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Test Results for Digital Data Acquisition Tool: FTK Imager 2.5.3.14

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NCJ 222982

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David W. Hagy
Director, National Institute of Justice

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March 3, 2008

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FTK Imager 2.5.3.14

NIST
National Institute of Standards and Technology
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Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the National Institute of Justice (NIJ), the research and development organization of the U.S. Department of Justice, and the National Institute of Standards and Technology's (NIST's) Office of Law Enforcement Standards and Information Technology Laboratory. CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, U.S. Internal Revenue Service Criminal Investigation Division Electronic Crimes Program, and the U.S. Department of Homeland Security's Bureau of Immigration and Customs Enforcement, U.S. Customs and Border Protection, and 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. This 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 (http://www.cftt.nist.gov/) for review and comment by the computer forensics community.

This document reports the results from testing FTK Imager, version 2.5.3.14, against the *Digital Data Acquisition Tool Assertions and Test Plan Version 1.0*, available at the CFTT Web site (http://www.cftt.nist.gov/DA-ATP-pc-01.pdf).

Test results from other software packages and the CFTT tool methodology can be found on NIJ's computer forensics tool testing Web page, http://www.ojp.usdoj.gov/nij/topics/technology/electronic-crime/cftt.htm.

Test Results for Digital Data Acquisition Tool

Tool Tested:	FTK Imager
Version:	2.5.3.14
Run Environments:	Windows XP, Windows Server 2003 & Windows 2000
Supplier:	AccessData
Address:	384 South 400 West Suite 200 Lindon, UT 84042 USA
Tel:	801–377–5410
Fax:	801–765–4370
WWW:	http://www.accessdata.com/

1 Results Summary

Except for two test cases (DA–07 and DA–08), the tested tool acquired all visible and hidden sectors completely and accurately from the test media without any anomalies. In one test case (DA-25) image file corruption was detected, but the location of the corrupt data was not reported. The following four anomalies were observed in test cases DA–07, DA–08, and DA–25:

1. If a logical acquisition is made of an NTFS partition, the last eight sectors of the physical partition are not acquired (DA–07–NTFS).
2. The sectors hidden by a *host protected area* (HPA) are not acquired (DA–08–ATA28 and DA–08–ATA48).
3. The sectors hidden by a *device configuration overlay* (DCO) are not acquired (DA–08–DCO).
4. The location of corrupted data in an image file is not reported (DA–25).

2 Test Case Selection

Not all test cases or test assertions defined in *Digital Data Acquisition Tool Assertions and Test Plan Version 1.0* are appropriate for all tools. In addition to the base test cases, each remaining test case is linked to optional tool features needed for the test case. 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 FTK Imager 2.5.3.14 and the linked test cases selected for execution. Table 2 lists the features not available in FTK Imager 2.5.3.14 and the test cases not executed.

Table 1 Selected Test Cases

Supported Optional Feature	Cases selected for execution

Supported Optional Feature	Cases selected for execution
Base Cases	06, 07 & 08
Read error during acquisition	09
Create an image file in more than one format	10
Insufficient space for image file	12
Detect a corrupted (or changed) image file	24 & 25
Convert an image file from one format to another	26

Table 2 Omitted Test Cases

Unsupported Optional Feature	Cases omitted (not executed)
Create a clone during acquisition	01, 02 & 04
Create cylinder aligned clones	03, 15, 21 & 23
Device I/O error generator available	05, 11 & 18
Destination Device Switching	13
Create a clone from an image file	14 & 17
Create a clone from a subset of an image file	16
Fill excess sectors acquired to a clone device	19 & 20
Fill excess sectors on a clone device	22

Some test cases have variant forms to accommodate parameters within test assertions. These variations cover the execution environment, acquisition interface to the source drive, and type of digital object acquired. Variations were also created for image file format.

The tool was executed in one of the following Microsoft run time environments: Windows XP, Windows Server 2003 or Windows 2000.

The following source interfaces were tested: ATA28, ATA48, USB, and FireWire.

The following digital sources were tested: partitions (FAT12, FAT16, FAT32, FAT32X, and NTFS), compact flash, and thumb drive.

The image files were created on either NTFS or FAT32 partitions.

3 Results by Test Assertion

Table 3 summarizes the test results 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 anomalies found for the assertion are discussed.

Table 3 Assertions Tested

Assertions Tested	Tests	Anomaly
AM–01 The tool uses access interface SRC-AI to access the digital source.	18	
AM–02 The tool acquires digital source DS.	18	
AM–03 The tool executes in execution environment XE.	26	
AM–05 If image file creation is specified, the tool creates an image file on file system type FS.	18	
AM–06 All visible sectors are acquired from the digital source.	17	3.1
AM–07 All hidden sectors are acquired from the digital source.	3	3.2
AM–08 All sectors acquired from the digital source are acquired accurately.	17	
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.	1	
AM–10 If unresolved errors occur while reading from the selected digital source, the tool uses a benign fill in the destination object in place of the inaccessible data.	1	
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.	17	
AO–02 If an image file format is specified, the tool creates an image file in the specified format.	2	
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.	1	
AO–05 If the tool creates a multi-file image of a requested size then all the individual files shall be no larger than the requested size.	17	
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.	1	
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.	1	
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.	1	3.3
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.	6	
AO–23 If the tool logs any log significant information, the information is accurately recorded in the log file.	26	

Two test assertions only apply in special circumstances. The assertion AO–22 is checked only for tools that create block hashes. This assertion does not apply to FTK Imager

2.5.3.14. The assertion AO–24 is only checked if the tool is executed in a run time environment that does not modify attached storage devices, such as MS DOS. A write blocker was used during the tests, so assertion AO–24 was not checked. 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
AM–04 If clone creation is specified, the tool creates a clone of the digital source.
AO–03 If there is an error while writing the image file, the tool notifies the user.
AO–10 If there is insufficient space to contain all files of a multi-file 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 acquisition of a digital source.
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–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–16 If a subset of an image or acquisition is specified, all the subset is cloned.
AO–17 If requested, any excess sectors on a clone destination device are not modified.
AO–18 If requested, a benign fill is written to excess sectors of a clone.
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.
AO–21 If there is a write error during clone creation, 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.
AO–24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

3.1 Eight Sectors Omitted from Logical Acquisition of NTFS Partition

If a logical acquisition is made of an NTFS partition the last eight sectors of the physical partition are not acquired (DA–07–NTFS). The physical partition used in the test case had 27,744,192 sectors, but the FTK Imager acquired only the first 27,744,184 sectors.

3.2 Acquisition of HPA and DCO

If a physical acquisition is made of a drive with hidden sectors in either a Host Protected Area or a Device Configuration Overlay, the tool does not remove either an HPA or a DCO. The tool did not acquire sectors hidden by an HPA (DA–08–ATA28 and DA–08–ATA48) or a DCO (DA–08–DCO).

3.3 Location of Corrupted Data in Image File

In one test case (DA–25) image file corruption was detected, but the location of the corrupted data was not reported to the user.

4 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the test computers available for testing.

4.1 Test Computers

Two test computers were used.

Frank and **Freddy** have 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™ 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 SCSI hard disk drives

4.2 Support Software

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

5 Test Results

The main item of interest for interpreting the test results is determining the conformance of the tool under test 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 report summary.

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.

Heading	Description
First Line:	Test case ID, name, and version of tool tested.
Case Summary:	Test case summary from *Digital Data Acquisition Tool 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 nonconformance 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-06-ATA28

Test Case DA-06-ATA28 FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Tue Oct 30 11:03:37 2007
Drives:	src(43) dst (none) other (01-FU)
Source	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 >

Test Case DA-06-ATA28 FTK Imager 2.5.3.14

Setup:

```
src hash  (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 >
78125000 total sectors (40000000000 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
 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 000000000 0000/000/00 0000/000/00      00 empty entry
17 P 000000000 000000000 0000/000/00 0000/000/00      00 empty entry
18 P 000000000 000000000 0000/000/00 0000/000/00      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 010490382 sectors 5371075584 bytes
13 004208967 sectors 2154991104 bytes
15 027712062 sectors 14188575744 bytes
```

Log Highlights:

```
Created By AccessData® FTK® Imager 2.5.3.14 071018
 Sector Count: 78,125,000
 Source data size: 38146 MB
 MD5 checksum:    bc39c3f7ee7a50e77b9ba1e65a5aeef7
 SHA1 checksum:   888e2e7f7ad237dc7a732281dd93f325065e5871
 Acquisition started:   Tue Oct 30 12:34:11 2007
 Acquisition finished:  Tue Oct 30 14:00:39 2007
 Verification started:  Tue Oct 30 14:00:39 2007
 Verification finished: Tue Oct 30 14:06:46 2007
 MD5 checksum:    bc39c3f7ee7a50e77b9ba1e65a5aeef7 : verified
 SHA1 checksum:   888e2e7f7ad237dc7a732281dd93f325065e5871 : verified
Settings: size CD (640 MB)Write Block: 19 NoWrite
```

Results:

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis: Expected results achieved

5.2.2 DA-06-FLOPPY

Test Case DA-06-FLOPPY FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Tue Oct 30 14:06:09 2007
Drives:	src(floppy) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < e2863334ac7eaabc7c8a0d62eb0d3b3af29f2c40 > src hash (MD5): < 17f6a5925be2f38eedaf435ff8b6a6f4 > Floppy disk
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 2,880 Source data size: 1 MB MD5 checksum: 17f6a5925be2f38eedaf435ff8b6a6f4 SHA1 checksum: e2863334ac7eaabc7c8a0d62eb0d3b3af29f2c40 Acquisition started: Tue Oct 30 14:11:19 2007 Acquisition finished: Tue Oct 30 14:12:45 2007 Verification started: Tue Oct 30 14:12:45 2007 Verification finished: Tue Oct 30 14:12:45 2007 MD5 checksum: 17f6a5925be2f38eedaf435ff8b6a6f4 : verified SHA1 checksum: e2863334ac7eaabc7c8a0d62eb0d3b3af29f2c40 : verified Settings: CD (640 MB)
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.3 DA-06-FW

Test Case DA-06-FW FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Wed Oct 31 10:35:32 2007
Drives:	src(01-IDE) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 > 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 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 78,165,360 Source data size: 38166 MB MD5 checksum: f458f673894753fa6a0ec8b8ec63848e SHA1 checksum: a48bb5665d6dc57c22db68e2f723da9aa8df82b9 Acquisition started: Wed Oct 31 10:41:27 2007 Acquisition finished: Wed Oct 31 11:18:26 2007 Verification started: Wed Oct 31 11:18:26 2007 Verification finished: Wed Oct 31 11:23:33 2007 MD5 checksum: f458f673894753fa6a0ec8b8ec63848e : verified

Test Case DA-06-FW FTK Imager 2.5.3.14	
	SHA1 checksum: a48bb5665d6dc57c22db68e2f723da9aa8df82b9 : verified Settings: size CD(640MB) Write Block: 31 Tableau WriteBlocker
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.4 DA-06-USB

Test Case DA-06-USB FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Wed Oct 31 14:04:06 2007
Drives:	src(01-IDE) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 > 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 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 78,165,360 Source data size: 38166 MB MD5 checksum: f458f673894753fa6a0ec8b8ec63848e SHA1 checksum: a48bb5665d6dc57c22db68e2f723da9aa8df82b9 Acquisition started: Wed Oct 31 14:12:35 2007 Acquisition finished: Thu Nov 01 06:38:02 2007 Verification started: Thu Nov 01 06:38:02 2007 Verification finished: Thu Nov 01 06:44:11 2007 MD5 checksum: f458f673894753fa6a0ec8b8ec63848e : verified

Test Case DA-06-USB FTK Imager 2.5.3.14	
	SHA1 checksum: a48bb5665d6dc57c22db68e2f723da9aa8df82b9 : verified Settings: size CD(640MB) Write Block: 31 Tableau UltraBlock IDE
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.5 DA-07-CF

Test Case DA-07-CF FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Wed Oct 31 10:48:24 2007
Drives:	src(C1-CF) dst (none) other (06-FU)
Source Setup:	src hash (SHA256): < C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 > src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B > src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 > 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 503,808 Source data size: 246 MB MD5 checksum: 776df8b4d2589e21debcf589edc16d78 SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b Acquisition started: Tue Oct 30 17:50:36 2007 Acquisition finished: Tue Oct 30 17:51:39 2007 Verification started: Tue Oct 30 17:51:39 2007 Verification finished: Tue Oct 30 17:51:41 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Settings: CD (640MB) Write Block: 7 Digital Intelligence UltraBlock
Results:	

Assertion & 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

Test Case DA-07-CF FTK Imager 2.5.3.14		
	AO-22 Tool calculates hashes by block.	option not available
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

5.2.6 DA-07-F12

Test Case DA-07-F12 FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Thu Nov 1 07:05:48 2007
Drives:	src(01-IDE) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 > 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 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes 01F12-md5 16418303 E20E3CFEA80BF6F2D2AA75E829CC8CD9 01F12-sha1 16418303 F8B72B65436DE3BD394ACFF71D405D0389C0E9B7
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 32,067 Source data size: 15 MB MD5 checksum: e20e3cfea80bf6f2d2aa75e829cc8cd9 SHA1 checksum: f8b72b65436de3bd394acff71d405d0389c0e9b7 Acquisition started: Wed Oct 31 14:11:57 2007 Acquisition finished: Wed Oct 31 14:11:58 2007 Verification started: Wed Oct 31 14:11:58 2007

Test Case DA-07-F12 FTK Imager 2.5.3.14	
	Verification finished: Wed Oct 31 14:11:58 2007 MD5 checksum: e20e3cfea80bf6f2d2aa75e829cc8cd9 : verified SHA1 checksum: f8b72b65436de3bd394acff71d405d0389c0e9b7 : verified Settings: size CD (640 MB) Write Block: 32 Tableau WriteBlocker
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.7 DA-07-F16

Test Case DA-07-F16 FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Thu Nov 1 07:08:02 2007
Drives:	src(43) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 > src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 > 78125000 total sectors (40000000000 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F16-md5sum 1077479423 37E81FFB31C3CB38AA48B2237500908E
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 2,104,452 Source data size: 1027 MB MD5 checksum: 37e81ffb31c3cb38aa48b2237500908e SHA1 checksum: 443ccec9a22f726daf6ce384817151c83b3ebc8b Acquisition started: Thu Nov 01 07:13:18 2007 Acquisition finished: Thu Nov 01 07:14:27 2007 Verification started: Thu Nov 01 07:14:27 2007 Verification finished: Thu Nov 01 07:14:36 2007

Test Case DA-07-F16 FTK Imager 2.5.3.14	
	MD5 checksum: 37e81ffb31c3cb38aa48b2237500908e : verified SHA1 checksum: 443ccec9a22f726daf6ce384817151c83b3ebc8b : verified Settings: size FAT (2000MB) Write Block: 31 Tableau WriteBlock
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.8 DA-07-32

Test Case DA-07-32 FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Thu Nov 1 06:52:55 2007
Drives:	src(01-IDE) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 > 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 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes 01F32-md5 4301789183 BFF7DC64C54339DA2A9D7972C076B514 01F32-sha1 4301789183 B861D9E999F39750B484FFB693FF69DEC090C6B8
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 8,401,932 Source data size: 4102 MB MD5 checksum: bff7dc64c54339da2a9d7972c076b514 SHA1 checksum: b861d9e999f39750b484ffb693ff69dec090c6b8 Acquisition started: Wed Oct 31 13:54:20 2007 Acquisition finished: Wed Oct 31 13:58:48 2007 Verification started: Wed Oct 31 13:58:48 2007

Test Case DA-07-32 FTK Imager 2.5.3.14

Verification finished: Wed Oct 31 13:59:22 2007
MD5 checksum: bff7dc64c54339da2a9d7972c076b514 : verified
SHA1 checksum: b861d9e999f39750b484ffb693ff69dec090c6b8 : verified
Settings: size CD(640MB)
Write Block: 32 Tableau WriteBlocker

Results:

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis: Expected results achieved

5.2.9 DA-07-32X

Test Case DA-07-32X FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Thu Nov 1 06:44:59 2007
Drives:	src(43) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < 888E2E7F7AD237DC7A732281DD93F325065E5871 > src hash (MD5): < BC39C3F7EE7A50E77B9BA1E65A5AEEF7 > 78125000 total sectors (40000000000 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027712062 sectors 14188575744 bytes 43F32x-md5sum 10742183424 5980CB0FA68E9862C65765DF50F00906
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 20,980,827 Source data size: 10244 MB MD5 checksum: 5980cb0fa68e9862c65765df50f00906 SHA1 checksum: 379c1ac47af956fc8c80389c2a7427a7f8fb4e89 Acquisition started: Thu Nov 01 06:51:39 2007 Acquisition finished: Thu Nov 01 07:03:12 2007 Verification started: Thu Nov 01 07:03:12 2007 Verification finished: Thu Nov 01 07:04:52 2007

Test Case DA-07-32X FTK Imager 2.5.3.14	
	MD5 checksum: 5980cb0fa68e9862c65765df50f00906 : verified SHA1 checksum: 379c1ac47af956fc8c80389c2a7427a7f8fb4e89 : verified Settings: size FAT(2000MB) Write Block: 31 Tableau WriteBlocker
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results achieved

5.2.10 DA-07-NTFS

Test Case DA-07-NTFS FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Thu Nov 1 07:16:50 2007
Drives:	src(01-IDE) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 > 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 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 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 000000000 0000/000/00 0000/000/00 00 empty entry 17 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 18 P 000000000 000000000 0000/000/00 0000/000/00 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 010490382 sectors 5371075584 bytes 13 004208967 sectors 2154991104 bytes 15 027744192 sectors 14205026304 bytes 01NTFS-md5 14205026303 92B27B30BEE8B0FFBA8C660FA1590D49 01NTFS-sha1 14205026303 0FBA4C36295CB9622CD815577429C3A588C34D09 01NTFS-sha256 14205026303 65FCD168163625E5EB74255B2A981B6F1C9D6259AF8A0851369101986A7ABC09
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 27,744,184 Source data size: 13546 MB MD5 checksum: 28a3a4330007f75b8afa99d38ffcd257 SHA1 checksum: 8ba9460458775fa535752328d3c2f0938f6923f7

Test Case DA-07-NTFS FTK Imager 2.5.3.14	
	Acquisition started: Wed Oct 31 14:17:23 2007 Acquisition finished: Wed Oct 31 14:31:10 2007 Verification started: Wed Oct 31 14:31:10 2007 Verification finished: Wed Oct 31 14:33:01 2007 MD5 checksum: 28a3a4330007f75b8afa99d38ffcd257 : verified SHA1 checksum: 8ba9460458775fa535752328d3c2f0938f6923f7 : verified Settings: size CD (640MB) Write Block: 32 Tableau Write Blocker
Results:	

Assertion & 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.	eight sectors missed
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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Analysis:	Expected results not achieved

5.2.11 DA-07-THUMB

Test Case DA-07-THUMB FTK Imager 2.5.3.14	
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 multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Wed Oct 31 13:51:39 2007
Drives:	src(D5-thumb) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < D68520EF74A336E49DCCF83815B7B08FDC53E38A > src hash (MD5): < C843593624B2B3B878596D8760B19954 > 505856 total sectors (258998272 bytes) Model (usb2.0Flash Disk) 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 505,856 Source data size: 247 MB MD5 checksum: c843593624b2b3b878596d8760b19954 SHA1 checksum: d68520ef74a336e49dccf83815b7b08fdc53e38a Acquisition started: Wed Oct 31 13:56:31 2007 Acquisition finished: Wed Oct 31 14:02:18 2007 Verification started: Wed Oct 31 14:02:18 2007 Verification finished: Wed Oct 31 14:02:21 2007 MD5 checksum: c843593624b2b3b878596d8760b19954 : verified SHA1 checksum: d68520ef74a336e49dccf83815b7b08fdc53e38a : verified Settings: size CD (640MB) Write Block: 18 Forenisc USB Bridge
Results:	

Assertion & 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 available
AO-23 Logged information is correct.	as expected
AO-24 Source is unchanged by acquisition.	not checked

Test Case DA-07-THUMB FTK Imager 2.5.3.14	
Analysis:	Expected results achieved

5.2.12 DA-08-ATA28

Test Case DA-08-ATA28 FTK Imager 2.5.3.14	
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-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 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 is the same as the data acquired by the tool. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Tue Oct 30 12:56:18 2007
Drives:	src(42) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < 5A75399023056E0EB905082B35F8FAA1DB049229 > src hash (MD5): < F4B9AAB24554EEEB2A962BDA554A9252 > 78165360 total sectors (40020664320 bytes) 65534/015/63 (max cyl/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 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 1 070348572 sectors 36018468864 bytes HPA created BIOS, XBIOS and Direct disk geometry Reporter (BXDR) BXDR 128 /S70000000 /P /fbxdrlog.txt Setting Maximum Addressable Sector to 70000000 MAS now set to 70000000 Hashes with HPA in place md5:9BF3C3DEADE47056A1DDC073C5F6B2E2 sha1:D76F909482B00767B62C295CADE202F92E61CD2E
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 70,000,001 Source data size: 34179 MB MD5 checksum: 9bf3c3deade47056a1ddc073c5f6b2e2 SHA1 checksum: d76f909482b00767b62c295cade202f92e61cd2e Acquisition started: Tue Oct 30 12:57:06 2007 Acquisition finished: Tue Oct 30 14:17:13 2007 Verification started: Tue Oct 30 14:17:13 2007 Verification finished: Tue Oct 30 14:21:49 2007 MD5 checksum: 9bf3c3deade47056a1ddc073c5f6b2e2 : verified SHA1 checksum: d76f909482b00767b62c295cade202f92e61cd2e : verified Settings: CD (640MB)Write Block: 2 NoWrite
Results:	

Assertion & 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-08-ATA28 FTK Imager 2.5.3.14		
	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.	HPA 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 available
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results not achieved	

5.2.13 DA-08-ATA48

Test Case DA-08-ATA48 FTK Imager 2.5.3.14	
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-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 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 is the same as the data acquired by the tool. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Tue Dec 18 13:08:38 2007
Drives:	src(4B) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < F409920836FED76DBB60DEEEF467A6DDED5BF48E > src hash (MD5): < B5641B5A594912B4D60518304B1DE698 > 390721968 total sectors (200049647616 bytes) 24320/254/63 (max cyl/hd values) 24321/255/63 (number of cyl/hd) IDE disk: Model (WDC WD2000JB-00GVC0) serial # (WD-WCAL78252964) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 351646722 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 1 351646722 sectors 180043121664 bytes HPA created BIOS, XBIOS and Direct disk geometry Reporter (BXDR) BXDR 128 /S351000000 /P /fHPA.TXT Setting Maximum Addressable Sector to 351000000 MAS now set to 351000000 Hashes with HPA in place md5:6BAFEFC000470C126434D933429C879B sha1:2D50DBD82CD3DA90A6E5BF13B2B40808C40998A1
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 351,000,001 Source data size: 171386 MB MD5 checksum: 6bafefc000470c126434d933429c879b SHA1 checksum: 2d50dbd82cd3da90a6e5bf13b2b40808c40998a1 Acquisition started: Tue Dec 18 13:07:31 2007 Acquisition finished: Tue Dec 18 14:31:25 2007 Verification started: Tue Dec 18 14:31:26 2007 Verification finished: Tue Dec 18 14:56:59 2007 MD5 checksum: 6bafefc000470c126434d933429c879b : verified SHA1 checksum: 2d50dbd82cd3da90a6e5bf13b2b40808c40998a1 : verified Settings: CD Write Block: 4 Guidance Software FastBloc IDE
Results:	

Assertion & Expected Result	**Actual Result**
AM-01 Source acquired using interface AI.	as expected
AM-02 Source is type DS.	as expected

Test Case DA-08-ATA48 FTK Imager 2.5.3.14		
	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.	HPA 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 available
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results not achieved	

5.2.14 DA-08-DCO

Test Case DA-08-DCO FTK Imager 2.5.3.14	
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-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 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 is the same as the data acquired by the tool. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Tue Oct 30 14:32:14 2007
Drives:	src(92) dst (none) other (06-FU)
Source Setup:	src hash (SHA1): < 63E6F7BD3040A8ADA2CF8FBF66A805B76DF10481 > src hash (MD5): < E095DD1BD0B0DD6E603153A3FE1A2F3E > 58633344 total sectors (30020272128 bytes) 58167/015/63 (max cyl/hd values) 58168/016/63 (number of cyl/hd) IDE disk: Model (WDC WD300BB-00CAA0) serial # (WD-WMA8H2140350) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 058605057 0000/001/01 1023/254/63 Boot 07 NTFS 2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry 1 058605057 sectors 30005789184 bytes Hashes with DCO in place: md5:525963C6789423396FE1F3202A8CBD04 sha1.txt:55A3CFE756B7B0034DCCE71F7D7A477D8681B781
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 52,770,010 Source data size: 25766 MB MD5 checksum: 525963c6789423396fe1f3202a8cbd04 SHA1 checksum: 55a3cfe756b7b0034dcce71f7d7a477d8681b781 Acquisition started: Mon Oct 29 22:31:15 2007 Acquisition finished: Mon Oct 29 23:38:18 2007 Verification started: Mon Oct 29 23:38:18 2007 Verification finished: Mon Oct 29 23:41:47 2007 MD5 checksum: 525963c6789423396fe1f3202a8cbd04 : verified SHA1 checksum: 55a3cfe756b7b0034dcce71f7d7a477d8681b781 : verified Settings: size FAT(2000)Write Block: 2 NoWrite
Results:	

Assertion & 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

Test Case DA-08-DCO FTK Imager 2.5.3.14		
	AO-05 Multifile image created.	as expected
	AO-22 Tool calculates hashes by block.	option not available
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results not achieved	

5.2.15 DA-09

Test Case DA-09 FTK Imager 2.5.3.14	
Case Summary:	DA-09 Acquire a digital source that has at least one faulty data sector.
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. 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. AM-10 If unresolved errors occur while reading from 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 represented by the image file is the same as the data acquired by the tool. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Tue Oct 30 14:13:22 2007
Drives:	src(ED-BAD-CPR1) dst (none) other (01-FU)
Source Setup:	No before hash for ED-BAD-CPR1 120103200 total sectors (61492838400 bytes) Drive with known bad sectors Vendor: Maxtor Model: DiamondMax Plus 9 Known Bad Sector List for ED-CPR-BAD-1 Manufacturer: Maxtor Model: 6Y060L0 DiamondMax Plus 9 Serial Number: Y27KR6CE Capacity: 60GB Interface: PATA 54 faulty sectors 10069095, 10069911, 12023808, 18652594, 18656041, 18656857, 18660303, 18661119, 19746716-19746717, 22233904, 23098370, 23383001, 24102466-24102467, 24104250, 24106656, 24107458, 28959971-28959972, 41825791, 41828995, 52654580, 52655318, 60522984, 68643842-68643843, 69973290, 72714626, 72715293, 82148809, 82148810, 83810525, 85310861, 85313430, 85314038-85314039, 86321211, 86323780, 87186066, 87856313, 87856922, 97191260-97191261, 100093150-100093151, 103861021, 109706975-109706976, 110347947, 110350122-110350123, 115664758, 115835518
Log Highlights:	Destination setup 156301488 sectors wiped with F0 Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 120,103,200 Source data size: 58644 MB MD5 checksum: ef3e63c324522760c838f2a93b7180d3 SHA1 checksum: 73c3e7b8b73dc60a04dc1db1463bef57231901df Acquisition started: Tue Oct 30 14:19:51 2007 Acquisition finished: Tue Oct 30 16:34:10 2007 Verification started: Tue Oct 30 16:34:10 2007 Verification finished: Tue Oct 30 16:43:30 2007 MD5 checksum: ef3e63c324522760c838f2a93b7180d3 : verified SHA1 checksum: 73c3e7b8b73dc60a04dc1db1463bef57231901df : verified

Test Case DA-09 FTK Imager 2.5.3.14

```
Read errors:
ATTENTION:
The following sector(s) on the source drive could not be read:
        10069095
        10069911
        12023808
        18652594
        18656041
        18656857
        18660303
        18661119
        19746716 through 19746717
        22233904
        23098370
        23383001
        24102466 through 24102467
        24104250
        24106656
        24107458
        28959971 through 28959972
        41825791
        41828995
        52654580
        52655318
        60522984
        68643842 through 68643843
        69973290
        72714626
        72715293
        82148809 through 82148810
        83810525
        85310861
        85313430
        85314038 through 85314039
        86321211
        86323780
        87186066
        87856313
        87856922
        97191260 through 97191261
        100093150 through 100093151
        103861021
        109706975 through 109706976
        110347947
        110350122 through 110350123
        115664758
        115835518
The contents of these sectors were replaced with zeros in the image.
2 different run lengths observed in 44 runs
34 runs of length 1
10 runs of length 2
54 sectors differ
    54 zero filled and 0 varying non-zero filled
Settings: CD (640MB)Write Block: 19 NoWrite
```

Results:

Assertion & 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
AM-09 Error logged.	as expected
AM-10 Benign fill replaces inaccessible sectors.	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 available
AO-23 Logged information is correct.	as expected

Test Case DA-09 FTK Imager 2.5.3.14		
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

5.2.16 DA-10-DD

Test Case DA-10-DD FTK Imager 2.5.3.14	
Case Summary:	DA-10 Acquire a digital source to an image file in an alternate format.
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-02 If an image file format is specified, the tool creates an image file in the specified format. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Frank
Test Date:	Wed Oct 31 11:01:17 2007
Drives:	src(C1-CF) dst (none) other (06-FU)
Source Setup:	src hash (SHA256): < C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 > src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B > src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 > 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 503,808 Source data size: 246 MB MD5 checksum: 776df8b4d2589e21debcf589edc16d78 SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b Acquisition started: Tue Oct 30 18:02:58 2007 Acquisition finished: Tue Oct 30 18:04:00 2007 Verification started: Tue Oct 30 18:04:00 2007 Verification finished: Tue Oct 30 18:04:02 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 18:49:14 2007 Verification finished: Tue Oct 30 18:49:16 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 21:43:15 2007 Verification finished: Tue Oct 30 21:43:19 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 21:46:51 2007 Verification finished: Tue Oct 30 21:46:53 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified

Test Case DA-10-DD FTK Imager 2.5.3.14	
	Settings: size CD(640MB) Write Block: 7 Digital Intelligence UltraBlock
Results:	

Assertion & 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 available
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-10-SMART

Test Case DA-10-SMART FTK Imager 2.5.3.14	
Case Summary:	DA-10 Acquire a digital source to an image file in an alternate format.
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-02 If an image file format is specified, the tool creates an image file in the specified format. AO-05 If the tool creates a multi-file 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:	mrmw
Test Host:	Freddy
Test Date:	Wed Oct 31 13:36:59 2007
Drives:	src(c1-cf) dst (01-FU) other (none)
Source Setup:	src hash (SHA256): < C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 > src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B > src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 > 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 503,808 Source data size: 246 MB MD5 checksum: 776df8b4d2589e21debcf589edc16d78 SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b Acquisition started: Wed Oct 31 13:41:48 2007 Acquisition finished: Wed Oct 31 13:42:51 2007 Verification started: Wed Oct 31 13:42:51 2007 Verification finished: Wed Oct 31 13:42:53 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Settings: size FAT(2000) Write Block: 7 Digital Intelligence UltraBlock
Results:	

Assertion & 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

Test Case DA-10-SMART FTK Imager 2.5.3.14		
	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 available
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

5.2.18 DA-12

Test Case DA-12 FTK Imager 2.5.3.14	
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 Name:	mrmw
Test Host:	Frank
Test Date:	Wed Oct 31 14:58:42 2007
Drives:	src(C1-CF) dst (none) other (06-FU)
Source Setup:	src hash (SHA256): < C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 > src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B > src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 > 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 503,808 Source data size: 246 MB  Acquisition started: Tue Oct 30 22:00:24 2007 Acquisition finished: Tue Oct 30 22:03:24 2007 Settings: size 1500 MB Write Block: 7 Digital Intelligence UltraBlock
Results:	

Assertion & 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

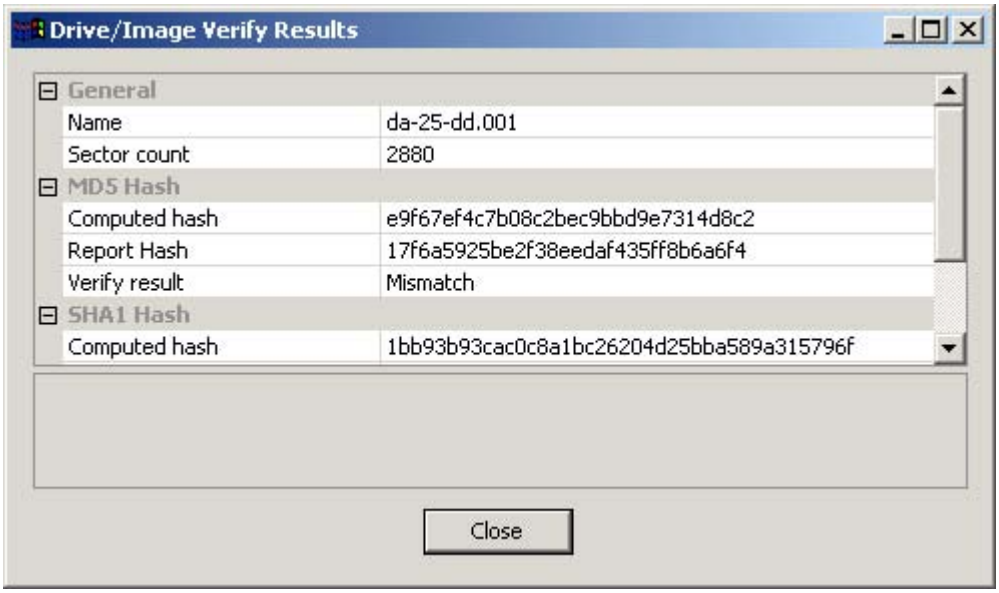
Test Case DA-12 FTK Imager 2.5.3.14		
	AO-23 Logged information is correct.	as expected
	AO-24 Source is unchanged by acquisition.	not checked
Analysis:	Expected results achieved	

5.2.19 DA-24-DD

Test Case DA-24-DD FTK Imager 2.5.3.14	
Case Summary:	DA-24 Verify a valid image.
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 Name:	mrmw
Test Host:	Freddy
Test Date:	Mon Nov 5 15:26:10 2007
Drives:	src(C1-CF) dst (06-FU) other (06-FU)
Source Setup:	src hash (SHA256): < C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 > src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B > src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 > 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 0372/097/50 0000/010/00 Boot 0D other 1 1141509631 sectors 584452931072 bytes 2 1936028240 sectors 991246458880 bytes 3 1936028192 sectors 991246434304 bytes 4 000055499 sectors 28415488 bytes
Log Highlights:	Created By AccessData® FTK® Imager 2.5.3.14 071018 Sector Count: 503,808 Source data size: 246 MB MD5 checksum: 776df8b4d2589e21debcf589edc16d78 SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b Acquisition started: Tue Oct 30 18:02:58 2007 Acquisition finished: Tue Oct 30 18:04:00 2007 Verification started: Tue Oct 30 18:04:00 2007 Verification finished: Tue Oct 30 18:04:02 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 18:49:14 2007 Verification finished: Tue Oct 30 18:49:16 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 21:43:15 2007 Verification finished: Tue Oct 30 21:43:19 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Tue Oct 30 21:46:51 2007 Verification finished: Tue Oct 30 21:46:53 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Verification started: Mon Nov 05 15:25:32 2007 Verification finished: Mon Nov 05 15:25:36 2007 MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified Settings: size 1500 MB
Results:	**Assertion & Expected Result** / **Actual Result** AM-03 Execution environment is XE. / as expected AO-06 Tool verifies image file unchanged. / as expected AO-23 Logged information is correct. / as expected

Test Case DA-24-DD FTK Imager 2.5.3.14	
Analysis:	Expected results achieved

5.2.20 DA-25-DD

Test Case DA-25-DD FTK Imager 2.5.3.14	
Case Summary:	DA-25 Detect a corrupted image.
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 Name:	mrmw
Test Host:	Frank
Test Date:	Wed Nov 7 12:26:20 2007
Drives:	src(floppy1) dst (none) other (01-FU)
Source Setup:	src hash (SHA1): < e2863334ac7eaabc7c8a0d62eb0d3b3af29f2c40 > src hash (MD5): < 17f6a5925be2f38eedaf435ff8b6a6f4 > Floppy disk
Log Highlights:	Image file corrupted for test run: Change byte 19400 of file da-25-dd.001 from 0x35 to 0x94 
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr><tr><td>AO-07 User notified if image file has changed.</td><td>as expected</td></tr><tr><td>AO-08 User notified of changed locations.</td><td>User not notified</td></tr><tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr></table>
Analysis:	Expected results not achieved

5.2.21 DA-26-E01-TO-SMART

<table>
<tr><th colspan="2">Test Case DA-26-E01-TO-SMART FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 14:53:37 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (06-FU) other (06-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
MD5 verification hash: 776df8b4d2589e21debcf589edc16d78
Sector Count: 503,808
Operating system: Windows 2003
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 14:52:41 2007
Acquisition finished: Mon Nov 05 14:52:47 2007
Verification started: Mon Nov 05 14:52:47 2007
Verification finished: Mon Nov 05 14:52:50 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.22 DA-26-E01-TO-DD

<table>
<tr><th colspan="2">Test Case DA-26-E01-TO-DD FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 14:49:59 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (06-FU) other (06-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
MD5 verification hash: 776df8b4d2589e21debcf589edc16d78
Sector Count: 503,808
Operating system: Windows 2003
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 14:49:18 2007
Acquisition finished: Mon Nov 05 14:49:23 2007
Verification started: Mon Nov 05 14:49:23 2007
Verification finished: Mon Nov 05 14:49:25 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.23 DA-26-SMART-TO-E01

<table>
<tr><th colspan="2">Test Case DA-26-SMART-TO-E01 FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 15:06:04 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (01-FU) other (01-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
MD5 verification hash: 776df8b4d2589e21debcf589edc16d78
Sector Count: 503,808
Operating system: Windows XP
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 15:05:24 2007
Acquisition finished: Mon Nov 05 15:05:30 2007
Verification started: Mon Nov 05 15:05:30 2007
Verification finished: Mon Nov 05 15:05:33 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.24 DA-26-SMART-TO-DD

<table>
<tr><th colspan="2">Test Case DA-26-SMART-TO-DD FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 15:02:13 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (01-FU) other (01-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
MD5 verification hash: 776df8b4d2589e21debcf589edc16d78
Sector Count: 503,808
Operating system: Windows XP
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 15:01:52 2007
Acquisition finished: Mon Nov 05 15:01:58 2007
Verification started: Mon Nov 05 15:01:58 2007
Verification finished: Mon Nov 05 15:02:01 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.25 DA-26-DD-TO-E01

<table>
<tr><th colspan="2">Test Case DA-26-DD-TO-E01 FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 14:40:28 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (06-FU) other (06-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
Sector Count: 503,808
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 14:42:19 2007
Acquisition finished: Mon Nov 05 14:42:24 2007
Verification started: Mon Nov 05 14:42:24 2007
Verification finished: Mon Nov 05 14:42:26 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.26 DA-26-DD-TO-SMART

<table>
<tr><th colspan="2">Test Case DA-26-DD-TO-SMART FTK Imager 2.5.3.14</th></tr>
<tr><td>Case Summary:</td><td>DA-26 Convert an image to an alternate image file format.</td></tr>
<tr><td>Assertions:</td><td>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.</td></tr>
<tr><td>Tester Name:</td><td>mrmw</td></tr>
<tr><td>Test Host:</td><td>Freddy</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 5 14:47:19 2007</td></tr>
<tr><td>Drives:</td><td>src(C1-CF) dst (06-FU) other (06-FU)</td></tr>
<tr><td>Source Setup:</td><td>src hash (SHA256): <
C7CF0218222DF80D5316511D6814266C7FA507C13F795AD3D323BB73C1590D80 >
src hash (SHA1): < 5B8235178DF99FA307430C088F81746606638A0B >
src hash (MD5): < 776DF8B4D2589E21DEBCF589EDC16D78 >
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 0372/097/50 0000/010/00 Boot 0D other
1 1141509631 sectors 584452931072 bytes
2 1936028240 sectors 991246458880 bytes
3 1936028192 sectors 991246434304 bytes
4 000055499 sectors 28415488 bytes</td></tr>
<tr><td>Log Highlights:</td><td>Created By AccessData® FTK® Imager 2.5.3.14 071018
Sector Count: 503,808
Source data size: 246 MB
MD5 checksum: 776df8b4d2589e21debcf589edc16d78
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b
Acquisition started: Mon Nov 05 14:45:22 2007
Acquisition finished: Mon Nov 05 14:45:28 2007
Verification started: Mon Nov 05 14:45:28 2007
Verification finished: Mon Nov 05 14:45:30 2007
MD5 checksum: 776df8b4d2589e21debcf589edc16d78 : verified
SHA1 checksum: 5b8235178df99fa307430c088f81746606638a0b : verified
Settings: size 1500 MB</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>AM-03 Execution environment is XE.</td><td>as expected</td></tr>
<tr><td>AO-09 Tool converts image file format.</td><td>as expected</td></tr>
<tr><td>AO-23 Logged information is correct.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

About the National Institute of Justice

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.

To find out more about the National Institute of Justice, please visit:

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800–851–3420
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