 Span Hashes total span hash: d102a015 62c82533 c052ce6c fi	bbld467 ec9b5bc6
	IO Summary:(Time: Fri Feb 25 09:24:45 2011) Bytes Read: 3,221,225,472	
	3,221,225,472 bytes written to /dev/sdb3	
	====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ======	0.3.3.0.0.0.4.0.4.1.5.2.5.4.0.5.2
	Renash (SHAI) of Source: /0CC62B43F6A41CA4D6/6	UAAUB9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

#### 5.2.24 DA-02-SWAP

Test Case DA	-02-SWAP Smart Version 2010/11/03
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions	AM-01 The tool uses access interface SRC-AI to access the digital source.
:	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-04 If clone creation is specified, the tool creates a clone of the
	digital source.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-11 If requested, a clone is created during an acquisition of a digital
	source.
	AU-13 A clone is created using access interface DST-AI to write to the clone device.
	AO-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	A0-17 If requested, any excess sectors on a clone destination device are not
	modified.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	A0-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file. 10-24 If the tool eventies in a forensically safe evention environment, the
	digital source is unchanged by the acquisition process
	digital bource is anonanged by the acquisition process.
Tester	brl
Name:	
Test Host:	WoFat
Test Date:	Mon Feb 7 09:50:10 2011
Drives:	<pre>src(43) dst (49-SATA) other (none)</pre>
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >
Setup:	src hash (MD5): < BC39C3F/EE/A50E//B9BA1E65A5AEEF/ >
	/8125000 total sectors (4000000000 bytes)
	Model (UBB-/SUHCU ) Serial # ( WD-WMAMC40588)
	1 D 00000063 02080827 000/01/01 1023/54/63 0C Fat 32X
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap
	14 x 029451000 02/712125 1023/000/01 1023/254/63 07 NTES
	16 S 00000000 00000000 0000/00/00 0000/00 000/00 mins entry
	17 P 00000000 00000000 0000/00/00 0000/00/00
	18 P 00000000 00000000 0000/00/00 0000/00/00
	1 020980827 sectors 10742183424 bytes
	3 000032067 sectors 16418304 bytes
	5 002104452 sectors 1077479424 bytes
	7 004192902 sectors 2146765824 bytes
	9 008401932 sectors 4301789184 bytes
	11 010490382 sectors 5371075584 bytes
	13 004208967 sectors 2154991104 bytes
	15 027712062 sectors 14188575744 bytes
	43swap-ma5sum 2154991103 48602964A30FE20D1B22B046A7375A7C
	45Swap-SHAISUM ZI5499IIU3 F5BU6ZCC3IDAU88DF/FAF8F/A4/E5UUBF4Z44BCF
Log	Destination drive setup
Highlights	156301488 sectors wiped with 49
:	

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Test Case DA	-02-SWAP Smart Version 2010/11/03	
	====== Comparison of original to clone drive ==	====
	Sectors compared: 4208967	
	Sectors match: 4208960	
	Sectors differ: 7	
	Bytes differ: 3507	
	DIIIS Idlige: $4200900-4200900$	
	run finish Mon Feb 7 10:56:13 2011	
	elapsed time 0:1:27	
	Normal exit	
	===== Screen Message: ======	
	🖌 Hash Summary	
	Using 100.0% - 2.007 GB at 0	Data Filter: None
	Linux Swan (82) Partition (2.007 GB)	
	/dev/sdb10	
	Task Aborted.	
	· · · · · · · · · · · · · · · · · · ·	
		Dismiss
	===== Tool Settings: ===== dst-interface SATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	task aborted.	
	IO Summary: Discrepancy! (Time: Mon Feb 7 10:0' Bytes Read: 2,154,991,104	7:27 2011)
	2,154,987,520 bytes written to /dev/sda10	
	====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ======	
	Remain (SHAI) OI SOURCE: 000E2E/F/AD23/DC/A/322	707773535002753717
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-04 A clone is created.	as expected
	AM-06 All visible sectors acquired.	last seven sectors skipped
	AM-08 All sectors accurately acquired.	as expected
	AO-11 A clone is created during acquisition.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AU-22 TOOL CALCULATES hashes by block.	option not tested
	AU-23 Logged information is correct.	as expected
	AU-24 Source is unchanged by acquisition.	as expected

Test Case DA	-02-SWAP Smart Version 2010/11/03
Analysis:	Expected results not achieved

# 5.2.25 DA-02-SWAP-ALT

Test Case DA-02-SWAP-ALT Smart Version 2010/11/03	
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-11 If requested, a clone is created during an acquisition of a digital source.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment,</li> </ul>
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Fri Mar 11 09:45:42 2011
Drives:	<pre>src(43) dst (50-SATA) other (none)</pre>
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >
Setup:	<pre>src hash (MED): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt; 78125000 total sectors (4000000000 bytes) Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X 2 X 020980890 057143205 1023/001/01 1023/254/63 0F extended 3 S 00000063 00032067 1023/001/01 1023/254/63 05 extended 5 S 00000063 002104515 1023/001/01 1023/254/63 05 extended 5 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 9 S 00000063 008401995 1023/000/01 1023/254/63 05 extended 11 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 11 S 00000063 0040451 1023/001/01 1023/254/63 05 extended 11 S 00000063 004490382 1023/001/01 1023/254/63 05 extended 13 S 00000063 004209030 1023/001/01 1023/254/63 05 extended 14 x 029431080 027712125 1023/001/01 1023/254/63 05 extended 15 S 000000063 004209030 1023/001/01 1023/254/63 05 extended 15 S 000000063 004208967 1023/001/01 1023/254/63 05 extended 15 S 000000063 004208967 1023/001/01 1023/254/63 05 extended 15 S 000000063 004208967 1023/001/01 1023/254/63 05 extended 15 S 00000006 000/000/00 0000/000/00 000 empty entry 17 P 000000000 00000000 0000/000/00 0000/000/00 000 empty entry 17 P 000000000 00000000 0000/000/00 0000/000/00 000 empty entry 18 P 000000000 0000/000/00 0000/000/00 000 empty entry 18 P 000000000 0000/000/00 0000/000/00 000 empty entry 18 P 000000000 0000/000/00 0000/000/00 000 empty entry 1 020980827 sectors 10742183424 bytes 1 010490382 sectors 5371075584 bytes 1 010490382 sectors 5371075584 bytes 1 010490382 sectors 12154991104 bytes 1 3004208967 secto</pre>
Log	===== Destination drive setup ======
Highlights:	10000001 sectors wiped with 50
	===== Comparison of original to clone drive ======

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Test Case DA-	02-SWAP-ALT Smart Version 2010/11/03	
	Sectors compared: 4208967	
	Sectors match: 4208960	
	Sectors differ: 7	
	Bytes differ: 3577	
	Diffs range: 4208960-4208966	
	Source (4208967) has 1028097 fewer sectors that	n destination (5237064)
	Zero fill: 0	
	Src Byte fill (43): 0	
	Dst Byte fill (50): 1028097	
	Other fill: 0	
	Other no fill: 0	
	Zero fill range:	
	Src IIII range:	
	Other fill range:	
	Other not filled range:	
	run start Fri Mar 11 10:12:51 2011	
	run finish Fri Mar 11 $10:12:51$ 2011	
	elapsed time 0:2:2	
	Normal exit	
	====== Tool Settings: ======	
	dst-interface SATA28	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	CUA1 Span Haghog	
	total span hash: 18h73d89 2d772h88 437ce039 2	e1732ca 8fe2a2f4
	IO Summary:(Time: Fri Mar 11 10:01:02 2011)	
	Bytes Read: 2,154,991,104	
	2,154,991,104 bytes written to /dev/sdb5	
	====== End of Excerpt from SMART log =======	=
	====== Source drive rehash ======	
	Rehash (SHA1) of source: 888E2E7F7AD237DC7A732	281DD93F325065E5871
Degulta		
Results.	Aggertion and Expected Regult	Actual Regult
	AM-01 Source acquired using interface AT	as expected
	AM-02 Source is type DS	as expected
	AM-02 Fourier is type bb.	as expected
	AM-04 A clone is created	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	last seven sectors differ
	A0-11 A clone is created during acquisition.	as expected
	A0-13 Clone created using interface AT	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	incorrect hash
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results not achieved	

#### 5.2.26 DA-02-THUMB

Test Case DA-	02-THUMB Smart Version 2010/11/03		
Case Summary:	DA-02 Acquire a digital source of type DS to an unaligned clone.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-04 If clone creation is specified, the tool creates a clone of the digital source.		
	AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired accurately. AO-11 If requested, a clone is created during an acquisition of a digital source.		
	AO-13 A clone is created using access interface DST-AI to write to the clone device.		
	A0-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.		
	AO-17 If requested, any excess sectors on a clone destination device are not modified.		
	AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
	A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.		
Tester Name:	brl		
Test Host:	McGarrett		
Test Date:	Wed Feb 2 13:47:00 2011		
Drives.	STC(D5-IHOMB) as (D0-IHOMB) other (Home) src bash (SUD1): < D68520FF74D336F40DCCF83815F7E08FDC53F38D >		
Setup:	src hash (MD5): < C843593624B2B3B878596D8760B19954 >		
-	505856 total sectors (258998272 bytes)		
	Model (usb2.0Flash Disk) serial # ()		
Log Highlights:	===== Destination drive setup ===== 4001760 sectors wiped with D6		
	====== Comparison of original to clone drive ====== Sectors compared: 505856		
	Sectors match: 505856		
	Bytes differ: 0		
	Diffs range		
	Source (505856) has 3495904 fewer sectors than destination (4001760)		
	Zero fill: 0		
	Dst Byte fill (D6): 3495904		
	Other fill: 0		
	Other no fill: 0		
	Zero fill range:		
	Dst fill range: 505856-4001759		
	Other fill range:		
	Other not filled range:		
	0 source read errors, 0 destination read errors		
	===== Tool Settings: ====== dst-interface USB		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	SHA1 Span Hashes		
Test Case DA-02-THUMB Smart Version 2010/11/03			
--	---	-------------------------	--
	total span hash: d68520ef 74a336e4 9dccf838 15b7b08f dc53e38a		
	IO Summary:(Time: Wed Feb 2 14:57:07 2011)		
	Bytes Read: 258,998,272		
	258,998,272 bytes written to /dev/sdb		
	====== End of Excerpt from SMART log ======	=	
	Source drive rehach		
	Rebash (SHA1) of source: D68520EE74A336E49DCCE	8381587808500535384	
		00010070001000010000000	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
i	AM-02 Source is type DS.	as expected	
1	AM-03 Execution environment is XE.	as expected	
	AM-04 A clone is created.	as expected	
i	AM-06 All visible sectors acquired.	as expected	
i	AM-08 All sectors accurately acquired.	as expected	
i	AO-11 A clone is created during acquisition.	as expected	
1	AO-13 Clone created using interface AI.	as expected	
1	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

#### 5.2.27 DA-04

Test Case DA-04 Smart Version 2010/11/03		
Case	DA-04 Acquire a physical device to a truncated clone.	
Summary:		
Assertions	AM-01 The tool uses access interface SRC-AI to access the $\overline{\mathrm{digital}}$ source.	
:	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-04 If clone creation is specified, the tool creates a clone of the	
	digital source.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	A0-11 If requested, a clone is created during an acquisition of a digital	
	source.	
	A0-13 A clone is created using access interface DST-AI to write to the clone	
	device.	
	A0-14 If an unaligned clone is created, each sector written to the clone is	
	accurately written to the same disk address on the clone that the sector	
	occupied on the digital source.	
	AO-19 If there is insufficient space to create a complete clone, a truncated	
	clone is created using all available sectors of the clone device.	
	A0-20 If a truncated clone is created, the tool notifies the user.	
	AO-22 If requested, the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	A0-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	A0-24 If the tool executes in a forensically safe execution environment, the	
	digital source is unchanged by the acquisition process.	
Tostor	brl	
Name:		
Test Host:	MaGarrett	
Test Date:	Mon Feb 7 11:14:27 2011	
Drives:	Non rep $f$ 11-14-27 2011 srg(41) dst (25-TDE) other (none)	
Source	STC(1) USL (2011) - (1018) (1018)	
Soture	are head (MEE): < 13CARIASU/2/1100/03/2000Br0AU3FCF3ASICC9 >	
becup.	712500 total actors (A0000000000 bitos)	
	6552/015/62 (may cyl/bd yalues)	
	65535/016/63 (number of cyl/hd)	
	TDE disk: Model (WDC WD40088-75.1HC0) serial # (WD-WMMC4658355)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTES	
	2 P 00000000 00000000 0000/000/00 0000/000/00 00	
	3 P 00000000 00000000 0000/000/00 0000/000/00 00	
	4 P 00000000 00000000 0000/000/00 000 empty entry	
	1 078107967 sectors 39991279104 bytes	
roa	===== Destination drive setup =====	
Highlights	58633344 sectors wiped with 25	
:		
	===== Screen Message: ======	

Test Case DA-04 Smart Version 2010/11/03			
	Configure Device 1		
	Using 100.0% - 27.959 GB at 0 Data Filter. Nor		
	ATA WDC WD300BB-00CA (27.959 GB) /dev/sdb	Bus:6 Channel:0 ld:1 Lun:0	
	Select a target device below, configure offset and size above.		
	/dev/sda (Sector 0)		
	HPFS/NTFS (7) Partition (37.245 GB)	FS: NTFS	
	/deviated Data (8.29 MB)		
	ATA WDC WD300BB-00CA (27.959 GB)		
	ATAPI BD B DH4B1S (Unknown Size)	FS: ISO RO: /cdrom	
		Bus:0 Channel:0 Id:0 Lun:0	
	SanDisk Cruzer Titanium (1 908 GB) ES EAT32 /2	G CRUZER) RW: (media/2.G CRUZER	
	/dev/sdc	Bus:8 Channel:0 Id:0 Lun:0	
	Source (3	7.253 GB) is larger than Target (27.959 GB).	
	Tabs with bold red labels are incomplete.	Close Tab Cancel Okay	
	===== Tool Settings: ===== dst-interface ATA28		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	No logfile created		
	====== End of Excerpt from SMART log ======	=	
	====== Source drive rehash ====== Rehash (SHA1) of source: 15CAA1A307271160D8372	668BF8A03FC45A51CC9	
Results:			
	Assertion and Expected Result	ACTUAL RESULT	
	Am-or Source acquired using interface AL.	as expected	
	AM-02 Execution onvironment is VE	as expected	
	AM-US EXECUTION ENVIRONMENT IS AE.	as expected	
	AM-04 A CIONE IS Created.	as expected	
	AM-UO ALL VISIDLE Sectors acquired.	as expected	
	AM-uo All sectors accurately acquired.	as expected	
	AU-II A CIONE IS Created during acquisition.	as expected	
	AU-15 CIONE Created using internace AI.	as expected	
	AU-14 An unaligned clone is created.	as expected	
	AU-19 Iruncated clone 1s created.	as expected	
	AU-20 User notified that clone is truncated.	as expected	
	AU-22 TOOL CALCULATES HASHES BY DIOCK.	option not tested	
	AU-25 Logged Information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

### 5.2.28 DA-06-ATA28

Test Case DA-	06-ATA28 Smart Version 2010/11/03		
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.		
	AM-02 The tool acquires digital source DS.		
	AM-03 The tool executes in execution environment XE.		
	AM-05 If image file creation is specified, the tool creates an image file		
	on file system type FS.		
	AM-06 All visible sectors are acquired from the digital source.		
	AM-08 All sectors acquired from the digital source are acquired accurately.		
	A0-01 If the tool creates an image file, the data represented by the image		
	If the are the same as the data acquired by the tool.		
	the individual files shall be a larger than the requested size then all		
	10-22 If requested the tool calculates block hashes for a specified block		
	size during an acquisition for each block acquired from the digital source.		
	AO-23 If the tool logs any log significant information, the information is		
	accurately recorded in the log file.		
	AO-24 If the tool executes in a forensically safe execution environment,		
	the digital source is unchanged by the acquisition process.		
Tester Name:	brl		
Test Date:	McGallett Wed Feb 9 14:07:47 2011		
Drives:	src(01-TDE) dst (none) other (3C-SATA)		
Source	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DE82B9 >		
Setup:	src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >		
-			
	Reference SHA1 hashes, Win size: 4193792 (sectors) 2147221504 (bytes)		
	1 0 - 4193791 D0047F1F513422C425D3FBDB615F6140A572249E -		
	2 4193792 - 8387583 8839FBDCF0F7EA3F81C79A491C20F6B684C7DA53 -		
	3 8387584 - 12581375 862AEFA7658E90D5FD4BF4C1A49DBB0AB4D0E8F8 -		
	1/ 0/1006/2 - /1294463 2DC4CD1606D88C15C8B1DC4/F9C2E402/69CC83F -		
	10 /1294404 - /9400255 3/1110070844D52204/401E209FD3C09330A00/ -		
	19 /5488256 - /8165359 B/2D506B9F2A20F/F3A045555FC85DF56DAEB/E3 -		
	Model ( $OBB-OOJHCO$ ) serial # ( $WD-WMAMC74171$ )		
	N Start LBA Length Start $C/H/S$ End $C/H/S$ boot Partition type		
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat 32X		
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended		
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12		
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended		
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16		
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended		
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other		
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended		
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32		
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended		
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux		
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended		
	13 5 00000005 00420370/1023/001/01 1023/254/63 62 Linux Swap		
	15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS		
	16 S 00000000 00000000 0000/000/00 0000/000/00 00		
	17 P 00000000 00000000 0000/00 0000/00 0000/00 0 empty entry		
	18 P 000000000 00000000 0000/000/00 0000/000/00 00		
	1 020980827 sectors 10742183424 bytes		
	3 000032067 sectors 16418304 bytes		
	5 002104452 sectors 1077479424 bytes		
	7 004192902 sectors 2146765824 bytes		
	9 008401932 sectors 4301789184 bytes		
	11 010490382 sectors 5371075584 bytes		
	13 UU42U8967 sectors 2154991104 bytes		
	15 UZ//44192 SECTORS 142U5U263U4 DYTES		
Loa			
Highlights:	===== Tool Settings: ======		

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Test Case DA-06-ATA28 Smart Version 2010/11/03 segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 -rwx----- 1 ubuntu root 8277 2011-02-09 16:08 da-06-ata28 2 -rwx----- 1 ubuntu root 2147221504 2011-02-09 14:18 da-06ata28.image.001 -rwx----- 1 ubuntu root 2147221504 2011-02-09 14:22 da-06-3 ata28.image.002 19 -rwx----- 1 ubuntu root 2147221504 2011-02-09 15:33 da-06ata28.image.018 -rwx----- 1 ubuntu root 1370677248 2011-02-09 15:36 da-06-20 ata28.image.019 21 -rwx----- 1 ubuntu root 41922 2011-02-09 15:36 da-06ata28.image.info ====== Excerpt from SMART log ======= Image Description... Make and Model: ATA WDC WD400BB-00JH Serial Number: WD-WMAMC7417100 Device Sectors: 78,165,360 SHA1 Span Hashes total span hash: a96a7193 e1d9c270 587b2be7 098638ac 048221d1 SHA1 Segment-Delimited Span Hashes 1 0 - 2147221503: d0047f1f 513422c4 25d3fbdb 615f6140 a572249e 2 2147221504 - 4294443007: 8839fbdc f0f7ea3f 81c79a49 1c20f6b6 84c7da53 3 4294443008 - 6441664511: 862aefa7 658e90d5 fd4bf4c1 a49dbb0a b4d0e8f8 34355544064 - 36502765567: 2dc4cd16 66d88c15 c8b1dc47 f9c2e402 17 769cc83f 36502765568 - 38649987071: 3711100f 684c4d52 2847461e 28ffd3c8 18 9336a007 19 38649987072 - 40020664319: b72d506b 9f2a20f7 f3a04555 5fc85df5 6daeb7e3 IO Summary: (Time: Wed Feb 9 15:36:50 2011) Bytes Read: 40,020,664,320 40,020,664,320 bytes written to image "da-06-ata28" ====== End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: A96A7193E1D9C270587B2BE7098638AC048221D1 Results: Assertion and Expected Result Actual Result AM-01 Source acquired using interface AI. as expected AM-02 Source is type DS. as expected AM-03 Execution environment is XE. as expected AM-05 An image is created on file system type FS. as expected AM-06 All visible sectors acquired. as expected AM-08 All sectors accurately acquired. 88 sectors differ AO-01 Image file is complete and accurate. as expected AO-05 Multifile image created. as expected A0-22 Tool calculates hashes by block. as expected AO-23 Logged information is correct. as expected A0-24 Source is unchanged by acquisition. source changed Analysis: Expected results not achieved

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# 5.2.29 DA-06-ATA28-WB

Test Case DA-06-ATA28-WB Smart Version 2010/11/03			
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.		
	AM-02 The tool acquires digital source DS.		
	AM-03 The tool executes in execution environment XE.		
	AM-05 If image file creation is specified, the tool creates an image file		
	on file system type FS.		
	AM-06 All visible sectors are acquired from the digital source.		
	AM-08 All sectors acquired from the digital source are acquired accurately.		
	A0-01 If the tool creates an image file, the data represented by the image		
	If is the same as the data acquired by the tool.		
	the individual files shall be a larger than the requested size then all		
	10-22 If requested the tool calculates block hashes for a specified block		
	size during an acquisition for each block acquired from the digital source.		
	AO-23 If the tool logs any log significant information, the information is		
	accurately recorded in the log file.		
	AO-24 If the tool executes in a forensically safe execution environment,		
	the digital source is unchanged by the acquisition process.		
-			
Tester Name:	brl		
Test Host:	WoFat		
Test Date:	MON Mar 14 13:51:40 2011 $arg(01-TDE) dat (nono) other (20-SATA)$		
Source	sic( $01-1DE$ ) dst ( $1011e$ ) other ( $3C-3ATA$ ) sic hash ( $SHA1$ ): < $A48BB5665D6DC57C22DB68E2E723DA9AA8DE82B9 >$		
Setup:	src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >		
	Reference SHA1 hashes, Win size: 4193792 (sectors) 2147221504 (bytes)		
	1 0 - 4193791 D0047F1F513422C425D3FBDB615F6140A572249E -		
	2 4193792 - 8387583 8839FBDCF0F7EA3F81C79A491C20F6B684C7DA53 -		
	3 8387584 - 12581375 862AEFA7658E90D5FD4BF4C1A49DBB0AB4D0E8F8 -		
	1/ 6/1006/2 - /1294463 2DC4CD1666D88C15C8B1DC4/F9C2E402/69CC83F -		
	18 /1294404 - /5488255 3/11100F084C4D52284/401E28FD3C89330A00/ -		
	19 /5488256 - 78165359 B72D506B9F2A20F7F3A045555FC85DF56DAEB7E3 -		
	Model $(0BB-00.1HCO)$ serial $\#$ (WD-WMMC74171)		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type		
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X		
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended		
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12		
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended		
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16		
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended		
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other		
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended		
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32		
	10 x 014/31605 010490445 1023/000/01 1023/254/63 05 extended		
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux		
	12 S 025222050 004205050 1023/000/01 1023/254/63 05 extended		
	14 x 029431080 027744255 1023/000/01 1023/254/63 02 extended		
	15 S 00000063 027744192 1023/001/01 1023/254/63 07 NTFS		
	16 S 000000000 00000000 0000/000/00 0000/000/00 00		
	17 P 000000000 00000000 0000/000/00 0000/000/00 00		
	18 P 000000000 00000000 0000/000/00 0000/000/00 00		
	1 020980827 sectors 10742183424 bytes		
	3 000032067 sectors 16418304 bytes		
	5 002104452 sectors 1077479424 bytes		
	7 004192902 sectors 2146765824 bytes		
	9 008401932 sectors 4301789184 bytes		
	11 010490382 sectors 5371075584 bytes		
	13 UU42U890/ Sectors 21549911U4 Dytes		
	T2 02/111177 SECTOTS T47020501 DACES		
Loq			
Highlights:	===== Tool Settings: ======		

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Test Case DA-(	st Case DA-06-ATA28-WB Smart Version 2010/11/03	
	segmentation Standard	
	Write Block: 3 FastBloc IDE	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fi	ri Apr 16 08:10:02 UTC
	2010 1686 GNU/Linux	
	===== Tmage file segments ======	
	1 - rwxr - xr - x 1 ubuntu ubuntu 8334 2011-03-14 1	5:52 da-06-ata28-wb
	2 -rwxr-xr-x 1 ubuntu ubuntu 2147221504 2011-0	3-14 14:11 da-06-ata28-
	wb.image.001	
	3 -rwxr-xr-x 1 ubuntu ubuntu 2147221504 2011-0	3-14 14:15 da-06-ata28-
	wb.image.002	
	19 -rwxr-xr-x 1 ubuntu ubuntu 2147221504 2011-0	3-14 15:27 da-06-ata28-
	WD.1mage.U18	2 14 1E·21 do 06 oto20
	20 WXI-XI-X I ubuncu ubuncu 13/00//248 2011-0 wb image 019	3-14 15:31 da-00-atazo-
	21 -rwxr-xr-x 1 ubuntu ubuntu 42183 2011-03-14	15:31 da-06-ata28-
	wb.image.info	
	====== Excerpt from SMART log =======	
	-	
	Image Description	
	Make and Model: ATA WDC WD400BB-00JH	
	Serial Number: WD-WMAMC7417100	
	Device Sectors: 78,165,360	
	GUAL Cran Hachag	
	total grap hagh: a/PhbE66 Ed6dgE7g 22db69o2 f722da	$a_{2} \rightarrow 2df 2ba$
	cotar span nash. atobs500 Subucs70 Zzububez 1725ua.	Ja add10205
	SHA1 Segment-Delimited Span Hashes	
	1 0 - 2147221503: d0047f1f 513422c4 25d3fbdb 615f6140 a572249e	
	2 2147221504 - 4294443007: 8839fbdc f0f7ea3f 81c79a49 1c20f6b6	
	84c7da53	
	3 4294443008 - 6441664511: 862aefa7 658e90d5 fd4bf4c1 a49dbb0a	
	ρταυεκικ	
	· · · · · · · · · · · · · · · · · · ·	$a^{9}b^{1}da^{47}f^{0}a^{2}a^{40}$
	1/ 54555544004 - 30502705507+ 20040010 000000015 769aa83f	C6D10C47 19C2E402
	18 36502765568 - 38649987071: 3711100f 684c4d52	2847461e 28ffd3c8
	9336a007	
	19 38649987072 - 40020664319: b72d506b 9f2a20f7	f3a04555 5fc85df5
	6daeb7e3	
	IO Summary:(Time: Mon Mar 14 15:31:03 2011)	
	Bytes Read: 40,020,664,320	
	40,020,664,320 bytes written to image "da-06-ata28-wb"	
	BIG OF EXCEPT FOUR SMART TOS =======	
Results:		
· · · · · · · · · · · · · · · · · · ·	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Amelandi	Trucked wearly achieved	
Analysis:	Expected results achieved	

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### 5.2.30 DA-06-ATA48

Test Case DA-	06-ATA48 Smart Version 2010/11/03
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS. AM-06 All visible sectors are acquired from the digital source
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image file is the same as the data acquired by the tool.
	AO-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host: Test Date:	WoFat Tue Feb 8 11:23:19 2011
Drives:	<pre>src(4C) dst (none) other (67-SATA)</pre>
Source	<pre>src hash (SHA1): &lt; 8FF620D2BEDCCAFE8412EDAAD56C8554F872EFBF &gt;</pre>
Setup:	src hash (MD5): < D10F763B56D4CEBA2D1311C61F9FB382 > 390721968 total sectors (200049647616 bytes)
	24320/254/63 (max cyl/hd values)
	24321/255/63 (number of cyl/hd) TDE disk: Model (WDC WD2000.TB-00KFA0) serial # (WD-WMAMR1031111)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 390700737 0000/001/01 1023/254/63 Boot 07 NTFS
	3 P 000000000 00000000 0000/00/00 0000/00/0
	4 P 000000000 00000000 0000/000/00 0000/000/00 00
Log Highlights:	===== Tool Settings: ======
	segmentation Standard
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 1686 GNU/Linux
	===== Image file segments ======
	1 3223 2011-02-09 08:53 da-06-ata48
	2 200049647616 2011-02-08 16:47 da-06-ata48.image.001 3 4716 2011-02-08 16:47 da-06-ata48.image.info
	====== Excerpt from SMART log =======
	Image Description
	Make and Model: ATA WDC WD2000JB-00K
	Device Sectors: 390,721,968
	SHA1 Span Hashes
	total span hash: 8ff620d2 bedccafe 8412edaa d56c8554 f872efbf
	IO Summary:(Time: Tue Feb 8 16:47:29 2011)
	Bytes Read: 200,049,647,616 200,049,647,616 bytes written to image "da-06-ata48"
	====== End of Excerpt from SMART log =======
	===== Source drive rehash ======
	Rehash (SHA1) of source: 8FF620D2BEDCCAFE8412EDAAD56C8554F872EFBF

Test Case DA-06-ATA48 Smart Version 2010/11/03		
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.31 DA-06-ESATA

Test Case DA-	06-ESATA Smart Version 2010/11/03			
Case Summary:	DA-06 Acquire a physical device using access interf	ace AI to an image file.		
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.			
	AM-02 The tool acquires digital source DS.			
	AM-03 The tool executes in execution environment XE.			
	AM-05 If image file creation is specified, the tool creates an image file			
	on file system type FS.			
	AM-06 All visible sectors are acquired from the digital source.			
	AM-08 All sectors acquired from the digital source	are acquired accurately.		
	AU-UI II the tool creates an image file, the data represented by the image			
	tile is the same as the data acquired by the tool.			
	AD-05 II the tool creates a multille image of a re-	AO-05 If the tool creates a multifile image of a requested size then all		
	$\Delta 0-22$ If requested the tool calculates block hashe	guested Size.		
	size during an acquisition for each block acquired	from the digital source		
	AO-23 If the tool logs any log significant informat	ion, the information is		
	accurately recorded in the log file.			
	AO-24 If the tool executes in a forensically safe e	xecution environment,		
	the digital source is unchanged by the acquisition	process.		
Tester Name:	brl			
Test Host:	MCGarrett Tue Feb 8 13:20:35 2011			
Drives:	src(07-SATA) dst (none) other (68-SATA)			
Source	src hash (SHA1): < 655E9BDDB36A3F9C5C4CC8BF32B8C5B4	1AF9F52E >		
Setup:	<pre>src hash (MD5): &lt; 2EAF712DAD80F66E30DEA00365B4579B</pre>	>		
	156301488 total sectors (80026361856 bytes)			
	Model (WDC WD800JD-32HK) serial # (WD-WMAJ91510044)			
	N Start LBA Length Start C/H/S End C/H/S boot Part	ition type		
	1 P 000000063 156280257 0000/001/01 1023/254/63 Bo	ot 07 NTFS		
	2 P 00000000 0000000 0000/000/00 0000/00 00	empty entry		
	3 P 00000000 00000000 0000/00 0000/00 0000/00 00			
	1 156280257 sectors 80015491584 bytes			
Log				
Highlights:	===== Tool Settings: ======			
	segmentation Transport Media			
	OS. Linux ubuntu 2 6 22-21-generia #22-IIbuntu SMD F	ri Apr 16 09.10.02 ITTC		
	2010 i686 GNU/Linux			
	ZOTO TOOD OND/ HINK			
	====== Image file segments ======			
	1 1036 2011-02-08 10:55 da-06-esata			
	2 80026361856 2011-02-08 10:49 da-06-esata.ima	ge.001		
	3 4700 2011-02-08 10:49 da-06-esata.image.info			
	====== Excerpt from SMART log =======			
	SHA1 Span Hashes			
	total span hash: 655e9bdd b36a3f9c 5c4cc8bf 32b8c5	b4 laf9f52e		
		-		
	IO Summary:(Time: Tue Feb 8 15:49:46 2011)			
	Bytes Read: 80,026,361,856			
	80,026,361,856 bytes written to image "da-06-esata"			
	====== End of Excerpt from SMART log =======			
	Source drive rebash			
	Rehash (SHA1) of source: 655E9BDDB36A3F9C5C4CC8BF32B8C5B41AF9F52E			
Results:				
	Assertion and Expected Result	Actual Result		
	AM-01 Source acquired using interface AI.	as expected		
	AM-02 Source is type DS.	as expected		
	AM-03 Execution environment is XE.	as expected		

Test Case DA-C	06-ESATA Smart Version 2010/11/03		
	AM-05 An image is created on file system type FS.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-01 Image file is complete and accurate.	as expected	
	AO-05 Multifile image created.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	AO-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

### 5.2.32 DA-06-FW

Test Case DA-06-FW Smart Version 2010/11/03		
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM=00 All sectors acquired from the digital source are acquired accurately.	
	file is the same as the data acquired by the tool.	
	A0-05 If the tool creates a multifile image of a requested size then all	
	the individual files shall be no larger than the requested size.	
	AO-22 If requested, the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	A0-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	A0-24 If the coor executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process	
	the digital source is anonanged by the dequisition process.	
Tester Name:	brl	
Test Host:	Max	
Test Date:	Wed FeD 9 11:40:50 2011 $rra(62 FU2) dat (range) ather (20 CATA)$	
DITVES:	SIC(03- $r_{02}$ ) QSL (HOHE) OTHEL (3A-2AIA) src bach (SHV1), $c$ ELUGELOGELOGELOGECED601E0E00DAGED60D $\sim$	
Setup:	src hash (MAT): < FE217BC4FA4F3D1B4021D29B065AA9EC >	
<u>-</u>	117304992 total sectors (60060155904 bytes)	
	Model (SP0612N ) serial # ()	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 00000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16	
	2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended	
	4 S 00000000 00000000 0000000 0000/00 0000/000/00 000000	
	5 P 00000000 00000000 0000/00/00 0000/00/00	
	6 P 00000000 00000000 0000/000/00 0000/00/0	
	1 004192902 sectors 2146765824 bytes	
	3 113097537 sectors 57905938944 bytes	
Loa		
Highlights:	===== Tool Settings: ======	
5 5 6	segmentation Standard	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC	
	2010 i686 GNU/Linux	
	===== Image file segments ======	
	1 3407 2011-02-09 16:26 da-06-fw	
	2 60060155904 2011-02-09 16:17 da-06-fw.image.001	
	3 7495 2011-02-09 16:17 da-06-fw.image.info	
	====== Excerpt from SMART log =======	
	Image Description	
	Make and Model: DMI SAMSUNG SP0612N	
	Device Sectors: 117,304,992	
	SHAL Span Hashes total span hash: f7069edc beac863c 88deced8 2159f22d a96ba99b	
	IO Summary:(Time: Wed Feb 9 16:17:48 2011)	
	Bytes Read: 60,060,155,904	
	60,060,155,904 bytes written to image "da-06-fw"	
	======= End OI Excerpt from SMARI tog ========	
	===== Source drive rehash ======	
	Rehash (SHA1) of source: F7069EDCBEAC863C88DECED82159F22DA96BE99B	

Test Case DA-06-FW Smart Version 2010/11/03		
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.33 DA-06-SATA28

Test Case DA-	06-SATA28 Smart Version 2010/11/03
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image
	file are the same as the data acquired by the tool.
	AO-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	AO-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Fri Feb 11 09:52:25 2011
Drives:	src(4B-SATA) dst (none) other (68-SATA)
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >
Setup:	src hash (MD5): < 746B4C06CDD5FBD67C0820DB4325B40C >
	156301488 total sectors (80026361856 bytes)
	Model (ST380815AS ) serial # ( 6QZ5C9V5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 0209/1520 0000/001/01 1023/254/63 AF other
	2 P 0209/1629 010485536 1023/254/63 1023/254/63 AF other
	3 P 03145/223 000291450 1023/254/03 1023/254/03 A Other
	4 X 03/1486/9 008388694 1023/254/63 1023/254/63 05 extended
	5 5 000000009 004194304 1023/254/05 1023/254/05 AF Other
	0 x 004194343 004194351 1023/254/03 1023/254/03 05 extended
	/ S 00000004/ 004194304 1023/254/63 1023/254/63 AF OLIEF
	1 020071520 gog torg 10727419240 bit og
	2 010495526 apptora 526564422 bytes
	2 010405550 Sectors 200594422 bytes
	5 000291450 sectors 5221225472 bytes
	7 0.04194304 sectors 214/403040 bytes
	7 004194304 Sectors 2147403040 Dytes
Log	
Highlights:	===== Tool Settings: ======
	segmentation Partition Aligned
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	===== Image file segments =====
	1 3710 2011-02-11 09:39 da-06-sata28
	2 32256 2011-02-11 05:01 da-06-sata28.image.001
	3 10737418240 2011-02-11 05:30 da-06-sata28.image.002
	11 214/483648 2011-02-11 06:07 da-06-sata28.1mage.010
	12 56404026880 2011-02-11 08:40 da-06-sata28.1mage.011
	13 1/544 2011-02-11 08:40 da-06-sata28.image.into
	====== Excerpt from SMART log =======
	Image Description
	Make and Model: ATA ST380815AS
	Serial Number: 60Z5C9V5
	Device Sectors: 156,301,488
	SHA1 Span Hashes

Test Case DA-06-SATA28 Smart Version 2010/11/03			
	total span hash: 70cc62b4 3f6a4lca 4d6760aa 0b9b4c41 5d3f48e2		
	IO Summary:(Time: Fri Feb 11 13:40:49 2011)		
	Bytes Read: 80,026,361,856		
	80,026,361,856 bytes written to image "da-06-sata28		
	80,026,361,856 bytes written to image "da-06-sata28	-image2"	
	======= End of Excerpt from SMART log =======		
	====== Source drive rehash ======		
	Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2	
_			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-05 An image is created on file system type FS.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-01 Image file is complete and accurate.	as expected	
	AO-05 Multifile image created.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

## 5.2.34 DA-06-SATA28-IMAGE2

Test Case DA-	06-SATA28-IMAGE2 Smart Version 2010/11/03
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name:	brl
Test Date:	MCGallell Fri Feb 11 09:50:53 2011
Drives:	src(4B-SATA) dst (none) other (5A-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS) serial # ( 6QZ5C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 AF other 4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 AF other 6 x 004194343 004194351 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000 00</pre>
Log Highlights:	<pre>====== Tool Settings: ====== segmentation Partition Aligned OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1</pre>
	SHA1 Span Hashes

Test Case DA-06-SATA28-IMAGE2 Smart Version 2010/11/03			
	total span hash: 70cc62b4 3f6a41ca 4d6760aa 0b9b4c41 5d3f48e2		
	IO Summary:(Time: Fri Feb 11 13:40:49 2011)		
	Bytes Read: 80,026,361,856		
	80,026,361,856 bytes written to image "da-06-sata28	"	
	80,026,361,856 bytes written to image "da-06-sata28	-image2"	
	======= End of Excerpt from SMART log =======		
	====== Source drive rehash ======		
	Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2	
_			
Results:		· · · · · · · · · · · · · · · · · · ·	
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-05 An image is created on file system type FS.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-01 Image file is complete and accurate.	as expected	
	AO-05 Multifile image created.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

# 5.2.35 DA-06-SATA48

Test Case DA-	06-SATA48 Smart Version 2010/11/03
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 It image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All Visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	file are the same as the data acquired by the tool
	A0-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WOJAT
Iest Date:	$\frac{1110}{2} rep 10 03.33.43 2011$ $rep (0D_SATA) dst (none) other (67_SATA)$
Source	src hash (SHA1): < BAAD80E8781E55E2E3EE528CA73RD41D228C1377 >
Setup:	src hash (MD5): < 1FA7C3CBE60EB9E89863DED2411E40C9 >
	488397168 total sectors (250059350016 bytes)
	30400/254/63 (max cyl/hd values)
	30401/255/63 (number of cyl/hd)
	Model (WDC WD2500JD-22F) serial # (WD-WMAEH2678216)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 4883/593/ 0000/001/01 1023/254/63 BOOT 0/ NTFS
	2 P 00000000 00000000 000/00/00 000/00/00 00
	4 P 00000000 00000000 0000/00/00 0000/00/00
	1 488375937 sectors 250048479744 bytes
Log Highlights:	===== Tool Settings: ======
	segmentation Standard
	og time the best of 20.01 mercede #20 the by OND Ted and 16.00.10.00 trad
	US: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 Uic
	2010 1000 GN0/ HINUX
	===== Image file segments ======
	1 3225 2011-02-10 15:00 da-06-sata48
	2 250059350016 2011-02-10 14:46 da-06-sata48.image.001
	3 4/20 2011-02-10 14:46 da-06-sata48.1mage.1nfo
	======= Excerpt from SMARI log ========
	Image Description
	Make and Model: ATA WDC WD2500JD-22F
	Serial Number: WD-WMAEH2678216
	Device Sectors: 488,397,168
	OUNI Gran Hacker
	SHAI Span Hashes total span hash: baad80e8 781e55f2 e3ef528c a73bd41d 228c1377
	IO Summary: (Time: Thu Feb 10 14:46:21 2011)
	Bytes Read: 250,059,350,016
	250,059,350,016 bytes written to image "da-06-sata48"
	====== End of Excerpt from SMART log =======
	===== Source drive rehash =====
	Renasn (SHAI) of source: BAAD80E8781E55F2E3EF528CA73BD41D228C1377

Test Case DA-06-SATA48 Smart Version 2010/11/03		
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### 5.2.36 DA-06-SCSI

Test Case DA-0	D6-SCSI Smart Version 2010/11/03
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image
	file are the same as the data acquired by the tool.
	A0-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	A0-22 if requested, the tool calculates block hashes for a specified block
	Size during an acquisition for each proce acquired from the digital source. $\Delta 0_{-23}$ If the tool logs only log significant information the information is
	accurately record in the log file
	AO-24 If the tool executes in a forensically safe execution environment.
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	Max
Test Date:	Tue Feb 8 15:03:13 2011
Drives:	src(EU) dst (none) other (3A-SATA)
Source	src hash (SHAI): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >
Secup.	SIC HASH (MD5) · < A9/C6F30B/AC9D5233B90AC09264F936 >
	Reference SHA1 hashes, Win size: 4193792 (sectors)
	1 0 - 4193791 E6589BB7F40DF7B5C62C7F81737E9D3554BE158D -
	2 4193792 - 8387583 E5FF0E3954874B5A69BB54151670A76DDA493D9F -
	3 8387584 - 12581375 674B40188B6E23456CB3A1EFCFB4CF5A6425FBC3 -
	4 12581376 - 16775167 96D57D71F13BF2F6DB1DDEAA1772654930CF758A -
	5 16775168 - 20968959 F0A0F715C3E177264AB36BDE9580CD40B58DC89A -
	17938985 total sectors (9184760320 bytes)
	Model (ATLAS10K2-TY092J) serial # (169028142436)
T o a	
Highlights:	Tool Settings:
inginigits.	segmentation Fixed Size(2GB)
	Segmentation Fixed Size(205)
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	===== Image file segments =====
	1 3897 2011-02-08 10:38 da-06-scsi
	2 2147221504 2011-02-08 10:13 da-06-scsi.image.001
	3 2147221504 2011-02-08 10:19 da-06-scs1.1mage.002
	 5 2147221504 2011_02_08 10:30 da_06_gagi imago 004
	6 595874304 2011-02-08 10:31 da-06-005 image 005
	7 5605 2011-02-08 10:32 da-06-scsi image info
	======= Excerpt from SMART log ======
	Image Description
	Make and Model: QUANTUM ATLAS10K2-TY092J
	Serial Number: 169028142436
	Device Sectors: 17,938,985
	SHAI Span Hashes
	total span hash: 4a694111 337a8a22 b101c844 b4d7ta61 58becb82
	SHA1 Segment-Delimited Span Hashes
	1 0 - 2147221503: e6589bb7 f40df7b5 c62c7f81 737e9d35 54be158d
	2 2147221504 - 4294443007: e5ff0e39 54874b5a 69bb5415 1670a76d
	da493d9f
	3 4294443008 - 6441664511: 674b4018 8b6e2345 6cb3alef cfb4cf5a

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Test Case DA-	06-SCSI Smart Version 2010/11/03	
	6425fbc3 4 6441664512 - 8588886015: 96d57d71 f13bf2f6 c 30cf758a 5 8588886016 - 9184760319: f0a0f715 c3e17726 4 b58dc89a IO Summary:(Time: Tue Feb 8 15:32:02 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to image "da-06-scsi" ====== End of Excerpt from SMART log ======= ===== Source drive rehash ====== Rehash (SHA1) of source: 4A6941F1337A8A22B10FC844B4	lb1ddeaa 17726549 ab36bde 9580cd40 D7FA6158BECB82
		DITACTSOBECD02
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### 5.2.37 DA-06-USB

Test Case DA-06-USB Smart Version 2010/11/03			
Case Summary:	DA-06 Acquire a physical device using access interface AI to an image file.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block</li> </ul>		
	size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.		
Tester Name:	brl		
Test Date:	rian Fri Feb 11 08:49:44 2011		
Drives:	src(63-FU2) dst (none) other (3A-SATA)		
Source Setup:	<pre>src(05 F02) dst (HoHe) other (SA SATA) src hash (SHA1): &lt; F7069EDCBEAC863C88DECED82159F22DA96BE99B &gt; src hash (MD5): &lt; EE217BC4FA4F3D1B4021D29B065AA9EC &gt; 117304992 total sectors (60060155904 bytes) Model (SP0612N) serial # () N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16 2 x 004192965 113097600 0261/000/01 1023/254/63 0F extended 3 s 00000063 113097537 0261/001/01 1023/254/63 0B Fat32 4 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Log Highlights:	<pre>====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 3410 2011-02-11 12:31 da-06-usb 2 60060155904 2011-02-11 11:35 da-06-usb.image.001 3 7492 2011-02-11 11:35 da-06-usb.image.001 3 7492 2011-02-11 11:35 da-06-usb.image.info ======== Excerpt from SMART log ======= Image Description Make and Model: SAMSUNG SP0612N Device Sectors: 117,304,992 SHA1 Span Hashes total span hash: f7069edc beac863c 88deced8 2159f22d a96be99b IO Summary:(Time: Fri Feb 11 11:35:42 2011) Bytes Read: 60,060,155,904 60,060,155,904 bytes written to image "da-06-usb" ======== End of Excerpt from SMART log ======= ====== Source drive rehash ======</pre>		
	Rehash (SHA1) of source: F7069EDCBEAC863C88DECED82159F22DA96BE99B		

Test Case DA-06-USB Smart Version 2010/11/03		
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.38 DA-07-CF

Test Case DA-	07-CF Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 II image file creation is specified, the tool creates an image file
	M = 06 All visible sectors are acquired from the digital source
	AM-08 All sectors acquired from the digital source are acquired accurately
	A0-01 If the tool creates an image file, the data represented by the image
	file is the same as the data acquired by the tool.
	AO-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	A0-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	accurately recorded in the log file
	AO-24 If the tool executes in a forensically safe execution environment.
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	Max
Drives:	$\frac{1}{2} \frac{1}{2} \frac{1}$
Source	src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
Setup:	<pre>src hash (MD5): &lt; 776DF8B4D2589E21DEBCF589EDC16D78 &gt;</pre>
	Reference MD5 hashes, Win size: 245248 (sectors)
	1 0 - 245247 DFB67FA9539278F2B167407E05C88458 -
	2 245248 - 490495 /1E39526895582AEUDDA/CF2CC113865 -
	5 $-750490$ $-75743$ $007350$ $-75360$ $-75749696$ $-757496$ $-75749$ $-757496$ $-757496$ $-75749$ $-757496$ $-75749$ $-757496$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-75749$ $-7576$ $-$
	Model ( CF) serial # ()
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 778135908 1141509631 0357/116/40 0357/032/45 Boot 72 other
	2 P 168689522 1936028240 0288/115/43 0367/114/50 Boot 65 other
	3 P 1869881465 1936028192 0366/032/33 0357/032/43 Boot 79 other
	4 P 2885681152 000055499 03/2/09/50 0000/010/00 Boot 0D other
	1 1141505151 Sectors 901246458880 bytes
	3 1936028192 sectors 991246434304 bytes
	4 000055499 sectors 28415488 bytes
Log Uighlighta:	Tool Cottings:
HIGHLIGHUS.	segmentation Fixed Size (120 MB)
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	===== Image file segments =====
	1 3464 2011-02-15 05:10 da-07-cf
	2 125566976 2011-02-15 04:55 da-07-cf.image.001
	3 125566976 2011-02-15 04:57 da-07-cf.image.002
	4 6815744 2011-02-15 04:58 da-07-cf.image.003
	5 4161 2011-02-15 04:58 da-07-cf.image.info
	====== Excerpt from SMART log =======
	Image Description
	Make and Model: USB2.0 HS-CF
	Device Sectors: 503,808
	FS Type: FAT32
	US FS Type: viat
	Max. Filesize: 2.000 GB

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Test Case DA-	07-CF Smart Version 2010/11/03		
	MD5 Span Hashes		
	total span hash: 776df8b4d2589e21debcf589edc16d78		
	<pre>MD5 Segment-Delimited Span Hashes</pre>	8458 7cf2cc113865 7e699c23da06 81746606638A0B	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-05 An image is created on file system type FS.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-01 Image file is complete and accurate.	as expected	
	AO-05 Multifile image created.	as expected	
	AO-22 Tool calculates hashes by block.	as expected	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
Analysis:	Expected results achieved		

# 5.2.39 DA-07-EXT2

Test Case DA-	07-EXT2 Smart Version 2010/11/03	
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	A0-01 If the tool creates an image file, the data represented by the image	
	1110 is the same as the data acquired by the tool.	
	the individual files shall be no larger than the requested size	
	AO-22 If requested, the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	AO-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	AO-24 If the tool executes in a forensically safe execution environment,	
	the digital source is unchanged by the acquisition process.	
Tester Name:	brl McCarrott	
Test Doto:	Mon Feb 28 13:52:20 2011	
Drives:	src(43) dst (none) other (3A-SATA)	
Source	<pre>src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt;</pre>	
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >	
	Reference SHAl hashes, Win size: 4193792 (sectors) 2147221504 (bytes)	
	1 0 - 4193791 3E62C6B5B7F62262E670857BEAD459ED1A968214 -	
	2 4193792 - 8387583 A804E0B2935D9E457E26359ED0CDFA8AD4B53496 -	
	3 8387584 - 10490381 D9406898C56FB4B179014175A05CC694416EA626 -	
	Model (DBL 751400) sectors (4000000000 bytes)	
	N Start LBA Length Start (H/S End (H/S boot Partition type	
	1 P 000000063 020980827 0000/01/01 1023/254/63 0C Fat 32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014/31605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000005 010490382 1023/001/01 1023/254/63 83 Linux	
	13 S 00000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000/00 0000/000/00 00	
	17 P 00000000 00000000 0000/00/00 0000/00/00	
	18 P 00000000 00000000 0000/00/00 0000/00/00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	2  UU2LU4452 Sectors  UU/14/9424 Dytes	
	1 004172702 SECLOIS 2140/03024 Dyles 9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027712062 sectors 14188575744 bytes	
	43ext2-md5sum 5371075583 C7A84DE9ACBCB05463604CE8823D0874	
	43ext2-shalsum 5371075583 283BCC32DE892C12C37698AF7E38703619E57F57	
Log		
Highlights:	===== Tool Settings: =====	
	segmentation Transport Media (2GB)	

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Test Case DA-	07-EXT2 Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP F: 2010 i686 GNU/Linux	ri Apr 16 08:10:02 UTC
	<pre>===== Image file segments ===== 1</pre>	2.001 2.002 2.003
	SHA1 Span Hashes total span hash: 283bcc32 de892c12 c37698af 7e3870	36 19e57f57
	SHA1       Segment-Delimited       Span       Hashes         1       0 - 2147221503:       3e62c6b5       b7f62262       e670857b       e         2       2147221504 - 4294443007:       a804e0b2       935d9e45       7         d4b53496       3       4294443008 - 5371075583:       d9406898       c56fb4b1       7         416ea626       6       6       6       6       6       6       6       6	ad459ed la968214 e26359e d0cdfa8a 9014175 a05cc694
	IO Summary:(Time: Mon Feb 28 14:14:58 2011) Bytes Read: 5,371,075,584 5,371,075,584 bytes written to image "da-07-ext2" ======= End of Excerpt from SMART log =======	
	====== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD	93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analyzaia	Eurostod vogulta oskievod	
AUGIVSIS.	Expected results achieved	

# 5.2.40 DA-07-F12

Test Case DA-	07-F12 Smart Version 2010/11/03	
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-01 If the tool creates an image file, the data represented by the image	
	file are the same as the data acquired by the tool.	
	AO-05 If the tool creates a multifile image of a requested size then all	
	the individual files shall be no larger than the requested size.	
	A0-22 If requested, the tool calculates block hashes for a specified block	
	size during an acquisition for each block acquired from the digital source.	
	AU-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file. $\Delta - 24$ If the tool everythic everythic provide the second state of	
	the digital source is unchanged by the acquisition process	
	the argital bource is anonanged by the acquisition process.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Tue Mar 1 13:41:22 2011	
Drives:	<pre>src(43) dst (none) other (3A-SATA)</pre>	
Source	<pre>src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt;</pre>	
Setup:	<pre>src hash (MD5): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt;</pre>	
	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHCO ) serial # ( WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 & 020980890 05/143205 1023/000/01 1023/254/63 0F exterided	
	4 x 000030130 002104515 1023/001/01 1023/254/63 01 Fat12	
	5 S 00000063 00210452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 00000000 00000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/00 00	
	18 P 000000000 00000000 0000/000/00 00 empty entry	
	1 020980827 sectors 10/42183424 bytes	
	5 000032067 Sectors 10418304 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027712062 sectors 14188575744 bytes	
	43F12-md5sum 16418303 CBA0C9984F51778E89DEF0C6BED06864	
	43F12-shalsum 16418303 6853B517F50BF3CCADED3DB5FEAE08C18C62FCA0	
Log		
Highlights:	===== Tool Settings: ======	
	segmentation Standard	
	Of time whenty 2 6 22 21 generic #22 therets OND The are 16 00:10:00 the	
	US. LINUX UDUNTU 2.0.32-21-GENERIC #32-UDUNTU SMP Fri Apr 16 08:10:02 UTC	
	ZOTO TODO GMO/ITTIRX	
	===== Image file segments ======	

Test Case DA-	07-F12 Smart Version 2010/11/03	
	1 2897 2011-03-01 13:57 da-07-f12 2 16418304 2011-03-01 13:52 da-07-f12.image.00 3 2384 2011-03-01 13:52 da-07-f12.image.info ======= Excerpt from SMART log =======	1
	<pre>FS Type: FAT12 OS FS Type: vfat Volume Name: F12 Max. Filesize: 2.000 GB SHA1 Span Hashes total span hash: 6853b517 f50bf3cc aded3db5 feae080 IO Summary:(Time: Tue Mar 1 13:52:14 2011) Bytes Read: 16,418,304 16,418,304 bytes written to image "da-07-f12" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD</pre>	cl 8c62fca0 93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.41 DA-07-F16

Test Case DA-	07-F16 Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file on file system type FS. AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired accurately. AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool. AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Tue Mar I $15:30:22$ 2011 srg(01-IDF) det (none) other (3A-SATA)
Source	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 >
Setup:	<pre>Sic hash (MD5): &lt; F45BF673894753FA6ADECB12FC63848E &gt; Reference MD5 hashes, Win size: 1330688 (sectors)</pre>
Ter	

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Test Case DA-07-F16 Smart Version 2010/11/03		
Highlights:	===== Tool Settings: ======	
	segmentation Fixed Size (650 MB)	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP F	ri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux	
	<pre>===== Image file segments ===== 1</pre>	2.001 2.002 30
	total span hash: 074ba831 b10132f4 bf9f86af ab37cb MD5 Span Hashes total span hash: 8b24f3d793188af2473f69b267afda42	7f ef482c7d
	MD5 Segment-Delimited Span Hashes 1 0 - 681312255: b5b8419fe6f5c18e13a0f7220a209 2 681312256 - 1077479423: 8e3880213f96d4b4ef9c	1659 16d460b831b1b
	SHA1 Segment-Delimited Span Hashes 1 0 - 681312255: 66436779 f2547289 eb42ca2a 72 2 681312256 - 1077479423: 5e6acad3 878a057f c6 89259d4d	431641 0f7be5af 5ac00a5 d5261517
	IO Summary:(Time: Tue Mar 1 15:51:28 2011) Bytes Read: 1,077,479,424 1,077,479,424 bytes written to image "da-07-fat16" ======= End of Excerpt from SMART log =======	
	====== Source drive rehash ====== Rehash (SHA1) of source: A48BB5665D6DC57C22DB68E2F7	23DA9AA8DF82B9
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS	as expected
	AM-06 All visible sectors acquired	as expected
	AM-08 All sectors acquirately acquired	as expected
	AM-UO ALL SECLOIS ACCULATELY ACQUITED.	as expected
	AC-OI IMAGE IILE IS COMPLETE and accurate.	as expected
	AU-UD MUITIIILE IMAGE Created.	as expected
	AU-22 TOOL CALCULATES NASHES by block.	as expected
	AU-23 Logged information is correct.	as expected
	AU-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.42 DA-07-F32

Test Case DA-	07-F32 Smart Version 2010/11/03	
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-01 If the tool creates an image file, the data represented by the image	
	file are the same as the data acquired by the tool.	
	AO-05 If the tool creates a multifule image of a requested size then all	
	the individual files shall be no larger than the requested size.	
	A0-22 if requested, the tool calculates block hashes for a spectrum block	
	Size during an acquisition for each proce acquired from the digital source.	
	accurately record in the log file	
	AO-24 If the tool executes in a forensically safe execution environment.	
	the digital source is unchanged by the acquisition process.	
	+	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Wed Mar 2 09:30:56 2011	
Drives:	src(43) dst (none) other (3A-SATA)	
Source	src hash (SHAI): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >	
Setup:	STC hash (MD5): < BC39C5F/EE/A5UE//B9BALE65A5AEEF/ >	
	Model (DBP-751WCD) servial # (MD-WMMC46588)	
	N Start IB Length Start C/U/S End C/U/S boot Dartition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat 32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014/31605 010490445 1023/000/01 1023/254/63 05 extended	
	11 5 000000005 010490362 1023/001/01 1023/254/63 83 Linux	
	12 x 02322200 004209050 1023/001/01 1023/254/63 05 extended	
	14 v 029431080 027712125 1023/001/01 1023/254/63 05 evtended	
	15 S 00000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 00000000 00000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/000 00	
	18 P 000000000 00000000 0000/000/00 0000/000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 UU42U896/ Sectors 21549911U4 bytes	
	13 UZ//12U02 SECLOFS 141005/5/44 Dyles 43F32-md5aum 4301780183 204D9D450F50D28220F616D9711400FF	
	43F32-shalsum 4301789183 72462489806779198859864820028FF846F121781	
	15152 SHALSAM 1501/05105 /2102105DCF/9R90D35D0R0CD350FEBT0FR2R/01	
Log		
Highlights:	===== Tool Settings: ======	
	segmentation Standard	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC	
	2010 i686 GNU/Linux	
	===== Image file segments ======	

Test Case DA-	07-F32 Smart Version 2010/11/03	
	1 2903 2011-03-02 10:11 da-07-f32 2 4301789184 2011-03-02 09:42 da-07-f32.image. 3 2393 2011-03-02 09:42 da-07-f32.image.info ======= Excerpt from SMART log =======	001
	<pre>FS Type: FAT32 OS FS Type: vfat Volume Name: F32 Max. Filesize: 2.000 GB SHA1 Span Hashes total span hash: 72462489 bcf79a98 b59b6a8c d938fet IO Summary:(Time: Wed Mar 2 09:42:39 2011) Bytes Read: 4,301,789,184 4,301,789,184 bytes written to image "da-07-f32" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD</pre>	b4 6fa2a781 93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.43 DA-07-F32X

Test Case DA-	07-F32X Smart Version 2010/11/03	
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired acquirately	
	AO-01 If the tool creates an image file, the data represented by the image	
	file are the same as the data acquired by the tool.	
	the individual files shall be no larger than the requested size.	
	AO-22 If requested, the tool calculates block hashes for a specified block	
	AO-23 If the tool logs any log significant information, the information is	
	accurately recorded in the log file.	
	A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.	
	the argitur bourse is anomanged by the acquisition process.	
Tester Name:	brl MaCarrott	
Test Date:	Wed Mar 2 11:40:54 2011	
Drives:	<pre>src(01-IDE) dst (none) other (3A-SATA)</pre>	
Source Setup:	<pre>src hash (SHA1): &lt; A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 &gt; src hash (MD5): &lt; F458F673894753FA6A0EC8B8EC63848E &gt;</pre>	
	Reference SHA1 hashes, Win size: 8388096 (sectors)	
	2 8388096 - 16776191 AD945E125ADB0C69FC7C0BD77E94111983CB718F -	
	3 16776192 - 25164287 C4FCFBA0B7403B529C494BD71936C2499617839A -	
	Model (0BB-00JHC0 ) serial # ( WD-WMAMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	I P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X 2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	6 x 002136645 004192965 1023/001/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended 9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 00000063 010490382 1023/001/01 1023/254/63 83 Linux	
	13 S 00000063 00420967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	16 S 000000000 000000000 0000/000/00 0000/000/00 00	
	17 P 000000000 00000000 0000/000/00 0000/000/00 00	
	18 P 000000000 000000000 0000/000/00 0000/000/00 00	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes	
	01F32X-md5 10742183423 B5BFD9CE3990C577EF89C5AFB925F947	
	01F32X-shal 10742183423 30BA6CF583A176C5DB533E3A2F57BFD5A4A870C1	
Log		
Highlights:	===== Tool Settings: ====== segmentation Fixed Size (4 GB)	

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Test Case DA-07-F32X Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP F. 2010 i686 GNU/Linux	ri Apr 16 08:10:02 UTC
	<pre>===== Image file segments ===== 1 3506 2011-03-02 14:59 da-07-f32x 2 4294705152 2011-03-02 14:43 da-07-f32x.image 3 4294705152 2011-03-02 14:49 da-07-f32x.image 4 2152773120 2011-03-02 14:52 da-07-f32x.image 5 4307 2011-03-02 14:52 da-07-f32x.image.info ======== Excerpt from SMART log =======</pre>	2.001 2.002 2.003
	FS Type: FAT32 OS FS Type: vfat Volume Name: F32X Max. Filesize: 2.000 GB	
	SHA1 Span Hashes total span hash: 30ba6cf5 83a176c5 db533e3a 2f57bf	d5 a4a870c1
	<pre>SHA1 Segment-Delimited Span Hashes 1 0 - 4294705151: 00c863ab 485a389b a57d5cd7 3 2 4294705152 - 8589410303: ad945e12 5adb0c69 f 83cb718f 3 8589410304 - 10742183423: c4fcfba0 b7403b52 9617839a</pre>	8e0e0d7f 6b2909d4 5c7c0bd7 7e941119 9c494bd7 1936c249
	IO Summary:(Time: Wed Mar 2 14:52:41 2011) Bytes Read: 10,742,183,424 10,742,183,424 bytes written to image "da-07-f32x" ======= End of Excerpt from SMART log =======	
	===== Source drive rehash ===== Rehash (SHA1) of source: A48BB5665D6DC57C22DB68E2F7	23DA9AA8DF82B9
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-00 All visible sectors acquired.	as expected
	AC-01 Image file is complete and accurate	as expected
	AO-05 Multifile image created	as expected
	A0-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
		·
Analysis:	Expected results achieved	

#### 5.2.44 DA-07-NTFS

Test Case DA-0	07-NTFS Smart Version 2010/11/03	
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.	
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
	AM-02 The tool acquires digital source DS.	
	AM-03 The tool executes in execution environment XE.	
	AM-05 If image file creation is specified, the tool creates an image file	
	on file system type FS.	
	AM-06 All visible sectors are acquired from the digital source.	
	AM-08 All sectors acquired from the digital source are acquired accurately.	
	AO-01 If the tool creates an image file, the data represented by the image	
	file are the same as the data acquired by the tool.	
	AO-05 If the tool creates a multifule image of a requested size then all	
	the individual files shall be no larger than the requested size.	
	A0-22 II requested, the tool calculates block hashes for a specified block	
	Size during an acquisition for each block acquired from the digital source.	
	A0-25 If the tool logs any log significant information, the information is	
	accurately recorded in the toy life. $\lambda_{0-2}$ if the tool eventues in a forensically safe evention environment	
	the digital source is unchanged by the acquisition process	
	s substant monorigen wi and adjurdradi procedo.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Thu Mar 3 10:03:28 2011	
Drives:	<pre>src(43) dst (none) other (3A-SATA)</pre>	
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >	
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >	
	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHCO) serial # ( WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 & 020980890 05/143205 1023/000/01 1023/254/63 0F extended	
	4 v 000032130 002104515 1023/001/01 1023/254/63 01 Fat12	
	5 S 00000063 00210452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000/00 0000/000/00 00	
	1/ P 000000000 00000000 0000/000/00 0000/00 00	
	1 00000027 gottorg 10742192424 bitog	
	1 020900027 Sectors 10/42103424 Dytes	
	5 000104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027712062 sectors 14188575744 bytes	
	43ntfs-md5sum 14188575744 5D42FA317C802ACFEF2D313092D7411E	
	43ntfs-shalsum 14188575744 73eb2d27564b060db796efb78694a10e6b43d23f	
Tog		
Highlights:	===== Tool Settings: ======	
	segmentation Fixed Size (15 GB)	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC	
	2010 1686 GNU/Linux	

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Test Case DA-	07-NTFS Smart Version 2010/11/03	
	<pre>===== Image file segments ===== 1 2915 2011-03-03 10:35 da-07-ntfs 2 14188575744 2011-03-03 10:25 da-07-ntfs.imag 3 2401 2011-03-03 10:25 da-07-ntfs.image.info ======= Excerpt from SMART log =======</pre>	ge.001
	FS Type: NTFS OS FS Type: ntfs Volume Name: NT Max. Filesize: 17592.000 GB	
	SHA1 Span Hashes total span hash: 73eb2d27 564b060d b796efb7 8694a1	0e 6b43d23f
	IO Summary:(Time: Thu Mar 3 10:25:53 2011) Bytes Read: 14,188,575,744 14,188,575,744 bytes written to image "da-07-ntfs" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD	93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.45 DA-07-OSX

Test Case DA-07-OSX Smart Version 2010/11/03			
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>		
Tester Name:	brl		
Test Host:	WoFat		
Test Date:	Mon Feb 28 11:21:22 2011		
Source	sic(ib saia) use (none) ouner (07-SAIA) sic hash (SHA1): < 700062843E6A410A4D6760AA0B9D40415D2E48E2 $\sim$		
Source Setup:	<pre>src hash (SHAI): &lt; /UCC62B43F6A41CA4D6/60AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6QZ5C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 05 extended 7 S 00000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Highlights:	<pre>====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1</pre>		

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Test Case DA-07-OSX Smart Version 2010/11/03		
	IO Summary:(Time: Mon Feb 28 11:43:28 2011)	
	Bytes Read: 5,368,594,432	
	5,368,594,432 bytes written to image "da-07-osx"	
	====== End of Excerpt from SMART log =======	
	====== Source drive rehash ======	
	Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	A0-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

# 5.2.46 DA-07-OSXC

Test Case DA-	07-OSXC Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	A0-01 IT the tool creates an image file, the data represented by the image
	A0-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Tue Mar 1 14:13:50 2011
Drives:	<pre>src(4B-SATA) dst (none) other (67-SATA)</pre>
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >
Setup:	src hash (MD5): < 746B4C06CDD5FBD67C0820DB4325B40C >
	156301488 total sectors (80026561856 Dytes) Model (ST28001562, corright (60250015)
	Model (SISOUGISAS) Serial $\#$ (SQ2SC9VS) N Start IBA Length Start C/U/S End C/U/S boot Dartition type
	1 p 00000063 020971520 0000/001/01 1023/254/63 AF other
	2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
	3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other
	4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended
	5 S 000000039 004194304 1023/254/63 1023/254/63 AF other
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	7 S 000000047 004194304 1023/254/63 1023/254/63 AF other
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	1 0209/1520 sectors 10/3/418240 bytes
	2 010405530 Sectors 350059432 Dytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSXC-sha1 2147483648 2D6303D74F9EDE617639643DCCF41EC2091D5F37
Log	
Highlights:	===== Tool Settings: =====
	segmentation Standard
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	entry in the segments entry in the or entry in the segments entry in the segments entry in the segment is the segment in the segment is the s
	2 211 2011 05 - 01 14 - 27 da - 07 - 05 x 0 image 0.01
	3 2397 2011-03-01 14:23 da-07-0sxc image info
	====== Excerpt from SMART log =======
	EC TYPE: ENT2)
	OS FS Type: vfat
	Volume Name: FAT3
	Max. Filesize: 2.000 GB
	SHA1 Span Hashes
	totai span hash: 2d6303d7 4f9ede61 7639643d ccf41ec2 091d5f37

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Test Case DA-0	07-OSXC Smart Version 2010/11/03	
	IO Summary:(Time: Tue Mar 1 14:23:07 2011) Bytes Read: 2,147,483,648 2,147,483,648 bytes written to image "da-07-osxc" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.47 DA-07-OSXCJ

Test Case DA-(	07-OSXCJ Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image
	file are the same as the data acquired by the tool.
	AO-05 If the tool creates a multifile image of a requested size then all
	the individual files shall be no larger than the requested size.
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	AO-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Tue Mar 1 16:08:22 2011
Drives:	src(4B-SATA) dst (none) other (67-SATA)
Source	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt;</pre>
Setup:	<pre>src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt;</pre>
<u>-</u>	156301488 total sectors (80026361856 bytes)
	Model (ST380815AS ) serial # ( 6025C9V5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020971520 0000/001/01 1023/254/63 AF other
	2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
	3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other
	4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended
	5 S 000000039 004194304 1023/254/63 1023/254/63 AF other
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	7 S 000000047 004194304 1023/254/63 1023/254/63 AF other
	8 S 000000000 000000000 0000/000/00 0000/000/00 00
	1 020971520 sectors 10737418240 bytes
	2 010485536 sectors 5368594432 bytes
	3 006291456 sectors 3221225472 bytes
	5 004194304 sectors 214/483648 bytes
	/ 004194304 sectors 214/483648 bytes
	JOOSVCA-SHOT STA1402040 SAFWAQAA20FFSY0A2A0117FLRY00RY2104CA9AR
Log	
Highlights:	===== Tool Settings: ======
	segmentation Standard
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 1686 GNU/LINUX
	===== Image file segments =====
	1 2918 2011-03-01 16:29 da-07-osxcj
	2 2147483648 2011-03-01 16:24 da-07-osxcj.image.001
	3 2400 2011-03-01 16:24 da-07-osxcj.image.info
	====== Excerpt from SMART log =======
	PS Type: FAT32
	US IS TADE. Mare: EMES
	VOLUME NAME FAIZ
	Max. FILE5128. 2.000 GD
	SHAl Span Hashes
	total span hash: 29ea0899 58ef2a69 5081712f fba68ba5 164c980b
	Secar Span man. Secardos Secrados Secritar Endobras relevand

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Test Case DA-	07-OSXCJ Smart Version 2010/11/03	
	IO Summary:(Time: Tue Mar 1 16:24:01 2011) Bytes Read: 2,147,483,648 2,147,483,648 bytes written to image "da-07-osxcj" ======= End of Excerpt from SMART log ====== ===== Source drive rehash ====== Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### DA-07-OSXJ 5.2.48

Test Case DA-07-OSXJ Smart Version 2010/11/03			
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>		
Tester Name:	brl		
Test Host:	WoFat		
Test Date:	Mon Feb 28 08:58:19 2011		
Drives:	<pre>src(4B-SATA) dst (none) other (67-SATA)</pre>		
Source	src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 >		
Setup:	<pre>src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 AF other 6 x 004194343 004194304 1023/254/63 1023/254/63 AF other 7 s 000000047 004194304 1023/254/63 1023/254/63 AF other 8 s 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Highlights:	<pre>===== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1</pre>		
	-		

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Test Case DA-07-OSXJ Smart Version 2010/11/03		
	IO Summary:(Time: Mon Feb 28 09:18:07 2011)	
	Bytes Read: 10,737,418,240	
	10,737,418,240 bytes written to image "da-07-osxj"	
	====== End of Excerpt from SMART log =======	
	====== Source drive rehash ======	
	Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2
Denviltar		
Results:	Aggertian and Eurogtod Degult	Agtual Degult
	Assertion and Expected Result	Actual Result
	AM-UI Source acquired using interface AL.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.49 DA-07-OSXU

Test Case DA-	07-OSXU Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name:	brl
Test Host:	WoFat
Test Date:	Tue Mar 1 09:49:48 2011
Drives:	src(4B-SATA) dst (none) other (67-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 7/0CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS) serial # ( 6QZ5C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 05 extended 7 S 00000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 000 empty entry 1 020971520 sectors 10737418240 bytes 2 010485536 sectors 5368594432 bytes 3 006291456 sectors 2147483648 bytes 7 004194304 sectors 2147483648 bytes 4BOSXU-shal 3221225472 D102A01562C82533C052CE6CFBB1D467EC9B5BC6</pre>
Highlights:	<pre>====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 2908 2011-03-01 10:13 da-07-osxu 2 3221225472 2011-03-01 10:00 da-07-osxu.image.001 3 2392 2011-03-01 10:00 da-07-osxu.image.001 3 2392 2011-03-01 10:00 da-07-osxu.image.info ======== Excerpt from SMART log ======= FS Type: UFS OS FS Type: ufs Volume Name: OSXU Max. Filesize: 2.000 GB SHA1 Span Hashes</pre>
	COLAI SPAN HASH, UIVZAVIS 02C02555 CU52CEOC IDDIU40/ EC9D5DC0

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Test Case DA-0	07-OSXU Smart Version 2010/11/03	
	IO Summary:(Time: Tue Mar 1 10:00:41 2011) Bytes Read: 3,221,225,472 3,221,225,472 bytes written to image "da-07-osxu" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: 70CC62B43F6A41CA4D6760AA0B	9B4C415D3F48E2
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.50 DA-07-PART

Test Case DA-0	07-PART Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name:	brl
Test Host:	Max
Test Date:	Thu Mar 3 11:18:10 2011
Drives:	<pre>src(D5-THUMB) dst (none) other (5A-SATA)</pre>
Source	src hash (SHA1): < D68520EF74A336E49DCCF83815B7B08FDC53E38A >
Setup:	src hash (MD5): < C843593624B2B3B878596D8760B19954 >
Log	Reference SHAl hashes, Win size: 81408 (sectors) 1 0 - 81407 D5C035F4AD3BDDC18255F402C52B7B722ED23B70 - 2 81408 - 162815 06A786B45A8995D2CA5E377B08073080F5E12EEE - 3 162816 - 244223 3061D34425F177504444D711731A5FBD73FE55FB - 4 244224 - 325631 62AA71381E93B0D6EA026A048F23ABD232ECE3ED - 5 325632 - 407039 DB8A599ECD7666EB4B33AA67D928F27F9BF34233 - 6 407040 - 488447 392664CE2CDDFA62C687A430A4628D3C9ACCCE09 - 7 488448 - 569855 4EC26AADA68187FA625F355FE58F55D0129841DE - 505856 total sectors (258998272 bytes) Model (usb2.0Flash Disk) serial # ()
Highlights:	===== Tool Settings: ===== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	<pre>2010 1000 GNU/HHRX ====== Image file segments ===== 1</pre>
	===== Source drive rehash ======

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Test Case DA-07-PART Smart Version 2010/11/03		
	Rehash (SHA1) of source: D68520EF74A336E49DCCF83815	B7B08FDC53E38A
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	A0-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

#### 5.2.51 DA-07-SWAP

Test Case DA-	07-SWAP Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file on file system type FS. AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired accurately. AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool. AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Wed Mar 2 15:48:38 2011
Drives:	<pre>src(43) dst (none) other (3A-SATA)</pre>
Source Setup:	<pre>src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt; src hash (MD5): &lt; BC39C3F7EF7A50E77B9BA1E65A5AEEF7 &gt; 78125000 total sectors (400000000 bytes) Model (0BB-757HC0 ) serial # (WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X 2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended 3 S 00000063 000032067 1023/001/01 1023/254/63 0F extended 5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16 6 x 002136645 004192965 1023/001/01 1023/254/63 05 extended 7 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 9 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 1 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 11 S 00000063 0149452 1023/001/01 1023/254/63 05 extended 12 x 02522050 00420903 1023/001/01 1023/254/63 05 extended 13 S 00000063 004208967 1023/001/01 1023/254/63 05 extended 13 S 00000063 004208967 1023/001/01 1023/254/63 05 extended 14 x 029431080 027712125 1023/001/01 1023/254/63 07 NTFS 16 S 000000063 004208967 1023/001/01 1023/254/63 07 NTFS 16 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Log Highlights:	====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux

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Test Case DA-	07-SWAP Smart Version 2010/11/03	
	<pre>===== Image file segments ====== 1</pre>	age.001 nfo
	<pre>SHA1 Span Hashes   total span hash: 18b73d89 2d772b88 437ce039 2e17 IO Summary:(Time: Wed Mar 2 15:58:31 2011) Bytes Read: 2,154,991,104 2,154,991,104 bytes written to image "da-07-swap" ======= End of Excerpt from SMART log =======</pre>	732ca 8fe2a2f4
	====== Source drive rehash ====== Rehash (SHA1) of source: 888E2E7F7AD237DC7A73228	LDD93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	last seven sectors differ
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results not achieved	

#### 5.2.52 DA-07-THUMB

Test Case DA-	07-THUMB Smart Version 2010/11/03
Case Summary:	DA-07 Acquire a digital source of type DS to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file on file system type FS. AM-06 All visible sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired accurately. AO-01 If the tool creates an image file, the data represented by the image file is the same as the data acquired by the tool. AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	Max
Test Date:	Tue Feb 15 13:44:22 2011
Drives:	src(D5-THUMB) dst (none) other (3A-SATA)
Source	<pre>src hash (SHA1): &lt; D68520EF74A336E49DCCF83815B7B08FDC53E38A &gt;</pre>
Log	Reference SHAl hashes, Win size: 81408 (sectors) 1 0 - 81407 D5C035F4AD3BDDC18255F402C52B7B722ED23B70 - 2 81408 - 162815 06A786B45A8995D2CA5E377B08073080F5E12EEE - 3 162816 - 244223 3061D34425F177504444D711731A5FBD73FE55FB - 4 244224 - 325631 62AA71381E93B0D6EA026A048F23ABD232ECE3ED - 5 325632 - 407039 DB8A599ECD7666EB4B33AA67D928F27F9BF34233 - 6 407040 - 488447 392664CE2CDDFA62C687A430A4628D3C9ACCCE09 - 7 488448 - 569855 4EC26AADA68187FA625F355FE58F55D0129841DE - 505856 total sectors (258998272 bytes) Model (usb2.0Flash Disk) serial # ()
Log Highlights:	<pre>====== Tool Settings: ====== segmentation Fixed Size (40 MB) OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1</pre>
	SHA1 Span Hashes

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Test Case DA-	07-THUMB Smart Version 2010/11/03	
	total span hash: d68520ef 74a336e4 9dccf838 15b7b0	8f dc53e38a
	SHA1 Segment-Delimited Span Hashes	
	1 0 - 41680895: d5c035f4 ad3bddc1 8255f402 c52	b7b72 2ed23b70
	2 41680896 - 83361791: 06a786b4 5a8995d2 ca5e3	77b 08073080 f5e12eee
	3 83361792 - 125042687: 3061d344 25f17750 4444	d711 731a5fbd 73fe55fb
	· · ·	2 d0005075 0b524022
	5 = 166/23584 - 2084044/9; absa599e ca/666eb 4b3	3aa6/ d92812/1 9D134233
	/ 208404480 - 250085375: 392664Ce 2CddIa62 C68	
	8 250085376 - 258998271: 4ec26aad a681871a 625	13551 658155d0 129841de
	====== End of Excerpt from SMART log =======	
	====== Source drive rehash ======	
	Rehash (SHA1) of source: D68520EF74A336E49DCCF83815	B7B08FDC53E38A
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected

#### 5.2.53 **DA-08-ATA28**

Test Case DA-	08-ATA28 Smart Version 2010/11/03
Case Summary:	DA-08 Acquire a physical drive with hidden sectors to an image file.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-US II image file creation is specified, the tool creates an image file
	AM-06 All visible sectors are acquired from the digital source.
	AM-07 All hidden sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image
	file are the same as the data acquired by the tool.
	A0-05 If the tool creates a multifile image of a requested size then all
	AO-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each block acquired from the digital source.
	AO-23 If the tool logs any log significant information, the information is
	accurately recorded in the log file.
	A0-24 If the tool executes in a forensically safe execution environment,
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Wed Feb 16 09:45:34 2011
Drives:	<pre>src(42) dst (none) other (67-SATA)</pre>
Source	<pre>src hash (SHA1): &lt; 5A75399023056E0EB905082B35F8FAA1DB049229 &gt;</pre>
Setup:	src nash (MD5): < F4B9AAB24554EEEB2A962BDA554A9252 > $78165360$ total sectors (40020664320 bytes)
	65534/015/63 (max cvl/hd values)
	65535/016/63 (number of cyl/hd)
	IDE disk: Model (WDC WD400JB-00JJC0) serial # (WD-WCAMA3958512)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 070348572 0000/001/01 1023/254/63 Boot 07 NTFS
	3 P 000000000 00000000 0000/000/00 0000/000/00 00
	4 P 000000000 000000000 0000/000/00 0000/000/00 00
	1 070348572 sectors 36018468864 bytes
	HPA created
	BIOS, ABIOS and Direct disk geometry Reporter (BADR) BXDR 128 /S70000000 /P /fbxdrlog txt
	Setting Maximum Addressable Sector to 70000000
	MAS now set to 70000000
	Hashes with HPA in place
	md5;9BF3C3DEADE47056AIDDC073C5F6B2E2 shal;D76F909482B00767B62C295CaDF202F61CD2F
	PURT - 2 / 01 2 02 10 2 D00 / 0 / D02 C2 / 3 CUDE2 0 21 / 2 E0TCD2 E
Log	
Highlights:	===== Tool Settings: ======
	segmentation Standard
	OC: Linux whenty 2 6 22 21 generic #22 Ubunty CMD Eri Arr 16 00.10.02 UTC
	2010 i686 GNU/Linux
	===== Image file segments ======
	1 3219 2011-02-16 11:03 da-08-ata28
	2 40020664320 2011-02-16 10:48 da-08-ata28.1mage.001
	======= Excerpt from SMART log ========
	r 203
	Image Description
	Make and Model: ATA WDC WD400JB-00JJ
	Serial Number: WD-WCAMA3958512

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Test Case DA-	08-ATA28 Smart Version 2010/11/03	
	Device Sectors: 78,165,360	
	SHA1 Span Hashes total span hash: 5a753990 23056e0e b905082b 35f8fa	al db049229
	IO Summary:(Time: Wed Feb 16 10:48:46 2011)	
	Bytes Read: 40,020,664,320	
	40,020,664,320 bytes written to image "da-08-ata28"	
	======= End of Excerpt from SMART log =======	
	Sourgo drivo robagh	
	Rehash (SHA1) of source: 5A75399023056E0EB905082B35	F8FAA1DB049229
		I OF AATDDO 19229
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-07 All hidden sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.54 DA-08-DCO

Test Case DA-	08-DCO Smart Version 2010/11/03
Case Summary:	DA-08 Acquire a physical drive with hidden sectors to an image file.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-07 All hidden sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name:	brl
Test Host:	WoFat
Test Date:	Wed Feb 16 13:28:35 2011
Drives:	src(15-SATA) dst (none) other (67-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 76B22DDE84CE61F090791DDBB79057529AAF00E1 &gt; src hash (MD5): &lt; 9B4A9D124107819A9CE6F253FE7DC675 &gt; 156301488 total sectors (80026361856 bytes) Model (0JD-00HKA0 ) serial # (WD-WMAJ91513490)</pre>
	DCO Created with Maximum LBA Sectors = 140,000,000 Hashes with DCO in place: md5: E5F8B277A39ED0F49794E9916CD62DD9 shal: AC64CF1B3736BB2FE40C14D871E6F207BC432C2F
Highlights:	<pre>===== Tool Settings: ===== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1</pre>
	71,680,000,512 bytes written to image "da-08-dco" ======= End of Excerpt from SMART log ======= ====== Source drive rehash ====== Rehash (SHA1) of source: AC64CF1B3736BB2FE40C14D871E6F207BC432C2F

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Test Case DA-	08-DCO Smart Version 2010/11/03	
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-07 All hidden sectors acquired.	DCO not acquired
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results not achieved	

#### 5.2.55 **DA-08-SATA48**

Case DA-06 Acquire a physical drive with hidden sectors to an image file. Summary: Am-02 The tool acquires digital source DS. Am-03 The tool executes in execution environment XR. Am-03 The tool executes in execution environment XR. Am-03 The tool executes in execution environment XR. Am-06 Himage file creation is specified, the tool creates an image file on file system type FS. Am-07 All hidden sectors are acquired from the digital source. Am-07 All hidden sectors are acquired from the digital source. Am-08 All hidden sectors are acquired from the digital source. Am-07 All hidden sectors are acquired from the digital source. Am-07 All hidden sectors are acquired from the digital source. Am-07 All hidden sectors are acquired from the digital source. Am-07 All the tool creates an multifile image of a requested size then all the individual files shall be no larger than the requested size then all the individual files shall be no larger than the requested size then all the digital source is unchanged by the acquired from the digital source. Am-0.2 if the tool acquired formation is accurately recorded in the log file. Am-0.4 if the tool acquired formation is accurately recorded in the log file. Moderati Test Boot: Med Feb 16 10:22:32 2011 Test Boot: Med Feb 16 10:22:32 2011 Test Mode: Source are bash (MMS): - SHC75209635620080969(218858143087/183573 > are bash (MMS): - SHC7520963562008096(218858143087/183573 > are bash (MMS): - SHC7520963562008096(218858143087/183573 > are bash (MMS): - SHC7520963562008096(218858143087/183573 > are bash (MMS): - SHC7520963562008096(2188581430877183573 > are bash (MMS): - SHC7520963562008096(2188581430877183573 > are bash (MS) accurate gash as are sector = 560,000,000 Hashes with HDA in place mds: 36557A0080808415429833079A2442 SHAl Span Hashes total span hash:	Test Case DA-08-SATA48 Smart Version 2010/11/03		
Assertions: AM-01 the tool usef access interface SRC-AL to access the digital source. AM-03 the tool executes in execution environment XE. AM-03 the tool executes in execution environment XE. AM-04 The tool executes in execution environment XE. AM-05 All hidden sectors are acquired from the digital source. AM-07 All hidden sectors are acquired from the digital source. AM-06 All sectors acquired from the digital source acquired accurately. AO-06 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool. AO-05 If the tool creates an unltifile image of a requested size then all the individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block AO-23 If requested, the tool calculates block hashes for a specified block AO-24 If the tool accurates in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He digital source is unchanged by the acquisition process. Test Hoat: He dis the tool a	Case Summary:	DA-08 Acquire a physical drive with hidden sectors to an image file.	
AM-02 the tool acquires digital source DS.         AM-03 the tool executes in execution environment XE.         AM-04 St tool executes in execution environment XE.         AM-05 All visible sectors are acquired from the digital source.         AM-07 All hidden sectors are acquired from the digital source.         AM-07 All hidden sectors are acquired from the digital source.         AM-07 All hidden sectors are acquired from the digital source.         AM-07 All nectors acquired from the digital source.         AM-07 All requested, the tool calcutates block thats for a sequested size.         AO-22 if requested, the tool calcutates block hashes for a specified block size during an acquisition for each block acquired from the digital source.         AO-24 the tool organy log gighticant information, the information, the digital source is unchanged by the acquisition process.         Tester Name:       bri         Tester Name:       bri         Tester Name:       bri         Test Rot:       McGarrett         Tester Name:       bri         Test Rot:       McGarrett         Tester Name:       bri	Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.	
<pre>AM-03 The tool executes in execution environment X2. AM-05 th image file creation is specified, the tool creates an image file on file system type FS. AM-06 All visible sectors are acquired from the digital source. AM-07 All hidden sectors are acquired from the digital source. AM-07 All hidden sectors are acquired from the digital source. AM-08 All sectors acquired from the digital source are acquired by the tool. AD-07 If the tool creates a multifile image of a requested scourstely. AD-05 If the tool creates a multifile image of a requested size then all AD-05 If the tool creates a multifile image of a requested size then all AD-02 If the tool creates a multifile image of a requested size then all AD-02 If the tool logs any log significant information, the information is accurately recorded in the log file. AD-03 If the tool logs any log significant information recevent. Test Host: MCGarrett Test Host: MCGarrett Med Peb 16 10:22:32 2011 Drives: Source are hash (SHAI): &lt; 3874390859ACD03009596CINK5M1430BF7183573 &gt; are hash (SHAI): &lt; 3874390859ACD03009569CINK5M1430BF7183573 &gt; are hash (SHAI): &lt; 3874392620AS = second B3913/255/63 (mumber of cyl/hd) Model (ST3320620AS ) serial # ( 5073X4F6) HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place and5: 3655FAG06866666154989333DFAE2442 shai: EB1045B57DF7CDA245F55904E3FA23BDDB5DBC587 Log Highlights: ===== Tool Settings: ====== a 2900 2011-02-16 15:52 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48. mage file segments ====== a 2900 2011-02-16 15:52 da-08-sata48 3 247 2011-02-16 15:52 da-08-sata48 3 SHAI Span Hashes total span hash: 32r/43949 e99acd03 0b969cl</pre>		AM-02 The tool acquires digital source DS.	
<pre>AM-05 if image file creation is specified, the tool creates an image file on file system type FS. AM-06 All visible sectors are acquired from the digital source. AM-07 All sectors acquired from the digital source. AM-07 All sectors acquired from the digital source are acquired accurately. A0-06 If the tool creates an mage file. the data represented by the image file are the same as the data acquired by the tool. A0-05 If the tool creates an multifile image of a requested size then all the individual files shall be no larger than the requested size then all the individual files shall be no larger than the requested size then all the individual files shall be no larger than the requested size A0-23 If the tool close any log state. A0-24 If the tool executes in a forencically safe execution environment, the digital source is unchanged by the acquisition process. Test Date: Med Feb 16 10:22:22 2011 Test Med: Med Feb 16 10:22:22 2011 Test Med Feb 16 10:22:22 2011 Source sc bash (MD5): &lt; SELCYSE0286362D0EACTI2EDEEM1430BF7183573 &gt; Setup: 655142444 total sectors (22007293336 bytes) 39512/254/63 (musc cyl/hd values) 39512/254/63 (musc cyl/hd value</pre>		AM-03 The tool executes in execution environment XE.	
<pre>NM=06 All visible sectors are acquired from the digital source. AM=07 All hidden sectors are acquired from the digital source. AM=08 All sectors acquired from the digital source are acquired by the tool. A0=08 All sectors acquired from the digital source are acquired by the tool. A0=05 If the tool creates a multiful image of a requested size then all the individual files shall be no larger than the requested size. A0=02 All the tool creates a multiful image of a requested size then all the individual files shall be no larger than the requested size. A0=02 If requested, the tool calculates block hashes for a specified block size during an acquired from the digital source. A0=23 If the tool logs any log significant information, the information is accurately recorded in the log file. A0=24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Tester Name: brl Test back: MedGarrett Test back: MedGarrett Source src hash (SBA1): &lt; SBY33D9E99ACD030B969CIBE5D1430BF7183573 &gt; Strup: Stifu484 total sectors (320072033376 bytes) 38913/254/63 (muk cyl/hd values) 38913/254/63 (muk cyl/hd values) 38913/254/64</pre>		AM-U5 II image file creation is specified, the tool creates an image file	
<pre>AM-07 ALL VIEWING SECONS are acquired from the digital source. AM-07 All sectors are acquired from the digital source. AM-08 All sectors are acquired from the digital source are acquired acquired from the digital source. AM-07 All sectors are unuifile image file. AO-05 If the tool oreates a multifile image of a requested size then all the individual files shall be no larger than the requested size then all the individual files shall be no larger than the requested size. AO-03 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Tester Name: brl Test Not: MCGETATA dst (none) other (68-SATA) Source src hash (SHAI): &lt; 3274390599ACD0309595C1855E1430BF7183573 &gt; src hash (SHAI): &lt; 3274390599ACD0309595C1855E1430BF7183573 &gt; stup: 38913/255/63 (number of cyl/hd) Model (ST3320520AS) serial # ( Sp734F6) HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: a6557F30566666454154893733DF2E2442 shal: EB1045B57DF7CA28FE9504E3FA238D0B5DE587 Log Highlights: ====== Tool Setting: ====== aggentation Standard OS: Linux ubunu 2,6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Tmage file segments ====== 1 2990 2011-02-16 15:52:4a-08-sata48.image.001 3 2247 2011-02-16 15:52:4a-08-sata48.image.001 3 2247 2011-02-16 15:52:4a-08-sata48.image.001 3 2247 2011-02-16 15:52:4a-08-sata48.image.001 3 2247 2011-02-16 15:52:56 2011) Bytes Facad: 320,072,933.376 Davice Sectors: 625,142,448 STAI Span Hashes total span hash: 3e7439d9 e99acd03 0b969c1b e5b1430b f7183573 IO Summary:(Time: We Peb 16 115:</pre>		ON TILE system type FS. $M_{-06}$ All visible sectors are acquired from the digital course.	
<pre>March 2011 Sectors accounted from the digital source are acquired sourcestely. AM-06 All sectors acquired from the digital source are acquired by the image file are the same as the data acquired by the tool. AM-06 If the tool creates an unliftle image of a requested size then all the individual files shall be no larger than the requested size. AM-02 If requested, the tool calculates block hashes for a specified block size during an acquired from the digital source. AM-02 If requested, the tool calculates block hashes for a specified block accurately recorded in the log file. AM-04 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Tester Name: bri Test pate: wed Peb 16 10:22:32 2011 Drives: src hash (MSA): &lt; SRICFERQUER6642E0EACHIZEDEF424A &gt; Sci142448 total sectors (25007233376 bytes) 38912/254/63 (nmax cyl/hd values) 38912/254/63 (nmax cyl/hd values) 38912/254/64 (nmax cyl/hd value</pre>		AM-00 All visible sectors are acquired from the digital source.	
A0-01 If the tool relates in image file, the data represented by the image file are the same as the data acquired by the tool. A0-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size. A0-25 If the tool logs any log significant information, the information is accurately recorded in the log file. A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Test Host: McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett McGarrett Source src hash (SHA1): < 3Fr43DD599ACD03DB560C1BE5B1430BF7183573 > src hash (SHA1): < 3Fr43DD599ACD03DB560C1BE5B1430BF7183573 > src hash (SHA1): < 3Fr43DD599ACD03DB560C1BE5B1430BF7183573 > src hash (MD5): < 3E1CF52C0E866362DCACF12BDEF426 > 625142448 total sectors (32007293376 bytes) 33B312/354/53 (mumber of cyl/hd) Mcdel (ST3220620AS ) serial # ( 5QF3XF6) HFA created HFA Created MHA in place md5: 3655F5056666641548953DFA22422 shal: EB10458570E7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: ====== Tool Settings: ===== 1 2290 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.01 3 2247 201		AM-08 All sectors acquired from the digital source are acquired accurately	
File are the same as the data acquired by the tool.       Ac-05 f the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.         Ac-02 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.         Ac-03 If the tool logs any log significant information, the information is accurately recorded in the log file.         Ac-04 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.         Test Date:       WeGarrett         Test Date:       WeGarrett         Test Date:       WeGarrett         Source       src (1E-SATA) dst (none) other (68-SATA)         Source       src hash (SHA1): < 3Tr439D980cD030860c1B2581430E77183573 > set hash (SHA1): < 3Tr439D930cD030860c1B2581430E77183573 > set hash (SHA1): < 3Tr439D930cD030860c1B2581430E77183573 > set hash (SHA1): < 3Tr439D930cD030860c1B2581430E77183573 > set hash (SHA1): < 3Tr439D930cD030860c1B2581430E7183573 > set hash (SHA1): < 3Tr439D930cD030860c1B2581430E722700000         Highlight:       src hash (SHA1): < 100000000000000000000000000000000000		AO-01 If the tool creates an image file, the data represented by the image	
A0-05 If the tool creates a multifile image of a requested size. A0-02 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file. A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.Tester Name: Test Host:McGarrettTest Host:McGarrettTest Host:McGarrettTest Host:Source src hash (SHAI): < 3F743905899ACD0308969C1BE581430BF7183573 > src hash (MD5): < 481C952026666200RACP12EDDEF42A6 > 6525142448 total sectors (32007293376 bytes) 38913/256/63 (mumber of cyl/hd) Model (ST3320620AS ) serial # ( 50F3XF6) HPA created HPA created with Maximum LEA Sectors = 560,000,000 Hashes with HPA in place md5: 3655F505066664615489553DPAE2442 shal: EB1045B57DE7CDA28FE9504E3FA238D0B5DEC587Log Righlights:====== Tool Settings: ===== segmentation Standard 0S: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/LinuxLog ====== Image file segments ===== 1 2990 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.01 3 2247 2011-02-16 15:		file are the same as the data acquired by the tool.	
Item individual files shall be no larger than the requested size. AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.Tester Name: Derives:brlTest Hoat:McGarrettTest Adat:McGarrettSource source as chash (SHAI): < SPT430P599ACD0308965C1E5E31430BF7183573 > setup:src(lF-SATA) dat (none) other (69-SATA)Source source as chash (SHAI): < SPT430P599ACD0308965C1E5E31430BF7183573 > setup:src(lF-SATA) dat (none) other (69-SATA)Source source as chash (SHAI): < SPT430P599ACD0308965C1E5E31430BF7183573 > setup:src(lF-SATA) dat (none) other (69-SATA)Source source as chash (SHAI): < SPT430P502007293376 bytes) 38912/255/63 (number of cyl/hd) Model (ST320620AS ) serial # (SQF3X4F6)HPA created HPA created with Maximum LEA Sectors = 560,000,000 Hashes with HPA in place md5: 36557x50866664154898533DF7x2442 shal: EB1045857DE7CDA28FE9504E3FA23800B5DEC587Log Highlights:===== Tool Setting: ====== a gementation Standard 0S: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 1666 GNU/LinuxLog ====== Image file segments ====== 1 2990 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001<		AO-05 If the tool creates a multifile image of a requested size then all	
A0-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source. A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file. A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.         Tester Name:       brl         Test Host:       McGarrett         Test Date:       Wed Feb 16 10:22:32 2011         Drives:       src(hash (MD5): < 3ET439D9E99ACD030B969C1BE5B1430BF7183573 > sc thash (MD5): < 4E1C5FS20E712EDDEF21420E > 625142448 total sectors (32007293376 bytes) 38913/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3XF6)         HPA Created       HPA created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5068B66415498653DFA22442 shal: E81045B57DE7CDA28FE9504E3FA23BD0B5DEC587         Log Highlights:       ====== Tool Settings: ====== segmentation Standard         OS: Linux uburtu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux         ====== Image file segments ===== 1 299 2011-02-16 16:00 da-08-sata48 2 32007293376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.info ====================================		the individual files shall be no larger than the requested size.	
<pre>size during an acquisition for each block acquired from the digital source. A0-23 If the tool logs any log significant information, the information is accurately recorded in the log file. A0-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process. Tester Name: brl McGarrett Test Date: Wed Feb 16 10:22:32 2011 Drives: src(IE-SATA) dst (none) other (68-SATA) Source src hash (SHA1): &lt; 3F7430P99AC0303089GC1E5E31430BF7183573 &gt; setup: src(A15-SATA) dst (none) other (68-SATA) Source src hash (SHA1): &lt; 3F7430P99AC0303089GC1E5E31430BF7183573 &gt; setup: dst dst (none) other (68-SATA) Source src hash (SHA1): &lt; 3F7430P99AC0303089GC1E5E31430BF7183573 &gt; setup: dst dst (none) other (69-SATA) Source src hash (MD5): &lt; dst(D55220E86362E0EACF12EDEDF42A6 &gt; 625142448 total sectors (320072933376 bytes) 38913/255/63 (nux cyl/hd values) 38913/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HFA in place md5: 3655x50586586415489533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DEC587 Log Highlights: ===== Tool Settings: ======</pre>		AO-22 If requested, the tool calculates block hashes for a specified block	
Log Highlights: Head with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place Highlights: Head Set Host = Sectors = 560,000,000 Hashes with HPA in place Highlights: Hi		size during an acquisition for each block acquired from the digital source.	
Log Highlights: Indext and the second state of the second state		AU-25 II the tool logs any log significant information, the information is	
<pre>Tester Name: br1 Test Host: Wed Perform State acquisition process. Tester Name: br1 Test Host: WedFerd Figure 1 Drives: src(ls-SATA) dst (none) other (68-SATA) Source src hash (MS): &lt; 8E1CFSE20E86362DEACEACT12EDEF1430BF7183573 &gt; setup: src hash (MS): &lt; 8E1CFSE20E86362DEACEACT12EDEF42A6 &gt; 625142448 total sectors (320072933376 bytes) 33912/254/53 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HFA created HFA created HFA in place md5: 3655FA508668684154898533DFAE2442 sha1: EB1045B57DF7CD28FE9504E3FA28D05DB5DEC587 Log Highlights: ===== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 1686 GNU/Linux ====== Image file segments ====== 1 290 2011-02-16 16:00 da-08-sata48 2 32007293376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52:56 2011) Dytes Read: 320,072,933,376 bytes written to image "da-08-sata48" ====================================</pre>		A0-24 If the tool executes in a forensically safe execution environment	
Tester Name: brl Tester Name: brl Test Host: McGarrett Test Date: McGarrett Test Date: Wed Feb 16 10:22:32 2011 Drives: src hash (SAA1): < 3E7439D9E99ACD030B969C1BE5B1430BF7183573 > sc hash (MS5): < 8E1CF520E86362D8CBCF12EDDEF42A6 > 625142448 total sectors (320072933376 bytes) 38912/254/63 (max cyl/hd values) 38912/254/63 (max cyl/hd values) 38912/254/63 (max cyl/hd values) 38912/254/63 (max cyl/hd values) 38912/254/63 (max cyl/hd values) 38912/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HPA created HPA created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA50866864154996533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: ====== Tool Settings: ===== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ===== 1 2990 2011-02-16 16:10 da-08-sata48 2 32007293376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.info ======= Excerpt from SMART log ======= Image Description Make and Model: ATA ST3320620AS Serial Number: 50F3XF6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573 IO Summary: (Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 bytes written to image 'da-08-sata48' 320,072,933,376 bytes written to image 'da-08-sata48' setues End of Evecent from SMART log ===================================		the digital source is unchanged by the acquisition process.	
TestEr Name: brl Test Host: McGarrett Test Date: McGarrett Drives: src(lE-SATA) dst (none) other (68-SATA) Source src hash (SHA1): < 3873390E99ACD030B969C1BE5B1430BF7183573 > sctup: src hash (MD5): < 8ELCF520E86362E0EACP12EDDEF42A6 > 625142448 total sectors (320072933376 bytes) 38913/255/63 (number of cyl/hd) Model (ST3320E02AS ) serial # ( 5QF3X4F6) HPA created HPA Created with Maximum LEA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5086B666154898533DFAE2442 shal: E81045B57De7CDA28FE9504E3FA238DDB5DBC587 Log Highlights: segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i666 GNU/Linux ====== Image file segments ===== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2010-216 15:52 da-08-sata48.image.001 3 2247 2010-216 15:52 da-08-sata48.image.001 3 2247 2010-216 15:52 da-08-sata48.image.001 3 2247 2010-216 15:52 da-08-sata48.image.001 3 Scrial Number: SOF3XF6 Device Sectors: 625,142,448 SHAl Span Hashes total span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Drytes Read: 320,072,933,376 bytes written to image 'da-08-sata48" ======= Fod 6 Faveert from SMMP log ========			
Test Date: McGarrett Test Date: Wed Feb 16 10:22:32 2011 Drives: src(lE-SATA) dst (none) other (68-SATA) Source src hash (SHA1): < 387439D9899ACD030B969C1BE5B1430BF7183573 > Setup: src hash (MC5): < 881CF5208863620BACF12EDEF42A6 > 625142448 total sectors (320072933376 bytes) 38913/255/63 (number of cy1/hd) Model (ST3320620AS) serial # ( 5QF3X4F6) HPA created HPA Created with Maximum LEA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5065B6664154898533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: ===== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2047 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 20072933376 2011-02-16 15:52 cd-08-sata48.image.001 3 20072933376 2010-02-16 15:52 cd-08-sata48.image.001 3 200,72,93,376 bytes written to image "da-08-sata48" ====================================	Tester Name:	brl	
Test Date: Wed Feb 16 10:22:32 2011 Drives: src(lE=SATA) dst (none) other (68-SATA) Source src hash (SHA1): < 3B74390989ACD030B969C1BE5B1430BF7183573 > src hash (MD5): < 8B1CF520886362B0EACF12EDDEF42A6 > 625142448 total sectors (320072933376 bytes) 38912/254/63 (max cyl/hd values) 38912/254/63 (number of cyl/hd) Model (ST3320620AS) serial # ( 5QF3X4F6) HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5068664154898533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: ===== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.011 3 2247 2011-02-16 15:52 da-08-sata48.image.01 3 200,72,93,376 bytes written to image 'da-08-sata48'' reserverse Tod of Everent from SMPR log ===================================	Test Host:	McGarrett	
prives:prives:Sourcearc hash (StAl): < 2F439Dg99ACD030B969C1BE5B1430BF183573 > arc hash (StAl): < 2F439Dg99ACD030B969C1BE5B1430BF183573 > arc hash (StAl): < 2F439Dg99ACD030B969C1BE5B1430BF183573 > arc hash (MD5): < 8E1CF5E20B86362E0EACF12EDDEF42A6 > 625142448 total sectors (320072933376 bytes) 38913/255/63 (number of cyl/hd) Model (ST3320620AS) serial # ( 5QF3X4F6)HPA createdHPA created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5086B664154898533DFAE2442 shal: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587Log====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 1686 GNU/Linux====== Image file segments ===== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 10-08-sata48 Serial Number: 5C93X4F6 Device Sectors: 625,142,448SHAl Span Hashes total span hash: 3e743909 e99acd03 0b969clb e5b1430b f7183573IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" are===== Free_ef from SMP" log =======	Test Date:	Wed Feb 16 10:22:32 2011	
<pre>Source src nash (SHA1): &lt; 3E/439D989ACD030B9969ClBE5B1430B7/183573 &gt; Setup: src nash (MDS): &lt; 8ELCPE5E2088632E0EACF12EDDEF42A6 &gt; 625142448 total sectors (320072933376 bytes) 38912/254/63 (max cyl/hd values) 38913/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA50866864154898533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux setting file segments ===== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.011 3 2247 2010-02-16 15:52 da-08-sata48.image.011 3 2247 2010-02-16 15:52 da-08-sata48.image.011 3 2247 2010-02-04 520,072,933,376 bytes written to image "da-08-sata48" remereerse Rod of Vecempt from SMPF" loc -remereerse" </pre>	Drives:	src(iE-SATA) dst (none) other (68-SATA)	
Sectup:	Source	<pre>src nasn (SHA1): &lt; 3E/439D9E99ACD030B969C1BE5B1430BF7183573 &gt; src hash (MD5): &lt; 8E1CE5E20E9626269E0E9ACE12EDDEE4236 &gt;</pre>	
<pre>3912/254/63 (max cyl/hd values) 38912/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HPA created HPA created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5086B6864154898533DFAE2442 sha1: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587 Log Highlights: ====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.101 5 crial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" ====================================</pre>	secup.	625142448 total sectors (320072933376 bytes)	
<pre>38913/255/63 (number of cyl/hd) Model (ST3320620AS ) serial # ( 5QF3X4F6) HPA created HPA created HPA Created with Maximum LBA Sectors = 560,000,000 Hashes with HPA in place md5: 3655FA5086B6864154898533DFAE2442 shal: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587</pre>		38912/254/63 (max cvl/hd values)	
Model (ST3320620AS ) serial # ( 5QF3X4F6)HPA createdHPA Created with Maximum LBA Sectors = 560,000,000Hashes with HPA in placemd5: 3655FA508686864154898533DFAE2442shal: EB1045B57DE7CDA28FE9504E3FA238D0B5DBC587LogHighlights:====== Tool Settings: =====segmentation StandardOS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC2010 1686 GNU/Linux====== Image file segments =====12990 2011-02-16 16:00 da-08-sata482320072933376 2011-02-16 15:52 da-08-sata48.image.00132247 2011-02-16 15:52 da-08-sata48.image.00132247 2011-02-16 15:52 da-08-sata48.image.info====== Excerpt from SMART log ======Image DescriptionMake and Model: ATA ST3320620ASSerial Number: SQF3X4F6Device Sectors: 625,142,448SHAl Span Hashestotal span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573IO Summary:(Time: Wed Feb 16 15:52:56 2011)Bytes Read: 320,072,933,376320,072,933,376 bytes written to image "da-08-sata48"======= entermer		38913/255/63 (number of cyl/hd)	
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OS: LINUX UDUNTU 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.info ======== Excerpt from SMART log ======== Image Description Make and Model: ATA ST3320620AS Serial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969c1b e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" ========= End of Evrent from SMAPT log ========			
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<pre>====== Image file segments ====== 1 2990 2011-02-16 16:00 da-08-sata48 2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.info ======= Excerpt from SMART log ======== Image Description Make and Model: ATA ST3320620AS Serial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969c1b e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" ====== End of Excerpt from SMAPT log =======</pre>		ZOTO TOOD GINO/TITIITX	
<pre> Image file segments 1</pre>			
<pre>1</pre>		===== Image file segments ======	
<pre>2 320072933376 2011-02-16 15:52 da-08-sata48.image.001 3 2247 2011-02-16 15:52 da-08-sata48.image.info ======= Excerpt from SMART log ======= Image Description Make and Model: ATA ST3320620AS Serial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" ===================</pre>		1 2990 2011-02-16 16:00 da-08-sata48	
3 2247 2011-02-16 15:52 da-08-sata48.image.info ======= Excerpt from SMART log ======= Image Description Make and Model: ATA ST3320620AS Serial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969clb e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48" ====================================		2 320072933376 2011-02-16 15:52 da-08-sata48.image.001	
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Serial Number: 5QF3X4F6 Device Sectors: 625,142,448 SHA1 Span Hashes total span hash: 3e7439d9 e99acd03 0b969c1b e5b1430b f7183573 IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48"		Make and Model: ATA ST3320620AS	
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IO Summary:(Time: Wed Feb 16 15:52:56 2011) Bytes Read: 320,072,933,376 320,072,933,376 bytes written to image "da-08-sata48"		total span nasn: 3e7439d9 e99acd03 0b969c1b e5b1430b f7183573	
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320,072,933,376 bytes written to image "da-08-sata48"		Bytes Read: 320,072,933,376	
======= End of Excernt from SMAPT loc		320,072,933,376 bytes written to image "da-08-sata48"	
End of Excerpt from SMARI TOS		====== End of Excerpt from SMART log =======	

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Test Case DA-	08-SATA48 Smart Version 2010/11/03		
	====== Source drive rehash ====== Rehash (SHA1) of source: 3E7439D9E99ACD030B969C1BE5	B1430BF7183573	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-05 An image is created on file system type FS.	as expected	
	AM-06 All visible sectors acquired.	as expected	
	AM-07 All hidden sectors acquired.	as expected	
	AM-08 All sectors accurately acquired.	as expected	
	AO-01 Image file is complete and accurate.	as expected	
	AO-05 Multifile image created.	as expected	
	AO-22 Tool calculates hashes by block.	option not tested	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	as expected	
		·	
Analysis:	Expected results achieved		

#### 5.2.56 DA-09

Test Case DA-	09 Smart Version 2010/11/03
Case Summary:	DA-09 Acquire a digital source that has at least one faulty data sector.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AM-09 If unresolved errors occur while reading from the selected digital source, the tool notifies the user of the error type and location within the digital source, the tool uses a benign fill in the destination object in place of the inaccessible data.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester	brl
Name:	
Test Host:	Max
Test Date:	Wed Feb 16 15:35:10 2011
Source	No before hash for ED-BAD-(PR4
Setup:	Known Bad Sector List for ED-BAD-CPR4 Manufacturer: Maxtor
	Model: DiamondMax Plus 9 Serial Number: Y23EGSJE Capacity: 60GB Interface: SATA
	35 faulty sectors
	14115689, 14778391, 14778392, 14778449, 14778479, 14778517, 14778518, 14778519, 14778520, 14778521, 14778551, 14778607, 14778626, 14778627, 14778650, 14778668, 14778669, 14778709, 14778727, 14778747, 14778772, 14778781, 14778870, 14778949, 14778953, 14779038, 14779113, 14779321
Log Highlights:	===== Destination drive setup ====== 156301488 sectors wiped with 24
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 120103200 Sectors match: 120102768 Sectors differ: 432 Bytes differ: 220752 Diffs range 6160328-6160535, 10041152-10041159, 10041992-10041999, 10118632-10118639, 10209448-10209455, 11256568-11256575, 14115688-14115695, 14778384-14778399, 14778448-14778455, 14778472-14778479, 14778512-14778527, 14778544-14778551, 14778600-14778607, 14778624-14778631, 14778648-14778655, 1477864-14778671, 14778704-14778711, 14778720-14778727, 14778744-14778751, 14778768-14778783, 14778864-14778871, 14778944-14778959, 14779032-14779039, 14779112-14779119,</pre>

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Test Case DA-09 Smart Version 2010/11/03		
	14779320-14779327 Source (120103200) has 36198288 fewer sectors than Zero fill: 0	destination (156301488)
	Src Byte fill (ED): 0 Dst Byte fill (24): 36198288	
	Other fill: 0	
	Other no fill: 0	
	Zero fill range:	
	Src fill range:	
	Other fill range:	
	Other not filled range:	
	0 source read errors, 0 destination read errors	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP F 2010 i686 GNU/Linux	ri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	SHAl Span Hashes total span hash: d9c6f034 cd8d6867 9f64f0df c49880	02 f613c452
	Logged Error Runs	
	Run Start Run End Run Length	
	byte sector byte sector sector	
	5141069824 10041152 5141073919 10041159 8	
	5141499904 10041992 5141503999 10041999 8	
	5180739584 10118632 5180743679 10118639 8	
	5227237376 10209448 5227241471 10209455 8	
	5763362816 11256568 5763366911 11256575 8	
	7227232256 14115688 7227236351 14115695 8	
	7566532608 14/78384 7566540799 14/78399 16	
	7566577664 14778472 7566581759 14778479 8	
	7566598144 14778512 7566606335 14778527 16	
	7566614528 14778544 7566618623 14778551 8	
	7566643200 14778600 7566647295 14778607 8	
	7566655488 14778624 7566659583 14778631 8	
	7566667776 14778648 7566671871 14778655 8	
	7566675968 14778664 7566680063 14778671 8	
	7566704640 14778720 7566708735 14778727 8	
	7566716928 14778744 7566721023 14778751 8	
	7566729216 14778768 7566737407 14778783 16	
	7566778368 14778864 7566782463 14778871 8	
	7566819328 14778944 7566827519 14778959 16	
	7566864384 14779032 7566868479 14779039 8	
	7567011840 14779320 7567015935 14779327 8	
	IO Summary:(Time: Thu Feb 17 11:33:38 2011)	
	Bytes Read: 61,492,838,400	
	61,492,838,400 bytes written to /dev/sda	
	====== End of Excerpt from SMART log =======	
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	some sectors skipped
	AM-08 All sectors accurately acquired.	as expected
	AM-UY Error Logged.	as expected
	AM-IN BENIGN IIII REPLACES INACCESSIBLE SECTORS.	as expected

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Test Case DA-	09 Smart Version 2010/11/03	
	AO-01 Image file is complete and accurate.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results not achieved	

### 5.2.57 DA-10-GZIP

Test Case DA-10-GZIP Smart Version 2010/11/03			
Case Summary:	DA-10 Acquire a digital source to an image file in an alternate format.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-02 If an image file format is specified, the tool creates an image file in the specified format.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>		
Tester Name:	brl		
Test Host:	McGarrett		
Test Date:	Thu Feb 17 15:32:43 2011		
Drives:	<pre>src(41) dst (none) other (68-SATA)</pre>		
Source Setup:	<pre>src hash (SHA1): &lt; 15CAA1A307271160D8372668BF8A03FC45A51CC9 &gt; src hash (MD5): &lt; 0A6A8EF78BDC14E2026710D8CCB5607C &gt; 78125000 total sectors (4000000000 bytes) 65534/015/63 (max cyl/hd values) 65535/016/63 (number of cyl/hd) IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Log Highlights:	<pre>====== Tool Settings: ====== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 3209 2011-02-18 08:32 da-10-gzip 2 913568945 2011-02-17 16:38 da-10-gzip.image.001.gz 3 4940 2011-02-17 16:38 da-10-gzip.image.001.gz 3 4940 2011-02-17 16:38 da-10-gzip.image.info ======== Excerpt from SMART log ======== Image Description Make and Model: ATA WDC WD400BB-75JH Serial Number: WD-WMAMC4658355 Device Sectors: 78,125,000 SHA1 Span Hashes total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9 IO Summary:(Time: Thu Feb 17 16:38:47 2011) Bytes Read: 40,000,000,000 to concere ace conclusion in the second s</pre>		
	40,000,000,000 bytes written to image "da-10-gzip" ======= End of Excerpt from SMART log ========		

Test Case DA-	10-GZIP Smart Version 2010/11/03	
	====== Source drive rehash ====== Rehash (SHA1) of source: 15CAA1A307271160D8372668BF	8A03FC45A51CC9
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-02 Image file in specified format.	as expected
	AO-05 Multifile image created.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

#### 5.2.58 DA-10-BZIP2

Test Case DA-10-BZIP2 Smart Version 2010/11/03			
Case Summary:	DA-10 Acquire a digital source to an image file in an alternate format.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-02 If an image file format is specified, the tool creates an image file in the specified format.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>		
Tester Name:	brl		
Test Host:	McGarrett		
Test Date:	Thu Feb 17 09:29:34 2011		
Drives:	<pre>src(41) dst (none) other (68-SATA)</pre>		
Source	<pre>src hash (SHA1): &lt; 15CAA1A307271160D8372668BF8A03FC45A51CC9 &gt;</pre>		
Setup:	src hash (MD5): < 0A6A8EF78BDC14E2026710D8CCB5607C >		
	/8125000 total sectors (4000000000 bytes)		
	65535/016/63 (humber of cyl/hd)		
	IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 000000000 00000000 0000/000/00 0000/000/00 00		
Log Highlights:	===== Tool Settings: ===== segmentation Standard		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	====== Image file segments ====== 1 3216 2011-02-17 10:36 da=10-bzip2		
	2 517502063 2011-02-17 10:29 da-10-bzip2.image.001.bz2		
	3 4951 2011-02-17 10:29 da-10-bzip2.image.info		
	====== Excerpt from SMART log =======		
	Image Description		
	Make and Model: ATA WDC WD400BE-75JH		
	Device Sectors: 78,125,000		
	SHA1 Span Hashes total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9		
	IO Summary:(Time: Thu Feb 17 10:29:35 2011)		
	Bytes Read: 40,000,000,000		
	40,000,000,000 pytes written to image "da-10-b21p2"		
	End OI EACCIPU IIOM SMARI IOG =======		

Test Case DA-	10-BZIP2 Smart Version 2010/11/03	
	====== Source drive rehash ====== Rehash (SHA1) of source: 15CAA1A307271160D8372668BF	8A03FC45A51CC9
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-02 Image file in specified format.	as expected
	AO-05 Multifile image created.	as expected
	A0-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### 5.2.59 **DA-10-EWCOMPRESS**

Test Case DA-10-EWCOMPRESS Smart Version 2010/11/03			
Case Summary:	DA-10 Acquire a digital source to an image file in an alternate format.		
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AM-06 All visible sectors are acquired from the digital source.</li> <li>AM-08 All sectors acquired from the digital source are acquired accurately.</li> <li>AO-01 If the tool creates an image file, the data represented by the image file are the same as the data acquired by the tool.</li> <li>AO-02 If an image file format is specified, the tool creates an image file in the specified format.</li> <li>AO-05 If the tool creates a multifile image of a requested size then all the individual files shall be no larger than the requested size.</li> <li>AO-23 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>		
Test Host	WoFat		
Test Date:	Worat Thu Feb 17 09:47:19 2011		
Drives:	src(43) dst (none) other (67-SATA)		
Source	<pre>src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt;</pre>		
Setup:	<pre>src hash (MD5): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt;</pre>		
	<pre>78125000 total sectors (400000000 bytes) Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020980827 0000/011023/254/63 0C Fat32X 2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended 3 S 00000063 00012067 1023/001/01 1023/254/63 05 extended 5 S 00000063 002104515 1023/001/01 1023/254/63 06 Fat16 6 x 002136645 004192965 1023/001/01 1023/254/63 06 Fat16 6 x 002136645 004192902 1023/001/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 9 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 9 S 00000063 010490445 1023/001/01 1023/254/63 05 extended 11 S 00000063 010490382 1023/001/01 1023/254/63 05 extended 13 S 00000063 010490382 1023/001/01 1023/254/63 05 extended 13 S 00000063 024208967 1023/001/01 1023/254/63 82 Linux 12 x 025222050 004209030 1023/001/01 1023/254/63 05 extended 13 S 00000063 027712125 1023/001/01 1023/254/63 07 NTFS 16 S 00000006 027712126 1023/001/01 1023/254/63 07 NTFS 16 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Log Highlights:	===== Tool Settings: ===== segmentation Standard OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		

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Test Case DA-	10-EWCOMPRESS Smart Version 2010/11/03	
	<pre>===== Image file segments ====== 1</pre>	ge.info image.s01
	Image Description Make and Model: ATA WDC WD400BB-75JH Serial Number: WD-WMAMC4658888 Device Sectors: 78,125,000	
	SHAl Span Hashes total span hash: 888e2e7f 7ad237dc 7a732281 dd93f3	25 065e5871
	IO Summary:(Time: Thu Feb 17 11:12:27 2011) Bytes Read: 40,000,000,000 40,000,000,000 bytes written to image "da-10-ewcomp ======= End of Excerpt from SMART log ======= ====== Source drive rehash ======	ress"
	Rehash (SHA1) of source: 888E2E7F7AD237DC7A732281DD	93F325065E5871
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-02 Image file in specified format.	as expected
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not tested
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

### 5.2.60 DA-12

Test Case DA-12 Smart Version 2010/11/03				
Case Summary:	DA-12 Attempt to create an image file where there is insufficient space.			
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file on file system type FS. AO-04 If the tool is creating an image file and there is insufficient space on the image destination device to contain the image file, the tool shall notify the user. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>			
Tester	brl			
Name:	Mart			
Test Date:	Max Fri Feb 18 14:59:10 2011			
Drives:	src(E0) dst (none) other (74-SATA-SSD)			
Source	<pre>src hash (SHA1): &lt; 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 &gt;</pre>			
Setup:	<pre>src hash (MD5): &lt; A97C8F36B7AC9D5233B90AC09284F938 &gt; 17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)</pre>			
	Save Data To			
	/media/74-SATA-SSD/da-12 🔶			
	da-12       b         lost+found       b         da-12         Size: N/A         Bytes: N/A         M Time: Fri Feb 18 15:00:37 2011         A Time: Fri Feb 18 15:00:37 2011         C Time: Fri Feb 18 15:00:37 2011         User: R W X (ubuntu)         Group: R X (ubuntu)         Other: R X         Image: Tool Settings: =====         segmentation Standard			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC			

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Test Case DA	-12 Smart Version 2010/11/03	
	2010 i686 GNU/Linux	
	====== Excerpt from SMART log ======= No logfile created ====== End of Excerpt from SMART log =======	
Results:		
	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AI.	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AO-04 User notified if space exhausted.	as expected
	AO-23 Logged information is correct.	as expected
	A0-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

### 5.2.61 DA-12-FIXED

Test Case DA-12-FIXED Smart Version 2010/11/03				
Case Summary:	DA-12 Attempt to create an image file where there is insufficient space.			
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source. AM-02 The tool acquires digital source DS. AM-03 The tool executes in execution environment XE. AM-05 If image file creation is specified, the tool creates an image file on file system type FS. AO-04 If the tool is creating an image file and there is insufficient space on the image destination device to contain the image file, the tool shall notify the user. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file. AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.			
Tester	brl			
Name:				
Test Host:	Max			
Drives:	FIT FED to $13 \cdot 13 \cdot 35 \cdot 2011$ $\operatorname{srd}(FD)$ det (none) other (74-SUTI-SSD)			
Source	src bash (SHAI): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >			
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F938 >			
	17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)			
Higniignts:	: ===== Screen Message: ===== Save Data To Filesystem /media/74-SATA-SSD/da-12-fixed 👙			
	da-12 b da-12-fixed b			
	lost+found k3 da-12-fixed			
	Size: N/A Bytes: N/A M Time: Fri Feb 18 15:17:22 2011			
	A Time: Fri Feb 18 15:17:22 2011 C Time: Fri Feb 18 15:17:22 2011			
	User: R W X (root) Group: R X (root) Uther: R X			
	( )			
	7.165 GB available, 8.554 GB required.			
	===== Tool Settings: ===== segmentation Fixed Size (2GB)			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux			

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Test Case DA-12-FIXED Smart Version 2010/11/03			
	====== Excerpt from SMART log ======= No logfile created ====== End of Excerpt from SMART log =======		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-01 Source acquired using interface AI.	as expected	
	AM-02 Source is type DS.	as expected	
	AM-03 Execution environment is XE.	as expected	
	AM-05 An image is created on file system type FS.	as expected	
	AO-04 User notified if space exhausted.	as expected	
	AO-23 Logged information is correct.	as expected	
	A0-24 Source is unchanged by acquisition.	not checked	
Analysis:	Expected results achieved		
# 5.2.62 DA-12-PARTALIGNED

Test Case DA	-12-PARTALIGNED Smart Version 2010/11/03
Case Summary:	DA-12 Attempt to create an image file where there is insufficient space.
Assertions:	<ul> <li>AM-01 The tool uses access interface SRC-AI to access the digital source.</li> <li>AM-02 The tool acquires digital source DS.</li> <li>AM-03 The tool executes in execution environment XE.</li> <li>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</li> <li>AO-04 If the tool is creating an image file and there is insufficient space on the image destination device to contain the image file, the tool shall notify the user.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> <li>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</li> </ul>
Tester Name:	brl
Test Host:	Max
Test Date:	Fri Feb 18 15:14:39 2011
Drives:	src(43) dst (none) other (74-SATA-SSD)
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >
Setup:	<pre>src hash (MD5): &lt; BC39C3F7Ee7A50E77B9BA1E65A5AEEF7 &gt; 78125000 total sectors (400000000 bytes) Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32x 2 X 020980890 057143205 1023/000/01 1023/254/63 01 Fat12 4 x 000032130 002104515 1023/001/01 1023/254/63 05 extended 5 S 00000063 002104525 1023/001/01 1023/254/63 06 Fat16 6 x 002136645 004192965 1023/001/01 1023/254/63 06 Fat16 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 9 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494045 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494045 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494045 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494082 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494082 1023/001/01 1023/254/63 05 extended 1 S 00000063 01494082 1023/001/01 1023/254/63 05 extended 1 S 00000063 014208967 1023/001/01 1023/254/63 05 extended 1 S 00000063 027712125 1023/001/01 1023/254/63 05 extended 1 S 00000063 027712162 1023/001/01 1023/254/63 05 extended 1 S 00000063 027712162 1023/001/01 1023/254/63 07 NTFS 16 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Log	
Highlights:	===== Screen Message: =====

Test Case DA	-12-PARTALIGNED Smart Version 2010/11/03	
	Save Data To Filesystem	
	/media/74-SATA-SSD/da-12-partaligne	ed 🗢
	da-12-partaligned lost+found da-12-partaligned da-12-partaligned Size: N/A Bytes: N/A	partaligned
	M Time: Fri Fek A Time: Fri Fek C Time: Fri Fek User: R W X ( Group: R X (u Other: R X	0 18 15:41:33 2011 18 15:41:33 2011 0 18 15:41:41 2011 ubuntu) buntu)
	31.219 GB available, 37.253 GB required.	Cancel Okay 🖉
	===== Tool Settings: ====== segmentation Partition Aligned	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP F 2010 i686 GNU/Linux	ri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log ======= No logfile created	
Peculta	====== End of Excerpt from SMART log =======	
Kesults:	Assertion and Expected Result AM-01 Source acquired using interface AI. AM-02 Source is type DS. AM-03 Execution environment is XE. AM-05 An image is created on file system type FS. AO-04 User notified if space exhausted. AO-23 Logged information is correct. AO-24 Source is unchanged by acquisition.	Actual Result as expected as expected as expected as expected as expected as expected not checked
Analysis:	Expected results achieved	

# 5.2.63 DA-13

Test Case DA-	13 Smart Version 2010/11/03
Case	DA-13 Create an image file where there is insufficient space on a single
Summary:	volume, and use destination device switching to continue on another volume.
Assertions:	AM-01 The tool uses access interface SRC-AI to access the digital source.
	AM-02 The tool acquires digital source DS.
	AM-03 The tool executes in execution environment XE.
	AM-05 If image file creation is specified, the tool creates an image file
	on file system type FS.
	AM-06 All visible sectors are acquired from the digital source.
	AM-08 All sectors acquired from the digital source are acquired accurately.
	AO-01 If the tool creates an image file, the data represented by the image
	file is the same as the data acquired by the tool.
	A0-04 If the tool is creating an image file and there is insufficient space
	on the image destination device to contain the image file, the tool shall
	notity the user.
	A0-05 If the tool creates a multifule image of a requested size then all
	the individual files shall be no larger than the requested size.
	A0-10 If there is insufficient space to contain all files of a multifile
	image and if destination device switching is supported, the image is
	continued on another device.
	A0-22 If requested, the tool calculates block hashes for a specified block
	size during an acquisition for each brock acquired flow the digital source.
	ACTION ACTION AND A AND
	$\Omega_{-24}$ If the tool executes in a forensically safe execution environment
	the digital source is unchanged by the acquisition process.
Tester Name:	brl
Test Host:	Max
Test Date:	Tue Feb 22 11:29:16 2011
Drives:	<pre>src(E0) dst (none) other (74-SATA-SSD)</pre>
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F938 >
	Reference SHAl hashes, Win size: 14666304 (sectors) 7509147648 (bytes)
	1 0 - 14666303 204B987D28A503DCD6AF42171FC057A3F1187D66 -
	2 14666304 - 17938984 D025E559C154AD712EDF0BDC46DC81B84311A59A -
	17938985 total sectors (9184760320 bytes)
	Model (ATLASIUK2-TYU92J) serial # (169028142436)
I og	
Highlights:	Tool Settings:
ingini giics.	segmentation Transport Media
	Segmentation Hamport Media
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	===== Image file segments (First destination) ======
	1 1024 2011-02-22 13:18 da-13
	2 7509147648 2011-02-22 13:00 da-13.image.001
	===== Image file segments (Final destination) ======
	1 1675612672 2011-02-22 13:12 da-13.image.002
	2 3373 2011-02-22 13:12 da-13.image.info
	====== Excerpt from SMART log =======
	SHA1 Span Hashes
	total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82
	Cocar Span mabn. 14091111 55/40422 DIOICO11 D14/1401 JODCOD02
	SHA1 Segment-Delimited Span Hashes
	1 0 - 7509147647: 204b987d 28a503dc d6af4217 1fc057a3 f1187d66
	2 7509147648 - 9184760319: d025e559 c154ad71 2edf0bdc 46dc81b8
	4311a59a

Test Case DA-	-13 Smart Version 2010/11/03	
	IO Summary:(Time: Tue Feb 22 13:12:17 2011)	
	Bytes Read: 9,184,760,320	
	9,184,760,320 bytes written to image "da-13"	
	====== End of Excerpt from SMART log =======	
	===== Source drive rehash ======	
	Rehash (SHA1) of source: 4A6941F1337A8A22B10FC844B4	D7FA6158BECB82
Desultat		
Results.	Assertion and Expected Result	Actual Result
	AM-01 Source acquired using interface AL	as expected
	AM-02 Source is type DS.	as expected
	AM-03 Execution environment is XE.	as expected
	AM-05 An image is created on file system type FS.	as expected
	AM-06 All visible sectors acquired.	as expected
	AM-08 All sectors accurately acquired.	as expected
	AO-01 Image file is complete and accurate.	as expected
	AO-04 User notified if space exhausted.	as expected
	AO-05 Multifile image created.	as expected
	AO-10 Image file continued on new device.	as expected
	AO-22 Tool calculates hashes by block.	as expected
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	as expected
Analysis:	Expected results achieved	

## 5.2.64 DA-14-ATA28

Test Case DA-	14-ATA28 Smart Version 2010/11/03
Case	DA-14 Create an unaligned clone from an image file.
Assertions:	AM-03 The tool executes in execution environment XE
nobel erono.	A0-12 If requested, a clone is created from an image file.
	AO-13 A clone is created using access interface DST-AI to write to the
	clone device.
	AO-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector
	occupied on the digital source.
	A0-17 If requested, any excess sectors on a clone destination device are
	not monified. $N_{0-22}$ If the tool logg any log significant information, the information is
	Accurately record in the log file
	decaractif recoraca in the roy rife.
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Thu Feb 10 10:23:48 2011
Drives:	src(01-IDE) dst (08-IDE) other (3C-SATA)
Source	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 >
Setup:	src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >
	78165360 total sectors (40020664320 bytes)
	Model (0BB-00JHCO) serial # ( WD-WMAMC74171)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020980827 0007001/01 1023/254/63 0C Fat32A
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended
	5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended
	9 S 00000063 008401932 1023/001/01 1023/254/63 0B Fat32
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended
	11 S 00000063 010490382 1023/001/01 1023/254/63 83 Linux
	12 x 025222050 004205050 1025/000/01 1025/254/65 05 extended
	14 v 029431080 02744255 1023/001/01 1023/254/63 62 minut swap
	15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS
	16 S 00000000 00000000 0000/000/00 0000/00/0
	17 P 000000000 00000000 0000/000/00 0000/000/00 00
	18 P 000000000 00000000 0000/000/00 0000/000/00 00
	1 020980827 sectors 10742183424 bytes
	3 000032067 sectors 16418304 bytes
	5 002104452 sectors 1077479424 bytes
	7 004192902 sectors 2146765824 bytes
	9 008401932 Sectors 4301/89184 bytes
	13 004208967 sectors 215491104 bytes
	15 027744192 sectors 14205026304 bytes
Log	===== Destination drive setup ======
Highlights:	78165360 sectors wiped with 8
	===== Comparison of original to clone drive ======
	Sectors compared: 78165360
	Sectors Match: /01052/2
	Bytes differ: 44735
	Bytes uller: 44/55 Diffs range 56572401-56572488
	0 source read errors, 0 destination read errors
	===== Tool Settings: ======
	dst-interface ata28

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Test Case DA-	14-ATA28 Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	Copy: da-06-ata28	
	SHA1 Span Hashes total span hash: a96a7193 eld9c270 587b2be7 0	98638ac 048221d1
	IO Summary:(Time: Thu Feb 10 12:01:57 2011) Bytes Read: 40,020,664,320 40,020,664,320 bytes written to /dev/sdb ======= End of Excerpt from SMART log =======	=
Results:		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	A0-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

# 5.2.65 DA-14-ATA28-WB

Test Case DA-	14-ATA28-WB Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	WoFat
Test Date:	Mon Mar 14 15:10:55 2011
Drives:	<pre>src(01-IDE) dst (79-SATA-SSD) other (3C-SATA)</pre>
Source Setup:	Disc(01 1000 (010 DATA 02000)         Src hash (SHA1): < A48BB5665D6DC57C2DB68E2F723DA9AA8DF82B9 >         src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >         78165360 total sectors (40020664320 bytes)         Model (0BB-00JHC0 ) serial # (WD-WMAMC74171)         N Start LBA Length Start C/H/S End C/H/S boot Partition type         1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32x         2 X 020980890 057175335 1023/000/01 1023/254/63 01 Fat12         4 x 000032130 002104515 1023/001/01 1023/254/63 05 extended         5 S 00000063 00210452 1023/001/01 1023/254/63 05 extended         7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended         7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended         9 S 00000063 004192902 1023/001/01 1023/254/63 05 extended         11 S 00000063 01499082 1023/001/01 1023/254/63 05 extended         12 x 02522050 00420903 1023/000/01 1023/254/63 05 extended         13 S 00000063 01490382 1023/001/01 1023/254/63 05 extended         13 S 00000063 027744192 1023/001/01 1023/254/63 05 extended         15 S 000000063 027744192 1023/001/01 1023/254/63 05 extended         15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS         16 S 000000000 00000000 0000/000/00 0000/000/00 000 empty entry         17 P 00000000 00000000 0000/000/00 0000/000/00 000 empty entry         18 P 00000000 000000000 0000/000/00 0000/000/00 000 empty entry         1020980827 sectors
Log Highlights:	<pre>===== Destination drive setup ====== 125045424 sectors wiped with 79 ====== Comparison of original to clone drive ===== Sectors compared: 78165360 Sectors match: 78165360 Sectors differ: 0 Bytes differ: 0</pre>
	Diffs range Source (78165360) has 46880064 fewer sectors than destination (125045424) Zero fill: 0 Src Byte fill (01): 0 Dst Byte fill (79): 46880064 Other fill: 0 Other no fill: 0

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Test Case DA-	14-ATA28-WB Smart Version 2010/11/03	
	Zero fill range:	
	Src fill range:	
	Dst fill range: 78165360-125045423	
	Other fill range:	
	Other not filled range:	
	0 source read errors, 0 destination read errors	S
	Tool Settings:	
	det-interface FSATA	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 3	SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux	- <u> </u>
	====== Excerpt from SMART log =======	
	Copy: da-06-ata28-wb	
	CUAL Crer Haches	
	SHAI Span Hashes	722d-0
	total span nash. a46bb566 5060c57C 220b6622 1	1230494 40010209
	TO Summary:(Time: Thu Mar 17 12:41:22 2011)	
	Bytes Read: 40,020,664,320	
	40,020,664,320 bytes written to /dev/sdb	
	====== End of Excerpt from SMART log =======	=
Results:		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Amalantat	Demosted were be askinged	
Analysis:	Expected results achieved	

## 5.2.66 DA-14-ATA48

Test Case DA-	se DA-14-ATA48 Smart Version 2010/11/03	
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>	
Tester Name:	brl	
Test Host:	WoFat	
Test Date:	Wed Feb 9 11:21:39 2011	
Drives:	<pre>src(4C) dst (46-SATA) other (67-SATA)</pre>	
Source Setup:	<pre>src hash (SHA1): &lt; 8FF620D2BEDCCAFE8412EDAAD56C8554F872EFBF &gt; src hash (MD5): &lt; D10F763B56D4CEBA2D1311C61F9FB382 &gt; 390721968 total sectors (200049647616 bytes) 24320/254/63 (max cyl/hd values) 24321/255/63 (number of cyl/hd) IDE disk: Model (WDC WD2000JB-00KFA0) serial # (WD-WMAMR1031111) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 390700737 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 000 empty entry 3 P 00000000 00000000 0000/000/00 000 empty entry 4 P 00000000 00000000 0000/000/00 000 empty entry 1 390700737 sectors 200038777344 bytes</pre>	
Log Highlights:	===== Destination drive setup ===== 488397168 sectors wiped with 46	
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 390721968 Sectors match: 390721968 Sectors differ: 0 Diffs range Source (390721968) has 97675200 fewer sectors than destination (488397168) Zero fill: 0 Src Byte fill (4C): 0 Dst Byte fill (4C): 0 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 390721968-488397167 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>	
	====== Tool Settings: ====== dst-interface SATA48 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux	
	====== Excerpt from SMART log =======	
	Copy: da-06-ata48	
	SHAl Span Hashes	

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Test Case DA-14-ATA48 Smart Version 2010/11/03		
	total span hash: 8ff620d2 bedccafe 8412edaa d56c8554 f872efbf	
	IO Summary:(Time: Wed Feb 9 15:30:03 2011) Bytes Read: 200,049,647,616 200,049,647,616 bytes written to /dev/sdb ======= End of Excerpt from SMART log =======	=
Results:		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

## 5.2.67 DA-14-BZIP2

Test Case DA-	14-BZIP2 Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are
	not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Thu Feb 17 13:11:55 2011
Drives:	src(41) dst (02-IDE) other (68-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 15CAA1A307271160D8372668BF8A03FC45A51CC9 &gt; src hash (MD5): &lt; 0A6A8EF78BDC14E2026710D8CCB5607C &gt; 78125000 total sectors (4000000000 bytes) 65534/015/63 (max cyl/hd values) 65535/016/63 (number of cyl/hd) IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 0000/000 00</pre>
Log Highlights:	===== Destination drive setup ===== 78165360 sectors wiped with 2
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 78125000 Sectors match: 78125000 Sectors differ: 0 Bytes differ: 0 Diffs range Source (78125000) has 40360 fewer sectors than destination (78165360) Zero fill: 0 Src Byte fill (41): 0 Dst Byte fill (02): 40360 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Src fill range: Dst fill range: 78125000-78165359 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>
	====== Tool Settings: ====== dst-interface ATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======
	Copy: da-10-bzip2
	SHA1 Span Hashes

Test Case DA-14-BZIP2 Smart Version 2010/11/03			
	total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9		
	IO Summary:(Time: Thu Feb 17 13:59:54 2011)		
	Bytes Read: 40,000,000,000		
	40,000,000 bytes written to /dev/sda		
1	======= End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.68 DA-14-CF

Test Case DA-	14-CF Smart Version 2010/11/03	
Case Summary:	DA-14 Create an unaligned clone from an image :	file.
Assertions:	AM-03 The tool executes in execution environment	nt XE.
	AO-12 If requested, a clone is created from an	image file.
	AO-13 A clone is created using access interface	e DST-AI to write to the
	clone device.	
	AO-14 If an unaligned clone is created, each se	ector written to the clone is
	accurately written to the same disk address on	the clone that the sector
	occupied on the digital source.	
	AO-17 If requested, any excess sectors on a clo	one destination device are
	not modified.	
	AO-23 If the tool logs any log significant info	ormation, the information is
	accurately recorded in the log file.	
Tester Name:	brl	
Test Host:	Max	
Test Date:	Tue Feb 15 11:43:50 2011	
Drives:	<pre>src(C1-CF) dst (C2-CF) other (3A-SATA)</pre>	
Source	<pre>src hash (SHA1): &lt; 5B8235178DF99FA307430C088F8</pre>	1746606638A0B >
Setup:	src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC1	6D78 >
	503808 total sectors (257949696 bytes)	
	Model (CF) serial $\#$ ()	
	N Start LBA Length Start C/H/S End C/H/S boot	Partition type
	1 P 778135908 1141509631 0357/116/40 0357/032	/45 Boot 72 other
	2 P 168689522 1936028240 0288/115/43 0367/114	/50 Boot 65 other
	3 P 1869881465 1936028192 0366/032/33 0357/03	2/43 Boot 79 other
	4 P 2885681152 000055499 0372/097/50 0000/010	/00 Boot 0D other
	1 1141509631 sectors $584452931072$ bytes	too boot ob other
	2 1936028240 sectors 991246458880 bytes	
	$\frac{2}{3}$ 1936028240 Sectors 991240430000 Dytes	
	4 000055499 sectors 28415488 bytes	
	4 000033499 Sectors 20413400 Sytes	
Loa	====== Destination drive setup ======	
Highlights:	503808 sectors wiped with Cl	
migningines	Subout beceut wiped with er	
	====== Comparison of original to clone drive ==	
	Sectors compared: 503808	
	Sectors match: 503808	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffe range	
	0 source read errors 0 destination read errors	-
	o source read errors, o descritación read error.	5
	Tool Settings:	
	det-interface USB	
	abe incertace opp	
	OC. Linux ubuntu 2 6 22-21-conoria #22-IIbuntu	
	2010 j686 CMU/Linux	SMF FII API 10 00:10:02 010
	2010 1000 GN0/ Hillax	
	Even cmapt log	
	EXCELPC IIOM SMARI IOG ========	
	Conv: da=0.7-cf	
	MD5 Span Hached	
	total gaan hagh: 776df9h/d9590a91dahaf590ada1	6478
	COLAT SPAN NASH. //OULOD402509E210EDC1589E0C1	
	TO Summary: (Time: The Ech 15 10.00.20 0011)	
	TO Summary.(IIme. The Feb 15 12:09:30 2011)	
	Bytes Read: 257,949,696	
	257,949,696 bytes written to /dev/sdb	
	======= Ena of Excerpt from SMART log =======	=
Desults		
Results:		
	Assertion and Expected Result	ACTUAL RESULT
1	AM-03 Execution environment is XE.	as expected

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Test Case DA-14-CF Smart Version 2010/11/03			
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.69 DA-14-ESATA

Test Case DA-	Test Case DA-14-ESATA Smart Version 2010/11/03			
Case Summary:	DA-14 Create an unaligned clone from an image :	file.		
Assertions:	AM-03 The tool executes in execution environmen AO-12 If requested, a clone is created from an AO-13 A clone is created using access interface clone device. AO-14 If an unaligned clone is created, each se accurately written to the same disk address on occupied on the digital source. AO-17 If requested, any excess sectors on a clo not modified. AO-23 If the tool logs any log significant info accurately recorded in the log file.	nt XE. image file. e DST-AI to write ector written to the clone that t one destination o prmation, the inf	e to the the clone is the sector device are Formation is	
Tester Name:	brl			
Test Host:	McGarrett			
Test Date:	Wed Feb $0.00:28:55.2011$			
Test Date:	wed rep $(07, 0300)$ det $(04, 0300)$ ether $(69, 0300)$			
Drives.	SPC(U/-SATA) dSL (U4-SATA) OLHEF (08-SATA)			
Source	src hash (SHA1): < 655E9BDDB36A3F9C5C4CC8BF32B	3C5B41AF9F52E >		
Setup:	src hash (MD5): < 2EAF712DAD80F66E30DEA00365B4	579B >		
	156301488 total sectors (80026361856 bytes)			
	Model (WDC WD800JD-32HK) serial # (WD-WMAJ9151)	0044)		
	N Start LBA Length Start C/H/S End C/H/S boot	Partition type		
	1 P 00000063 156280257 0000/001/01 1023/254/	53 Boot 07 NTFS		
	2 P 00000000 0000000 0000/000/00 0000/000/	0 00 empty entry	7	
	3  P 00000000 0000000 0000/00/00 000/00/00/0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7	
		00 00 empty entry		
		10 00 empty entry	<i>!</i>	
	1 156280257 sectors 80015491584 bytes			
Log Highlights:	===== Destination drive setup ===== 156301488 sectors wiped with 4			
	====== Comparison of original to clone drive ======			
	Sectors compared: 156301488			
	Sectors match: 156301488			
	Sectors differ: 0			
	Butog differ: 0			
	Bytes differ warman			
	Diffs range			
	0 source read errors, 0 destination read errors	5		
	====== Tool Settings: ====== dst-interface SATA28			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux			
	====== Excerpt from SMART log =======			
	Copy: da-06-esata			
	SHAl Span Hashes total span hash: 655e9bdd b36a3f9c 5c4cc8bf 3:	2b8c5b4 laf9f52e		
	IO Summary:(Time: Wed Feb 9 11:31:30 2011) Bytes Read: 80,026,361,856			
	80,026,361,856 bytes written to /dev/sdb ======= End of Excerpt from SMART log =======	=		
Poquita				
Results.	Annual Transition and Transition 21	1 - to - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1	
	Assertion and Expected Result	ACTUAL Result		
	AM-03 Execution environment is XE.	as expected		
	AO-12 A clone is created from an image file.	as expected		
	AO-13 Clone created using interface AI.	as expected		
	AO-14 An unaligned clone is created.	as expected		
		-		

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Test Case DA-	14-ESATA Smart Version 2010/11/03		
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

#### 5.2.70 **DA-14-EWCOMPRESS**

Test Case DA-14-EWCOMPRESS Smart Version 2010/11/03			
Case	DA-14 Create an unaligned clone from an image file.		
Summary:			
Assertions:	AM-03 The tool executes in execution environment XE.		
	AO-13 A clone is created using access interface DST-AI to write to the		
	clone device.		
	AO-14 If an unaligned clone is created, each sector written to the clone is		
	occupied on the digital source.		
	AO-17 If requested, any excess sectors on a clone destination device are		
	not modified.		
	AU-23 II the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester Name:	brl		
Test Host:	WoFat		
Test Date:	Thu Feb 17 13:43:05 2011		
Drives:	src(43) dst (04-IDE) other (67-SATA)		
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >		
Setup:	src hash (MD5): < BC39C3F/JE7A50E7/B9BA1E65A5AEEF7 >		
	78125000 total sectors (4000000000 bytes)		
	Model (UBB-/5JHCU) serial # (WD-WMAMC46588)		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type		
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X		
	2 X 020980890 05/143205 1023/000/01 1023/254/63 0F extended		
	3 S 0000000063 000032067 1023/001/01 1023/254/63 01 Fat12		
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended		
	5 5 000000005 002104452 1023/001/01 1023/254/63 06 Fatto		
	6 X 002136645 004192965 1023/000/01 1023/254/65 05 extended		
	/ S 000000063 004192902 1023/001/01 1023/254/63 16 Other		
	8 X 000329010 008401995 1023/000/01 1023/254/63 05 Extended		
	9 5 000000003 008401932 1023/001/01 1023/254/63 0B Fat32		
	10 x 014/31003 010490443 1023/000/01 1023/234/03 05 extended		
	11 5 00000005 010490362 1023/001/01 1023/254/65 65 Linux		
	12 S 02322200 004209050 1023/001/01 1023/254/63 05 Extended		
	14 v 020431080 027712125 1023/001/01 1023/254/63 05 extended		
	15 S 00000063 027712062 1023/001/01 1023/254/63 07 NTFS		
	16 S 00000000 00000000 0000/000/00 0000/00 00		
	17 P 00000000 00000000 0000/00 0000/00 000 00		
	18 P 00000000 00000000 0000/00/00 0000/00 00		
	1 020980827 sectors 10742183424 bytes		
	3 000032067 sectors 16418304 bytes		
	5 002104452 sectors 1077479424 bytes		
	7 004192902 sectors 2146765824 bytes		
	9 008401932 sectors 4301789184 bytes		
	11 010490382 sectors 5371075584 bytes		
	13 004208967 sectors 2154991104 bytes		
	15 027712062 sectors 14188575744 bytes		
Iloa	====== Destination drive setup ======		
Highlights:	78165360 sectors wiped with 4		
5 5 ***			
	===== Comparison of original to clone drive ======		
	Sectors compared: 78125000		
	Sectors match: 78125000		
	Sectors differ: 0		
	Bytes differ: 0		
	Diffs range		
	Source (78125000) has 40360 fewer sectors than destination (78165360)		
	Zero fill: 0		
	Src Byte fill (43): 0		
	Dst Byte fill (04): 40360		
	Other fill: 0		
	Other no till: O		

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Test Case DA-	14-EWCOMPRESS Smart Version 2010/11/03		
	Zero fill range:		
	Src fill range:		
	Dst fill range: 78125000-78165359		
	Other fill range:		
	Other not filled range:		
	0 source read errors, 0 destination read errors	5	
	Tool Cottings:		
	dat_interface ATA28		
	dst-interface AIA20		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 4	SMP Fri Apr 16 08:10:02 UTC	
	2010 i686 GNU/Linux	11p1 10 00 10 02 010	
	====== Excerpt from SMART log =======		
	Copy: da-10-ewcompress		
	SHAI Span Hashes		
	CUCAL SPAN NASH. 000022011 /du25/UC /d/52201 UU951525 005058/1		
	TO Summary: (Time: Thu Feb 17 14:37:20 2011)		
	Bytes Read: 40 000 000 000		
	40 000 000 bytes written to /dev/sda		
	======= End of Excerpt from SMART log =======	=	
	· · · _ · _ · _ · _ ·		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	A0-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.71 DA-14-EXT2

Test Case DA-14-EXT2 Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Tue Mar 1 09:02:01 2011	
Drives:	src(43) dst (4E-SATA) other (3A-SATA)	
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >	
Setup:	<pre>src hash (MD5): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt; 50105000 + +</pre>	
	78125000 total sectors (4000000000 bytes)	
	Model (UBB-75JHCO) serial # (WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 0000000063 020980827 0000/001/01 1023/254/63 0C Fal32A	
	2 & 020000063 000112203 1023/001/01 1023/254/63 0F extended	
	4 v 000020130 002104515 1023/001/01 1023/254/63 05 of Fatta	
	5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 000000000 0000/000/00 0000/000/00 00	
	17 P 000000000 000000000 0000/000/00 0000/000/00 00	
	18 P 000000000 000000000 0000/000/00 0000/000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 53/10/5584 Dytes	
	13 00420896/ sectors 2154991104 Dytes	
	15 U2//12U02 Sectors 141865/5/44 bytes	
	43ext2-mu350m 53/10/3363 (2004)	
	TSEREZ SHATSUM SSTUTSUS ZOSDECIZDEOZETZESTOVERTESUTOSTESTEST	
roa	===== Destination drive setup =====	
Highlights:	156301488 sectors wiped with 4E	
migningnes	isosofilos beccorb wiped with it	
	====== Comparison of original to clone drive ======	
	Sectors compared: 10490382	
	Sectors match: 10490382	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start Tue Mar 1 09:43:26 2011	
	run finish Tue Mar 1 09:47:00 2011	
	elapsed time 0:3:34	
	Normal exit	

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Test Case DA-	14-EXT2 Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux	SMP Fri Apr 16 08	:10:02 UTC
	====== Excerpt from SMAR1 10g =======		
	Copy: da-07-ext2		
	SHAl Span Hashes total span hash: 283bcc32 de892c12 c37698af 7	e387036 19e57f57	
	IO Summary:(Time: Tue Mar 1 09:20:27 2011) Bytes Read: 5,371,075,584 5,371,075,584 bytes written to /dev/sdb9 ======= End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.72 DA-14-F12

Test Case DA-	Test Case DA-14-F12 Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.		
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>		
Tester Name:			
Test Host:	McGarrett		
Test Date:	Thu Mar 3 12:01:51 2011		
Drives:	src(43) dst (4E-SATA) other (3A-SATA)		
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >		
Setup:	<pre>src nasn (MD5): &lt; BC39C3F/EE/A5UE7/B9BA1E65A5AEEF7 &gt; 20105000 http://dococococococococococococococococococo</pre>		
	78125000 total sectors (4000000000 bytes)		
	MODEL (UBB-/5JHCU ) SETIAL # (WD-WMAMC46588)		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type		
	1 P 000000063 020980827 0000/01/01 1023/254/63 0C Fatsza		
	2 A 020900906 05/143205 1025/000/01 1025/254/65 0F extended		
	4 v 000020120 002104515 1022/001/01 1023/254/63 01 Fatta		
	F C 00000062 002104/F2 1022/001/01 1022/254/63 05 Extended		
	6 v 002136645 004192965 1023/001/01 1023/254/63 05 extended		
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other		
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended		
	9 S 00000063 008401932 1023/001/01 1023/254/63 0B Fat 32		
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended		
	11 S 00000063 010490382 1023/001/01 1023/254/63 83 Linux		
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended		
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap		
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended		
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS		
	16 S 000000000 00000000 0000/000/00 0000/000/00 00		
	17 P 000000000 000000000 0000/000/00 0000/000/00 00		
	18 P 000000000 00000000 0000/000/00 0000/000/00 00		
	1 020980827 sectors 10742183424 bytes		
	3 000032067 sectors 16418304 bytes		
	5 002104452 sectors 1077479424 bytes		
	7 004192902 sectors 2146765824 bytes		
	9 008401932 sectors 4301789184 bytes		
	11 010490382 sectors 5371075584 bytes		
	13 004208967 sectors 2154991104 bytes		
	15 027712062 sectors 14188575744 bytes		
	43F12-md5sum 16418303 CBA0C9984F51778E89DEF0C6BED06864		
	43F12-shalsum 16418303 6853B517F50BF3CCADED3DB5FEAE08C18C62FCA0		
Log	===== Destination drive setup ======		
HIGNIIGNTS:	100301400 Sectors Wipea With 4E		
	formation of animital to along datas		
	comparison of original to cione drive =====		
	Sectors compared: 3200/		
	Sectors match: 32067		
	Sectors differ: 0		
	Bytes differ. U		
	Dills lange.		
	$\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{j$		
	$\begin{array}{c} 1 \\ \text{and} \\ \text$		
	Normal evit		
L	NOTHAL CALC		

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Test Case DA-	14-F12 Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu a 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC	
	Copy: da-07-f12		
	SHA1 Span Hashes total span hash: 6853b517 f50bf3cc aded3db5 feae08c1 8c62fca0		
	IO Summary:(Time: Thu Mar 3 14:20:44 2011) Bytes Read: 16,418,304 16,418,304 bytes written to /dev/sdb5 ======= End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.73 DA-14-F16

Test Case DA-14-F16 Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	$\begin{array}{c} 1 \text{ nu mar } 3 \ 16:02:37 \ 2011 \\ arcs(01 \ \text{ TED}) \ det \ (4E \ \text{ GATA}) \ et{arcs} \\ \end{array}$	
Drives.	STC(0I-IDE) as (4E-SAIA) other (3A-SAIA)	
Setup:	SIC HASH (SHAI): < $F458F673894753FA6A0FC63848F$ >	
Decupi	78165360 total sectors (40020664320 bytes)	
	Model (0BB-00JHC0) serial # ( WD-WMAMC74171)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 5 000000063 002104452 1023/001/01 1023/254/63 06 Fatto	
	6 X 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	8 x 006329610 008401995 1023/001/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027/74192 1023/001/01 1023/254/63 07 NTFS	
	16 S 00000000 00000000 0000/00/00 0000/00/00	
	18 P 00000000 000000000 000/000/00 0000/00/0	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 0277/44192 sectors 14205026304 bytes	
	ULF16-mab 10//4/9423 8824F3D/95188AF24/3F09820/AFDA42	
	OFFIC SHALLOWARDED CONDUCTOR ADDIDITION ADDIDITICADODITICODITICADODITICADODITICADODITICADODI ADDITICADODITICADODITICADODI	
Loq	===== Destination drive setup ======	
Highlights:	156301488 sectors wiped with 4E	
	-	
	====== Comparison of original to clone drive ======	
	Sectors compared: 2104452	
	Sectors match: 2104452	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start inu Mar 3 16:33:42 2011 $run finish Thy Mar 2 16:24:25 2011$	
	$\begin{array}{c} 1 \text{ un rimer life } 100.34.23 \text{ zero} \\ 1 \text{ elarged time } 10.123 \end{array}$	
	Normal exit	

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Test Case DA-	14-F16 Smart Version 2010/11/03		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu a 2010 i686 GNU/Linux ======== Excerpt from SMART log ========	SMP Fri Apr 16 08:10:02 UI	rC
	Copy: da-07-fat16		
	SHAl Span Hashes total span hash: 074ba831 b10132f4 bf9f86af ab37cb7f ef482c7d		
	IO Summary:(Time: Thu Mar 3 16:08:50 2011) Bytes Read: 1,077,479,424 1,077,479,424 bytes written to /dev/sdb6 ======= End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.74 DA-14-F32

Test Case DA-14-F32 Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.	
Tester Name:		
Test Host:	McGarrett	
Test Date:	Fri Mar 4 09:03:41 2011	
Drives:	src(43) dst (4E-SATA) other (3A-SATA)	
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >	
Setup:	src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >	
	78125000 total sectors (4000000000 bytes)	
	Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588)	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	/ S 000000063 004192902 1023/001/01 1023/254/63 16 other	
	8 X 000329510 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014/31605 010490445 1023/000/01 1023/254/63 05 extended	
	11 5 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209050 1025/000/01 1025/254/65 05 extended	
	13 5 000000005 004200907 1023/001/01 1023/254/05 02 Linux Swap	
	15 S 00000063 02771205 1023/001/01 1023/254/63 07 NTES	
	16 S 00000000 00000000 0000/00 0000/00 0000/00 00	
	17 B 00000000 00000000 0000/00 0000/00 00 00	
	18 B 00000000 00000000 0000/00 0000/00/00 00	
	1 02000027 agetera 10742122424 bites	
	3 00032067 sectors 16/12:05124 bytes	
	5 000104452 sectors 1077479424 bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 537107584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027712062 sectors 14188575744 bytes	
	43F32-md5sum 4301789183 2C4D8D450E5AD28329F616D87114CCFE	
	43F32-shalsum 4301789183 72462489BCF79A98B59B6A8CD938FEB46FA2A781	
Log	===== Destination drive setup ======	
Highlights:	156301488 sectors wiped with 4E	
	===== Comparison of original to clone drive ======	
	Sectors compared: 8401932	
	Sectors match: 8401932	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start Fri Mar 4 10:20:23 2011	
	run finish Fri Mar 4 10:23:16 2011	
	elapsed time 0:2:53	
	Normal exit	

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Test Case DA-	14-F32 Smart Version 2010/11/03			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux			
	Copy: da-07-f32			
	SHA1 Span Hashes total span hash: 72462489 bcf79a98 b59b6a8c d938feb4 6fa2a781			
	IO Summary:(Time: Fri Mar 4 09:21:06 2011) Bytes Read: 4,301,789,184 4,301,789,184 bytes written to /dev/sdb8 ======= End of Excerpt from SMART log =======			
Results:				
	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE.	as expected		
	AO-12 A clone is created from an image file.	as expected		
	AO-13 Clone created using interface AI.	as expected		
	AO-14 An unaligned clone is created.	as expected		
	AO-17 Excess sectors are unchanged.	as expected		
	AO-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			

## 5.2.75 DA-14-F32X

Test Case DA-14-F32X Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Fri Mar 4 16:05:07 2011	
Drives:	src(01-1DE) dst (2A-SATA) other (3A-SATA)	
Source	<pre>src nasn (SHA1): &lt; A48BB5665D6DC5/C22DB68E2F/23DA9AA8DF82B9 &gt; arg bach (MDE): &lt; E4E8E5665D6DC5/C22DB68E2F/23DA9AA8DF82B9 &gt;</pre>	
Setup:	STC nash (MD5): < F458F6/3894/53FA6AUEC888EC63848E >	
	Nodel (OPE ODJUC) costil # (UD UNINC74171)	
	N Start IB Longth Start (/W/S End (/W/S hoot Dartition time)	
	$1 \oplus 0.000,0063, 0.2080,827, 0.000/001/01, 10.23/254/63, 0.0 Fattline type$	
	2 X 020980890 057175335 1023/000/01 1023/254/63 0F extended	
	3 S 00000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	7 S 00000063 004192902 1023/001/01 1023/254/63 16 other	
	8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended	
	9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027744192 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 00000000 0000/000/00 0000/000/00 00	
	17 P 000000000 000000000 0000/000/00 0000/000/00 00	
	18 P 000000000 000000000 0000/000/00 0000/000/00 00	
	1 020980827 sectors 10742183424 bytes	
	3 000032067 sectors 16418304 bytes	
	5 002104452 sectors 10//4/9424 bytes	
	004192902 Sectors 2140/03624 Bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154091104 bytes	
	15 007204000 sectors 14205026304 bytes	
	01F32X-md5 10742183423 B5BFD9CE3990C577EF89C5AFB925F947	
	01F32X-sha1 10742183423 30BA6CF583A176C5DB533E3A2F57BFD5A4A870C1	
Log	===== Destination drive setup ======	
Highlights:	156250000 sectors wiped with 2A	
	-	
	====== Comparison of original to clone drive ======	
	Sectors compared: 20980827	
	Sectors match: 20980827	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	Source (20980827) has 1558305 fewer sectors than destination (22539132)	
	Zero fill: 0	
	Src Byte fill (01): 0	
	Dst Byte fill (2A): 1558305	

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Test Case DA-	14-F32X Smart Version 2010/11/03		
Test Case DA-	Other fill: 0Other no fill: 0Zero fill range:Src fill range:Dst fill range:Dst fill range:Other not filled range:other not filled range:run start Fri Mar 4 16:27:53 2011run finish Fri Mar 4 16:35:05 2011elapsed time 0:7:12Normal exitOS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 32010 i686 GNU/Linux====== Excerpt from SMART log =======Copy: da-07-f32xSHA1 Span Hashestotal span hash: 30ba6cf5 83a176c5 db533e3a 2:IO Summary:(Time: Fri Mar 4 16:14:21 2011)Bytes Read: 10,742,183,42410,742,183,424 bytes written to /dev/sdb1======= End of Excerpt from SMART log =======	SMP Fri Apr 16 08:10:02 UTC £57bfd5 a4a870c1	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.76 DA-14-FW

Test Case DA-14-FW Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>	
Tester Name:	brl	
Test Host:	Max	
Test Date:	Thu Feb 10 10:12:50 2011	
Drives:	src(63-FU2) dst (24) other (3A-SATA)	
Source	src hash (SHAI): < F7069EDCBEAC863C88DECEB2159F2DA96BE99B >	
secup.	SIC HASH (MD5) < EE2//SC4FA4F3DIB4021D29B05DAA9EC >	
	Model (SD0612N) acrist # ()	
	Model (SP0612N) serial # () N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16 2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended 3 S 00000063 113097537 0261/001/01 1023/254/63 0B Fat32 4 S 00000000 00000000 0000/000/00 0000/000/00 00	
Log	===== Destination drive setup =====	
Log Highlights:	<pre>143374741 sectors wiped with 24 ====== Comparison of original to clone drive ====== Sectors compared: 117304992 Sectors match: 117304992 Sectors differ: 0 Bytes differ: 0 Diffs range Source (117304992) has 26069749 fewer sectors than destination (143374741) Zero fill: 0 Src Byte fill (63): 0 Dst Byte fill (24): 26069749 Other fill: 0 Zero fill range: Src fill range: Src fill range: 117304992-143374740 Other not filled range: Other not filled range: 0 source read errors, 0 destination read errors ====== Tool Settings: ====== dst-interface SCSI OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Excerpt from SMART log =======</pre>	
	Copy: da-06-fw	

Test Case DA-	14-FW Smart Version 2010/11/03			
SHA1 Span Hashes total span hash: f7069edc beac863c 88deced8 2159f22d a96be99b				
	IO Summary:(Time: Thu Feb 10 12:17:20 2011) Bytes Read: 60,060,155,904 60,060,155,904 bytes written to /dev/sdf ======= End of Excerpt from SMART log =======	=		
Results:				
	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE.	as expected		
	AO-12 A clone is created from an image file.	as expected		
	AO-13 Clone created using interface AI.	as expected		
	AO-14 An unaligned clone is created.	as expected		
	A0-17 Excess sectors are unchanged.	as expected		
	AO-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			

## 5.2.77 DA-14-GZIP

Test Case DA-14-GZIP Smart Version 2010/11/03			
Case Summary:	DA-14 Create an unaligned clone from an image file.		
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.		
	NO-17 II requested, any excess sectors on a clone destination device are not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester Name:	brl		
Test Host:	McGarrett		
Test Date:	Fri Feb 18 09:37:45 2011		
Drives:	src(41) dst (02-IDE) other (68-SATA)		
Source Setup:	<pre>src hash (SHAI): &lt; 15CAALA3U/2/116UD83/2668BF8AU3FC45A51CC9 &gt; src hash (MD5): &lt; 0A6A8FF78BDC14F2026710D8CCB5607C &gt;</pre>		
Secup:	78125000 total sectors (4000000000 bytes)		
	65534/015/63 (max cyl/hd values)		
	65535/016/63 (number of cyl/hd)		
	IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355)		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type		
	2 P 000000000 078107907 00007001/01 1023/234/03 BOOL 07 NIPS		
	3 P 000000000 00000000 0000/000/00 0000/000/00 00		
	4 P 000000000 00000000 0000/000/00 0000/000/00 00		
	1 078107967 sectors 39991279104 bytes		
Log Highlights:	===== Destination drive setup ===== 78165360 sectors wiped with 2		
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 78125000 Sectors match: 78125000 Sectors differ: 0 Bytes differ: 0 Diffs range Source (78125000) has 40360 fewer sectors than destination (78165360) Zero fill: 0 Src Byte fill (41): 0 Dst Byte fill (02): 40360 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 78125000-78165359 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors ====== Tool Settings: =====</pre>		
	dst-interface ATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC		
	====== Excerpt from SMART log =======		
	Copy: da-10-gzip		
	SHA1 Span Hashes		

Test Case DA-	Test Case DA-14-GZIP Smart Version 2010/11/03		
	total span hash: 15caala3 07271160 d8372668 b	f8a03fc 45a51cc9	
	IO Summary:(Time: Fri Feb 18 10:12:44 2011)		
	Bytes Read: 40,000,000,000		
	40,000,000,000 bytes written to /dev/sdb		
	====== End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.78 DA-14-HOT

Test Case DA-14-HOT Smart Version 2010/11/03			
Case Summary:	DA-14 Create an unaligned clone from an image file.		
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>		
Tester Name:	brl		
Test Host:	Max		
Test Date:	Tue Feb 22 14:11:54 2011		
Drives: Source Setup:	<pre>src(E0) dst (25-IDE) other (74-SATA-SSD) src hash (SHA1): &lt; 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 &gt; src hash (MD5): &lt; A97C8F36B7AC9D5233B90AC09284F938 &gt; 17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)</pre>		
Log Highlights:	===== Destination drive setup ===== 58633344 sectors wiped with 25		
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 17938985 Sectors match: 17938985 Sectors differ: 0 Bytes differ: 0 Diffs range Source (17938985) has 40694359 fewer sectors than destination (58633344) Zero fill: 0 Src Byte fill (E0): 0 Dst Byte fill (E0): 0 Dst Byte fill (25): 40694359 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 17938985-58633343 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>		
	===== Tool Settings: ===== dst-interface ATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC		
	2010 i686 GNU/Linux		
	Conv: da-13		
	SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82		
Deput	IO Summary:(Time: Tue Feb 22 15:12:34 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to /dev/sda ======= End of Excerpt from SMART log =======		
Results:			

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Test Case DA-14-HOT Smart Version 2010/11/03			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.79 DA-14-NTFS

Test Case DA-14-NTFS Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image file.	
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>	
Tester Name:	brl	
Test Host:	McGarrett	
Test Date:	Fri Mar 4 09:11:33 2011	
Drives:	src(43) dst (4E-SATA) other (3A-SATA)	
Source	<pre>src hash (SHAI): &lt; 888E2E/F/AD23/DC/A/3228IDD93F325065E58/I &gt; are hash (MDE): &lt; 022002E7EE7AE0E77200DA1E6EAEAEEE7 &gt;</pre>	
secup.	SIC Hash (PDS) · S BOSCSF (ADDONO0000 bytes)	
	Model $(0BB-75)HCO$ serial # $(WD-WMMC46588)$	
	N Start LBA Length Start C/H/S End C/H/S boot Partition type	
	1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X	
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended	
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12	
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended	
	5 S 00000063 002104452 1023/001/01 1023/254/63 06 Fat16	
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended	
	/ S 000000063 004192902 1023/001/01 1023/254/63 16 Other 8 v 006320610 008401905 1023/000/01 1023/254/63 05 extended	
	9 S 00000063 008401932 1023/001/01 1023/254/63 0B Fat 32	
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended	
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux	
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended	
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap	
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended	
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS	
	16 S 000000000 000000000 0000/000/00 0000/000/00 00	
	1/ P 000000000 00000000 0000/000/00 0000/00 00	
	1 00000007 costore 10742102424 bitos	
	1 02090027 Sectors 10/42103424 Dytes	
	5 000030452 sectors $107107479424$ bytes	
	7 004192902 sectors 2146765824 bytes	
	9 008401932 sectors 4301789184 bytes	
	11 010490382 sectors 5371075584 bytes	
	13 004208967 sectors 2154991104 bytes	
	15 027712062 sectors 14188575744 bytes	
	43ntfs-md5sum 14188575744 5D42FA317C802ACFEF2D313092D7411E	
	43ntts-shalsum 14188575744 73eb2d27564b060db796efb78694a10e6b43d23f	
Log	===== Destination drive setur	
Highlights:	156301488 sectors wiped with 4E	
	TOTOTION PROCEDUATION IN	
	====== Comparison of original to clone drive ======	
	Sectors compared: 27712062	
	Sectors match: 27712062	
	Sectors differ: 0	
	Bytes differ: 0	
	Diffs range:	
	run start Fri Mar 4 10:24:36 2011	
	run tinish Fri Mar 4 10:34:04 2011	
	elapsed time 0:9:28	
	Normal exit	

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Test Case DA-	14-NTFS Smart Version 2010/11/03			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux	SMP Fri Apr 16 08	:10:02 UTC	
	====== Excerpt from SMART log =======			
	Copy: da-07-ntfs			
	SHA1 Span Hashes total span hash: 73eb2d27 564b060d b796efb7 8694a10e 6b43d23f			
	IO Summary:(Time: Fri Mar 4 09:37:15 2011) Bytes Read: 14,188,575,744 14,188,575,744 bytes written to /dev/sdb11 ======= End of Excerpt from SMART log =======	=		
Results:				
	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE.	as expected		
	AO-12 A clone is created from an image file.	as expected		
	AO-13 Clone created using interface AI.	as expected		
	AO-14 An unaligned clone is created.	as expected		
	AO-17 Excess sectors are unchanged.	as expected		
	AO-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			
## 5.2.80 DA-14-OSX

Test Case DA-	14-OSX Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	WoFat
Test Date:	Mon Feb 28 15:10:10 2011
Drives:	<pre>src(4B-SATA) dst (58-SATA) other (67-SATA)</pre>
Source Setup:	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 AF other 6 x 004194343 004194351 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000 00</pre>
Log Highlights:	<pre>====== Destination drive setup ====== 312581808 sectors wiped with 58 ====== Comparison of original to clone drive ====== Sectors compared: 10485536 Sectors match: 10485536 Sectors differ: 0 Bytes differ: 0 Diffs range: Source (10485536) has 224 fewer sectors than destination (10485760) Zero fill: 7 Src Byte fill (4B): 0 Dst Byte fill (58): 216 Other fill: 0 Other no fill: 1 Zero fill range: 10485752-10485757, 10485759 Src fill range: 10485536-10485751 Other fill range: 10485536-10485751 Other fill range: 10485536-10485758 run start Tue Mar 1 08:27:24 2011 run finish Tue Mar 1 08:30:21 2011 elapsed time 0:2:57 Normal exit</pre>

Test Case DA-	14-OSX Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux	
	====== Excerpt from SMART log =======	
	Copy: da-07-osx	
	SHAl Span Hashes total span hash: 3de70998 ad136e66 cd09b9b4 f:	2f5164e 77b3b705
	IO Summary:(Time: Mon Feb 28 16:04:33 2011) Bytes Read: 5,368,594,432 5,368,594,432 bytes written to /dev/sdb2 ======= End of Excerpt from SMART log =======	
	Excess destination partition sectors hash: SHA1 5368594432 - 5368709119 = DAE359ECCBFC5A24528469B7E2075B76D6E48891 -	
Results:		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

### 5.2.81 DA-14-OSXC

Test Case DA-14-OSXC Smart Version 2010/11/03	
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	br]
Test Host:	WoFat
Test Date:	Fri Mar 4 10:38:30 2011
Drives:	src(4B-SATA) dst (58-SATA) other (67-SATA)
Source Setup:	<pre>Sic(4P-SATA) dst (Sd-SATA) other (0/-SATA) src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 O5 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 O5 extended 7 S 00000047 004194304 1023/254/63 1023/254/63 AF other 8 S 000000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 000 empty entry 1 020971520 sectors 10737418240 bytes 2 010485536 sectors 5368594432 bytes 3 006291456 sectors 2147483648 bytes 7 004194304 sectors 2147483648 bytes 7 004194304 sectors 2147483648 bytes</pre>
Loq	4BOSXC-shal 2147483648 2D6303D74F9EDE617639643DCCF41EC2091D5F37
Highlights:	<pre>312581808 sectors wiped with 58 ====== Comparison of original to clone drive ====== Sectors compared: 4194304 Sectors match: 4194304 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Fri Mar 4 10:58:14 2011 run finish Fri Mar 4 10:59:24 2011 elapsed time 0:1:10 Normal exit OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Excerpt from SMART log ======= Copy: da-07-osxc SHA1 Span Hashes total span hash: 2d6303d7 4f9ede61 7639643d ccf4lec2 091d5f37 IO Summary:(Time: Fri Mar 4 10:46:54 2011)</pre>
	Bytes Read: 2,147,483,648 2,147,483,648 bytes written to /dev/sdb5

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Test Case DA-	A-14-OSXC Smart Version 2010/11/03		
	====== End of Excerpt from SMART log =======		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	AO-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

#### 5.2.82 DA-14-OSXCJ

Test Case DA-14-OSXCJ Smart Version 2010/11/03	
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is
	accurately written to the same disk address on the clone that the sector occupied on the digital source.
	AO-17 If requested, any excess sectors on a clone destination device are not modified.
	AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Fri Mar 4 14:55:21 2011
Drives:	src(4B-SATA) dst (58-SATA) other (67-SATA)
Source	<pre>src nasn (SHAI): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; gra hagh (MDE): &lt; 746P4C06CDDEEDD67C0820DD422EP40C &gt;</pre>
secup.	SIC Hash (MDS) < /tobeCoolDSFBD07C00200B5325540C >
	Model (ST380815AS) serial # ( 6025C9V5)
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020971520 0000/001/01 1023/254/63 AF other
	2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
	3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other
	4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended
	5 S 000000039 004194304 1023/254/63 1023/254/63 AF other
	6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
	7 S 000000047 004194304 1023/254/63 1023/254/63 AF other
	8 S 00000000 0000000 0000/000/00 0000/00 00
	2 010/04/520 Sectors 536/50/422 bytes
	3 0064091456 sectors 3201225472 bytes
	5 004194304 sectors 2147483648 bytes
	7 004194304 sectors 2147483648 bytes
	4BOSXCJ-shal 2147483648 29EA089958EF2A695081712FFBA68BA5164C980B
Log Highlights:	===== Destination drive setup ====== 312581808 sectors wiped with 58
	====== Comparison of original to clone drive ====== Sectors compared: 4194304 Sectors match: 4194304
	Sectors differ: 0
	Bytes differ: 0
	Diffs range:
	run start Fri Mar 4 15:11:39 2011
	run finish Fri Mar 4 15:12:49 2011
	elapsed time 0:1:10
	Normal exit
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-07-osxcj
	SHA1 Span Hashes total span hash: 29ea0899 58ef2a69 5081712f fba68ba5 164c980b
	IO Summary:(Time: Fri Mar 4 14:59:08 2011) Bytes Read: 2,147,483,648 2 147 483 648 bytes written to /dev/sdb6
	2,11,103,010 Dytes Wittlen to /dev/sub0

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Test Case DA-	A-14-OSXCJ Smart Version 2010/11/03		
	====== End of Excerpt from SMART log =======		
-			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

### 5.2.83 DA-14-OSXJ

Test Case DA-	14-OSXJ Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	WoFat
Test Date:	Mon Feb 28 10:31:15 2011
Drives:	src(4B-SATA) dst (58-SATA) other (67-SATA)
Source	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt;</pre>
Setup:	<pre>src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 O5 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 O5 extended 7 S 00000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Log Highlights:	===== Destination drive setup ===== 312581808 sectors wiped with 58
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 20971520 Sectors match: 20971520 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Mon Feb 28 10:53:54 2011 run finish Mon Feb 28 10:59:45 2011 elapsed time 0:5:51 Normal exit</pre>
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-07-osxj
	SHAl Span Hashes total span hash: 37311859 444bd914 edad43d9 3f2862e7 6b279a87
	IO Summary:(Time: Mon Feb 28 10:40:33 2011) Bytes Read: 10,737,418,240 10,737,418,240 bytes written to /dev/sdb1

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Test Case DA-	e DA-14-OSXJ Smart Version 2010/11/03		
	====== End of Excerpt from SMART log =======		
- 1.			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

### 5.2.84 DA-14-OSXU

Test Case DA-	14-OSXU Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are
	not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
Tester Name:	brl
Test Host:	WoFat
Test Date:	Fri Mar 4 15:37:07 2011
Drives:	<pre>src(4B-SATA) dst (58-SATA) other (67-SATA)</pre>
Source Setup:	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6QZ5C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 AS other 4 X 037748679 008388694 1023/254/63 1023/254/63 AF other 5 S 00000039 004194304 1023/254/63 1023/254/63 AF other 6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended 7 S 00000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 0000/000/00 0000/000/00 000 empty entry</pre>
-	1 020971520 sectors 10737418240 bytes 2 010485536 sectors 5368594432 bytes 3 006291456 sectors 3221225472 bytes 5 004194304 sectors 2147483648 bytes 7 004194304 sectors 2147483648 bytes 4BOSXU-shal 3221225472 D102A01562C82533C052CE6CFBB1D467EC9B5BC6
Log Highlights:	===== Destination drive setup ===== 312581808 sectors wiped with 58
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 6291456 Sectors match: 6291456 Sectors differ: 0 Bytes differ: 0 Diffs range: run start Fri Mar 4 16:13:11 2011 run finish Fri Mar 4 16:14:58 2011 elapsed time 0:1:47 Normal exit</pre>
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-07-osxu
	SHA1 Span Hashes total span hash: d102a015 62c82533 c052ce6c fbb1d467 ec9b5bc6
	IO Summary:(Time: Fri Mar 4 15:43:40 2011) Bytes Read: 3,221,225,472 3,221,225,472 bytes written to /dev/sdb3

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Test Case DA-	DA-14-OSXU Smart Version 2010/11/03		
	====== End of Excerpt from SMART log =======		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.85 DA-14-SATA28

Test Case DA-14-SATA28 Smart Version 2010/11/03	
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Mon Feb 14 10:22:56 2011
Drives:	<pre>src(4B-SATA) dst (24-SATA) other (68-SATA)</pre>
Source Setup:	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 AF other 4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 AF other 6 x 004194343 004194351 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Highlights:	<pre>156301488 sectors wiped with 24 ====== Comparison of original to clone drive ====== Sectors compared: 156301488 Sectors match: 156301488 Sectors differ: 0 Bytes differ: 0 Diffs range 0 source read errors, 0 destination read errors ====== Tool Settings: ====== dst-interface SATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ======= Excerpt from SMART log ======= Conv: do 06 seto28</pre>
	<pre>Copy: da-U6-sata28 SHA1 Span Hashes total span hash: 70cc62b4 3f6a41ca 4d6760aa 0b9b4c41 5d3f48e2 IO Summary:(Time: Mon Feb 14 14:09:47 2011)</pre>
	Bytes Read: 80,026,361,856 80,026,361,856 bytes written to /dev/sdb

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Test Case DA-	Test Case DA-14-SATA28 Smart Version 2010/11/03	
	====== End of Excerpt from SMART log =======	
- 1.		
Results:		1
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

# 5.2.86 DA-14-SATA28-IMAGE2

Test Case DA-	14-SATA28-IMAGE2 Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	AM-03 The tool executes in execution environment XE. AO-12 If requested, a clone is created from an image file. AO-13 A clone is created using access interface DST-AI to write to the clone device. AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector
	occupied on the digital source. AO-17 If requested, any excess sectors on a clone destination device are not modified. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
Tester Name:	brl
Test Host: Test Date:	McGarrett Mon Feb 14 10:24:07 2011
Drives:	src(4B-SATA) dst (25-SATA) other (5A-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 70CC62B43F6A41CA4D6760AA0B9B4C415D3F48E2 &gt; src hash (MD5): &lt; 746B4C06CDD5FBD67C0820DB4325B40C &gt; 156301488 total sectors (80026361856 bytes) Model (ST380815AS ) serial # ( 6Q25C9V5) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020971520 0000/001/01 1023/254/63 AF other 2 P 020971629 010485536 1023/254/63 1023/254/63 AF other 3 P 031457223 006291456 1023/254/63 1023/254/63 A8 other 4 X 037748679 008388694 1023/254/63 1023/254/63 O5 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 O5 extended 5 S 00000039 004194304 1023/254/63 1023/254/63 O5 extended 7 S 000000047 004194304 1023/254/63 1023/254/63 AF other 8 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Log	===== Destination drive setup =====
Highlights:	<pre>156301488 sectors wiped with 25 ====== Comparison of original to clone drive ===== Sectors compared: 156301488 Sectors match: 156301488 Sectors differ: 0 Bytes differ: 0 Diffs range 0 source read errors, 0 destination read errors</pre>
	===== Tool Settings: ===== dst-interface SATA28
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-06-sata28-image2
	SHA1 Span Hashes total span hash: 70cc62b4 3f6a41ca 4d6760aa 0b9b4c41 5d3f48e2
	IO Summary:(Time: Mon Feb 14 14:12:59 2011) Bytes Read: 80,026,361,856 80,026,361,856 bytes written to /dev/sdc

Test Case DA-	14-SATA28-IMAGE2 Smart Version 2010/11/03		
	====== End of Excerpt from SMART log =======	=	
<b>D</b>			
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.87 DA-14-SATA48

Test Case DA-	14-SATA48 Smart Version 2010/11/03		
Case Summary:	DA-14 Create an unaligned clone from an image :	file.	
Assertions:	<ul> <li>AM-03 The tool executes in execution environment AO-12 If requested, a clone is created from an AO-13 A clone is created using access interface clone device.</li> <li>AO-14 If an unaligned clone is created, each se accurately written to the same disk address on occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clo not modified.</li> <li>AO-23 If the tool logs any log significant infor accurately recorded in the log file.</li> </ul>	nt XE. image file. e DST-AI to write ector written to the clone that t one destination of prmation, the inf	e to the the clone is the sector device are formation is
Tostor Nomo:	hul		
Test Host:	Dri WoFat		
Test Date:	Fri Feb 11 08:24:02 2011		
Drives:	<pre>src(0D-SATA) dst (46-SATA) other (67-SATA)</pre>		
Source Setup:	<pre>src hash (SHA1): &lt; BAAD80E8781E55F2E3EF528CA731 src hash (MD5): &lt; 1FA7C3CBE60EB9E89863DED2411E- 488397168 total sectors (250059350016 bytes) 30400/254/63 (max cyl/hd values) 30401/255/63 (number of cyl/hd) Model (WDC WD2500JD-22F) serial # (WD-WMAEH2674 N Start LBA Length Start C/H/S End C/H/S boot 1 P 00000063 488375937 0000/001/01 1023/254// 2 P 00000000 00000000 0000/000/00 0000/000/0 3 P 00000000 00000000 0000/000/00 0000/00/0</pre>	3216) Partition type 53 Boot 07 NTFS 00 00 empty entry 00 00 empty entry	7 7
Log Highlights:	===== Destination drive setup ===== 488397168 sectors wiped with 46		
	<pre>===== Comparison of original to clone drive == Sectors compared: 488397168 Sectors match: 488397168 Sectors differ: 0 Bytes differ: 0 Diffs range 0 source read errors, 0 destination read errors</pre>	5	
	===== Tool Settings: ====== dst-interface SATA48		
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08	3:10:02 UTC
	====== Excerpt from SMART log =======		
	Copy: da-06-sata48		
	total span hash: baad80e8 781e55f2 e3ef528c a	73bd41d 228c1377	
	IO Summary:(Time: Fri Feb 11 10:42:01 2011) Bytes Read: 250,059,350,016		
	======= End of Excerpt from SMART log =======	=	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AU-12 A clone is created from an image file.	as expected	

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Test Case DA-	14-SATA48 Smart Version 2010/11/03		
	AO-13 Clone created using interface AI.	as expected	
	AO-14 An unaligned clone is created.	as expected	
	A0-17 Excess sectors are unchanged.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.88 DA-14-SCSI

Test Case DA-	14-SCSI Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	Max
Test Date:	Wed Feb 9 09:11:09 2011
Drives:	<pre>src(E0) dst (CC) other (3A-SATA)</pre>
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F938 >
	1/938985 total sectors (9184/60320 bytes)
	Model (ATLASIUK2-TYU92J) serial # (169028142436)
Log Highlights:	===== Destination drive setup ===== 71687370 sectors wiped with CC
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 17938985 Sectors match: 17938985 Sectors differ: 0 Bytes differ: 0 Diffs range Source (17938985) has 53748385 fewer sectors than destination (71687370) Zero fill: 0 Src Byte fill (E0): 0 Dst Byte fill (CC): 53748385 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 17938985-71687369 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>
	===== Tool Settings: ====== dst-interface SCSI OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-06-scsi
	SHAl Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82
	IO Summary:(Time: Wed Feb 9 10:15:15 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to /dev/sdf ======= End of Excerpt from SMART log =======
Results:	

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Test Case DA-14-SCSI Smart Version 2010/11/03		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

#### 5.2.89 DA-14-SWAP

Test Case DA-	14-SWAP Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Fri Mar 4 09:12:51 2011
Drives:	src(43) dst (4E-SATA) other (5A-SATA)
Source	<pre>src hash (SHAI): &lt; 888E2E/F/AD23/DC/A/3228IDD93F325065E58/I &gt; are hash (MDE): &lt; 022002E7EE7AE0E77200DA1E6EAEAEEE7 &gt;</pre>
secup.	SIC HASH (MDS). $<$ BC39C3F/EE/ASUE//B9BA1E05ASALEF/ $>$ 78125000 total sectors (4000000000 bytes)
	Model $(0BB-75)HCO$ serial # $(WD-WMMC46588)$
	N Start LBA Length Start C/H/S End C/H/S boot Partition type
	1 P 000000063 020980827 0000/001/01 1023/254/63 0C Fat32x
	2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended
	3 S 000000063 000032067 1023/001/01 1023/254/63 01 Fat12
	4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended
	5 S 000000063 002104452 1023/001/01 1023/254/63 06 Fat16
	6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended
	7 S 000000063 004192902 1023/001/01 1023/254/63 16 other
	6 S 000329510 006401395 1023/001/01 1023/254/63 05 Extended
	10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended
	11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux
	12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended
	13 S 000000063 004208967 1023/001/01 1023/254/63 82 Linux swap
	14 x 029431080 027712125 1023/000/01 1023/254/63 05 extended
	15 S 000000063 027712062 1023/001/01 1023/254/63 07 NTFS
	16 S 000000000 00000000 0000/000/00 0000/000/00 00
	17 P 000000000 00000000 0000/000/00 0000/000/00 00
	18 P 000000000 000000000 0000/00/00 0000/000/00 00
	1 020980827 sectors 10742183424 bytes
	3 000032067 Sectors 16418304 bytes
	7 0.04192902 sectors $2146755824$ bytes
	9 008401932 sectors 4301789184 bytes
	11 010490382 sectors 5371075584 bytes
	13 004208967 sectors 2154991104 bytes
	15 027712062 sectors 14188575744 bytes
	43swap-md5sum 2154991103 4B602964A30FE20D1B22B046A7375A7C
	43swap-shalsum 2154991103 F5B062CC31DA088DF7FAF8F7A47E500BF4244BCF
T	Destination during anter
LOg Highlights:	===== Destination drive setup =====
	TOPOLIOO PECCOLD MIDER MICH IN
	====== Comparison of original to clone drive ======
	Sectors compared: 4208967
	Sectors match: 4208960
	Sectors differ: 7
	Bytes differ: 3493
	Diffs range: 4208960-4208966
	run start Fri Mar 4 10:52:10 2011
	run finish Fri Mar 4 10:53:34 2011
	elapsed time 0:1:24
	Normal exit

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Test Case DA-	14-SWAP Smart Version 2010/11/03	
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 8 2010 i686 GNU/Linux	SMP Fri Apr 16 08:10:02 UTC
	====== Excerpt from SMART log =======	
	Copy: da-07-swap	
	task aborted.	
	IO Summary: Discrepancy! (Time: Fri Mar 4 10:0 Bytes Read: 2,154,991,104 2,154,987,520 bytes written to /dev/sdb10 ======= End of Excerpt from SMART log =======	4:29 2011) =
Results:		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	task aborted
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	last seven sectors skipped
	A0-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results not achieved	

## 5.2.90 DA-14-SWAP-ALT

Test Case DA-	14-SWAP-ALT Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	McGarrett
Test Date:	Fri Mar 11 10:38:12 2011
Drives:	src(43) dst (45-SATA) other (3A-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt; src hash (MD5): &lt; BC39C3F7EFA50E77B9BA1E65A5AEEF7 &gt; 78125000 total sectors (400000000 bytes) Model (0BB-75JHC0 ) serial # ( WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X 2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended 3 S 00000063 002104515 1023/001/01 1023/254/63 05 extended 5 S 00000063 002104512 1023/001/01 1023/254/63 06 Fat16 6 x 002136645 004192965 1023/001/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 9 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 1 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 1 S 00000063 008401932 1023/001/01 1023/254/63 05 extended 1 S 00000063 00440932 1023/001/01 1023/254/63 05 extended 1 S 00000063 004208967 1023/001/01 1023/254/63 05 extended 1 S 00000063 004208967 1023/001/01 1023/254/63 05 extended 1 S 00000063 004208967 1023/001/01 1023/254/63 05 extended 1 S 00000063 02771205 1023/001/01 1023/254/63 05 extended 1 S 000000063 02771205 1023/001/01 1023/254/63 07 NTFS 1 6 S 00000000 00000000 0000/000/00 0000/000/00 00</pre>
Log Highlights:	===== Destination drive setup ======
	<pre>===== Comparison of original to clone drive ===== Sectors compared: 4208967 Sectors match: 4208960 Sectors differ: 7 Bytes differ: 3577 Diffs range: 4208960-4208966 Source (4208967) has 1028097 fewer sectors than destination (5237064) Zero fill: 0 Src Byte fill (43): 0 Dst Byte fill (45): 1028097</pre>

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	Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 4208967-5237063 Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 4208967-5237063 Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	Zero fill range: Src fill range: Dst fill range: 4208967-5237063 Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	<pre>Src fill range: Dst fill range: 4208967-5237063 Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit</pre>		
	Dst fill range: 4208967-5237063 Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	Other fill range: Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	Other not filled range: run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	run start Fri Mar 11 11:42:43 2011 run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	run finish Fri Mar 11 11:44:46 2011 elapsed time 0:2:3 Normal exit		
	elapsed time 0:2:3 Normal exit		
	Normal exit		
1	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu	SMP Fri Apr 16 08	:10:02 UTC
	2010 i686 GNU/Linux		
	======= Excerpt from SMART log ========		
	Copy: da-07-swap		
	SHA1 Span Hashes		
	total span hash: 18b73d89 2d772b88 437ce039 2	e1732ca 8fe2a2f4	
	10 Summary: (Time: Fri Mar 11 11:27:51 2011)		
	Bytes Read: 2,154,991,104		
	2,154,991,104 bytes written to /dev/sda5		
	======= End of Excerpt from SMART log =======	=	
Desultat			
Results.	Aggertion and Exposted Regult	Actual Boquit	
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is AE.	as expected	
	AO-12 A CIONE IS Created from an image file.	as expected	
	A0-13 Clone created using interface AI.	as expected	
	AU-14 All unalighed clone is created.	as expected	
	AU-17 Excess sectors are unchanged.	as expected	
	AU-23 Logged information is correct.	as expected	
Results:	Copy: da-07-swap SHA1 Span Hashes total span hash: 18b73d89 2d772b88 437ce039 2d IO Summary:(Time: Fri Mar 11 11:27:51 2011) Bytes Read: 2,154,991,104 2,154,991,104 bytes written to /dev/sda5 ====== End of Excerpt from SMART log ======= Assertion and Expected Result AM-03 Execution environment is XE. AO-12 A clone is created from an image file. AO-13 Clone created using interface AI. AO-14 An unaligned clone is created. AO-23 Logged information is correct.	Actual Result as expected as expected as expected as expected as expected as expected as expected as expected as expected	

#### 5.2.91 DA-14-THUMB

Test Case DA-	14-THUMB Smart Version 2010/11/03
Case Summary:	DA-14 Create an unaligned clone from an image file.
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>
Tester Name:	brl
Test Host:	Max
Test Date:	Tue Feb 15 14:38:47 2011
Drives:	src(D5-THUMB) dst (D6-THUMB) other (3A-SATA)
Source Setup:	<pre>src hash (SHA1): &lt; D68520EF74A336E49DCCF83815B7B08FDC53E38A &gt; src hash (MD5): &lt; C843593624B2B3B878596D8760B19954 &gt; 505856 total sectors (258998272 bytes) Model (usb2.0Flash Disk) serial # ()</pre>
Log Highlights:	<pre>===== Destination drive setup ====== 4001760 sectors wiped with D6</pre>
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 505856 Sectors match: 505856 Sectors differ: 0 Diffs range Source (505856) has 3495904 fewer sectors than destination (4001760) Zero fill: 0 Src Byte fill (D5): 0 Dst Byte fill (D6): 3495904 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 505856-4001759 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>
	===== Tool Settings: ====== dst-interface USB OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC
	2010 i686 GNU/Linux
	====== Excerpt from SMART log =======
	Copy: da-07-thumb
	SHA1 Span Hashes total span hash: d68520ef 74a336e4 9dccf838 15b7b08f dc53e38a
	IO Summary:(Time: Tue Feb 15 15:00:44 2011) Bytes Read: 258,998,272 258,998,272 bytes written to /dev/sdg ======= End of Excerpt from SMART log =======
Results:	

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Test Case DA-14-THUMB Smart Version 2010/11/03		
	Assertion and Expected Result	Actual Result
	AM-03 Execution environment is XE.	as expected
	AO-12 A clone is created from an image file.	as expected
	AO-13 Clone created using interface AI.	as expected
	AO-14 An unaligned clone is created.	as expected
	AO-17 Excess sectors are unchanged.	as expected
	AO-23 Logged information is correct.	as expected
Analysis:	Expected results achieved	

## 5.2.92 DA-14-USB

Test Case DA-14-USB Smart Version 2010/11/03			
Case Summary:	DA-14 Create an unaligned clone from an image file.		
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>		
Tester Name:	brl		
Test Host:	Max		
Test Date:	Fri Feb II 12:54:07 2011		
Drives:	$\operatorname{src}(63-FU2) \operatorname{dst}(24) \operatorname{other}(3A-SATA)$		
Source Setup:	<pre>src hash (SHA1): &lt; F7069EDCBEAC863C88DECED82159F22DA96BE99B &gt; src hash (MD5): &lt; EE217BC4FA4F3D1B4021D29B065AA9EC &gt; 117304992 total sectors (60060155904 bytes) Model (SP0612N ) serial # ()</pre>		
	N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16 2 x 004192965 113097600 0261/000/01 1023/254/63 0F extended 3 S 00000063 113097537 0261/001/01 1023/254/63 0B Fat32 4 S 00000000 000000000 0000/000/00 0000/000/00 00		
Hignlights:	1433/4/41 sectors wiped with 24 ====== Comparison of original to clone drive ===== Sectors compared: 117304992 Sectors match: 117304992 Sectors differ: 0 Bytes differ: 0 Diffs range		
	Source (117304992) has 26069749 fewer sectors than destination (143374741) Zero fill: 0 Src Byte fill (63): 0 Dst Byte fill (24): 26069749 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 117304992-143374740 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors		
	====== Tool Settings: ====== dst-interface SCSI OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	====== Excerpt from SMART log =======		
	Copy: da-06-usb		

Test Case DA-14-USB Smart Version 2010/11/03					
	SHA1 Span Hashes				
	total span hash: f7069edc beac863c 88deced8 2159f22d a96be99b				
	IO Summary:(Time: Mon Feb 14 11:12:53 2011)				
	Bytes Read: 60,060,155,904				
	60,060,155,904 bytes written to /dev/sdf				
	====== End of Excerpt from SMART log =======	=			
Results:					
	Assertion and Expected Result	Actual Result			
	AM-03 Execution environment is XE.	as expected			
	AO-12 A clone is created from an image file.	as expected			
	AO-13 Clone created using interface AI.	as expected			
	AO-14 An unaligned clone is created.	as expected			
	AO-17 Excess sectors are unchanged. as expected				
	AO-23 Logged information is correct.	as expected			
Analysis:	Expected results achieved				

## 5.2.93 DA-16

Test Case DA-16 Smart Version 2010/11/03			
Case Summary:	DA-16 Create a clone from a subset of an image file.		
Assertions:	<ul> <li>AM-03 The tool executes in execution environment XE.</li> <li>AO-12 If requested, a clone is created from an image file.</li> <li>AO-13 A clone is created using access interface DST-AI to write to the clone device.</li> <li>AO-16 If a subset of an image or acquisition is specified, all the subset is cloned.</li> <li>AO-17 If requested, any excess sectors on a clone destination device are not modified.</li> <li>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</li> </ul>		
Tostor Nama:	brl		
Test Host:	May May		
Test Date:	Max Wed Feb 22 15:27:52 2011		
Drives:	wed rep $25 + 5 \cdot 27 \cdot 55 \cdot 2011$ $\operatorname{src}(FD)$ det $(25 - 10F)$ other $(32 - 53TA)$		
Source Setup:	<pre>src(b0) dst (25-16b) other (3A-SATA) src hash (SHA1): &lt; 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 &gt; src hash (MD5): &lt; A97C8F36B7AC9D5233B90AC09284F938 &gt; 17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436) Excess destination partition sectors hash: @(#) winhash.csh Version 1.4 Created 04/25/08 at 11:28:17 SHA1 0 - 16775167 83722EB316F75C95CEF0E5DC0D0BC9B00B3E8D84 - SHA1 16775168 - 33550335 AACEF840D1C70A07B6F0C7462B68AE164065D2D3 - SHA1 33550336 - 50325503 9C072363D41686AF51AB19ECB9B4BC53B238D271 - SHA1 50325504 - 58633343 C4F5D56895B9C6815A41FDA2B6137E8B70400253 -</pre>		
Log Highlights:	===== Destination drive setup ===== 58633344 sectors wiped with 25		
	<pre>====== Comparison of original to clone drive ====== Sectors compared: 17938985 Sectors match: 1163817 Sectors differ: 8152731648 Diffs range 0-16775167 Source (17938985) has 40694359 fewer sectors than destination (58633344) Zero fill: 0 Src Byte fill (E0): 0 Dst Byte fill (25): 40694359 Other fill: 0 Other no fill: 0 Zero fill range: Src fill range: Dst fill range: 17938985-58633343 Other fill range: Other not filled range: 0 source read errors, 0 destination read errors</pre>		
	dst-interface ATA28 OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	======= Excerpt from SMART log ======== Copy: da-06-scsi		
	SHAl Span Hashes total span hash: f0a0f715 c3e17726 4ab36bde 9580cd40 b58dc89a		
	IO Summary:(Time: Thu Feb 24 13:56:20 2011)		

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Test Case DA-1	Test Case DA-16 Smart Version 2010/11/03			
	Bytes Read: 595,874,304 595,874,304 bytes written to ======= End of Excerpt from SMART log =======			
	Excess destination partition sectors hash: @(#) winhash.csh Version 1.4 Created 04/25/08 at 11:28:17 SHA1 0 - 16775167 83722BE316F75C95CEF0E5DC0D0BC9B00B3E8D84 - SHA1 16775168 - 33550335 91BDAB284F11FD6DD54A26C7BFC7356002A47E97 - SHA1 33550336 - 50325503 9C072363D41686AF51AB19ECB9B4BC53B238D271 - SHA1 50325504 - 58633343 C4F5D56895B9C6815A41FDA2B6137E8B70400253 -			
Results:	Assertion and Expected Result AM-03 Execution environment is XE. AO-12 A clone is created from an image file. AO-13 Clone created using interface AI. AO-16 Clone is created from a subset of an image. AO-17 Excess sectors are unchanged. AO-23 Logged information is correct.	Actual Result as expected as expected as expected as expected as expected as expected		
Analysis:	Expected results achieved			

## 5.2.94 DA-17

Test Case DA	est Case DA-17 Smart Version 2010/11/03				
Case Summary:	DA-17 Create a truncated clone from an image file.				
Assertions	AM-03 The tool executes in execution environment XE.				
:	A0-12 If requested, a clone is created from an image file.				
	AO-13 A clone is created using access interface DST-AI to write to the clone				
	device.				
	AO-19 If there is insufficient space to create a complete clone, a truncated				
	clone is created using all available sectors of the clone device.				
	AO-20 If a truncated clone is created, the tool notifies the user				
	A0-23 If the tool logs any log significant information, the information is				
	accurately recorded in the log file.				
Tester	brl				
Name:					
Test Host:	McGarrett				
Test Date:	Mon Feb 28 10:09:06 2011				
Drives:	<pre>src(63-FU2) dst (02-IDE) other (3A-SATA)</pre>				
Source	src hash (SHA1): < F7069EDCBEAC863C88DECED82159F22DA96BE99B >				
Setup:	src hash (MD5): < EE217BC4FA4F3D1B4021D29B065AA9EC >				
	117304992 total sectors (60060155904 bytes)				
	Model (SP0612N ) serial # ()				
	N Start LBA Length Start C/H/S End C/H/S boot Partition type				
	1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16				
	2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended				
	3 S 000000063 113097537 0261/001/01 1023/254/63 0B Fat32				
	4 S 000000000 00000000 0000/000/00 0000/00 00				
	5 P 000000000 00000000 0000/000/00 0000/000/00 00				
	6 P 000000000 00000000 0000/00 0000/00 00 empty entry				
	1 004192902 sectors 2146765824 bytes				
	3 113097537 sectors 57905938944 bytes				
<b>T</b>	Brathland an John anton				
LOG	===== Destination drive setup ======				
·	76165560 Sectors wiped with 2				
	===== Screen Message: =====				
	🔞 🛇 🔗 Copy: da-06-fw				
	Configure Device 1				
	Using 100/08-37272 05 810 Using 100/08-3722 05 810 Using 100/08-37272 05 8100 Using 100/08-37272 05 810000000000000000000000000000000000				
	/dev/sda Bus/0 Channel/0 ld/0 Lun/0				
	Select a target device below, configure offset and size above.				
	A cool - 2 - 2 - 2 - 2 - 2				
	✓ 3C31 1 R92, 4 R04 1 R20.				
	ATA WDC WD400BB-00JH (37.272 GB)				
	VideV/sda Bus:0 Channel:0 Id:0 Lun:0				
	Ala Hitachi HDS72101 (331.513 GB) /dev/dch Bus/7 Channel-0 ld/0 Lun-0				
	Videwada				
	Unanotateu Data (31.3 KB)				
	Linux (83) Partition (331 511 GB) ES: EXT4 (3A-SATA) BW: /media/3A-SATA				
	/dev/sdb1				
	Unallocated Data (2.49 MB)				
	/dev/sdb (Sector 1,953,520,065)				
	ATAPI BD B DH4B1S (Unknown Size) FS: ISO RO: /cdrom				
	/dev/sr0 Bus:2 Channel:0 Id:0 Lun:0 🗸				
	Source (55.935 GR) is larger than Target (37.272 GR)				
	Tabs with bold red labels are incomplete. Close Tab Cancel Okay				
	Tool Settings:				
	det_interface ATA28				
L	UDL INCEITACE AIA20				

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Test Case DA-17 Smart Version 2010/11/03			
	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu 2010 i686 GNU/Linux ======= Excerpt from SMART log ======= No logfile created ======= End of Excerpt from SMART log ======	SMP Fri Apr 16 08	8:10:02 UTC
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-12 A clone is created from an image file.	as expected	
	AO-13 Clone created using interface AI.	as expected	
	AO-19 Truncated clone is created.	as expected	
	AO-20 User notified that clone is truncated.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

## 5.2.95 DA-24

Test Case DA-	24 Smart Version 2010/11/03		
Case	DA-24 Verify a valid image.		
Summary:			
Assertions:	AM-03 The tool executes in execution environment XE. AO-06 If the tool performs an image file integrity check on an image file that has not been changed since the file was created, the tool shall notify the user that the image file has not been changed. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester	brl		
Name:			
Test Host:	Max		
Test Date:	Fri Feb 25 10:03:23 2011		
Drives:	src(E0) dst (none) other (3A-SATA)		
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >		
Setup:	STC hash (MD5): < A9/C8F36B/AC9D5233B90AC09284F938 >		
	1/938985 total sectors (9184/60320 bytes)		
	MODEL (AILASIUKZ-IIU920) SEIIAI # (109020142430)		
Log Highlights:	Authentication Results Authenticity verified 'total span' hashes match Okay Excerpt from SMART log Authenticate: da-06-scsi (PASSED) Current Hash Summary SHAI Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 Stored Hashes SHAI Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 End of Excerpt from SMART log		
Results:	Assertion and Expected ResultActual ResultAM-03 Execution environment is XE.as expectedAO-06 Tool verifies image file unchanged.as expectedAO-23 Logged information is correct.as expected		
Analysis:	Expected results achieved		

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## 5.2.96 DA-24-DEVICE

Test Case DA-	est Case DA-24-DEVICE Smart Version 2010/11/03		
Case	DA-24 Verify a valid image.		
Summary:			
Assertions:	AM-03 The tool executes in execution environment XE. AO-06 If the tool performs an image file integrity check on an image file that has not been changed since the file was created, the tool shall notify the user that the image file has not been changed. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester	brl		
Name:			
Test Host:	Max		
Test Date:	Fri Feb 25 10:22:51 2011		
Drives:	<pre>src(E0) dst (none) other (3A-SATA)</pre>		
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 >		
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F938 >		
	17938985 total sectors (9184760320 bytes)		
	Model (ATLAS10K2-TY092J) serial # (169028142436)		
Log Highlights:	<pre>1/938985 total sectors (9184/60320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436) ====== Screen Message: ====== Authentication Results Authenticity verified 'total span' hashes match!</pre>		
Results:	Assertion and Expected ResultActual ResultAM-03 Execution environment is XE.as expectedAO-06 Tool verifies image file unchanged.as expectedAO-23 Logged information is correct.as expected		
Analysis:	Expected results achieved		

## 5.2.97 DA-25

Test Case DA-	est Case DA-25 Smart Version 2010/11/03			
Case	DA-25 Detect a corrupted image.			
Summary:				
Assertions:	AM-03 The tool executes in execution environment XE. AO-07 If the tool performs an image file integrity check on an image file that has been changed since the file was created, the tool shall notify the user that the image file has been changed. AO-08 If the tool performs an image file integrity check on an image file that has been changed since the file was created, the tool shall notify the user of the affected locations. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.			
Tester	brl			
Name:				
Test Host:	Max			
Test Date:	Fri Feb 25 13:46:52 2011			
Drives:	<pre>src(E0) dst (none) other (3A-SATA)</pre>			
Source Setup:	<pre>src hash (SHA1): &lt; 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 &gt; src hash (MD5): &lt; A97C8F36B7AC9D5233B90AC09284F938 &gt; 17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)</pre>			
Log				
Highlights:	<pre>===== Image file corrupted for test run: ====== Change byte 2059 of file /media/3A-SATA/da-06-scsi/da-06-scsi.image.001 from 0x35 to 0x00 ======= Excerpt from SMART log =======</pre>			
	Authenticate: da-06-scsi (FAILED)			
	Current Hash Summary SHA1 Span Hashes total span hash: c233b031 3d626b4d 390e40bf 7065a30b 6fb48bde			
	Stored Hashes SHA1 Span Hashes			
	======= End of Excerpt from SMART log =======			
Results:				
	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE.	as expected		
	AO-07 User notified if image file has changed.	as expected		
	AO-08 User notified of changed locations.	as expected		
	AO-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			

#### 5.2.98 DA-25-DEVICE

Test Case DA-	Test Case DA-25-DEVICE Smart Version 2010/11/03			
Case	DA-25 Detect a corrupted image.			
Summary:				
Assertions:	AM-03 The tool executes in execution environment XE. AO-07 If the tool performs an image file integrity check on an image file that has been changed since the file was created, the tool shall notify the user that the image file has been changed. AO-08 If the tool performs an image file integrity check on an image file that has been changed since the file was created, the tool shall notify the user of the affected locations. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.			
Tester	brl			
Name:				
Test Host:	Max			
Test Date:	Fri Feb 25 13:47:11 2011			
Drives:	src(EU) dst (none) other (3A-SATA)			
Setup:	src hash (MD5): < A97C8F36B7AC9D5233B90AC09284F9	38 >		
	17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)			
Log Highlights:	<pre>====== Image file corrupted for test run: ====== Change byte 2059 of file /media/3A-SATA/da-06-scsi/da-06-scsi.image.001 from 0x35 to 0x00 ======== Excerpt from SMART log ====== Authenticate: da-06-scsi (FAILED) Image Hash Summary SHA1 Span Hashes total span hash: c233b031 3d626b4d 390e40bf 7065a30b 6fb48bde Device Hash Summary SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 ======= End of Excerpt from SMART log =======</pre>			
Results:	Agaption and Eurogeod Desult	Actual Degult		
	Assertion and Expected Result	ACCUAL RESULT		
	AM-US EXECUTION ENVIRONMENT 15 XE.	as expected		
	AU-U/ User notified if image file has changed.	as expected		
	AU-UO USER NOLLITED OF CHAnged Locations.	as expected		
	AU-23 Logged information is correct. As expected			
Analysis:	Expected results achieved			
inations.	Infected reparts achieved			

#### 5.2.99 DA-26-EWC2R

Test Case DA-26-EWC2R Smart Version 2010/11/03			
Case Summary:	DA-26 Convert an image to an alternate image file format.		
Assertions:	AM-03 The tool executes in execution environment XE. AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester	brl		
Name:			
Test Host:	WoFat		
Test Date:	Wed Mar 2 16:11:23 2011		
Drives:	src(43) dst (5A-SATA) other (67-SATA)		
Source Setup:	<pre>src(43) dst (5A-SATA) other (67-SATA) src hash (SHA1): &lt; 888E2E7F7AD237DC7A732281DD93F325065E5871 &gt; src hash (MD5): &lt; BC39C3F7EE7A50E77B9BA1E65A5AEEF7 &gt; 78125000 total sectors (4000000000 bytes) Model (0BB-75JHC0 ) serial # (WD-WMAMC46588) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 020980827 0000/001/01 1023/254/63 0C Fat32X 2 X 020980890 057143205 1023/000/01 1023/254/63 0F extended 3 S 00000063 000032067 1023/001/01 1023/254/63 01 Fat12 4 x 000032130 002104515 1023/000/01 1023/254/63 05 extended 5 S 00000063 002104515 1023/000/01 1023/254/63 05 extended 7 S 00000063 004192902 1023/001/01 1023/254/63 05 extended 9 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 11 S 00000063 008401995 1023/001/01 1023/254/63 05 extended 11 S 00000063 00420902 1023/001/01 1023/254/63 05 extended 11 S 00000063 00420902 1023/001/01 1023/254/63 05 extended 13 S 00000063 00420907 1023/001/01 1023/254/63 05 extended 14 x 029431080 027712125 1023/001/01 1023/254/63 05 extended 15 S 000000063 007712125 1023/001/01 1023/254/63 05 extended 15 S 000000063 027712062 1023/001/01 1023/254/63 05 extended 15 S 000000063 027712125 1023/001/01 1023/254/63 05 extended 15 S 00000000 000000000 0000/000/00 0000/000/00 00</pre>		
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	<pre>===== Image file segments ====== 1</pre>		
	Copy: da-10-ewcompress Authenticate: da-26-ewc2r (PASSED)		
	Current Hash Summary SHA1 Span Hashes total span hash: 888e2e7f 7ad237dc 7a732281 dd93f325 065e5871		
	Stored Hashes SHA1 Span Hashes		

Test Case DA-26-EWC2R Smart Version 2010/11/03			
	total span hash: 888e2e7f 7ad237dc 7a732281 dd93f325 065e5871		
	IO Summary:(Time: Wed Mar 2 17:25:21 201	1)	
	Bytes Read: 40,000,000,000		
	40,000,000,000 bytes written to image "da-26-ewc2r"		
	======= End of Excerpt from SMART log =	======	
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-09 Tool converts image file format.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		
# 5.2.100 DA-26-BZ2R

Test Case DA-26-BZ2R Smart Version 2010/11/03			
Case	DA-26 Convert an image to an alternate in	mage file format.	
Assertions:	AM-03 The tool executes in execution environment XE. AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester	brl		
Name:			
Test Host:	WoFat		
Test Date:	Thu Mar 3 10:44:43 2011		
Drives:	src(41) dst (67-SATA) other (68-SATA)		
Source Setup:	<pre>src hash (SHA1): &lt; 15CAAlA307271160D8372668BF8A03FC45A51CC9 &gt; src hash (MD5): &lt; 0A6A8EF78BDC14E2026710D8CCB5607C &gt; 78125000 total sectors (4000000000 bytes) 65534/015/63 (max cyl/hd values) 65535/016/63 (number of cyl/hd) IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 00000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 00000000 00000000 0000/000/00 0000/000/00 00</pre>		
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	<pre>===== Image file segments ====== 1</pre>		
	Copy: da-10-bzip2 Authenticate: da-26-bz2r (PASSED)		
	Current Hash Summary SHA1 Span Hashes total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9 Stored Hashes SHA1 Span Hashes total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9 IO Summary:(Time: Thu Mar 3 11:43:06 2011) Bytes Read: 40,000,000,000 40,000,000 bytes written to image "da-26-bz2r" ======= End of Excerpt from SMART log =======		
Results:			
	Assertion and Expected Result AM-03 Execution environment is XE. AO-09 Tool converts image file format. AO-23 Logged information is correct.	Actual Result as expected as expected as expected	
Analysis:	Expected results achieved		

# 5.2.101 DA-26-G2R

Test Case DA-	26-G2R Smart Version 2010/11/03		
Case	DA-26 Convert an image to an alternate in	mage file format.	
Assertions:	AM-03 The tool executes in execution env AO-09 If the tool converts a source imag image file in another format, the acquir image file is the same as the acquired d AO-23 If the tool logs any log significat accurately recorded in the log file.	ironment XE. e file from one format to a target ed data represented in the target ata in the source image file. nt information, the information is	
Tester	brl		
Name:			
Test Host:	WoFat		
Test Date:	Thu Mar 3 14:10:55 2011		
Drives:	src(41) dst (67-SATA) other (68-SATA)		
Source Setup:	<pre>src hash (SHA1): &lt; 15CAA1A307271160D8372 src hash (MD5): &lt; 0A6A8EF78BDC14E2026710 78125000 total sectors (40000000000 byte 65534/015/63 (max cyl/hd values) 65535/016/63 (number of cyl/hd) IDE disk: Model (WDC WD400BB-75JHC0) ser N Start LBA Length Start C/H/S End C/H/, 1 P 000000063 078107967 0000/001/01 102 2 P 00000000 00000000 0000/000/00 000 3 P 00000000 00000000 0000/000/00 000 4 P 00000000 00000000 0000/000/00 000 1 078107967 sectors 39991279104 bytes</pre>	668BF8A03FC45A51CC9 > D8CCB5607C > s) ial # (WD-WMAMC4658355) S boot Partition type 3/254/63 Boot 07 NTFS 0/000/00 00 empty entry 0/000/00 00 empty entry 0/000/00 00 empty entry	
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux ====== Image file segments ====== 1 5517 2011-03-03 16:16 da-26-g2r 2 4000000000 2011-03-03 15:07 da-26-g2r.image.001 3 4560 2011-03-03 15:07 da-26-g2r.image.info ======= Excerpt from SMART log =======		
	Copy: da-10-gzip Authenticate: da-26-g2r (PASSED) Current Hash Summary SHA1 Span Hashes		
	<pre>total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9 Stored Hashes SHA1 Span Hashes total span hash: 15caala3 07271160 d8372668 bf8a03fc 45a51cc9 IO Summary:(Time: Thu Mar 3 15:07:20 2011) Bytes Read: 40,000,000,000 40,000,000 bytes written to image "da-26-g2r" ======= End of Excerpt from SMART log =======</pre>		
Results:			
	Assertion and Expected Result AM-03 Execution environment is XE. AO-09 Tool converts image file format. AO-23 Logged information is correct.	Actual Result as expected as expected as expected	
Analysis:	Expected results achieved		

## 5.2.102 DA-26-R2BZ

Test Case DA-26-R2BZ Smart Version 2010/11/03				
Case	DA-26 Convert an image to an alternate in	mage file format.		
Summary:				
Assertions:	AM-03 The tool executes in execution env. AO-09 If the tool converts a source image image file in another format, the acquire image file is the same as the acquired de AO-23 If the tool logs any log significant accurately recorded in the log file.	ironment XE. e file from one format to a target ed data represented in the target ata in the source image file. nt information, the information is		
Tester Name:	brl			
Test Host:	WoFat			
Test Date:	Wed Mar 2 11.14.27 2011			
Drives:	we mai $2 \pm 1 \cdot 1 + \cdot 2 / 2011$ arg(EQ) dat (67-SATA) ather (53-SATA)			
Source Setup:	<pre>SIC(E0) dst (0)-SATA ) Other (SA-SATA) src hash (SHA1): &lt; 4A6941F1337A8A22B10FC844B4D7FA6158BECB82 &gt; src hash (MD5): &lt; A97C8F36B7AC9D5233B90AC09284F938 &gt; 17938985 total sectors (9184760320 bytes) Model (ATLAS10K2-TY092J) serial # (169028142436)</pre>			
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux			
	<pre>===== Image file segments ====== 1</pre>			
	Authenticate: da-26-r2bz (PASSED) Current Hash Summary SHAl Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 Stored Hashes SHAl Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 IO Summary:(Time: Wed Mar 2 11:43:48 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to image "da-26-r2bz" ======== End of Excerpt from SMART log =======			
Regults:				
NCBUILD.	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE	as expected		
	A0-09 Tool converts image file format	as expected		
	AO-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			

# 5.2.103 DA-26-R2EWC

Test Case DA-	26-R2EWC Smart Version 2010/11/03		
Case	DA-26 Convert an image to an alternate i	mage file format.	
Summary:			
Assertions:	AM-03 The tool executes in execution environment XE. AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file. AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.		
Tester	brl		
Name:			
Test Host:	WoFat		
Test Date:	Wed Mar 2 13:31:24 2011		
Drives:	<pre>src(E0) dst (67-SATA) other (5A-SATA)</pre>		
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC	844B4D7FA6158BECB82 >	
Setup:	<pre>src hash (MD5): &lt; A97C8F36B7AC9D5233B90A</pre>	C09284F938 >	
	17938985 total sectors (9184760320 bytes	)	
	Model (ATLAS10K2-TY092J) serial # (16902	8142436)	
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux		
	<pre>===== Image file segments ====== 1</pre>		
	Copy: da-06-scsi Authenticate: da-26-r2ewc (PASSED)		
	Current Hash Summary SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 Stored Hashes SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82		
	IO Summary:(Time: Wed Mar 2 13:50:55 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to image "da-26-r2ewc" ====== End of Excerpt from SMART log =======		
Results:			
	Assertion and Expected Result	Actual Result	
	AM-03 Execution environment is XE.	as expected	
	AO-09 Tool converts image file format.	as expected	
	AO-23 Logged information is correct.	as expected	
Analysis:	Expected results achieved		

# 5.2.104 DA-26-R2G

Test Case DA-26-R2G Smart Version 2010/11/03				
Case Summary:	DA-26 Convert an image to an alternate image file format.			
Assertions:	AM-03 The tool executes in execution env. AO-09 If the tool converts a source image image file in another format, the acquir- image file is the same as the acquired de AO-23 If the tool logs any log significant accurately recorded in the log file.	ironment XE. e file from one format to a target ed data represented in the target ata in the source image file. nt information, the information is		
Tester Name:	brl			
Test Host:	WoFat			
Test Date:	Wed Mar 2 14:16:26 2011			
Drives:	<pre>src(E0) dst (67-SATA) other (5A-SATA)</pre>			
Source	src hash (SHA1): < 4A6941F1337A8A22B10FC	844B4D7FA6158BECB82 >		
Setup:	<pre>src hash (MD5): &lt; A97C8F36B7AC9D5233B90A</pre>	C09284F938 >		
	17938985 total sectors (9184760320 bytes	)		
	Model (ATLAS10K2-TY092J) serial # (169028142436)			
Log Highlights:	OS: Linux ubuntu 2.6.32-21-generic #32-Ubuntu SMP Fri Apr 16 08:10:02 UTC 2010 i686 GNU/Linux			
	<pre>===== Image file segments ====== 1 3737 2011-03-02 14:49 da-26-r2g 2 131336524 2011-03-02 14:49 da-26-r2g.image.001.gz 3 4628 2011-03-02 14:49 da-26-r2g.image.info ======= Excerpt from SMART log =======</pre>			
	Copy: da-06-scsi Authenticate: da-26-r2g (PASSED)			
	Current Hash Summary SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 Stored Hashes SHA1 Span Hashes total span hash: 4a6941f1 337a8a22 b10fc844 b4d7fa61 58becb82 IO Summary:(Time: Wed Mar 2 14:49:17 2011) Bytes Read: 9,184,760,320 9,184,760,320 bytes written to image "da-26-r2g" ======= End of Excerpt from SMART log =======			
Results:				
	Assertion and Expected Result	Actual Result		
	AM-03 Execution environment is XE.	as expected		
	AO-09 Tool converts image file format.	as expected		
	AU-23 Logged information is correct.	as expected		
Analysis:	Expected results achieved			

### About the National Institute of Justice

A component of the Office of Justice Programs, NIJ is the research, development and evaluation agency of the U.S. Department of Justice. NIJ's mission is to advance scientific research, development and evaluation to enhance the administration of justice and public safety. NIJ's principal authorities are derived from the Omnibus Crime Control and Safe Streets Act of 1968, as amended (see 42 U.S.C. §§ 3721–3723).

The NIJ Director is appointed by the President and confirmed by the Senate. The Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the U.S. Department of Justice, and the needs of the field. The Institute actively solicits the views of criminal justice and other professionals and researchers to inform its search for the knowledge and tools to guide policy and practice.

### **Strategic Goals**

NIJ has seven strategic goals grouped into three categories:

### Creating relevant knowledge and tools

- 1. Partner with state and local practitioners and policymakers to identify social science research and technology needs.
- 2. Create scientific, relevant, and reliable knowledge—with a particular emphasis on terrorism, violent crime, drugs and crime, cost-effectiveness, and community-based efforts—to enhance the administration of justice and public safety.
- 3. Develop affordable and effective tools and technologies to enhance the administration of justice and public safety.

### Dissemination

- 4. Disseminate relevant knowledge and information to practitioners and policymakers in an understandable, timely and concise manner.
- 5. Act as an honest broker to identify the information, tools and technologies that respond to the needs of stakeholders.

### Agency management

- 6. Practice fairness and openness in the research and development process.
- 7. Ensure professionalism, excellence, accountability, cost-effectiveness and integrity in the management and conduct of NIJ activities and programs.

### **Program Areas**

In addressing these strategic challenges, the Institute is involved in the following program areas: crime control and prevention, including policing; drugs and crime; justice systems and offender behavior, including corrections; violence and victimization; communications and information technologies; critical incident response; investigative and forensic sciences, including DNA; less-than-lethal technologies; officer protection; education and training technologies; testing and standards; technology assistance to law enforcement and corrections agencies; field testing of promising programs; and international crime control.

In addition to sponsoring research and development and technology assistance, NIJ evaluates programs, policies, and technologies. NIJ communicates its research and evaluation findings through conferences and print and electronic media.

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