Test Results for Digital Data Acquisition Tool: 
FTK Imager CLI 2.9.0_Debian
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This report was prepared for the National Institute of Justice, U.S. Department of Justice, by the Office of Law Enforcement Standards of the National Institute of Standards and Technology under Interagency Agreement 2003-IJ-R-029.

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Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the National Institute of Justice (NIJ), the Department of Homeland Security (DHS), and the National Institute of Standards and Technology Law Enforcement Standards Office (OLES) and Information Technology Laboratory (ITL). CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, 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. The CFTT approach to testing computer forensics tools is based on well-recognized methodologies for conformance and quality testing. The specifications and test methods are posted on the CFTT Web site for review and comment by the computer forensics community.

This document reports the results from testing FTK Imager CLI 2.9.0_Debian against the Digital Data Acquisition Tool Assertions and Test Plan Version 1.0, available at the CFTT Web site.

Test results from other tools can be found on NIJ’s computer forensics tool testing Web page.

How to Read This Report

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

Tool Tested: FTK Imager CLI
Software Version: 2.9.0 Debian
Runtime Environment(s): Debian Live 6.0.4 and Ubuntu 10.04 LTS

Supplier: AccessData
Address: 384 South 400 West, Suite 200
Lindon, UT 84042 USA
Tel: 1-801-377-5410
Fax: 1-801-765-4370
E-mail: Contact
WWW: Website

1 Results Summary
AccessData’s FTK Imager CLI v2.9 Debian is designed to image and restore hard drives and other secondary storage. It uses the Debian command line interface to image, clone and restore acquired data. Except for the case where a drive with faulty sectors was imaged (test case DA-09), the tool acquired all sectors of the test media completely and accurately. In test cases DA-04 and DA-17 that measure how a tool behaves when the destination media has insufficient space for a clone or restore task, the tool failed to display a message indicating that the destination drive had insufficient space.

Refer to sections 3.1 and 3.2 for additional details on test cases DA-04, DA-17 and DA-09.

2 Test Case Selection
Test cases used to test disk imaging tools are defined in Digital Data Acquisition Tool Assertions and Test Plan Version 1.0. To test a tool, test cases are selected from the Test Plan document based on the features offered by the tool. Not all test cases or test assertions are appropriate for all tools. There is a core set of base cases (e.g., DA-06 and DA-07) that are executed for every tool tested. Tool features guide the selection of additional test cases. If a given tool implements a feature, then the test cases linked to that feature are run. Table 1 lists the testable features of FTK Imager CLI v2.9 Debian and the linked test cases selected for execution. Table 2 lists the features not available in FTK Imager CLI v2.9 Debian and the test cases not executed.

Table 1. Selected Test Cases

<table>
<thead>
<tr>
<th>Supported Optional Feature</th>
<th>Cases Selected for Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a clone during acquisition</td>
<td>01</td>
</tr>
<tr>
<td>Create an unaligned clone from a digital source</td>
<td>02</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Supported Optional Feature</th>
<th>Cases Selected for Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a truncated clone from a physical device</td>
<td>04</td>
</tr>
<tr>
<td>Base Cases</td>
<td>06 &amp; 07</td>
</tr>
<tr>
<td>Read error during acquisition</td>
<td>09</td>
</tr>
<tr>
<td>Create an image file in more than one format</td>
<td>10</td>
</tr>
<tr>
<td>Insufficient space for image file</td>
<td>12</td>
</tr>
<tr>
<td>Create a clone from an image file</td>
<td>14 &amp; 17</td>
</tr>
<tr>
<td>Detect a corrupted (or changed) image file</td>
<td>24 &amp; 25</td>
</tr>
<tr>
<td>Convert an image file from one format to another</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 2. Omitted Test Cases

<table>
<thead>
<tr>
<th>Unsupported Optional Feature</th>
<th>Cases Omitted (Not Executed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create cylinder aligned clones</td>
<td>03, 15, 21 &amp; 23</td>
</tr>
<tr>
<td>Device I/O error generator available</td>
<td>05, 11 &amp; 18</td>
</tr>
<tr>
<td>Create an image of a drive with hidden sectors</td>
<td>08</td>
</tr>
<tr>
<td>Destination Device Switching</td>
<td>13</td>
</tr>
<tr>
<td>Create a clone from a subset of an image file</td>
<td>16</td>
</tr>
<tr>
<td>Fill excess sectors on a clone acquisition</td>
<td>19</td>
</tr>
<tr>
<td>Fill excess sectors on a clone device</td>
<td>20, 21, 22 &amp; 23</td>
</tr>
</tbody>
</table>

Some test cases have different forms to accommodate parameters within test assertions. These variations cover the acquisition interface to the source media, the type of digital object acquired and image file format.

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

The following digital source types were tested: partitions (FAT16, FAT32, NTFS, EXT3, EXT4), compact flash (CF) and thumb drive (Thumb). These digital source types are noted as variations on test cases DA-02 and DA-07.

The following image file types are supported by the tool: SMART ew-compressed, E01 and encrypted. These were tested as alternate image file formats and are noted as variations on test case DA-10.

### 3 Results by Test Assertion

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

Table 3. Assertions Tested

<table>
<thead>
<tr>
<th>Assertions Tested</th>
<th>Tests</th>
<th>Anomaly</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 The tool uses access interface SRC-AI to access the digital source.</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>AM-02 The tool acquires digital source DS.</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>AM-03 The tool executes in execution environment XE.</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>AM-06 All visible sectors are acquired from the digital source.</td>
<td>32</td>
<td>3.2</td>
</tr>
<tr>
<td>AM-08 All sectors acquired from the digital source are acquired accurately.</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>AO-02 If an image file format is specified, the tool creates an image file in the specified format.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>AO-11 If requested, a clone is created during an acquisition of a</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>
### Assertions Tested

<table>
<thead>
<tr>
<th>Assertions Tested</th>
<th>Tests</th>
<th>Anomaly</th>
</tr>
</thead>
<tbody>
<tr>
<td>digital source.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AO-12 If requested, a clone is created from an image file.</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>AO-13 A clone is created using access interface DST-AI to write to the clone device.</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>AO-17 If requested, any excess sectors on a clone destination device are not modified.</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>AO-20 If a truncated clone is created, the tool notifies the user.</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

Two test assertions only apply in special circumstances. The assertion AO-22 is checked only for tools that create block hashes. The assertion AO-24 is only checked if the tool is executed in a run time environment that does not modify attached storage devices, such as MS-DOS. In normal operation, an imaging tool is used in conjunction with a write block device to protect the source drive. 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

<table>
<thead>
<tr>
<th>Assertions Not Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-07 All hidden sectors are acquired from the digital source.</td>
</tr>
<tr>
<td>AO-03 If there is an error while writing the image file, the tool notifies the user.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>AO-16 If a subset of an image or acquisition is specified, all the subset is cloned.</td>
</tr>
<tr>
<td>Assertions Not Tested</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>AO-18 If requested, a benign fill is written to excess sectors of a clone.</td>
</tr>
<tr>
<td>AO-21 If there is a write error during clone creation, the tool notifies the user.</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

3.1 Creating truncated clones
Test case DA-04 measured FTK Imager CLI v2.9 Debian’s behavior when asked to acquire a physical device to a truncated clone. Test case DA-17 tested the behavior for creating truncated clones from image files. In both cases the tool did not inform the user that a truncated clone had been created. The tests ended without any message informing the user that the destination drive was smaller than the source. The tool does not log progress information, to the screen or to file, during a clone operation. It appears that the message logging function of the tool is limited by scope to image acquisitions only.

3.2 Faulty sectors
When cloning a drive with faulty sectors, test case DA-09, the tool stopped the acquisition at the first faulty sector. No notification was given to the user.

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

4.1 Execution Environment
The tool was executed in the Debian Live 6.0.4 and Ubuntu 10.04 LTS environments.

4.2 Test Computers
Two computers were used to run the tool: DeathStar and Frank.

DeathStar has the following configuration:

TCP Custom Built
Processor, Intel Core i5-2500 3.3GHZ
Super Writemaster CDRW/DVD
BIOS Version ASUS EFI Version 9.16.2011

Frank has the following configuration:

Latitude D800
Processor, Intel Pentium 4 3.40GHZ
Assembly, Floppy Drive, 1.44M, 3.5"
4.3 Support Software
A package of programs to support test analysis, FS-TST Release 2.0, was used. The software can be obtained online.

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

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

1. The drive is filled with known data by the diskwipe program from FS-TST. The diskwipe program writes the sector address to each sector in both C/H/S and LBA format. The remainder of the sector bytes is set to a constant fill value unique for each drive. The fill value is noted in the diskwipe tool log file.
2. The drive may be formatted with partitions as required for the test case.
3. An operating system may optionally be installed.
4. A set of reference hashes is created by the FS-TST diskhash tool. These include both SHA1 and MD5 hashes. In addition to full drive hashes, hashes of each partition may also be computed.
5. If the drive is intended for hidden area tests (DA-08), an HPA, a DCO or both may be created. The diskhash tool is then used to calculate reference hashes of just the visible sectors of the drive.

The source drives for DA-09 are created such that there is a consistent set of faulty sectors on the drive. Each of these source drives is initialized with diskwipe and then their faulty sectors are activated. For each of these source drives, a duplicate drive with no faulty sectors serves as a reference drive for comparison.

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

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

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

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

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

4.6 Note on Test Drives

The testing uses several test drives from a variety of vendors. The drives are identified by an external label that consists of a two-digit hexadecimal value and an optional tag, e.g., 25-SATA. The combination of hex value and tag serves as a unique identifier for each drive. The two digit hex value is used by the FS-TST diskwipe program as a sector fill value. The FS-TST compare tools, diskcmp and partcmp, count sectors that are filled with the source and destination fill values on a destination that is larger than the original source.

5 Test Results

The main item of interest for interpreting the test results is determining the conformance of the 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.

5.1 Test Results Report Key

The following table presents an explanation of each section of the test details in section 5.2. The Tester Name, Test Host, Test Date, Drives, Source Setup and Log Highlights sections for each test case are populated by excerpts taken from the log files produced by the tool under test and the FS-TST tools that were executed in support of test case setup and analysis.

<table>
<thead>
<tr>
<th>Heading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Line:</td>
<td>Test case ID, name and version of tool tested.</td>
</tr>
<tr>
<td>Case Summary:</td>
<td>Test case summary from Digital Data Acquisition Tool</td>
</tr>
</tbody>
</table>

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5.2 Test Details

The test results are presented in this section.
## 5.2.1 DA-01-ATA28

**Test Case DA-01-ATA28 AccessData FTK Imager CLI v2.9**

<table>
<thead>
<tr>
<th>Case Summary</th>
<th>DA-01 Acquire a physical device using access interface Ai to an unaligned clone.</th>
</tr>
</thead>
</table>

**Assertions:**

- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

**Tester**

<table>
<thead>
<tr>
<th>Name:</th>
<th>csr</th>
</tr>
</thead>
</table>

**Test Host:**

- DeathStar

**Test Date:**

- Thu Aug 23 09:08:32 2012

**Drives:**

- src(41) dst (24-LAP) other (none)

**Source Setup:**

```
src hash (SHA256): < FBFA3A4149853D880FFAE71449A9F7E8EE4F56A6C3BF58A3A3FFB13203FA1BD >
src hash (SHA1): < 15CAA1A307271160D8372668BF8A03FC45A51CC9 >
src hash (MD5): < 0496A8EF70BDCC14E2026710D8CCB5607C >
78125000 total sectors (40000000000 bytes)
65534/015/63 (max cyl/hd values)
65535/016/63 (number of cyl/hd)
IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355)
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS
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 078107967 sectors 39991279104 bytes
```

**Log Highlights:**

```
------ Destination drive setup ------
78140160 sectors wiped with 41

------ Comparison of original to clone drive ------
Sectors compared: 78125000
Sectors match: 78125000
Sectors differ: 0
Bytes differ: 0
Diffs range
Source (78125000) has 15160 fewer sectors than destination (78140160)
Zero fill: 0
Src Byte fill (41): 15160
Dat Byte fill (24): 0
Other fill: 0
Other no fill: 0
Zero fill range: 78125000-78140159
Src fill range: 78125000-78140159
Dat fill range: Other fill range: Other not filled range:
0 source read errors, 0 destination read errors
```

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### Test Case DA-01-ATA28 AccessData FTK Imager CLI v2.9

Write Block: 4 FASTBloc IDE

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
Test Case DA-01-ATA48

DA-01 AccessData FTK Imager CLI v2.9

Case Summary: DA-01 Acquire a physical device using access interface AI to an unaligned clone.

Assertions:

AM-01 The tool uses access interface SRC-AI to access the digital source.
AM-02 The tool acquires digital source DS.
AM-03 The tool executes in execution environment XE.
AM-04 If clone creation is specified, the tool creates a clone of the digital source.
AM-06 All visible sectors are acquired from the digital source.
AM-08 All sectors acquired from the digital source are acquired accurately.
AO-11 If requested, a clone is created during an acquisition of a digital source.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr
Test Host: DeathStar
Test Date: Mon Jan 23 14:52:29 2012

Drives:
- src(4E)
- dst (32-IDE)
- other (none)

Source:
- src hash (SHA1): <7DDFF1A74B2E2B7E7EE43C41CD9066E27986644D>
- src hash (MD5): <62C9436930204E0F38921771ACA1BB88>

Setup:
- 488397168 sectors wiped with 32

Log:
----- Comparison of original to clone drive -----
Sectors compared: 488397168
Sectors match: 488397168
Sectors differ: 0
Bytes differ: 0
Diffs range
0 source read errors, 0 destination read errors

Write Block: 4 FASTBloc IDE

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>AM-08</td>
<td>All sectors accurately acquired.</td>
</tr>
<tr>
<td>AO-11</td>
<td>A clone is created during acquisition.</td>
</tr>
<tr>
<td>AO-13</td>
<td>Clone created using interface AI.</td>
</tr>
<tr>
<td>AO-14</td>
<td>An unaligned clone is created.</td>
</tr>
<tr>
<td>AO-17</td>
<td>Excess sectors are unchanged.</td>
</tr>
<tr>
<td>AO-22</td>
<td>Tool calculates hashes by block.</td>
</tr>
<tr>
<td>AO-23</td>
<td>Logged information is correct.</td>
</tr>
<tr>
<td>AO-24</td>
<td>Source is unchanged by acquisition.</td>
</tr>
</tbody>
</table>

**Analysis:** Expected results achieved
5.2.3 DA-01-FW

Test Case DA-01-FW AccessData FTK Imager CLI v2.9

Case Summary: DA-01 Acquire a physical device using access interface AI to an unaligned clone.

Assertions:
- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr
Test Host: DeathStar
Test Date: Wed Feb 1 10:01:22 2012
Drives: src(63-FU2) dst (30-IDE) other (none)

Source Setup: src hash (SHA256): <EC8EF011494BA6DA18F74C47547C3E74E7180585096A830F9247A98EF613BB1D>
src hash (SHA1): <F7069EDCBEACB63C88DECED82159F22D96BE99B>
src hash (MD5): <EE217BC4FA4F3D1B4D21D29B065AA9EC>
117304992 total sectors (6006015904 bytes)
Model (SP0612N) serial # ()
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16
2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended
3 S 000000063 113097537 0261/001/01 1023/254/63 0B Fat32
4 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
1 004192902 sectors 2146765824 bytes
3 113097537 sectors 57905938944 bytes

Log Highlights: 156301488 sectors wiped with 30

------- Destination drive setup -------
156301488 sectors wiped with 30

------- Comparison of original to clone drive -------
Sectors compared: 117304992
Sectors match: 117304992
Sectors differ: 0
Bytes differ: 0
Diffs range
Source (117304992) has 38996496 fewer sectors than destination (156301488)
Zero fill: 0
Src Byte fill (63): 0
Dat Byte fill (30): 38996496
Other fill: 0
Other no fill: 0
Zero fill range:
Src fill range:
Dat fill range: 117304992-156301487
Other fill range:
Other not filled range:
Test Case DA-01-FW AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Source read errors. Destination read errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 source read errors, 0 destination read errors</td>
</tr>
</tbody>
</table>

------ Tool Settings: ------
fill: none

Write Block: 64 Tableau Forensic FireWire Bridge

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
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<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.4 DA-01-SATA28

Test Case DA-01-SATA28 AccessData FTK Imager CLI v2.9

Case Summary: DA-01 Acquire a physical device using access interface AI to an unaligned clone.

Assertions:
AM-01 The tool uses access interface SRC-AI to access the digital source.
AM-02 The tool acquires digital source DS.
AM-03 The tool executes in execution environment XE.
AM-04 If clone creation is specified, the tool creates a clone of the digital source.
AM-06 All visible sectors are acquired from the digital source.
AM-08 All sectors acquired from the digital source are acquired accurately.
AO-11 If requested, a clone is created during an acquisition of a digital source.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr

Test Host: DeathStar

Test Date: Tue Jan 24 12:33:55 2012

Drives: src(07-SATA) dst (32-SATA) other (none)

Source Setup:
src hash (SHA256): <CE65C4A3C3164D3EA9AD58D33BB2415D29E260E1F88BC5A131B1C4C92945B8A9>
src hash (SHA1): <655E9BBB36A3F9C5C4CC8BF328C5B41AF9F52E>
src hash (MD5): <2EAF712DAAD80F6630DEA003684579B>
156301488 total sectors (8002361856 bytes)
Model (WDC WD800JD-32HK) serial # (WD-WMAJ9151004)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 156280257 0000/001/01 1023/254/63 Boot 07 NTFS
2 P 000000000 000000000 0000/000/00 0000/000/00 00 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 156280257 sectors 80015491584 bytes

Log Highlights:
------- Destination drive setup -------
156301488 sectors wiped with 32

------- Comparison of original to clone drive -------
Sectors compared: 156301488
Sectors match: 156301488
Sectors differ: 0
Bytes differ: 0
Diffs range
0 source read errors, 0 destination read errors

Write Block: none

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

------- Source drive rehash -------
Rehash (SHA1) of source: 655E9BBB36A3F9C5C4CC8BF328C5B41AF9F52E

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

May 2013

FTK Imager CLI 2.9.0_DEbian
<table>
<thead>
<tr>
<th>Test Case DA-01-SATA28 AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-02 Source is type DS.</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
Test Case DA-01-SATA48  AccessData FTK Imager CLI v2.9

Case: DA-01  Acquire a physical device using access interface AI to an unaligned clone.

Summary: Clone.

Assertions:
- AM-01: The tool uses access interface SRC-AI to access the digital source.
- AM-02: The tool acquires digital source DS.
- AM-03: The tool executes in execution environment XE.
- AM-04: If clone creation is specified, the tool creates a clone of the digital source.
- AM-06: All visible sectors are acquired from the digital source.
- AM-08: All sectors acquired from the digital source are acquired accurately.
- AO-11: If requested, a clone is created during an acquisition of a digital source.
- AO-13: A clone is created using access interface DST-AI to write to the clone device.
- AO-14: If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17: If requested, any excess sectors on a clone destination device are not modified.
- AO-22: If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23: If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24: If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Jan 24 16:15:39 2012

Drives:
- src(0D-SATA) dst (5B-IDE) other (none)

Source:
- src hash (SHA1): < BAAD80E8781E55F2E3EF528CA73BD41D228C1377 >
- src hash (MD5): < 1FA7C3CBE60EB98863DED2411B40C9 >
- 488397168 total sectors (250059350016 bytes)
- 30400/254/63 (max cyl/hd values)
- 30401/255/63 (number of cyl/hd)
- Model (WDC WD2500JD-22F) serial # (WD-WMAEH2678216)

<table>
<thead>
<tr>
<th>N</th>
<th>Start LBA</th>
<th>Length</th>
<th>Start C/H/S</th>
<th>End C/H/S</th>
<th>Boot</th>
<th>Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P 0000000063</td>
<td>488375937</td>
<td>0000/001/001</td>
<td>1023/254/63</td>
<td>Boot 07</td>
<td>NTFS</td>
</tr>
<tr>
<td>2</td>
<td>P 0000000000</td>
<td>0000000000</td>
<td>0000/000/000</td>
<td>0000/000/000</td>
<td>00 empty entry</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>P 0000000000</td>
<td>0000000000</td>
<td>0000/000/000</td>
<td>0000/000/000</td>
<td>00 empty entry</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>P 0000000000</td>
<td>0000000000</td>
<td>0000/000/000</td>
<td>0000/000/000</td>
<td>00 empty entry</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>488375937 sectors</td>
<td>250048479744 bytes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Log:
- 488397168 sectors wiped with 5B

Highlights:
- Source drive rehash

Rehash (SHA1) of source: BAAD80E8781E55F2E3EF528CA73BD41D228C1377

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>AM-03</td>
<td>Execution environment is XE.</td>
</tr>
<tr>
<td>AM-04</td>
<td>A clone is created.</td>
</tr>
<tr>
<td>AM-06</td>
<td>All visible sectors acquired.</td>
</tr>
<tr>
<td>AM-08</td>
<td>All sectors accurately acquired.</td>
</tr>
<tr>
<td>AO-11</td>
<td>A clone is created during acquisition.</td>
</tr>
<tr>
<td>AO-13</td>
<td>Clone created using interface AI.</td>
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<tr>
<td>AO-17</td>
<td>Excess sectors are unchanged.</td>
</tr>
<tr>
<td>AO-22</td>
<td>Tool calculates hashes by block.</td>
</tr>
<tr>
<td>AO-23</td>
<td>Logged information is correct.</td>
</tr>
<tr>
<td>AO-24</td>
<td>Source is unchanged by acquisition.</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### 5.2.6 DA-01-SCSI

#### Test Case DA-01-SCSI AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Case Summary</th>
<th>DA-01 Acquire a physical device using access interface AI to an unaligned clone.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Assertions</th>
<th>AM-01 The tool uses access interface SRC-AI to access the digital source.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM-02 The tool acquires digital source DS.</td>
</tr>
<tr>
<td></td>
<td>AM-03 The tool executes in execution environment XE.</td>
</tr>
<tr>
<td></td>
<td>AM-04 If clone creation is specified, the tool creates a clone of the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-06 All visible sectors are acquired from the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-08 All sectors acquired from the digital source are acquired accurately.</td>
</tr>
<tr>
<td></td>
<td>AO-11 If requested, a clone is created during an acquisition of a digital source.</td>
</tr>
<tr>
<td></td>
<td>AO-13 A clone is created using access interface DST-AI to write to the clone device.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>AO-17 If requested, any excess sectors on a clone destination device are not modified.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</td>
</tr>
<tr>
<td></td>
<td>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tester Name</th>
<th>csr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Host</td>
<td>DeathStar</td>
</tr>
<tr>
<td>Test Date</td>
<td>Wed Jan 25 15:47:14 2012</td>
</tr>
<tr>
<td>Drives</td>
<td>src(2A) dst (8A) other (none)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source Setup</th>
<th>src hash (SHA256): &lt;AE8E83910161367D92803D5D408268635EF0D8A05FED63383CD391955ABA&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>src hash (SHA1): &lt;F59F2903DCAB895F36E270FB22A722E7918125&gt;</td>
</tr>
<tr>
<td></td>
<td>src hash (MD5): &lt;91D0C905F652ECF6DE5E9835098B19&gt;</td>
</tr>
<tr>
<td></td>
<td>Model (QM39100TD-SCA) serial # (PCB=20-116711-06 HDAQM39100TD-SCA)</td>
</tr>
<tr>
<td></td>
<td>N Start LBA Length Start C/H/S End C/H/S boot Partition type</td>
</tr>
<tr>
<td></td>
<td>1 P 000000000 017751762 0000/001/01 1023/254/63 Boot 07 NTFS</td>
</tr>
<tr>
<td></td>
<td>2 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
<tr>
<td></td>
<td>3 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
<tr>
<td></td>
<td>4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
<tr>
<td></td>
<td>1 017751762 sectors 9088902144 bytes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Log Highlights</th>
<th>39102336 sectors wiped with 8A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>------ Destination drive setup ------</td>
</tr>
<tr>
<td></td>
<td>Intended comparison of original to clone drive</td>
</tr>
<tr>
<td></td>
<td>Sectors compared: 17783249</td>
</tr>
<tr>
<td></td>
<td>Sectors match: 17783249</td>
</tr>
<tr>
<td></td>
<td>Sectors differ: 0</td>
</tr>
<tr>
<td></td>
<td>Bytes differ: 0</td>
</tr>
<tr>
<td></td>
<td>Diffs range</td>
</tr>
<tr>
<td></td>
<td>Source (17783249) has 21319087 fewer sectors than destination (39102336)</td>
</tr>
<tr>
<td></td>
<td>Zero fill: 0</td>
</tr>
<tr>
<td></td>
<td>Src Byte fill (2A): 0</td>
</tr>
<tr>
<td></td>
<td>Dst Byte fill (8A): 21319087</td>
</tr>
<tr>
<td></td>
<td>Other fill: 0</td>
</tr>
<tr>
<td></td>
<td>Other no fill: 0</td>
</tr>
<tr>
<td></td>
<td>Zero fill range:</td>
</tr>
<tr>
<td></td>
<td>Src fill range:</td>
</tr>
<tr>
<td></td>
<td>Dst fill range: 17783249-39102335</td>
</tr>
<tr>
<td></td>
<td>Other fill range:</td>
</tr>
<tr>
<td></td>
<td>Other not filled range:</td>
</tr>
<tr>
<td></td>
<td>0 source read errors, 0 destination read errors</td>
</tr>
<tr>
<td></td>
<td>Write Block: none</td>
</tr>
</tbody>
</table>

May 2013 21 of 119  FTK Imager CLI 2.9.0 Debian
### Test Case DA-01-SCSI AccessData FTK Imager CLI v2.9

**OS:** Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

-------- Source drive rehash --------
Rehash (SHA1) of source: F5F9F2903DCAB895F36E270FB22A722E27918125

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XB.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

### Analysis:
Expected results achieved
## 5.2.7 DA-01-USB

### Test Case DA-01-USB AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Case Summary</th>
<th>DA-01 Acquire a physical device using access interface AI to an unaligned clone.</th>
</tr>
</thead>
</table>

### Assertions:

- **AM-01** The tool uses access interface SRC-AI to access the digital source.
- **AM-02** The tool acquires digital source DS.
- **AM-03** The tool executes in execution environment XE.
- **AM-04** If clone creation is specified, the tool creates a clone of the digital source.
- **AM-06** All visible sectors are acquired from the digital source.
- **AM-08** All sectors acquired from the digital source are acquired accurately.
- **AO-11** If requested, a clone is created during an acquisition of a digital source.
- **AO-13** A clone is created using access interface DST-AI to write to the clone device.
- **AO-14** If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- **AO-17** If requested, any excess sectors on a clone destination device are not modified.
- **AO-22** If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.
- **AO-24** If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

### Tester

<table>
<thead>
<tr>
<th>Name</th>
<th>csr</th>
</tr>
</thead>
</table>

### Test Host

<table>
<thead>
<tr>
<th>Name</th>
<th>DeathStar</th>
</tr>
</thead>
</table>

### Test Date

<table>
<thead>
<tr>
<th>Date</th>
<th>Thu Feb 2 07:30:49 2012</th>
</tr>
</thead>
</table>

### Drives

<table>
<thead>
<tr>
<th>Drive</th>
<th>src (63-FU2)</th>
<th>dst (84-FU2)</th>
<th>other (none)</th>
</tr>
</thead>
</table>

### Source Setup:

- **src hash (SHA256):** EC8E9F01449F96DA18F74C47597C3E74E7180585096A830F9247A998EF613B1D
- **src hash (SHA1):** F7069EDCB0C63C88DECEDE8216F9F22DA96EB99B
- **src hash (MD5):** EE217BC4F9A4F3DB142D129B165A96C
- **117304992 total sectors:** (6006015904 bytes)

<table>
<thead>
<tr>
<th>Model</th>
<th>SP0612N</th>
<th>serial # ()</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Start LBA Length Start C/H/S End C/H/S boot Partition type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 P</td>
<td>0000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16</td>
<td></td>
</tr>
<tr>
<td>2 X</td>
<td>004192965 115097600 0261/000/01 1023/254/63 0F extended</td>
<td></td>
</tr>
<tr>
<td>3 S</td>
<td>0000000063 115097537 0261/001/01 1023/254/63 0B Fat32</td>
<td></td>
</tr>
<tr>
<td>4 S</td>
<td>0000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
<td></td>
</tr>
<tr>
<td>5 P</td>
<td>0000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
<td></td>
</tr>
<tr>
<td>6 P</td>
<td>0000000000 000000000 0000/000/00 0000/000/00 00 empty entry</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>004192902 sectors 2146765824 bytes</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>113097537 sectors 57905938944 bytes</td>
<td></td>
</tr>
</tbody>
</table>

### Log Highlights:

- **160836480 sectors wiped with 84**
- **117304992 sectors compared:**
  - **Sectors match:** 117304992
  - **Sectors differ:** 0
  - **Bytes differ:** 0
  - **Diffs range**
    - **Source (117304992) has 43531488 fewer sectors than destination (160836480)**
    - **Zero fill:** 0
    - **Src Byte fill (63):** 0
    - **Dat Byte fill (84):** 43531488
    - **Other fill:** 0
    - **Other no fill:** 0
    - **Zero fill range:**
    - **Src fill range:**
    - **Dat fill range:** 117304992-160836479
    - **Other fill range:**
    - **Other not filled range:**
### Test Case DA-01-USB AccessData FTK Imager CLI v2.9

0 source read errors, 0 destination read errors

------- Tool Settings: -------
fill: none

Write Block: 18 Tableau Forensic USB Brigde/Ultrablock USB

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.8 DA-02-CF

Test Case DA-02-CF AccessData FTK Imager CLI v2.9

Case Summary:
DA-02 Acquire a digital source of type DS to an unaligned clone.

Assertions:
- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-05 All visible sectors are acquired from the digital source.
- AM-06 All sectors acquired from the digital source are acquired accurately.
- AG-11 If requested, a clone is created during an acquisition of a digital source.
- AG-13 A clone is created using access interface DST-AI to write to the clone device.
- AG-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.
- AG-17 If requested, any excess sectors on a clone destination device are not modified.
- AG-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AG-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AG-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester: csr
Name: Test Host: DeathStar
Test Date: Tue Feb 14 08:41:00 2012
Drives: src(C1-CF) dst (C2-CF) other (none)

Source hash (SHA256): <C7CF0218222DF805316511D6814266C7FA507C13F795AD3D323BB73C1590D80>
Source hash (SHA1): <5B8235178DF99FA307433C088F01746606638A0B>
Source hash (MD5): <776DF8BD2589E21DEBCF589EDC16D78>
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:
---------- Destination drive setup ----------
503808 sectors wiped with C2
---------- Comparison of original to clone drive ----------
Sectors compared: 503808
Sectors match: 503808
Sectors differ: 0
Bytes differ: 0
Diffs range
0 source read errors, 0 destination read errors

Write Block: 7 UltraBlock Forensic Card Reader
OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case DA-02-CF AccessData FTK Imager CLI v2.9</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
**5.2.9 DA-02-EXT3**

**Case** DA-02

**Case Summary:** Acquire a digital source of type DS to an unaligned clone.

**Assertions:**

- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

**Tester Name:** csr

**Test Host:** DeathStar

**Test Date:** Wed Apr 11 08:33:43 2012

**Drives:**

- **src** (49 SATA) dst (6F) other (none)

**Source setup:**

- src hash (SHA1): < 6EC98F42EB5914D1F9D1661C0B6OA3660569F95B >
- src hash (MD5): < 30BAB74F67783C0555BCBD73D0D0D5E >
- 156301488 total sectors (80026361856 bytes)
- Model (ST380815AS) serial # (5QZ5TD8Y)

**N Start LBA Length Start C/H/S End C/H/S boot Partition type**

<table>
<thead>
<tr>
<th>N</th>
<th>Start</th>
<th>Length</th>
<th>Start C/H/S</th>
<th>End C/H/S</th>
<th>boot</th>
<th>Partition Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>000002048</td>
<td>010485760</td>
<td>0000/032/33</td>
<td>0652/213/09</td>
<td>07 NTFSS</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>010490445</td>
<td>005863725</td>
<td>0653/000/01</td>
<td>1017/254/63</td>
<td>83 Linux</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>016354170</td>
<td>007807590</td>
<td>1018/000/01</td>
<td>1023/254/63</td>
<td>83 Linux</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
<td></td>
</tr>
</tbody>
</table>

**1 010485760 sectors 5368709120 bytes**

**2 005863725 sectors 3002227200 bytes**

**3 007807590 sectors 3997486080 bytes**

**4 000000000 sectors 0000000000 bytes**

**Excess destination partition sectors hash:**

- SHA1: 3002227200 - 3224277503 = 7D266425
- MD5: 5863725 A25176AE775F65181DAC8C8D051DDF5D

**Log Highlights:**

--- Destination drive setup ---

- 120103200 sectors wiped with 6F

--- Comparison of original to clone drive ---

- Sources compared: 5863725
- Sectors match: 5863725
- Sectors differ: 0
- Bytes differ: 0
- Diffs range:
  - Source (5863725) has 433692 fewer sectors than destination (6297417)
  - Zero fill: 8081
  - Src Byte fill (49): 0
  - Dst Byte fill (6F): 425588
  - Other fill: 19
  - Other no fill: 4
  - Zero fill range: 6029313-6029320, 6029328-6295407, 6297216-6297415
  - Src fill range:
    - 5863725-6029311, 6033264-6291455
    - 6291457-6291463

--- Destination drive setup ---

- 6029322-6299327, 6291457-6291463,
**Test Case DA-02-EXT3 AccessData FTK Imager CLI v2.9**

| Other not filled range: | 6291466-6291471 |
| run start Mon Apr 16 08:44:14 2012 |
| run finish Mon Apr 16 08:46:38 2012 |
| elapsed time 0:2:24 |
| Normal exit |

***** Tool Settings: *****

fill: none

Write Block: 11 UltraBlock-SATA

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Excess destination partition sectors hash:

SHA1 3002227200 - 3224277503 = 7D266425BAC55D10000F60978253ACFFABC24F97

***** Source drive rehash *****

Rehash (SHA1) of source: 6EC98F42EB5914D1F9D1661C0BB0A3660569F95B

<table>
<thead>
<tr>
<th>Results:</th>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01</td>
<td>Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02</td>
<td>Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03</td>
<td>Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04</td>
<td>A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06</td>
<td>All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08</td>
<td>All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11</td>
<td>A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13</td>
<td>Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14</td>
<td>An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17</td>
<td>Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22</td>
<td>Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23</td>
<td>Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24</td>
<td>Source is unchanged by acquisition.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
DA-02-EXT4

Test Case DA-02-EXT4 AccessData FTK Imager CLI v2.9

Case Summary:
DA-02 Acquire a digital source of type DS to an unaligned clone.

Assertions:
AM-01 The tool uses access interface SRC-AI to access the digital source.
AM-02 The tool acquires digital source DS.
AM-03 The tool executes in execution environment XE.
AM-04 If clone creation is specified, the tool creates a clone of the digital source.
AM-06 All visible sectors are acquired from the digital source.
AM-08 All sectors acquired from the digital source are acquired accurately.
AO-11 If requested, a clone is created during an acquisition of a digital source.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr
Test Host: DeathStar
Test Date: Wed Apr 16 12:07:43 2012
Drives: src(49-SATA) dst (6F) other (none)

Source
src hash (SHA1): < 6EC98F42EB5914D1F9D1661C0BB0A366D656F9F5B >
src hash (MD5): < 30B8B74F67783C0555BCBD73DD5D0D5BE >
156303488 total sectors (86026361856 bytes)
Model (ST380815AS ) serial # ( 5QZ5TD8Y)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 00002048 010485760 0000/032/33 0652/213/09 07 NTFS
2 P 010490445 005863725 0653/000/01 1017/254/63 83 Linux
3 P 016354170 007807590 1018/000/01 1023/254/63 83 Linux
4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
1 010485760 sectors 5368709120 bytes
2 005863725 sectors 3002227200 bytes
3 007807590 sectors 3997486080 bytes
49-SATAEXT4-md5sum 7807590 567F2826AB468D69F97CB0D1878BE25D
49-SATAEXT4-sha1sum 7807590 F28A79F5E5CD28F859A1AC681A2CA3682D15A2A
Excess destination partition sectors hash:
SHA1 3997486080 - 4293563903 = 6C3ED4F22307CC6A655A26688BA5732C0F88ABBC

Log
Highlights:
----- Destination drive setup ------
120103200 sectors wiped with 6F

----- Comparison of original to clone drive -----
Sectors compared: 7807590
Sectors match: 7807590
Sectors differ: 0
Bytes differ: 0
Diffs range:
Source (7807590) has 578277 fewer sectors than destination (8385867)
Zero fill: 200
Src Byte fill (49): 0
Dst Byte fill (6F): 578077
Other fill: 0
Other no fill: 0
Zero fill range: 8385664-8385863
Src fill range:
Dst fill range: 7807590-8385663, 8385864-8385866
Other fill range:
Other not filled range:
run start Mon Apr 16 12:32:39 2012

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Test Case DA-02-EXT4 AccessData FTK Imager CLI v2.9

Run finish Mon Apr 16 12:35:28 2012
eelapsed time 0:2:49
Normal exit

====== Tool Settings: ======
fill: none
Write Block: 11 UltraBlock-SATA
OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Excess destination partition sectors hash:
SHA1 3997486080 - 4293563903 = 6C3ED4F226BCC6A655A2668BA5732CF88AB0C

====== Source drive rehash ======
Rehash (SHA1) of source: 6EC98F42EB5914D1F9D1661C0B80A3660569F95B

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
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<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
Case Summary: DA-02 Acquire a digital source of type DS to an unaligned clone.

Assertions:
- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

Tester Name: csr
Test Host: DeathStar
Test Date: Fri Feb 3 10:30:34 2012
Drives:
- src (01-IDE) dst (4D-SATA) other (none)

Source:
- src hash (SHA1): < A48BB5665D6DC5C22DB6E2F723DA9AA8DF82B9 >
- src hash (MD5): < F458F673894753FA6A0EC8B8EC63848E >
- 78165360 total sectors (40020664320 bytes)

Model (OB-00JHC0 ) serial # ( WD-WMAMC74171)

Partition type
<table>
<thead>
<tr>
<th>Start LBA Length</th>
<th>Start C/H/S End C/H/S</th>
<th>boot Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 0000000063 020980827 0000/001/01 1023/254/63</td>
<td>0C Fat32X</td>
<td></td>
</tr>
<tr>
<td>2 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>0F extended</td>
<td></td>
</tr>
<tr>
<td>3 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>01 Fat12</td>
<td></td>
</tr>
<tr>
<td>4 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>5 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>06 Fat16</td>
<td></td>
</tr>
<tr>
<td>6 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>7 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>16 other</td>
<td></td>
</tr>
<tr>
<td>8 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>9 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>0B Fat32</td>
<td></td>
</tr>
<tr>
<td>10 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>11 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>83 Linux</td>
<td></td>
</tr>
<tr>
<td>12 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>13 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>82 Linux swap</td>
<td></td>
</tr>
<tr>
<td>14 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>05 extended</td>
<td></td>
</tr>
<tr>
<td>15 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>07 NTFS</td>
<td></td>
</tr>
<tr>
<td>16 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>00 empty entry</td>
<td></td>
</tr>
<tr>
<td>17 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>00 empty entry</td>
<td></td>
</tr>
<tr>
<td>18 0000000063 020980890 057175335 1023/000/01 1023/254/63</td>
<td>00 empty entry</td>
<td></td>
</tr>
</tbody>
</table>

01F32-md5 0x01F32-sha1 0x01F32-sha256
### Log

**Destination drive setup**

- 156301488 sectors wiped with 4D

**Comparison of original to clone drive**

- Sectors compared: 8401932
- Sectors match: 8401932
- Sectors differ: 0
- Bytes differ: 0
- Diffs range: run start Tue Feb 14 07:43:54 2012
  run finish Tue Feb 14 07:46:00 2012
  elapsed time 0:2:6
- Normal exit

Write Block: 3 FASTbloc IDE

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

### Results:

<table>
<thead>
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<th>Assertion &amp; Expected Result</th>
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<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

### Analysis:

Expected results achieved
**Case Summary:** DA-02 Acquire a digital source of type DS to an unaligned clone.

**Assertions:**
- **AM-01** The tool uses access interface SRC-AI to access the digital source.
- **AM-02** The tool acquires digital source DS.
- **AM-03** The tool executes in execution environment XE.
- **AM-04** If clone creation is specified, the tool creates a clone of the digital source.
- **AM-06** All visible sectors are acquired from the digital source.
- **AM-08** All sectors acquired from the digital source are acquired accurately.
- **AO-11** If requested, a clone is created during an acquisition of a digital source.
- **AO-13** A clone is created using access interface DST-AI to write to the clone device.
- **AO-14** If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- **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:** csr

**Test Host:** DeathStar

**Test Date:** Thu Mar 1 13:10:10 2012

**Drives:**
- src(01-IDE)
- dst (4D-SATA)
- other (none)

**Source**
- src hash (SHA1): <A48BB5665D6C57C22DB68E2F723DA9AA8DF82B9>
- src hash (MD5): <F458F673894753FAE0AD88EC63848E>

**Setup:**
78165360 total sectors (40020664320 bytes)

Model (0BB-00JHC0) serial # (WD-WMAC74171)

- N Start LBA 512
- Start C/H/S 1023/000/00 End C/H/S 1023/254/63
- boot Partition type Fat32
- 1 P 0000000063 020980827 0000/01/01 1023/254/63
- 0C Fat32
- 3 S 0000000063 000032067 020980827 1023/254/63
- 03 Fat12
- 3 S 0000000063 000032067 020980827 1023/254/63
- 06 Fat16
- 6 X 001326645 041929265 1023/254/63
- 06 extended
- 7 S 0000000063 041929202 1023/254/63
- 16 other
- 5 S 0000000063 000032067 020980827 1023/254/63
- 05 extended
- 9 S 0000000063 000032067 020980827 1023/254/63
- 0B Fat32
- 10 X 014731605 014904445 1023/254/63
- 05 extended
- 11 S 0000000063 014904382 1023/254/63
- 83 Linux
- 12 X 025222050 04209030 1023/254/63
- 05 extended
- 13 S 0000000063 042092967 1023/254/63
- 82 Linux swap
- 14 X 029431080 027744255 1023/254/63
- 05 extended
- 15 S 0000000063 027744192 1023/254/63
- 07 NTFS
- 16 S 000000000 000000000 1023/254/63
- 00 empty entry
- 17 P 000000000 000000000 1023/254/63
- 00 empty entry
- 18 P 000000000 000000000 1023/254/63
- 00 empty entry

**Log Highlights:**

---

**Log Highlights:**

----- Destination drive setup -----

156301488 sectors wiped with 4D
Test Case DA-02-NT AccessData FTK Imager CLI v2.9

Comparison of original to clone drive

- Sectors compared: 27744192
- Sectors match: 27744192
- Bytes differ: 0
- Diffs range:
  - Source (27744192) has 78140160 fewer sectors than destination (105884352)
  - Zero fill: 3295
  - Src Byte fill (01): 0
  - Dst Byte fill (4D): 78136568
- Other fill: 4
- Other no fill: 293
- Zero fill range: 52942181-52942245, 52942265-52942271, 52942273-52942245, 52942465-52943886, 52943888-52945502
- Src fill range: 52942460-52942463
- Dst fill range: 27744192-52942167, 52942247, 52945760-105884350
- Other fill range: 52942450-52942579, 105884351

- Excess destination partition sectors hash:
  - SHA1 14205026304 - 28410052607 = DFB523B023E56C64400736E404B362DE3FD6B828

Results:

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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
# Test Case DA-02-THUMB

## Access Data FTK Imager CLI v2.9

**Case:** DA-02 Acquire a digital source of type DS to an unaligned clone.

### Summary:

**Assertions:**
- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-22 If requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.
- AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.

**Tester Name:** csr

**Test Host:** DeathStar

**Test Date:** Wed Feb 15 08:39:02 2012

**Drives:**
- **src (D5-THUMB)**
- **dst (D6-THUMB)**
- **other (none)**

**Source hash (SHA1):** D68520EF74A336E49DCCCF83815B7B08FDC53E38A

**src hash (MD5):** C843593624B2B3B878596D8760B19954

**505856 total sectors (259998272 bytes)**

**Model (usb2.0Flash Disk) serial #:**

### Setup:

**Log ====== Destination drive setup ======**

4001760 sectors wiped with D6

**------ Comparison of original to clone drive ------**

- Sectors compared: 505856
- Sectors match: 505856
- Sectors differ: 0
- Bytes differ: 0
- Diffs range
  - Source (505856) has 3495904 fewer sectors than destination (4001760)
  - Zero fill: 0
  - Src Byte fill (D5): 0
  - Dst Byte fill (D6): 3495904
  - Other fill: 0
  - Other no fill: 0
  - Zero fill range:
  - Src fill range:
  - Dst fill range: 505856-4001759
  - Other fill range:
  - Other not filled range: 0 source read errors, 0 destination read errors

**Write Block:** 18 UltraBlock USB

### 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-04 A clone is created.                                       | as expected   |
| AM-06 All visible sectors acquired.                            | as expected   |

---

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<table>
<thead>
<tr>
<th>Test Case DA-02-THUMB AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
</tr>
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<td>AO-17 Excess sectors are unchanged.</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### 5.2.14 DA-04

**Test Case DA-04 AccessData FTK Imager CLI v2.9**

<table>
<thead>
<tr>
<th>Case</th>
<th>DA-04 Acquire a physical device to a truncated clone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary:</td>
<td>DA-04 Acquire a physical device to a truncated clone.</td>
</tr>
</tbody>
</table>

**Assertions:**
- AM-01 The tool uses access interface SRC-AI to access the digital source.
- AM-02 The tool acquires digital source DS.
- AM-03 The tool executes in execution environment XE.
- AM-04 If clone creation is specified, the tool creates a clone of the digital source.
- AM-06 All visible sectors are acquired from the digital source.
- AM-08 All sectors acquired from the digital source are acquired accurately.
- AO-11 If requested, a clone is created during an acquisition of a digital source.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- 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-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:** csr

**Test Host:** DeathStar

**Test Date:** Fri Jan 27 07:47:47 2012

**Drives:**
- src(4f) dst (31-IDE) other (none)

**Source**
- src hash (SHA1): < 51FE53FD6BF7B7B69A875EDBD9AC01D41194C78C >
- src hash (MD5): < A98DF276339451CE9E701D087E2BF95 >
- 488397168 total sectors (250059350016 bytes)
- 30400/254/63 (max cyl/hd values)
- 30401/255/63 (number of cyl/hd)
- IDE disk: Model (WDC WD2500JB-00EVA0) serial #: (WD-WMAEH2681554)

<table>
<thead>
<tr>
<th>N</th>
<th>Start LBA Length</th>
<th>Start C/H/S End C/H/S</th>
<th>boot Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 P</td>
<td>0000000063</td>
<td>268413957</td>
<td>0000/001/01 1023/254/63 Boot 07 NTFS</td>
</tr>
<tr>
<td>2 P</td>
<td>0000000000</td>
<td>0000000000</td>
<td>0000/000/00 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
<tr>
<td>3 P</td>
<td>0000000000</td>
<td>0000000000</td>
<td>0000/000/00 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
<tr>
<td>4 P</td>
<td>0000000000</td>
<td>0000000000</td>
<td>0000/000/00 0000/000/00 0000/000/00 00 empty entry</td>
</tr>
</tbody>
</table>

| 1 | 268413957 sectors 137427945984 bytes |

**Log Highlights:**
- ---- Destination drive setup ----
  - 35673120 sectors wiped with 31

- ---- Comparison of original to clone drive ----
  - Sectors compared: 35673120
  - Sectors match: 35673120
  - Sectors differ: 0
  - Bytes differ: 0
  - Diffs range
    - Source (488397168) has 452724048 more sectors than destination (35673120)
    - 0 source read errors, 0 destination read errors

- ---- Tool Message: -----
  - no message
  - Write Block: 3 Fastbloc IDE

- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
</table>

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FTK Imager CLI 2.9.0_Debian
<table>
<thead>
<tr>
<th>Test Case DA-04 AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
</tr>
<tr>
<td>AM-04 A clone is created.</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
</tr>
<tr>
<td>AO-11 A clone is created during acquisition.</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
</tr>
<tr>
<td>AO-19 Truncated clone is created.</td>
</tr>
<tr>
<td>AO-20 User notified that clone is truncated.</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
</tr>
</tbody>
</table>

Analysis: Expected results not achieved
**5.2.15 DA-06-ATA28**

**Test Case DA-06-ATA28**
AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Case Summary:</th>
<th>DA-06 Acquire a physical device using access interface AI to an image file.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assertions:</strong></td>
<td>AM-01 The tool uses access interface SRC-AI to access the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-02 The tool acquires digital source DS.</td>
</tr>
<tr>
<td></td>
<td>AM-03 The tool executes in execution environment XE.</td>
</tr>
<tr>
<td></td>
<td>AM-05 If image file creation is specified, the tool creates an image file on file system type FS.</td>
</tr>
<tr>
<td></td>
<td>AM-06 All visible sectors are acquired from the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-08 All sectors acquired from the digital source are acquired accurately.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</td>
</tr>
<tr>
<td></td>
<td>AO-24 If the tool executes in a forensically safe execution environment, the digital source is unchanged by the acquisition process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tester Name:</th>
<th>csr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Host:</td>
<td>DeathStar</td>
</tr>
<tr>
<td>Test Date:</td>
<td>Thu Aug 23 11:54:13 2012</td>
</tr>
<tr>
<td>Drives:</td>
<td>src(41) dst (none) other (0f-FU)</td>
</tr>
</tbody>
</table>

| Source | src hash (SHA256): <BBF3AA21489653D80FFAE71449A9F7E8EE4F56A6C3BF58A3A3FFB12031FB1D > |
| Setup: | src hash (SHA1): <15CA91A30272116D8372668BF8A03FC45A51C99 > |
| | src hash (MD5): <0A6A98F78BDC14E2026710D8CCB5607C > |
| | 78125000 total sectors (40000000000 bytes) |
| | 65534/015/63 (max cyl/rd values) |
| | 65535/016/63 (number of cyl/rd) |
| | IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355) |
| | N Start LBA Length Start C/H/S End C/H/S boot Partition type |
| | 1 F 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS |
| | 2 F 000000000 000000000 0000/000/00 0000/000/00 00 empty entry |
| | 3 F 000000000 000000000 0000/000/00 0000/000/00 00 empty entry |
| | 4 F 000000000 000000000 0000/000/00 0000/000/00 00 empty entry |
| | 1 078107967 sectors 39991279104 bytes |

Log Highlights: 

------ Tool Settings: ------
image size: 952674655 MB
image format: E01
Write Block: 4 FASTBLOC IDE

OS: Linux debian 2.6.32-5+486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

------ Image file segments ------
1 952674655 2012-08-23 12:18 da-06-ata28.E01
2 1112 2012-08-23 12:21 da-06-ata28.E01.txt

------ Excerpt from Tool log ------
Case: da-06-ata28
Drive Geometry:
Cylinders: 4863
Heads: 255
Sectors per Track: 63
Bytes per Sector: 512
Sector Count: 78125000
Physical Drive Information:
Drive Model: ATA WDC WD400BB-75JH
Drive Interface Type: SCSI
Source data size: 38146 MB
Sector count: 78125000
Test Case DA-06-ATA28 AccessData FTK Imager CLI v2.9

Source hash:
MD5: 0a6a8ef78bdc14e2026710d8cccb5607c
SHA1: 15caaa1a307271160d8372668bf8a03fc45a51cc9
Verification hash:
MD5: 0a6a8ef78bdc14e2026710d8cccb5607c
SHA1: 15caaa1a307271160d8372668bf8a03fc45a51cc9
Segment list:
/media/cftt/da-06-ata28.E01
-------- End of Excerpt from Tool log --------

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
**Test Case DA-06-ATA48**

**AccessData FTK Imager CLI v2.9**

<table>
<thead>
<tr>
<th>Case Summary</th>
<th>DA-06 Acquire a physical device using access interface AI to an image file.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertions</td>
<td>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.</td>
</tr>
<tr>
<td>Tester Name</td>
<td>csr</td>
</tr>
<tr>
<td>Test Host</td>
<td>DeathStar</td>
</tr>
<tr>
<td>Test Date</td>
<td>Wed Mar 7 07:32:15 2012</td>
</tr>
<tr>
<td>Drives</td>
<td>src(4F) dst (none) other (5D=SATA)</td>
</tr>
<tr>
<td>Source</td>
<td>src hash (SHA1): &lt; 51FE53FD6BF7B769A875EDBD9AC01D41194C78C &gt; src hash (MD5): &lt; A98DF276339451CE9E701D087E2BFC95 &gt; 488397168 total sectors (250059350016 bytes) 30400/254/63 (max cyl/hd values) 30401/255/63 (number of cyl/hd) IDE disk: Model (WDC WD2500JB-00EVA0) serial # (WD-WMAEH2681554) N Start LBA Length Start C/H/S End C/H/S boot Partition type 1 P 000000063 268413957 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 268413957 sectors 137427945984 bytes</td>
</tr>
<tr>
<td>Setup</td>
<td>625142448 sectors wiped with 5D Write Block: 3 FASTBloc IDE</td>
</tr>
<tr>
<td>Log</td>
<td>OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 1686 GNU/Linux 625142448 sectors wiped with 5D Write Block: 3 FASTBloc IDE</td>
</tr>
</tbody>
</table>
| Highlights   | 214741976 2012-03-07 14:50 da-06-ata48.s01 2 1143 2012-03-07 15:59 da-06-ata48.s01.txt 3 2015779044 2012-03-07 15:42 da-06-ata48.s02 4 16384 2012-03-07 14:15 lost+found 5 0 2012-03-07 16:00 ls.txt 214741976 2012-03-07 14:50 da-06-ata48.s01 2 1143 2012-03-07 15:59 da-06-ata48.s01.txt 3 2015779044 2012-03-07 15:42 da-06-ata48.s02 4 16384 2012-03-07 14:15 lost+found 5 0 2012-03-07 16:00 ls.txt }
### Test Case DA-06-ATA48 AccessData FTK Imager CLI v2.9

SHA1: 51fe53fd6bf7b7b69a875eddb9ac01d41194c78c  
Verification hash: a98df276339451ce9e701d087e22bc95  
SHA1: 51fe53fd6bf7b7b69a875eddb9ac01d41194c78c  
Segment list:  
/media/xxx/da-06-ata48.s01  
/media/xxx/da-06-ata48.s02  
--- End of Excerpt from Tool log ---

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

### Analysis:  
Expected results achieved
# Test Case DA-06-FW

## AccessData FTK Imager CLI v2.9

### 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 Information:
- **Name:** csr
- **Test Host:** DeathStar
- **Test Date:** Wed Mar 14 10:22:01 2012

### Drives:
- **src (01-SATA)**
- **dst (none)**
- **other (5D-5 SATA)**

### Source Information:
- **src hash (SHA256):** `<1AA01FEAE55F5CD55185D2B1A1359B3F913E7093EFF1D1ADA220C4468A40D8>`
- **src hash (SHA1):** `<4951236428C36B94AE65862DCBEC05F282C>`
- **src hash (MD5):** `<0A49B13D01FA5DA87CEE9D06CB6FD6>`
- **156301488 total sectors (8002631856 bytes)**
- **Model (0JD-32HKA0) serial # (WD-WMAJ91448529)**

### Log Highlights:
- **Destination drive setup:**
  - 625124448 sectors wiped with 5D
- **Tool Settings:**
  - image size: 4G
  - image format: dd
- **OS:**
  - Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux
- **Image file segments:**
  - 1 4294967296 2012-03-15 07:21 da-06-fw.001
  - 2 1573 2012-03-15 08:34 da-06-fw.001.txt
  - 3 4294967296 2012-03-15 07:25 da-06-fw.002
  - 18 4294967296 2012-03-15 08:19 da-06-fw.018
  - 19 2716950528 2012-03-15 08:21 da-06-fw.019
  - 20 16384 2012-03-15 11:09 lost+found
- **Excerpt from Tool log:**
  - Case: da-06-fw
  - Drive Geometry:
    - Cylinders: 9729
    - Heads: 255
    - Sectors per Track: 63
    - Bytes per Sector: 512
    - Sector Count: 156301488
  - Physical Drive Information:
    - Drive Model: WDC WD80 0JD-32HKA0
    - Drive Interface Type: SCSI
    - Source data size: 76319 MB
    - Sector count: 156301488
    - Source hash: 0a49b13d01fa5da87cee9d06cb6fd6
Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.18 DA-06-SATA28

Test Case DA-06-SATA28 AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Wed Feb 22 12:48:36 2012
Drives: src(4B-SATA) dst (none) other (5D-SATA)

Source:
src hash (SHA256): < F61ADE21982F803F64D2CEA2C9CA90C23056CA8252CC515D178270381548SC1E >
src hash (SHA1): < 70CC62B43F6A41CA4D6760AA0B9B4C415D3F4BE2 >
src hash (MD5): < 746B4C06CDD5FBD67C0820DB4325B48C >
Model (ST380815AS) serial # (6QZ5C9V5)

Log Highlights:
====== Destination drive setup ======
625142448 sectors wiped with 5D

====== Tool Settings: ======
image size: 4Gb
image format: dd
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

====== Image file segments ======
1 4000000000 2012-03-08 14:08 da-06-sata28.001
2 1708 2012-03-08 14:41 da-06-sata28.001.txt
3 4000000000 2012-03-08 14:09 da-06-sata28.002
....
20 4000000000 2012-03-08 14:28 da-06-sata28.020
21 26361856 2012-03-08 14:28 da-06-sata28.021
22 16384 2012-03-08 14:04 lost+found

Excerpt from Tool log:
Test Case DA-06-SATA28 AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Case: da-06-sata28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Geometry:</td>
</tr>
<tr>
<td>Cylinders: 9729</td>
</tr>
<tr>
<td>Heads: 255</td>
</tr>
<tr>
<td>Sectors per Track: 63</td>
</tr>
<tr>
<td>Bytes per Sector: 512</td>
</tr>
<tr>
<td>Sector Count: 156301488</td>
</tr>
</tbody>
</table>

| Physical Drive Information: |
| Drive Model: ATA ST380815AS |
| Drive Interface Type: SCSI |
| Source data size: 76319 MB |
| Sector count: 156301488 |

| Source hash: |
| MD5: 746b4c06cdd5fd67c0820db4325b40c |
| SHA1: 70cc62b43f6a41ca4d6760aa0b9b4c415d3f48e2 |

| Verification hash: |
| MD5: 746b4c06cdd5fd67c0820db4325b40c |
| SHA1: 70cc62b43f6a41ca4d6760aa0b9b4c415d3f48e2 |

| Segment list: |
| /media/xxx/da-06-sata28.001 |
| /media/xxx/da-06-sata28.002 |
| /media/xxx/da-06-sata28.003 |
| /media/xxx/da-06-sata28.004 |
| /media/xxx/da-06-sata28.005 |
| /media/xxx/da-06-sata28.006 |
| /media/xxx/da-06-sata28.007 |
| /media/xxx/da-06-sata28.008 |
| /media/xxx/da-06-sata28.009 |
| /media/xxx/da-06-sata28.010 |
| /media/xxx/da-06-sata28.011 |
| /media/xxx/da-06-sata28.012 |
| /media/xxx/da-06-sata28.013 |
| /media/xxx/da-06-sata28.014 |
| /media/xxx/da-06-sata28.015 |
| /media/xxx/da-06-sata28.016 |
| /media/xxx/da-06-sata28.017 |
| /media/xxx/da-06-sata28.018 |
| /media/xxx/da-06-sata28.019 |
| /media/xxx/da-06-sata28.020 |
| /media/xxx/da-06-sata28.021 |

<p>| Results: |</p>
<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
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<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
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<tr>
<td>AM-03 Execution environment is XE.</td>
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</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
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<tr>
<td>AM-08 All visible sectors acquired.</td>
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<tr>
<td>AO-01 Image file is complete and accurate.</td>
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<td>AO-05 Multifile image created.</td>
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<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.19 DA-06-SATA48

Test Case DA-06-SATA48 AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Fri Mar 9 16:22:14 2012
Drives:

<table>
<thead>
<tr>
<th>Drive Type</th>
<th>Drive Model</th>
<th>Serial #</th>
</tr>
</thead>
<tbody>
<tr>
<td>src(16-SATA)</td>
<td>ATA WDC WD1600JD-00G</td>
<td>WD-WMAES2058252</td>
</tr>
<tr>
<td>dst (none)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>other (5D-SATA)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source hash (SHA1): < F82982A9C63133988C1D2B4DA7C9C25CCA2D77A5 >
Setup:

<table>
<thead>
<tr>
<th>Drives</th>
<th>Total Sectors</th>
<th>Total Bytes</th>
<th>Cylinder</th>
<th>Head</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>src(16-SATA)</td>
<td>312581808</td>
<td>160041885696</td>
<td>19456</td>
<td>254</td>
<td>63</td>
</tr>
<tr>
<td>other (5D-SATA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model (WDC WD1600JD-00G) serial # (WD-WMAES2058252)

Log Highlights:

------ Destination drive setup ------
625142448 sectors wiped with 5D
------ Tool Settings: ------
size:308812531 MB
image format: e01
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

------ Image file segments ------

1 308812531 2012-03-09 13:36 da-06-sata48.E01
2 1116 2012-03-09 13:47 da-06-sata48.E01.txt
3 16384 2012-03-08 14:04 lost+found

------ Excerpt from Tool log ------
Case: da-06-sata48
Drive Geometry:

Cylinders: 19457
Heads: 255
Sectors per Track: 63
Bytes per Sector: 512
Sector Count: 312581808

Physical Drive Information:

Drive Model: ATA WDC WD1600JD-00G
Drive Interface Type: SCSI
Source data size: 152627 MB
Sector count: 312581808
Source hash:  
### Test Case DA-06-SATA48 AccessData FTK Imager CLI v2.9

| MD5: 7bb1d64d47671ed3e69130a2ad08fa02 |
| SHA1: f82982a9c63133988c1d2b4da7c9c25c5ca2d77a5 |

**Verification hash:**
- MD5: 7bb1d64d47671ed3e69130a2ad08fa02
- SHA1: f82982a9c63133988c1d2b4da7c9c25c5ca2d77a5

**Segment list:**
- /media/xxx/da-06-sata48.E01

-------- End of Excerpt from Tool log --------

##### Source drive rehash

Rehash (SHA1) of source: F82982A9C63133988C1D2B4DA7C9C25C5CA2D77A5

#### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

**Analysis:**

Expected results achieved
**5.2.20 DA-06-SCSI**

<table>
<thead>
<tr>
<th>Case Summary:</th>
<th>DA-06 Acquire a physical device using access interface AI to an image file.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assertions:</td>
<td>AM-01 The tool uses access interface SRC-AI to access the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-02 The tool acquires digital source DS.</td>
</tr>
<tr>
<td></td>
<td>AM-03 The tool executes in execution environment XE.</td>
</tr>
<tr>
<td></td>
<td>AM-05 If image file creation is specified, the tool creates an image file</td>
</tr>
<tr>
<td></td>
<td>on file system type FS.</td>
</tr>
<tr>
<td></td>
<td>AM-06 All visible sectors are acquired from the digital source.</td>
</tr>
<tr>
<td></td>
<td>AM-08 All sectors acquired from the digital source are acquired accurately.</td>
</tr>
<tr>
<td></td>
<td>AO-01 If the tool creates an image file, the data represented by the image</td>
</tr>
<tr>
<td></td>
<td>file is the same as the data acquired by the tool.</td>
</tr>
<tr>
<td></td>
<td>AO-05 If the tool creates a multi-file image of a requested size then all</td>
</tr>
<tr>
<td></td>
<td>the individual files shall be no larger than the requested size.</td>
</tr>
<tr>
<td></td>
<td>AO-22 If requested, the tool calculates block hashes for a specified block</td>
</tr>
<tr>
<td></td>
<td>size during an acquisition for each block acquired from the digital source.</td>
</tr>
<tr>
<td></td>
<td>AO-23 If the tool logs any log significant information, the information is</td>
</tr>
<tr>
<td></td>
<td>accurately recorded in the log file.</td>
</tr>
<tr>
<td></td>
<td>AO-24 If the tool executes in a forensically safe execution environment,</td>
</tr>
<tr>
<td></td>
<td>the digital source is unchanged by the acquisition process.</td>
</tr>
</tbody>
</table>

**Tester Name:** csr  
**Test Host:** Frank  
**Test Date:** Wed Apr 18 13:40:12 2012  
**Drives:** src(E0) dst (none) other (AA)  
**Source**
- src hash (SHA1): <4A6941F1337A8A22B10FC844B4D7FA6158BECB82>  
- src hash (MD5): <A97C8F36B7AC9D5233B90AC9284F938>  
17938985 total sectors (9184760320 bytes)  
Model (ATLAS10K2-TY092J) serial # (169028142436)

**Log Highlights:**
- 60030432 sectors wiped with AA  
- Tool Settings: image size: 9184760320 MB  
image format: dd  
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 1686 GNU/Linux  
- Image file segments:  
  1 9184760320 2012-04-19 14:55 da-14-scsi.001  
  2 1111 2012-04-19 15:00 da-14-scsi.001.txt  
  3 0 2012-04-19 15:01 ls.txt  
- Excerpt from Tool log:  
  Case: da-06-scsi  
  Drive Geometry:  
  Cylinders: 1116  
  Heads: 255  
  Sectors per Track: 63  
  Bytes per Sector: 512  
  Sector Count: 17938985  
  Physical Drive Information:  
  Drive Model: QUANTUM ATLAS10K2-TY092J  
  Drive Interface Type: SCSI  
  Source data size: 8759 MB  
  Sector count: 17938985  
  Source hash:  
  MD5: a97c8f36b7ac9d5233b90ac9284f938  
  SHA1: 4a6941f1337a8a22b10fc844b4d7fa6158becb82  
  Verification hash:  
  MD5: a97c8f36b7ac9d5233b90ac9284f938  
  SHA1: 4a6941f1337a8a22b10fc844b4d7fa6158becb82  
  Segment list: /media/xxx/da-14-scsi.001
<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
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<td>AM-02 Source is type DS.</td>
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</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
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</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
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<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.21 DA-06-USB

Test Case DA-06-USB AccessData FTK Imager CLI v2.9

Case DA-06 Acquire a physical device using access interface AI to an image file.

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: csr
Test Host: DeathStar
Test Date: Wed Jul 25 10:09:17 2012

Drives:
src(63-FU2) dst (none) other (5D-SATA)

Source:
src hash (SHA256): <EC8EF011494BA6DA18F74C7547C3E74E7180585096A830F927A98EF613BB1D >
src hash (SHA1): < F7069EDCB6AEC863C98DECE02159F226A96EB99B >
src hash (MD5): < EE217BC4FA4F5D1B4021D20B065A9EC >

Log

Highlights:
====== Tool Settings: ======
image size:887829024 MB
image format: s01

Write Block: 18 Tableau Forensic USB

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

====== Image file segments ======
1 887829024 2012-07-25 14:17 da-06-usb.s01
2 1105 2012-07-25 14:27 logfile.txt
3 0 2012-07-25 15:53 ls.txt

======== Excerpt from Tool log ========

Case: da-06-usb
Drive Geometry:
Cylinders: 7301
Heads: 255
Sectors per Track: 63
Bytes per Sector: 512
Sector Count: 117304992
Physical Drive Information:
Drive Model: SAMSUNG SP0612N
### Test Case DA-06-USB AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Drive Interface Type: SCSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source data size: 57277 MB</td>
</tr>
<tr>
<td>Sector count: 117304992</td>
</tr>
<tr>
<td>Source hash:</td>
</tr>
<tr>
<td>MD5: ee217bc4fa4f3d1b4021d29b065aa9ec</td>
</tr>
<tr>
<td>SHA1: f7069edcbeac863c88deced82159f22da96be99b</td>
</tr>
<tr>
<td>Verification hash:</td>
</tr>
<tr>
<td>MD5: ee217bc4fa4f3d1b4021d29b065aa9ec</td>
</tr>
<tr>
<td>SHA1: f7069edcbeac863c88deced82159f22da96be99b</td>
</tr>
<tr>
<td>Segment list:</td>
</tr>
<tr>
<td>/media/cftt/da-06-usb.s01</td>
</tr>
</tbody>
</table>

======== End of Excerpt from Tool log ========

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
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<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

### Analysis:

Expected results achieved
## 5.2.22 DA-07-CF

### Test Case DA-07-CF AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Case Summary</th>
<th>DA-07 Acquire a digital source of type DS to an image file.</th>
</tr>
</thead>
</table>

### 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 the tool creates an image file, the data represented by the image file is the same as the data acquired by the tool.
- **AM-10**: 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**: csr

### Test Host:

- **DeathStar

### Test Date:

- **Mon Mar 26 08:52:36 2012

### Drives:

- **src(C1-CF)** dst (none) other (2A-SATA)

### Source

- **src hash (SHA256):** < 
- **src hash (SHA1):** < 5B8235178DF99FA307430C088F8174665668A0B >
- **src hash (MD5):** < 776DF8B42D589E21DECF589EDC16D78 >
- **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:

- **image size: 3835886 MB**
- **image format: e01**
- **Write Block: 7 UltraBlock Forensic Card Reader**
- **OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux**

### Image file segments:

- **1 3835886 Mar 26 09:18 da-07-cf.E01**
- **2 1097 Mar 26 09:18 da-07-cf.E01.txt**
- **3 16384 Mar 26 09:03 lost+found**

### Excerpt from Tool log:

- **Case: da-07-cf**
- **Drive Geometry:**
  - **Cylinders: 1015**
  - **Heads: 8**
  - **Sectors per Track: 62**
  - **Bytes per Sector: 512**
  - **Sector Count: 503808**
  - **Physical Drive Information:**
    - **Drive Model: ICSI CF Card**
    - **Drive Interface Type: SCSI**
  - **Source data size: 246 MB**

---

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### Test Case DA-07-CF

AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Sector count:</th>
<th>503808</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source hash:</td>
<td></td>
</tr>
<tr>
<td>MD5: 776df8b4d2589e21debcf589edc16d78</td>
<td></td>
</tr>
<tr>
<td>SHA1: 5b8235178df99fa307430c088f81746606638a0b</td>
<td></td>
</tr>
<tr>
<td>Verification hash:</td>
<td></td>
</tr>
<tr>
<td>MD5: 776df8b4d2589e21debcf589edc16d78</td>
<td></td>
</tr>
<tr>
<td>SHA1: 5b8235178df99fa307430c088f81746606638a0b</td>
<td></td>
</tr>
<tr>
<td>Segment list:</td>
<td></td>
</tr>
<tr>
<td>/media/xxx/da-07-cf.E01</td>
<td></td>
</tr>
</tbody>
</table>

---

#### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
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<tbody>
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</tr>
<tr>
<td>AM-02 Source is type DS.</td>
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</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

#### Analysis:

Expected results achieved
5.2.23 DA-07-EXT3

Test Case DA-07-EXT3 AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Tue Apr 17 13:10:27 2012
Drives:
src (49-SATA) dat (none) other (1E-LAP)

Source src hash (SHA1): < 6EC98F42EB5914D1F9D1661C0BB0A3660569F95B >
Setup: src hash (MD5): < 30BAB74F6778C0555BCBD73DD40D5BE >
Model (ST380815AS) serial # (5QZ5TD8Y)
N Start LBA Length. Start C/H/S End C/H/S boot Partition type
1 P 000002048 010485760 0000/032/33 0652/213/09 07 NTFS
2 P 010490445 005863725 0107/254/63 83 Linux
3 P 016354170 007807590 1023/254/63 83 Linux
4 P 00000000 00000000 0000/000/00 0000/000/00 00 empty entry
1 010485760 sectors 5368709120 bytes
2 005863725 sectors 3002227200 bytes
3 007807590 sectors 3997486080 bytes
49-SATAEXT3-md5sum 5863725 A25176AE775F65181DAC8C8D051DDF5D
49-SATAEXT3-sha1sum 5863725 FDF0F2BA2D4CB2D45E45717213ABE218880236418

Log
Highlights:

------- Destination drive setup -------
------- Tool Settings: -------
image size: 3002227200 MB
image format: dd

Write Block: 11 TABLEAUS SATA Bridge

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

------- Image file segments -------
1 3002227200 Apr 17 14:51 da-07-ext3.001
2 849 Apr 17 14:51 logfile.txt
3 0 Apr 17 14:52 ls.txt

------- Excerpt from Tool log -------
Case: da-07-ext3
Drive Geometry:
Physical Drive Information:
Source data size: 2863 MB
Sector count: 5863725
Source hash:
MD5: a25176ae775f65181dac8c8d051ddfd5
SHA1: fdf0f2ba2d4cb2d45e45717213ae218880236418

Verification hash:
MD5: a25176ae775f65181dac8c8d051ddfd5
SHA1: fdf0f2ba2d4cb2d45e45717213ae218880236418
Test Case DA-07-EXT3 AccessData FTK Imager CLI v2.9

Segment list:
/media/xxx/da-07-ext3.001
------- End of Excerpt from Tool log -------

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
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<tbody>
<tr>
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<td>AM-02 Source is type DS.</td>
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<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.24  DA-07-EXT4

Test Case DA-07-EXT4 AccessData FTK Imager CLI v2.9

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.
AM-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-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: csr
Test Host: DeathStar
Test Date: Tue Apr 17 15:06:27 2012
Drives: src(49-SATA) dst (none) other (1E-LAP)

Source hash (SHA1): < 6EC98F42EB5914D1F9D1661C0BB0A3660569F95B >
Source hash (MD5): < 30BA74F67783C0555B6C5D73DD4DD5E >
156301488 total sectors (80026361856 bytes)
Model (ST380815AS ) serial # ( 5QZ5TD8Y)
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000002048 010485760 0000/032/33 0652/213/09 07 NTFS
2 P 010490445 005863725 0063/000/01 1017/254/63 83 Linux
3 P 016354170 007807590 1018/000/01 1023/254/63 83 Linux
4 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
1 010485760 sectors 5368709120 bytes
2 005863725 sectors 3002227200 bytes
3 007807590 sectors 3997486080 bytes
49-SATAEXT4-md5sum 7807590 567F2826AB468D69F97CB0D1578BE25D
49-SATAEXT4-sha1sum 7807590 F28A79F5E5CDB8F859A1AC6B1A2CA3682D15A2A

Log Highlights:
------ Destination drive setup ------
------ Tool Settings: ------
image file: dd
image size: 3997486080 MB
Write Block: 11 TABLEAU SATA Bridge
OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

------ Image file segments ------
1 300227200 Apr 17 14:51 da-07-ext3.001
2 3997486080 Apr 17 14:58 da-07-ext4.001
3 849 Apr 17 14:59 logfile.txt
4 0 Apr 17 15:00 ls.txt

------ Excerpt from Tool log ------
Case: da-07-ext4
Drive Geometry:
Physical Drive Information:
Source data size: 3812 MB
Sector count: 7807590
Source hash:
MDS: 567F2826AB468D69F97CB0D1878BE25D
SHA1: f28A79F5E5CDB8F859A1AC6B1A2CA3682D15A2A
Verification hash:
MDS: 567F2826AB468D69F97CB0D1878BE25D

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### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
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</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
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</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
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</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
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<tr>
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<tr>
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<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

### Analysis:

Expected results achieved
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: csr
Test Host: DeathStar
Test Date: Thu Mar 22 15:24:01 2012
Drives: src(01-IDE) dst (none) other (32-SATA)

Source
src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA3DF82B9 >
Setup: src hash (MD5): < F458F673894753FA6A0EC8B8EC6384FE >
Model (0BB-00JHC0) serial # ( WD- WMAMC74171)

128165360 total sectors (40020664320 bytes)

5.2.25 DA-07-F16
AccessData FTK Imager CLI v2.9
Test Case DA-07-F16 AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
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</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
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<tr>
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<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.26 DA-07-F32

Test Case DA-07-F32 AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Thu Mar 22 15:24:01 2012
Drives:
- src(01-IDE) dst (none) other (32-SATA)

Source:
- src hash (SHA1): < A48BB56656DC57C22DB6E2F723DA9AA8DF82B9 >
- src hash (MD5): < F458F63894753F6A0E588E63848E >

Setup:
- src hash (MD5): < F458F63894753F6A0E588E63848E >

Model (0BB-00JHC0) serial # ( WD- WMAMC74171)

| N Start LBA Length Start C/H/S End C/H/S boot Partition type |
|------------------|------------------|------------------|------------------|
| 1 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 00032067 1023/001/01 1023/254/63 01 Fat12 |
| 4 x 000032130 02104515 1023/000/01 1023/254/63 05 extended |
| 5 S 000000063 02104452 1023/001/01 1023/254/63 06 Fat16 |
| 6 x 002136645 04192965 1023/000/01 1023/254/63 05 extended |
| 7 S 000000063 04192902 1023/001/01 1023/254/63 16 other |
| 8 x 006329610 08401995 1023/000/01 1023/254/63 05 extended |
| 9 S 000000063 08401932 1023/001/01 1023/254/63 0B Fat32 |
| 10 x 014731605 0490445 1023/000/01 1023/254/63 05 extended |
| 11 S 000000063 0490382 1023/001/01 1023/254/63 83 Linux |
| 12 x 025222050 04209030 1023/000/01 1023/254/63 05 extended |
| 13 S 000000063 04208967 1023/001/01 1023/254/63 82 Linux swap |
| 14 x 029431080 07744255 1023/000/01 1023/254/63 05 extended |
| 15 S 000000063 07744142 1023/001/01 1023/254/63 07 NTFS |
| 16 S 000000000 00000000 0000/000/00 0000/000/00 00 empty entry |
| 17 F 000000000 00000000 0000/000/00 0000/000/00 00 empty entry |
| 18 F 000000000 000000000 0000/000/00 0000/000/00 00 empty entry |
| 1 020980827 sectors 10742183424 bytes |
| 3 00032067 sectors 16418304 bytes |
| 5 002104452 sectors 1077497424 bytes |
| 7 004192902 sectors 2146755824 bytes |
| 9 008401932 sectors 4301789184 bytes |
| 11 014731605 sectors 5371075584 bytes |
| 13 004208967 sectors 2154991104 bytes |
| 15 027744192 sectors 14205026304 bytes |

Log Highlights:

----- Tool Settings: -----
image size: 64081534 MB
image format: e01

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Test Case DA-07-F32 AccessData FTK Imager CLI v2.9

Write Block: 3 FASTBloc IDE

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

------ Image file segments ------
1  64081534 Mar 22 12:43 da-07-F32.E01
2    847 Mar 22 12:43 da-07-F32.E01.txt
3     0 Mar 22 12:43 ls.txt

------ Excerpt from Tool log ------
Case: da-07-f32
Drive Geometry:
Physical Drive Information:
Source data size: 4102 MB
Sector count: 8401932
Source hash:
MD5: bff7dc64c54339da2a9d7972c076b514
SHA1: b861d9e999f39750b484ffbb693ff6dec090c6b8
Verification hash:
MD5: bff7dc64c54339da2a9d7972c076b514
SHA1: b861d9e999f39750b484ffbb693ff6dec090c6b8
Segment list:
/media/xxx/da-07-F32.E01
------ End of Excerpt from Tool log ------

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
## Test Case DA-07-NT

### AccessData FTK Imager CLI v2.9

#### 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.
- **AM-09** If image file creation is specified, the tool creates an image file on file system type FS.
- **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 requested, the tool calculates block hashes for a specified block size during an acquisition for each block acquired from the digital source.
- **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:
csr

#### Test Host:
DeathStar

#### Test Date:
Thu Mar 22 15:24:01 2012

#### Drives:
- **src (01-IDE)**
  - dst (none)
  - other (32-SATA)

#### Source:
- src hash (SHA1): `<A48BB5665D6DC57C220DB68E2F723DA9AA8DF82B9>`

#### Setup:
- src hash (MD5): `<F458F673894753FA6A0EC8B5EC63848E>`
- `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 1023/000/01 1023/254/63 01 Fat12
    - 4 x 000032130 002104515 1023/000/01 1023/254/63 06 Fat16
    - 5 S 000000063 002104452 1023/000/01 1023/254/63 05 extended
    - 6 x 002136645 004192965 1023/000/01 1023/254/63 05 extended
    - 7 S 000000063 004192902 1023/000/01 1023/254/63 16 other
    - 8 x 006329610 008401995 1023/000/01 1023/254/63 05 extended
    - 9 S 000000063 008401932 1023/000/01 1023/254/63 0B Fat32
    - 10 x 014731605 010490382 1023/000/01 1023/254/63 0F extended
    - 11 S 000000063 010490445 1023/000/01 1023/254/63 05 extended
    - 12 x 025222050 004209030 1023/000/01 1023/254/63 05 extended
    - 13 S 000000063 004208967 1023/000/01 1023/254/63 82 Linux swap
    - 14 x 029431080 027744255 1023/000/01 1023/254/63 05 extended
    - 15 S 000000063 027744192 1023/000/01 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
  - 01NT-md5 14205026303 92B27B30BEE8B0FFBA8C34D09
  - 01NT-sha1 14205026303 0FBA4C36295CB62CD815577429C1A588C34D09

#### Log Highlights:
- ---- Tool Settings: -----
  - image size: 14205026304 MB
  - image format: dd
  - Write Block: 3 FASTBloc IDE

OS: Linux Debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

---

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--- Image file segments ---
1 14205026304 2012-03-23 14:19 da-07-NT.001
2 847 2012-03-23 14:22 da-07-NT.001.txt

--- Excerpt from Tool log ---
Case: da-07-nt
Drive Geometry:
Physical Drive Information:
Source data size: 13546 MB
Sector count: 27744192
Source hash:
MD5: 92b27b30bee8b0ffba8c660fa1590d49
SHA1: 0fba4c36295cb9622cd815577429c3a588c34d09
Verification hash:
MD5: 92b27b30bee8b0ffba8c660fa1590d49
SHA1: 0fba4c36295cb9622cd815577429c3a588c34d09
Segment list:
/media/xxx/da-07-NT.001
--- End of Excerpt from Tool log ---

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multi-file image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.28 DA-07-THUMB

**Test Case DA-07-THUMB AccessData FTK Imager CLI v2.9**

<table>
<thead>
<tr>
<th>Case</th>
<th>DA-07 Acquire a digital source of type DS to an image file.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary:</strong></td>
<td>DA-07 Acquire a digital source of type DS to an image file.</td>
</tr>
<tr>
<td><strong>Assertions:</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

| Tester Name: | csr |
| Test Host: | DeathStar |
| Test Date: | Mon Mar 26 10:07:46 2012 |
| Drives: | src(DS-Thumb) dst (none) other (2A-SATA) |

| **Source** | src hash (SHA1): < D68520EFE74A336E49DCCF83815B7B08FDC5E38A > |
| **Setup** | src hash (MD5): < C843593624B2B3BB78596D8760819954 > 505856 total sectors (25899272 bytes) |

**Log**

<table>
<thead>
<tr>
<th>Highlights</th>
<th>------ Tool Settings: ------ image format: s01 image size:3853920 MB Write Block: 18 UltraBlock USB</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS:</td>
<td>Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux</td>
</tr>
<tr>
<td><strong>------ Image file segments ------</strong></td>
<td>1 3853920 2012-03-26 10:17 da-07-thumb.s01 2 1106 2012-03-26 10:17 da-07-thumb.s01.txt</td>
</tr>
<tr>
<td><strong>------- Excerpt from Tool log -------</strong></td>
<td>Case: da-07-thumb Drive Geometry: Cylinders: 1019 Heads: 8 Sectors per Track: 62 Bytes per Sector: 512 Sector Count: 505856 Physical Drive Information: Drive Model: CRUCIAL usb2.0Flash Disk Drive Interface Type: SCSI Source data size: 247 MB Sector count: 505856 Source hash: MD5: c843593624b2b3bb878596d8760b19954 SHA1: d68520ef74a336e49dccf83815b7b08fdec53e38a Validation hash: MD5: c843593624b2b3bb878596d8760b19954 SHA1: d68520ef74a336e49dccf83815b7b08fdec53e38a Segment list: /media/xxx/da-07-thumb.s01 ******** End of Excerpt from Tool log ********</td>
</tr>
</tbody>
</table>

**Results:**

---

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<table>
<thead>
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<th>Assertion &amp; Expected Result</th>
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<td>AM-03 Execution environment is XE.</td>
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</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
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<tr>
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<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.29 DA-09

Test Case DA-09 AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Mon Mar 19 14:49:29 2012
Drives: src(ED-BAD-CPR2) dst (4C-SATA) other (none)

Source Setup:
No before hash for ED-BAD-CPR2
Known Bad Sector List for ED-CPR-BAD-2
Manufacturer: Maxtor
Model: DiamondMax Plus 9
Serial Number: Y22HJL7C
Capacity: 60GB
Interface: SATA

468 faulty sectors
1344585, 2594747, 2595500, 2599806, 2599839, 2809099, 2809910, 3422895, 3422896, 4116750, 4120336, 4120337, 4121089, 4121090, 4696046, 4698397, 4703710, 4707186, 4708105, 4711580, 4712499, 4714850, 4715770, 4719245, 4723639, 4723640, 4724558, 4724559, 4728034, 4728953, 4731304, 4732223, 4735699, 4740093, 4741012, 4743363, 4745407, 4748677, 4752152, 4756547, 4757466, 4759817, 4761860, 4761861, 4764211, 4764212, 4765130, 4765131, 4768606, 4769525, 4773001, 4773920, 4776271, 4777190, 4780665, 4781584, 5446946, 5448990, 5451341, 5452260, 5620120, 5623595, 5623596, 5623597, 5624514, 5624515, 5624516, 5626865, 5626866, 5626867, 5628909, 5631260, 5632179, 5635655, 5638574, 5640049, 6021518, 6023869, 6024788, 6028626, 7662307, 8340091, 8340092, 12178157, 12179060, 12181370, 12182273, 12185687, 12186590, 12340277, 13016906, 13049575, 13050477, 13050478, 14000222, 1400762, 14004285, 14041240, 17135988, 17723611, 17876726, 18161032, 18760155, 20090856, 20094289, 20095011, 20661414, 21693295, 21694174, 21697502, 22730717, 22838734, 22838735, 24596104, 24596105, 24596106, 25791779, 27686030, 28080041, 28081995, 29555383, 29655054, 30488210, 30488211, 32215323, 32218669, 33523139, 33991449, 35267814, 37975363, 38134596, 38136734, 38137571, 38137572, 38207258, 38207259, 38542983, 38567425, 38568109, 39421072, 39421909, 39425071, 40273501, 42836488, 42837172, 42843548, 42847497, 42851446, 42854557, 43505180,
Log
Highlights:

------- Destination drive setup -------
156301488 sectors wiped with 4C

------- Comparison of original to clone drive -------
Sectors compared: 120103200
Sectors match: 1344584
Sectors differ: 118758616
Bytes differ: 57716687376
Diffs range 1344584-120103199
Test Case DA-09 AccessData FTK Imager CLI v2.9

Source (120103200) has 36198288 fewer sectors than destination (156301488)
Zero fill: 0
Src Byte fill (ED): 0
Dst Byte fill (4C): 36198288
Other fill: 0
Other no fill: 0
Zero fill range: 
Src fill range: 
Dst fill range: 120103200-156301487
Other fill range: 
Other not filled range: 
0 source read errors, 0 destination read errors

-------- Tool Settings: --------
direct clone

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>Some sectors skipped</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-09 Error logged.</td>
<td>No error reported</td>
</tr>
<tr>
<td>AM-10 Benign fill replaces inaccessible sectors.</td>
<td>as expected</td>
</tr>
<tr>
<td>AC-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AC-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AC-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AC-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AC-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results not achieved
Test Case DA-10-E AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Mon Apr 9 07:25:06 2012
Drives: src(IDE) dst (none) other (LAP)

Source setup:
src hash (SHA1): < A48B566562D7C32DDB66E2F723D9AA80DF3829 >
src hash (MD5): < F48F673894755FA6ADE06EC336389E >

Model (0BB-00JHC0) serial # ( WD-MAA074171)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 020980827 000/000/01 1023/254/63 0C Fat32X
2 x 020980890 057175335 1023/000/01 1023/254/63 00 extended
3 S 000000063 00032067 1023/000/01 1023/254/63 01 Fat12
4 x 00032130 002104515 1023/000/01 1023/254/63 05 extended
5 S 000000063 002104452 1023/000/01 1023/254/63 06 Fat16
6 x 002136645 004192902 1023/000/01 1023/254/63 07 NTFS

Log highlights:
------ Tool Settings: ------
image format: Encrypted
image size: 4020664492 MB

Write Block: 3 Fastbloc IDE

OS: Linux debian 2.6.32-5-g86 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux
Test Case DA-10-E AccessData FTK Imager CLI v2.9

-------- Image file segments --------
1 40020664832 2012-04-10 08:55 da-10-E.001
2 1098 2012-04-10 09:12 da-10-E.001.txt
3 0 2012-04-10 09:31 ls.txt
-------- Excerpt from Tool log --------
Case: da-10-e
Drive Geometry:
Cylinders: 4865
Heads: 255
Sectors per Track: 63
Bytes per Sector: 512
Sector Count: 78165360

Physical Drive Information:
Drive Model: ATA WDC WD400BB-00JH
Drive Interface Type: SCSI
Source data size: 38166 MB
Sector count: 78165360

Source hash:
MD5: f458f673894753fa6a0ec8b8ec63848e
MD5: a3d947d9e072ed111986f62f20c352c : FAILED
SHA1: a48bb56656d6c57c22db68e2f7f23da9a8df82b9
SHA1: 70d708a1999236188bd72ff7d49e538d70b3294b : FAILED

Verification hash:
Segment list:
/media/xxx/da-10-E.001
-------- End of Excerpt from Tool log --------

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-02 Image file in specified format.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
## 5.2.31 DA-10-E01

### Test Case DA-10-E01 AccessData FTK Imager CLI v2.9

**Case Summary:**
DA-10 Acquire a digital source to a 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:** csr
- **Test Host:** DeathStar
- **Test Date:** Wed Apr 4 13:09:10 2012
- **Drives:** src(41) dst (none) other (29-LAP)

### Source Setup:
- **src hash (SHA256):** <FBF3AA21489653D880FFAE71449A9F7E8EE4F56A6C3BF58A3A3FBB12303F1B1D>
- **src hash (SHA1):** <15CAA1A307271160D8372668BF8A03FC45A51CC9>
- **src hash (MD5):** <0A6A8EF78BDC14E2026710D8CCB5607C>

### Log
#### Log Highlights:
- **image format:** e01
- **image size:** 952647657 MB
- **Write Block:** 3 Fastbloc IDE
- **OS:** Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

#### Image file segments
- 1 952647657 2012-04-04 13:42 da-10.E01
- 2 1098 2012-04-04 13:45 logfile.txt
- 3 0 2012-04-04 13:46 ls.txt

#### Excerpt from Tool log

<table>
<thead>
<tr>
<th>Case</th>
<th>Drive Geometry:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cylinders: 4863</td>
</tr>
<tr>
<td></td>
<td>Heads: 255</td>
</tr>
<tr>
<td></td>
<td>Sectors per Track: 63</td>
</tr>
<tr>
<td></td>
<td>Bytes per Sector: 512</td>
</tr>
<tr>
<td></td>
<td>Sector Count: 78125000</td>
</tr>
<tr>
<td></td>
<td>Physical Drive Information:</td>
</tr>
<tr>
<td></td>
<td>Drive Model: ATA WDC WD400BB-75JH</td>
</tr>
</tbody>
</table>
Test Case DA-10-E01 AccessData FTK Imager CLI v2.9

Drive Interface Type: SCSI
Source data size: 38146 MB
Sector count: 78125000
Source hash:
MD5: 0a6a8ef78ddc14e2026710d8cc0567c
SHA1: 15caaa307271160d832668bf8a03fc45a51cc9
Verification hash:
MD5: 0a6a8ef78dcb14e2026710d8cc0567c
SHA1: 15caaa307271160d832668bf8a03fc45a51cc9
Segment list:
/media/xxx/da-10.E01
-------- End of Excerpt from Tool log --------

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-02 Image file is specified format.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
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: csr
Test Host: DeathStar
Test Date: Wed Apr 5 13:09:10 2012
Drives: src(41) dst (none) other (29-LAP)

Source Setup:

src hash (SHA256): <FBF3AA214896530B80FPAE714A9A9F7E8EE4F56A6CBFB3FB13203F1B1D>
src hash (SHA1): <15C67E3D703E48F2C4A0745E06F6A068B895F5A51C9>
src hash (MD5): <0A6A8EF7877BC14E202671OD8CEB5601C>
7812500 total sectors (40000000000 bytes)
65534/015/63 (max cyl/hd values)
65535/016/63 (number of cyl/hd)
IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD400BB-75JHC0)
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 0000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS
2 P 0000000000 0000000000 0000/000/00 0000/000/00 00 empty entry
3 P 0000000000 0000000000 0000/000/00 0000/000/00 00 empty entry
4 P 0000000000 0000000000 0000/000/00 0000/000/00 00 empty entry
1 078107967 sectors 39991279104 bytes

Log Highlights:

----- Tool Settings: ----- 
image format: s01
image size: 947798214 MB

Write Block: 3 Fastbloc IDE

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

----- Image file segments ----- 
1 947798214 2012-04-05 13:01 da-10.s01
2 1098 2012-04-05 13:04 da-10.s01.txt

-------- Excerpt from Tool log --------
Case: da-10-s01
Drive Geometry:
Cylinders: 4863
Heads: 255
Sectors per Track: 63
Bytes per Sector: 512
Sector Count: 7812500
Physical Drive Information:
Drive Model: ATA WDC WD400BB-75JH
### Test Case DA-10-S01 AccessData FTK Imager CLI v2.9

Drive Interface Type: SCSI  
Source data size: 38146 MB  
Sector count: 78125000  
Source hash:  
MD5: 0a6a8ef78bdc14e2026710d8cccb5670c  
SHA1: 15caa1a307271160d8372668bf8a03fc45a51cc9  
Verification hash:  
MD5: 0a6a8ef78bdc14e2026710d8cccb5670c  
SHA1: 15caa1a307271160d8372668bf8a03fc45a51cc9  
Segment list:  
/media/xxx/da-10.s01  
-------- End of Excerpt from Tool log --------

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-06 All visible sectors acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-08 All sectors accurately acquired.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-01 Image file is complete and accurate.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-02 Image file in specified format.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-05 Multifile image created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-22 Tool calculates hashes by block.</td>
<td>option not available</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### Test Case DA-12 AccessData FTK Imager CLI v2.9

**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:** csr

**Test Host:** DeathStar

**Test Date:** Mon Mar 19 07:31:13 2012

**Drives:**
- src(4F)
- dst (none)
- other (5D-SATA)

**Source hash (SHA1):** < 51FE53FD6BF7B69A875EDBD9AC01D41194C78C >

**Setup:**
- src hash (MD5): < A98DF276339451CE9E701D087E2BFC95 >
- 488397168 total sectors (250059350016 bytes)
- 30400/254/63 (max cyl/hd values)
- 30401/255/63 (number of cyl/hd)
- IDE disk: Model (WDC WD2500JB-00EVA0) serial # (WD-WMAEH2681554)
- N Start LBA Length Start C/H/S End C/H/S boot Partition type
  1 P 000000000 268413957 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 268413957 sectors 137427945984 bytes

**Log Highlights:**

```
root@ubuntu:/media/xxx# ftkimager /dev/sdb /media/xxx/da-12 --e01 --verify
AccessData FTK Imager v2.9 CLI (May 12 2010)
Copyright 2006-2010 AccessData Corp., 384 South 400 West, Lindon, UT 84042
All rights reserved.

Creating image...
105011.09 / 238475.19 MB (53.96 MB/sec) - 0:41:13 left
Image creation failed: No space left on device (28)
```

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Source acquired using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-02 Source is type DS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AM-05 An image is created on file system type FS.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-04 User notified if space exhausted.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-24 Source is unchanged by acquisition.</td>
<td>not checked</td>
</tr>
</tbody>
</table>

**Analysis:**
Expected results achieved
This page intentionally left blank.
DA-14 Create an unaligned clone from an image file.

Assertions:

AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester: csr

Test Host: DeathStar

Test Date: Thu Aug 23 12:46:31 2012

Drives:

src (41) dst (24-LAP) other (0F-FU)

Source:

src hash (SHA256): FBF3AA21489653D880FFAE71449A9F7E8EE4F56A6C3BF58A3A3FBB13203F1B1D
src hash (SHA1): 15CAA1A307271160D8372668BF8A03FC45A51CC9
src hash (MD5): 0A6A8EF78BDC14E202671068CCB5607C
7812500 total sectors (40000000000 bytes)
65534/015/63 (max cyl/hd values)
65535/016/63 (number of cyl/hd)
IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355)

N Start LBA Length Start C/H/S End C/H/S  boot Partition type
1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS
2 P 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 078107967 sectors 39991279104 bytes

Setup:

78140160 sectors wiped with 24

Log Highlights:

Destination drive setup
78140160 sectors wiped with 24

Comparison of original to clone drive
Sectors compared: 78125000
Sectors match: 78125000
Sectors differ: 0
Bytes differ: 0
Diffs range:
Source (78125000) has 15160 fewer sectors than destination (78140160)
Zero fill: 0
Src Byte fill (41): 0
Dat Byte fill (24): 15160
Other fill: 0
Other no fill: 0
Zero fill range:
Src fill range:
Dat fill range: 78125000-78140159
Other fill range:
Other not filled range:
0 source read errors, 0 destination read errors

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface DST-AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case DA-I4-ATA28 AccessData FTK Imager CLI v2.9</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>AO-23 Logged information is correct. as expected</td>
<td></td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.35 DA-14-ATA48

Test Case DA-14-ATA48 AccessData FTK Imager CLI v2.9

Case: DA-14 Create an unaligned clone from an image file.

Summary:

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Wed Mar 7 16:26:09 2012

Drives:
src(4F) dst (2A-IDE) other (none)

Source:
src hash (SHA1): < 51FE53FD6BF7B769A875EDBD9AC01D41194C78C >
src hash (MD5): < A98DF27639451CE9E701D087E2BFC95 >
488397168 total sectors (25059350016 bytes)
30400/254/63 (max cyl/hd values)
30401/255/63 (number of cyl/hd)
IDE disk: Model (WDC WD2500JB-00EVA0) serial # (WD-WMAEH2681554)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 268413957 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 268413957 sectors 137427945984 bytes

Setup:

Log ====== Destination drive setup ======
490234752 sectors wiped with 2A

Comparison of original to clone drive

Sectors compared: 488397168
Sectors match: 488397168
Sectors differ: 0
Bytes differ: 0

Zero fill: 0
Src Byte fill (4F): 0
Dst Byte fill (2A): 1837584
Other fill: 0
Other no fill: 0

Zero fill range:

Write Block: 3 FASTBloc IDE

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case DA-14-ATA48 AccessData FTK Imager CLI v2.9</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>[AO-23: Logged information is correct.][1] as expected</td>
<td></td>
</tr>
<tr>
<td>Analysis: Expected results achieved</td>
<td></td>
</tr>
</tbody>
</table>

[1]: tested in Debian

May 2013  81 of 119  FTK Imager CLI 2.9.0_Debian
**Test Case DA-14-CF**

**AccessData FTK Imager CLI v2.9**

**Case Summary:**
DA-14 Create an unaligned clone from an image file.

**Assertions:**
- **AM-03** The tool executes in execution environment XE.
- **AO-12** If requested, a clone is created from an image file.
- **AO-13** A clone is created using access interface DST-AI to write to the clone device.
- **AO-14** If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- **AO-17** If requested, any excess sectors on a clone destination device are not modified.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:**
csr

**Test Host:** DeathStar

**Test Date:** Mon Mar 26 09:39:25 2012

**Drives:**
- **src** (C1-CF)
- **dst** (C2-CF)
- **other** (none)

**Source hash (SHA256):** <503808 total sectors (257949696 bytes)

**Setup:**
- C7CF021822DDF80D5316511DE812466C79A507C13F795AD3D323BB73C1590D80>
- <5B8235178DF99FA307430C889174606638A0B>
- <776DF84D2589E21DEBCF589EDC16D78>
- N Start LBA Length Start C/H/S End C/H/S boot Partition type
  1 P 77815908 114509631 0357/116/40 0357/032/45 Boot 72 other
  2 P 16868522 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 99124658880 bytes
  3 1936028192 sectors 99124643404 bytes
  4 000055499 sectors 28415488 bytes

**Log Highlights:**
- 503808 sectors wiped with C2

**Comparison of original to clone drive**
- Sectors compared: 503808
- Sectors match: 503808
- Sectors differ: 0
- Bytes differ: 0
- Diffs range
  0 source read errors, 0 destination read errors

**Write Block:** 7 UltraBlock Forensic Card Reader

**OS:** Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
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<tr>
<td>AO-12 A clone is created from an image file.</td>
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<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

**Analysis:**
Expected results achieved
**Test Case DA-14-E**

**AccessData FTK Imager CLI v2.9**

**Case Summary:**
DA-14 Create an unaligned clone from an image file.

**Assertions:**
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:** csr
**Test Host:** DeathStar
**Test Date:** Mon May 25 09:39:25 2012
**Drives:**
- *src* (01-IDE) dst (6F) other (none)

**Source**
- src hash (SHA1): 04A8BB5665D6DC57C22DB68E2F723DA9AA8DF82B9
- src hash (MD5): 04F58F673894753FA6A0ECB86EC63B48E

**Model**
- (BB-90JHCU ) serial # ( WD-WVANC74171)

<table>
<thead>
<tr>
<th>N</th>
<th>Start LBA</th>
<th>Length</th>
<th>Start C/H/S</th>
<th>End C/H/S</th>
<th>boot</th>
<th>Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>020980827</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>0C Fat32X</td>
</tr>
<tr>
<td>2</td>
<td>020980890</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>0F extended</td>
</tr>
<tr>
<td>3</td>
<td>020980827</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>01 Fat12</td>
</tr>
<tr>
<td>5</td>
<td>020980827</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>6</td>
<td>020980827</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>7</td>
<td>020980827</td>
<td>057175335</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>16 other</td>
</tr>
<tr>
<td>8</td>
<td>006329610</td>
<td>008401995</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>9</td>
<td>006329610</td>
<td>008401995</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>0B Fat32</td>
</tr>
<tr>
<td>10</td>
<td>014731605</td>
<td>010490445</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>11</td>
<td>014731605</td>
<td>010490445</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>0F extended</td>
</tr>
<tr>
<td>12</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>13</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>14</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>15</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>16</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>17</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>18</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
<tr>
<td>19</td>
<td>025222050</td>
<td>002104515</td>
<td>1023/001/01</td>
<td>1023/254/63</td>
<td>0000/001/01</td>
<td>05 extended</td>
</tr>
</tbody>
</table>

**Log Highlights:**

--- Destination drive setup ---

120103200 sectors wiped with 6F

--- Comparison of original to clone drive ---

Sectors compared: 78165360
Sectors match: 78165360
Sectors differ: 0
Bytes differ: 0
Diffs range:
Source (78165360) has 41937840 fewer sectors than destination (120103200)
Zero fill: 0
Src Byte fill (01): 0
Dst Byte fill (6F): 41937840
Other fill: 0
Other no fill: 0
Zero fill range:
Test Case DA-14-E AccessData FTK Imager CLI v2.9

Src fill range: 78165360-120103199
Dst fill range:
Other fill range:
Other not filled range:
0 source read errors, 0 destination read errors

-------- Tool Settings: --------
fill: none
Write Block: 3 FASTBloc IDE

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

-------- Excerpt from Tool log --------
Case: da-14-e
Drive Geometry:
Bytes per Sector: 512
Sector Count: 78165360
Physical Drive Information:
Source data size: 38166 MB
Sector count: 78165360
Source hash:
MD5: f458f673894753fa6a0ec8b8ec63848e
SHA1: a48bb5665d6dc57c22db68e2f723da9aa8df82b9
Verification hash:
MD5: f458f673894753fa6a0ec8b8ec63848e
SHA1: a48bb5665d6dc57c22db68e2f723da9aa8df82b9
Segment list:
/media/xxx/da-14-E.001
-------- End of Excerpt from Tool log --------

Results:

<table>
<thead>
<tr>
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<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-16 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### 5.2.38 DA-14-E01

**Test Case DA-14-E01 AccessData FTK Imager CLI v2.9**

<table>
<thead>
<tr>
<th>Case</th>
<th>DA-14 Create an unaligned clone from an image file.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>AM-03 The tool executes in execution environment XE. while expected</td>
</tr>
<tr>
<td>Assertions</td>
<td>AM-03 The tool executes in execution environment XE.</td>
</tr>
<tr>
<td></td>
<td>AO-12 If requested, a clone is created from an image file.</td>
</tr>
<tr>
<td></td>
<td>AO-13 A clone is created using access interface DST-AI to write to the clone device.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>AO-17 If requested, any excess sectors on a clone destination device are not modified.</td>
</tr>
<tr>
<td></td>
<td>AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.</td>
</tr>
</tbody>
</table>

**Tester**

csr

**Name:**

csr

**Test Host:**

DeathStar

**Test Date:**


**Drives:**

src(41) dst (6f) other (none)

Source: <SHA256: FBF3AA24189653DB00FFAE71449A9F7E8EE4F656A6C3BF58A3A3FFB13203F1B1D>

Setup:

src hash (SHA1): < 15CAA1A3A0727116D8372C668BF8A03FC45A51CC9 >

src hash (MD5): < 0A6A8EF788BDC142026710D8CBB5607C >

78125000 total sectors (4000000000 bytes)

65534/015/63 (max cyl/hd values)

65535/016/63 (number of cyl/hd)

IDE disk: Model (WD WD400BB-75JHC0) serial # (WD-WMAMC4658355)

<table>
<thead>
<tr>
<th>N</th>
<th>Start LBA</th>
<th>Length</th>
<th>Start C/H/S</th>
<th>End C/H/S</th>
<th>boot Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0000000063</td>
<td>078107967</td>
<td>0000/001/01</td>
<td>1023/254/63</td>
<td>Boot 07 NTFS</td>
</tr>
<tr>
<td>2</td>
<td>000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
<tr>
<td>3</td>
<td>000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
<tr>
<td>4</td>
<td>000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
</tbody>
</table>

Source (78125000) has 41978200 fewer sectors than destination (120103200)

Zero fill: 0

Src Byte fill (41): 0

Dat Byte fill (6F): 41978200

Other fill: 0

Other no fill: 0

Zero fill range:

Src fill range:

Dat fill range: 78125000-120103199

Other fill range:

Other not filled range:

0 source read errors, 0 destination read errors

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
</tbody>
</table>
Test Case DA-14-E01 AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>AO-12</th>
<th>A clone is created from an image file.</th>
<th>as expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>AO-13</td>
<td>Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14</td>
<td>An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17</td>
<td>Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23</td>
<td>Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
Test Case DA-14-EXT3 AccessData FTK Imager CLI v2.9

Case Summary: DA-14 Create an unaligned clone from an image file.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Wed Apr 18 08:34:13 2012
Drives: src(49-SATA) dst (31-IDE) other (none)

Source
src hash (SHA1): < 6EC98F42EB5914D1F9D1661C0BBOA3660569F95B >
src hash (MD5): < 30B9B74F6773C0565B1677D3D4D0D5E >
156301488 total sectors (80026361856 bytes)
Model (ST380815AS ) serial # ( 5QZ5TD8Y)
  N Start LBA Length Start C/H/S End C/H/S boot Partition type
1  P 000002048 010485760 0000/032/33 0652/213/09 07 NTFS
2  P 010490445 005863725 0653/000/01 1017/254/63 83 Linux
3  P 016354170 007807590 1018/000/01 1023/254/63 83 Linux
4  P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
1 010485760 sectors 5368709120 bytes
2 005863725 sectors 3002227200 bytes
3 007807590 sectors 3997486080 bytes
49-SATAEXT3-md5sum 5863725 A25176AE775F65181DAC8C8D051DDF5D
49-SATAEXT3-sha1sum 5863725 FDF0F2BA2D4CB2D45E45717213AE21888036418
Excess destination partition sectors hash:
SHA1 3002227200 - 3224277503 = 59713F6560C148A1A8FC6AC0FE6D48CDB7CB74

Log
-------------------------------
--- Destination drive setup ---
35673120 sectors wiped with 31
--- Comparison of original to clone drive ---
Sectors compared: 5863725
Sectors match: 5863725
Sectors differ: 0
Bytes differ: 0
Diffs range:
Source (5863725) has 433692 fewer sectors than destination (6297417)
Zero fill: 8081
Src Byte fill (49): 0
Dst Byte fill (31): 425588
Other fill: 19
Other no fill: 4
Zero fill range: 6029313-6029320, 6029328-6033263, 6291464, 6291472-6295407, 6297216-6297415
Src fill range:
Dst fill range: 5863725-6029313, 6033264-6291455, 6295408-6297215, 6297416
Other fill range: 6029322-6029327, 6291457-6291463, 6291466-6291471
Other not filled range: 6029312, 6029321, 6291456, 6291465

run start Wed Apr 18 09:31:38 2012
run finish Wed Apr 18 09:35:10 2012
elapsed time 0:3:32
Normal exit

--- Tool Settings: ---
fill: none
<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
5.2.40 DA-14-EXT4

Test Case DA-14-EXT4 AccessData FTK Imager CLI v2.9

Case: DA-14 Create an unaligned clone from an image file.

Summary: DA-14 Create an unaligned clone from an image file.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr

Test Host: DeathStar

Test Date: Wed Apr 18 08:34:13 2012

Drives:
- src(49-SATA)
- dst (31-IDE)
- other (none)

Source parted: 156301488 total sectors (80026361856 bytes)
Model (ST380815AS) serial # (5QZ5TD8Y)
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
2 000863725 005863725 0000/000/00 0000/000/00 00 empty entry
3 007807590 007807590 0000/000/00 0000/000/00 00 empty entry

Source parted hash (SHA1): <6EC98F42EB5914D1F9D1661C0BBOA3660569F95B>
Source parted hash (MD5): <30BAB74F67783C0555BCBD73DD4D0D5E>
1 010485760 sectors 5368709120 bytes
2 005863725 sectors 3002227200 bytes
3 007807590 sectors 3997486080 bytes

Setup parted:
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
2 000863725 005863725 0000/000/00 0000/000/00 00 empty entry
3 007807590 007807590 0000/000/00 0000/000/00 00 empty entry
4 000000000 000000000 0000/000/00 0000/000/00 00 empty entry

Excess destination partition sectors:
SHA1: 3997486080 - 4301789183 = 6E6D99EDC9E4D68300C2E0249EB6073C62F45B2B

Log

Highlights:

----- Destination drive setup ----- 35673120 sectors wiped with 31
Sectors compared: 7807590
Sectors match: 7807590
Sectors differ: 0
Bytes differ: 0
Diffs range:
Source (7807590) has 594342 fewer sectors than destination (8401932)
Zero fill: 136
Src Byte fill (49): 0
Dst Byte fill (31): 594198
Other fill: 7
Other no fill: 1
Zero fill range: 8401792-8401927
Src fill range:
Dst fill range: 7807590-8388607, 8388616-8401791,
8401928-8401931
Other fill range: 8388609-8388615
Other not filled range: 8388608
run start Wed Apr 18 09:37:38 2012
run finish Wed Apr 18 09:42:51 2012
elapsed time 0:5:13
Normal exit

----- Tool Settings: -----
fill: none
Write Block: 11 TABLEAU SATA Bridge
### Test Case DA-14-EXT4 AccessData FTK Imager CLI v2.9

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Excess destination partition sectors hash:
SHA1 3997486080 - 4301789183 - 6E6D99EDC9E4D68300C2E0249EB6073C62F45B2B

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

### Analysis:
Expected results achieved
# Test Case DA-14-F16

**AccessData FTK Imager CLI v2.9**

## Case Summary
Create an unaligned clone from an image file.

## Assertions
- **AM-03** The tool executes in execution environment XE.
- **AO-12** If requested, a clone is created from an image file.
- **AO-13** A clone is created using access interface DST-AI to write to the clone device.
- **AO-14** If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- **AO-17** If requested, any excess sectors on a clone destination device are not modified.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.

## Tester Name
csr

## Test Host
DeathStar

## Test Date
Thu Mar 22 15:25:08 2012

## Drives
- **src (01-IDE)**
- **dst (08-IDE)**
- **other (none)**

## Source
```
src hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9AA8DF82B9 >
```

## Setup
```
src hash (MD5): < F458F673894753FA6A0ED8BSEC63848E >
```

## Model
```
0BB-00HJC0  WD- WMAMC74171
```

## N Start LBA Length Start C/H/S End C/H/S Partition type
```
1 0 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 021044515 1023/001/01 1023/254/63 05 extended
5 S 000000063 021044452 1023/001/01 1023/254/63 06 Fat16
6 x 001366645 04192965 1023/000/01 1023/254/63 05 extended
7 S 000000063 04192902 1023/001/01 1023/254/63 16 other
8 x 006329610 008401995 1023/001/01 1023/254/63 05 extended
9 S 000000063 008401932 1023/001/01 1023/254/63 0B Fat32
10 x 014731605 010490445 1023/000/01 1023/254/63 05 extended
11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux
12 x 025222050 002104515 1023/000/01 1023/254/63 05 extended
13 S 000000063 002104452 1023/001/01 1023/254/63 82 Linux swap
14 x 029431080 027744255 1023/000/01 1023/254/63 07 NTFS
15 S 000000063 027744192 1023/001/01 1023/254/63 80 empty entry
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
```

## Log Highlights
```
----- Destination drive setup ------
78165360 total sectors (40020664320 bytes)
```

```
----- Comparison of original to clone drive ------
Sectors compared: 2104452
Sectors match: 2104452
Sectors differ: 0
Bytes differ: 0
```

Normal exit
## Test Case DA-I4-F16 AccessData FTK Imager CLI v2.9

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

### Analysis:
Expected results achieved
Test Case DA-14-F32 AccessData FTK Imager CLI v2.9

Case Summary:
DA-14 Create an unaligned clone from an image file.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Thu Mar 22 15:25:08 2012

Drives: src (01-IDE) dst (08-IDE) other (none)

Source
src hash (SHA1): < A48BB5665D6DC57C22DB682F723DA99A8DF82B9 >
src hash (MD5): < F458F673894753FA6A0E888EC63B8E >
78165360 total sectors (4002064320 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 00032067 1023/001/01 1023/254/63 01 Fat12
4 x 000032130 00104515 1023/000/01 1023/254/63 05 extended
5 S 000000063 00104452 1023/001/01 1023/254/63 06 Fat16
6 x 002136645 004192965 1023/000/01 1023/254/63 16 other
7 S 000000063 004192965 1023/001/01 1023/254/63 05 extended
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 0144731605 010490445 1023/000/01 1023/254/63 05 extended
11 S 000000063 010490382 1023/001/01 1023/254/63 83 Linux
12 x 025222050 04209030 1023/000/01 1023/254/63 05 extended
13 S 000000063 04208967 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 002089067 sectors 2154991104 bytes
15 027744192 sectors 14205026304 bytes
01F32-md5 4301789183 BFF7DC64C54339DA2A9D7972C076B514
01F32-sha1 4301789183 B861D9E999F39750B484FFB693FF96DEC090C6B8

Log Highlights:
78165360 sectors wiped with 8

Comparison of original to clone drive
Sectors compared:  8401932
Sectors match:  8401932
Sectors differ:  0
Bytes differ:  0
Diffs range:
run start Thu Mar 22 15:29:24 2012
run finish Thu Mar 22 15:32:44 2012
**Test Case DA-14-F32 AccessData FTK Imager CLI v2.9**

elapsed time 0:3:20
Normal exit

-------- Tool Settings: --------
fill: none

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XB.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface A1.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### Test Case DA-14-FW AccessData FTK Imager CLI v2.9

**Case Summary:** DA-14 Create an unaligned clone from an image file.

**Assertions:**
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:** csr

**Test Host:** DeathStar

**Test Date:** Thu Mar 15 13:27:43 2012

**Drives:**
- src (01-SATA) dst (50-SATA) other (none)

**Source Hashes:**
- SHA256: `<1AA01FEB855F5CD551858D2B1A1359B3F913E7093FEF1D1ADA20C456BA40D8>
- SHA1: `<4951236428C36B94E62E8D65862DCBEF05F2B5C`
- MD5: `<0A49B13D91F9DA87CEEE9D006CB6FD6`

**Model and Serial Number:**
- (0JD-32HKA0 ) serial # (WD-WMAJ91448529)

**Log Highlights:**
- Destination drive setup
  - 156301488 sectors wiped with 50

- Comparison of original to clone drive
  - Sectors compared: 156301488
  - Sectors match: 156301488
  - Sectors differ: 0
  - Bytes differ: 0
  - Diffs range: 0 source read errors, 0 destination read errors

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

**Analysis:** Expected results achieved
5.2.44 DA-14-NT

Test Case DA-14-NT AccessData FTK Imager CLI v2.9

Case Summary:
DA-14 Create an unaligned clone from an image file.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Thu Mar 22 15:25:08 2012

Drives:
- src (01-IDE) dst (08-IDE) other (none)

Source hash (SHA1): < A48BB5665D6DC57C22DB68E2F723DA9A8DF82B9 >
Source hash (MD5): < F458F673894753FA6ADEC0BSEC63848E >

78165360 total sectors (4002066320 bytes)
Model (0BB-00JHC0) serial # (WD-WMAC74171)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 0 000000063 020980827 0000/001/01 1023/254/63 0C Fat32X
2 0 029080890 057175335 1023/000/01 1023/254/63 0F extended
3 0 000000063 000032067 01023/000/01 1023/254/63 01 Fat12
4 0 000032130 002104515 1023/000/01 1023/254/63 05 extended
5 0 000000063 002104452 1023/000/01 1023/254/63 06 Fat16
6 0 002136645 004192965 1023/000/01 1023/254/63 05 extended
7 0 000000063 004192902 1023/000/01 1023/254/63 16 other
8 0 006329610 008401995 1023/000/01 1023/254/63 05 extended
9 0 000000063 008401932 1023/000/01 1023/254/63 0B Fat32
10 0 014731605 014904045 1023/000/01 1023/254/63 05 extended
11 0 000000063 014903832 1023/000/01 1023/254/63 83 Linux
12 0 025222050 004209030 1023/000/01 1023/254/63 05 extended
13 0 000000063 004208967 1023/000/01 1023/254/63 82 Linux swap
14 0 029431080 027744255 1023/000/01 1023/254/63 05 extended
15 0 000000063 027744192 1023/000/01 1023/254/63 07 NTFS
16 0 00000000 000000000 0000/000/00 0000/000/00 00 empty entry
17 0 00000000 000000000 0000/000/00 0000/000/00 00 empty entry
18 0 00000000 000000000 0000/000/00 0000/000/00 00 empty entry
19 0 020980827 sectors 10742183424 bytes
20 0 000000063 16418304 bytes
3 000032067 sectors 16418304 bytes
5 002104515 sectors 10742183424 bytes
7 004192932 sectors 2146765824 bytes
9 008401932 sectors 4301789184 bytes
11 010490382 sectors 5371075584 bytes
13 004208967 sectors 2154991104 bytes
15 027744192 sectors 14205026304 bytes
01NT-md5 14205026303 92B27B30BEE8B0FFBA8C660FA1590D49

Log Highlights:
----- Destination drive setup ----- 78165360 sectors wiped with 8

----- Comparison of original to clone drive ----- Sectors compared: 27744192
Sectors match: 27744192
Sectors differ: 0
Bytes differ: 0
Diffs range:
run start Fri Mar 23 14:47:52 2012
run finish Fri Mar 23 15:00:25 2012
elapsed time 0:12:33
Normal exit

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## Test Case DA-14-NT AccessData FTK Imager CLI v2.9

### Tool Settings:

- **fill**: none
- **OS**: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-01 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

### Analysis:

Expected results achieved

---

May 2013                                97 of 119                FTK Imager CLI 2.9.0 Debia
Case DA-14 Create an unaligned clone from an image file.

Summary:

- **AM-03** The tool executes in execution environment XE.
- **AO-12** If requested, a clone is created from an image file.
- **AO-13** A clone is created using access interface DST-AI to write to the clone device.
- **AO-14** If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- **AO-17** If requested, any excess sectors on a clone destination device are not modified.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.

<table>
<thead>
<tr>
<th>Tester</th>
<th>Name: csr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Host:</td>
<td>DeathStar</td>
</tr>
<tr>
<td>Test Date:</td>
<td>Wed Apr 5 13:48:38 2012</td>
</tr>
<tr>
<td>Drives:</td>
<td>src(41) dst (6f) other (none)</td>
</tr>
</tbody>
</table>

Source: s rc hash (SHA256): <FBF3AA21489653D80FFAE71449A9F7E8EEAF56A6C3BF58A3A3FFB13203F1B1D >

Set up:

- **AO** 120103200 sectors wiped with 6F

Comparison of original to clone drive:

- Sectors compared: 78125000
- Sectors match: 78125000
- Sectors differ: 0
- Bytes differ: 0
- Diffs range
- Source (78125000) has 41978200 fewer sectors than destination (120103200)
- Zero fill: 0
- Src Byte fill (41): 0
- Dat Byte fill (6F): 41978200
- Other fill: 0
- Other no fill: 0
- Zero fill range:
- Src fill range:
- Dat fill range: 78125000-120103199
- Other fill range:
- Other not filled range:

- 0 source read errors, 0 destination read errors

---

**Assertion & Expected Result**

<table>
<thead>
<tr>
<th><strong>Assertion &amp; Expected Result</strong></th>
<th><strong>Actual Result</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

---

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<table>
<thead>
<tr>
<th>Test Case DA-14-S01 AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AO-12</strong> A clone is created from an image file.</td>
</tr>
<tr>
<td><strong>AO-13</strong> Clone created using interface AI.</td>
</tr>
<tr>
<td><strong>AO-14</strong> An unaligned clone is created.</td>
</tr>
<tr>
<td><strong>AO-17</strong> Excess sectors are unchanged.</td>
</tr>
<tr>
<td><strong>AO-23</strong> Logged information is correct.</td>
</tr>
</tbody>
</table>

**Analysis:** Expected results achieved
Test Case DA-14-SATA28
AccessData FTK Imager CLI v2.9

Case Summary: DA-14 Create an unaligned clone from an image file.

Assertions:
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Thu Mar 8 15:10:51 2012
Drives: src (4B-SATA) dst (22-IDE) other (none)

Source:
- src hash (SHA256): <F61ADE21928F083F642CEA2C9CA0CC2350ECA852CC515D17827038154E8C1E>
- src hash (SHA1): <70CC62B43F4A41CA6D6760AA089B4C415D3F4BE2>
- src hash (MD5): <746B4C06CD5F6D7C0820D4325840C>

Model (ST380815AS) serial # (6QZ5C9V5)
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 020971520 0000/001/01 1023/254/63 AF other
2 P 020971629 010485536 1023/254/63 1023/254/63 AF other
3 P 031457223 006291456 1023/254/63 1023/254/63 AF other
4 X 037748679 008388694 1023/254/63 1023/254/63 05 extended
5 S 000000039 004194304 1023/254/63 1023/254/63 AF other
6 x 004194343 004194351 1023/254/63 1023/254/63 05 extended
7 S 000000047 004194304 1023/254/63 1023/254/63 AF other
8 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry

1 020971520 sectors 10737418240 bytes
2 010485536 sectors 5368594432 bytes
3 006291456 sectors 3221225472 bytes
4 004194304 sectors 2147483648 bytes
5 004194304 sectors 2147483648 bytes

Log

Log Highlights:
195813072 sectors wiped with 22

Comparison of original to clone drive
Sectors compared: 156301488
Sectors match: 156301488
Sectors differ: 0
Bytes differ: 0
Diffs range

Source (156301488) has 39511584 fewer sectors than destination (195813072)
Zero fill: 0
Src Byte fill (4B): 0
Dat Byte fill (22): 39511584
Other fill: 0
Other no fill: 0
Zero fill range:
Src fill range:
Dat fill range: 156301488-195813071
Other fill range:
Other not filled range:
0 source read errors, 0 destination read errors

------ Tool Settings: ------
fill: none
<table>
<thead>
<tr>
<th>Test Case DA-14-SATA28 AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS: Linux ubuntu 2.6.32-35-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux</td>
</tr>
</tbody>
</table>

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

### Analysis:

Expected results achieved
5.2.47 DA-14-SATA48

Test Case DA-14-SATA48 AccessData FTK Imager CLI v2.9

Case Summary:
DA-14 Create an unaligned clone from an image file.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Mon Mar 12 06:32:40 2012
Drives: src(16-SATA) dst (22-LAP) other (none)

Source hash (SHA1): < F82982A9C63133988C1D2BD4DA7C925CCA2D77A5 >
Source hash (MD5): < 7BB1D6404761BD3669130A2AD08FA02 >
312581808 total sectors (16004185696 bytes)
19456/254/63 (max cyl/hd values)
Model (WDC WD1600JD-00G) serial # (WD-WMAES2058252)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 312560577 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 312560577 sectors 160031015424 bytes

Log Highlights:

-------- Destination drive setup --------
312581808 sectors wiped with 22

-------- Comparison of original to clone drive --------
Sectors compared: 312581808
Sectors match: 312581808
Sectors differ: 0
Bytes differ: 0
Diffs range 0 source read errors, 0 destination read errors

OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
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</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
### Test Case DA-14-SCSI AccessData FTK Imager CLI v2.9

**Case Summary:**
DA-14 Create an unaligned clone from an image file.

**Assertions:**
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:** csr

**Test Host:** Frank

**Test Date:** Wed Apr 18 15:54:12 2012

**Drives:**
- src (E0)
- dst (8F)
- other ()

**Source src hash (SHA1):** <4A6941F1337A8A22B10FC844B4D7FA6158BECB82>

**Setup:**
- src hash (MD5): <A97C8F36B7AC9D523B9D0AC09284F938>
- 17938985 total sectors (918760320 bytes)
- Model (ATLAS10K2-TY092J) serial # (169028142436)

**Log Highlights:**

--- Destination drive setup ---
39102336 sectors wiped with 8F

--- Comparison of original to clone drive ---
Sectors compared: 17938985
Sectors match: 17938985
Bytes differ: 0
Diffs range

Source (17938985) has 21163351 fewer sectors than destination (39102336)
Zero fill: 0
Src Byte fill (E0): 0
Dst Byte fill (8F): 21163351
Other fill: 0
Other no fill: 0
Zero fill range:
Src fill range:
Dst fill range: 17938985-39102335
Other fill range:
Other not filled range:
0 source read errors, 0 destination read errors

--- Tool Settings: ---
fill: none

**OS:** Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
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<tr>
<td>AO-14 An unaligned clone is created.</td>
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</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

**Analysis:** Expected results achieved
### Test Case DA-14-THUMB

**AccessData FTK Imager CLI v2.9**

**Case Summary:**
DA-14 Create an unaligned clone from an image file.

**Assertions:**
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
- AO-17 If requested, any excess sectors on a clone destination device are not modified.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:** csr  
**Test Host:** DeathStar  
**Test Date:** Mon Mar 26 10:24:51 2012

**Drives:**
- src (D5-Thumb)  
- dst (D4-Thumb)  
- other (none)

**Source hash (SHA1):** < D68520EF74A336E49DCCF83615B7B08FDC53E38A >

**Setup:**
- src hash (MD5): < C843593624B2B3B878596D8760B19954 >
- 505856 total sectors (258998272 bytes)
- Model (usb2.0Flash Disk) serial #: ()

**Log Highlights:**
- 505856 sectors wiped with D4
- Comparison of original to clone drive
- Sectors compared: 505856
- Sectors match: 505856
- Sectors differ: 0
- Bytes differ: 0
- Diffs range
- 0 source read errors, 0 destination read errors

**OS:** Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
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<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
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<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using Interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

**Analysis:** Expected results achieved
Case: DA-1 Create an unaligned clone from an image file.

Summary:

Assertions:

AM-03 The tool executes in execution environment XE.
AO-12 If requested, a clone is created from an image file.
AO-13 A clone is created using access interface DST-AI to write to the clone device.
AO-14 If an unaligned clone is created, each sector written to the clone is accurately written to the same disk address on the clone that the sector occupied on the digital source.
AO-17 If requested, any excess sectors on a clone destination device are not modified.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester: csr
Name: 
Test Host: DeathStar
Test Date: Wed Jul 25 16:11:45 2012
Drives: src(63-FU2) dst (6F) other (none)

Source src hash (SHA256): <EC8EF011494BA6DA18F74C47547C3E74E7180585096A830F9247A98EF613BB1D>
src hash (SHA1): <F7059EDC8E63C88DECE82159F22D49B5B9B>
src hash (MD5): <EE217BC4FA4F3D1B4021D2565AA9EC>
117304992 total sectors (6006155904 bytes)
Model (SP0612N ) serial # ()
N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 004192902 0000/001/01 0260/254/63 Boot 06 Fat16
2 X 004192965 113097600 0261/000/01 1023/254/63 0F extended
3 S 000000063 113097537 0261/001/01 1023/254/63 0B Fat32
4 S 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
5 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
6 P 000000000 000000000 0000/000/00 0000/000/00 00 empty entry
1 004192902 sectors 2146765824 bytes
3 113097537 sectors 57905938944 bytes

Log

****** Destination drive setup ******
120103200 sectors wiped with 6F

****** Comparison of original to clone drive ******
Sectors compared: 117304992
Sectors match: 117304992
Sectors differ: 0
Bytes differ: 0
Diffs range
Source (117304992) has 2798208 fewer sectors than destination (120103200)
Zero fill: 0
Src Byte fill (62): 0
Dst Byte fill (6F): 2798208
Other fill: 0
Other no fill: 0
Zero fill range:
Src fill range:
Dat fill range: 117304992-120103199
Other fill range:
Other not filled range:
0 source read errors, 0 destination read errors

Results:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-14 An unaligned clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-17 Excess sectors are unchanged.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
<tr>
<td>Test Case DA-I4-USB AccessData FTK Imager CLI v2.9</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Analysis: Expected results achieved</td>
<td></td>
</tr>
</tbody>
</table>
Test Case DA-17 AccessData FTK Imager CLI v2.9

Case Summary: Create a truncated clone from an image file.

Assertions:
- AM-03 The tool executes in execution environment XE.
- AO-12 If requested, a clone is created from an image file.
- AO-13 A clone is created using access interface DST-AI to write to the clone device.
- AO-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-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Wed Mar 21 11:20:00 2012

Drives: src(41) dst (31-IDE) other (none)

Source Setup:
src hash (SHA256): < FBF3AA21489653DBB8DBFAE71449A9F7E8EE4E56A6C3BF58A3A3FBB13203FB11D >
src hash (SHA1): < 15CA21A3A97B27116D8372668BFF8A3F04C45A51CC9 >
src hash (MD5): < 0A6A8EF7BBD14822026710D8C3567567 >
78125000 total sectors (40000000000 bytes)
65534/015/63 (max cyl/hd values)
65535/016/63 (number of cyl/hd)
IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355)

N Start LBA Length Start C/H/S End C/H/S boot Partition type
1 P 000000063 078107967 0000/001/01 1023/254/63 Boot 07 NTFS
2 P 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 078107967 sectors 39992129104 bytes

Log Highlights: 35673120 sectors wiped with 31
------ Destination drive setup ------
35673120 sectors wiped with 31
------ Comparison of original to clone drive ------
Sectors compared: 35673120
Sectors match: 35673120
Sectors differ: 0
Bytes differ: 0
Diffs range
Source (78125000) has 42451880 more sectors than destination (35673120)
0 source read errors, 0 destination read errors

------ Tool Message: ------
no message

Write Block: 3 FASTBloc IDE

OS: Linux debian 2.6.32-5-486 #1 Mon Oct 3 03:34:28 UTC 2011 i686 GNU/Linux

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-12 A clone is created from an image file.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-13 Clone created using interface AI.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-19 Truncated clone is created.</td>
<td>as expected</td>
</tr>
<tr>
<td>AO-20 User notified that clone is truncated.</td>
<td>No Message</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results not achieved
5.2.52 DA-24

**Test Case DA-24 AccessData FTK Imager CLI v2.9**

**Case:** DA-24 Verify a valid image.

**Summary:**
- **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:** csr
**Name:**
**Test Host:** DeathStar
**Test Date:** Wed Mar 21 07:17:53 2012
**Drives:**
- src(41) dst (none) other (05-SATA)
- Source src hash (SHA256): `<FBF3AA2148965D8880FFAE71449A9F7E8EE4F56A6C3BF58A3A3FFB13203F1B1D>`
- src hash (SHA1): `<15CAA1A07271160D8372668BF8A03FC45A51CC9>`
- src hash (MD5): `<0A6A8EF78BDC14E2026710D8CCB5607C>`
- 78125000 total sectors (4000000000 bytes)
- 65534/015/63 (max cyl/hd values)
- 65535/016/63 (number of cyl/hd)
- IDE disk: Model (WDC WD400BB-75JHC0) serial # (WD-WMAMC4658355)

<table>
<thead>
<tr>
<th>N</th>
<th>Start LBA</th>
<th>Length</th>
<th>Start C/H/S</th>
<th>End C/H/S</th>
<th>boot Partition type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P 000000063</td>
<td>078107967</td>
<td>0000/001/01</td>
<td>1023/254/63</td>
<td>Boot 07 NTFS</td>
</tr>
<tr>
<td>2</td>
<td>P 000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
<tr>
<td>3</td>
<td>P 000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
<tr>
<td>4</td>
<td>P 000000000</td>
<td>000000000</td>
<td>0000/000/00</td>
<td>0000/000/00</td>
<td>00 empty entry</td>
</tr>
</tbody>
</table>

| 1 | 078107967 sectors 39991279104 bytes |

**Setup:**
- Log
- Highlights:
  - root@debian:/media/xxx# ftkimager da-24.s01 --verify
- AccessData FTK Imager v2.9 CLI (May 12 2010)
- Copyright 2006-2010 AccessData Corp., 384 South 400 West, Lindon, UT 84042
- All rights reserved.

Verifying image...
Image verification complete.

### [MD5]
- Computed hash: `<0a6a8ef78bdc14e2026710d8ccbb5607c>`

### [SHA1]
- Computed hash: `<15c9a1a037271160d8372668bf8a03fc45a51cc9>`

**Verify result:** 
- Match

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
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</thead>
<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Test Case DA-24 AccessData FTK Imager CLI v2.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>AO-06 Tool verifies image file unchanged. as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct. as expected</td>
</tr>
<tr>
<td>Analysis: Expected results achieved</td>
</tr>
</tbody>
</table>

May 2013                                109 of 119                FTK Imager CLI 2.9.0_Debian
Test Case DA-25
AccessData FTK Imager CLI v2.9

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: csr
Test Host: DeathStar
Test Date: Mon Apr 2 09:03:43 2012
Drives: src(D5-THUMB) dst (none) other (24-LAP)
Source hash (SHA1): < D68520EF74A336E49DCCF83815B708FD53E38A >
src hash (MD5): < C843593624B2B387856D876OB19954 >
505856 total sectors (258998272 bytes)
Model (usb2.0Flash Disk) serial #: ()

Log
Highlights: ====== Image file corrupted for test run: ======
Change byte 1028128 of file da-25.001 from 0x46 to 0x4E

====== Tool Message: ======
Verifying image...
Image verification complete.
[MD5] Computed hash: e25e19f7b078cebbbc6beffc1e29d38
[SHA1] Computed hash: 896a19d8d8318501ce3a3c36e61c5652420ba

Write Block: 18 Tableau Forensic USB Bridge
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

====== Image file segments ======
1 385408 2012-04-02 09:10 da-25.E01
2 1094 2012-04-02 09:10 da-25.E01.txt
3 0 2012-04-02 09:10 ls.txt

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<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>as expected</td>
</tr>
<tr>
<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved
Test Case DA-26-D2E AccessData FTK Imager CLI v2.9

Case DA-26 Convert an image to an alternate image file format.

Summary: DA-26

Assertions:
AM-03 The tool executes in execution environment XE.
AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Mar 27 14:06:48 2012

Drives:
src (D5-Thumb) dst (none) other (24-LAP)

Source
src hash (SHA1): < D68520BEF4A33684DCCF83815B7B08FDC53E38A >
src hash (MD5): < C843593624B2B3B878596D8760B19954 >
505856 total sectors (25899272 bytes)
Model (usb2.0Flash Disk) serial # ()

Setup:
logfile.txt

Log Highlights:
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

------- Image file segments -------
1 258998272 2012-04-03 12:55 da-26.001
2 258998784 2012-04-03 12:56 da-26E.001
3 976 2012-04-03 12:56 da-26E.001.txt
4 1094 2012-04-03 12:55 logfile.txt
5 0 2012-04-03 12:57 ls.txt

------- Excerpt from Tool log -------
Case: da-26-d2e
Drive Geometry:
Cylinders: 1019
Heads: 8
Sectors per Track: 62
Bytes per Sector: 512
Sector Count: 505856

Physical Drive Information:
Drive Model: CRUCIAL usb2.0Flash Disk
Drive Interface Type: SCSI
Source data size: 247 MB
Sector count: 505856
Source hash:
MD5: c843593624b2b3b878596d8760b19954
SHA1: d68520ef74a336e49dccb83815b7b08fddc53e38a

Verification hash:
MD5: c843593624b2b3b878596d8760b19954
SHA1: d68520ef74a336e49dccb83815b7b08fddc53e38a
Segment list:
/media/xxx/da-26.001

------- End of Excerpt from Tool log -------

Results:
<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Analysis: Expected results achieved
5.2.55 DA-26-D2E01

Test Case DA-26-D2E01 AccessData FTK Imager CLI v2.9

Case Summary: DA-26 Convert an image to an alternate image file format.

Assertions:
- AM-03 The tool executes in execution environment XE.
- AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Mar 27 14:06:48 2012
Drives: src(D5-Thumb) dst (none) other (24-LAP)

Source hash (SHA1): < D68520EF74A336E49DCCF83815B7B08FDC53E38A >
Source hash (MD5): < C843593624B2B3B878596D9760B19954 >
505856 total sectors (258998272 bytes)
Model (usb2.0Flash Disk) serial # ()

Log Highlights:
- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 1686 GNU/Linux
- ====== Image file segments ======
  1  258998272 2012-04-03 13:22 da-26.001
  2  3854088 2012-04-03 13:23 da-26e01.E01
  3   984 2012-04-03 13:23 da-26e01.E01.txt
  4  1094 2012-04-03 13:22 logfile.txt
- ====== End of Excerpt from Tool log ======

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<tr>
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<td>AO-09 Tool converts image file format.</td>
<td>as expected</td>
</tr>
<tr>
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<td>as expected</td>
</tr>
</tbody>
</table>

Analysis: Expected results achieved

May 2013 112 of 119 FTK Imager CLI 2.9.0 _Debian
Test Case DA-26-D2S01 AccessData FTK Imager CLI v2.9

Case Summary: DA-26 Convert an image to an alternate image file format.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Mar 27 14:06:48 2012

Drives: src (D5-Thumb) dst (none) other (24-LAP)

Source hash (SHA1): < D68520BF74A336E49DCDF83815B7B08D5C3E38A >
src hash (MD5): < C843593624B2B38878596D8760B19954 >
505856 total sectors (258998272 bytes)
Model (usb2.0Flash Disk) serial # ()

Log Highlights: OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

==== Image file segments ======
1 258998272 2012-04-03 13:09 da-26.001
2 3853919 2012-04-03 13:11 da-26s01.s01
3 984 2012-04-03 13:11 da-26s01.s01.txt
4 1094 2012-04-03 13:09 logfile.txt

====== Excerpt from Tool log ========
Case: da-26-d2s01
Drive Geometry:
Cylinders: 1019
Heads: 8
Sectors per Track: 62
Bytes per Sector: 512
Sector Count: 505856

Physical Drive Information:
Drive Model: CRUCIAL usb2.0Flash Disk
Drive Interface Type: SCSI
Source data size: 247 MB
Sector count: 505856

Source hash:
MD5: c843593624b2b3b878596d8760b19954
SHA1: d68520ef74a336e49dccc983815b7b08fd53e38a

Verification hash:
MD5: c843593624b2b3b878596d8760b19954
SHA1: d68520ef74a336e49dccc983815b7b08fd53e38a

Segment list:
/media/xxx/da-26.001

====== End of Excerpt from Tool log ========

Results:

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<tr>
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<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>
</tbody>
</table>

Analysis: Expected results achieved
## Test Case DA-26-E012D AccessData FTK Imager CLI v2.9

### Case Summary:
DA-26 Convert an image to an alternate image file format.

### Assertions:
- AM-03 The tool executes in execution environment XE.
- AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

### Tester Name:
csr

### Test Host: DeathStar

### Test Date: Tue Mar 27 14:06:48 2012

### Drives:
- src (D5-Thumb)
- dst (none)
- other (24-LAP)

### Source Setup:
- src hash (SHA1): `< D68520EF74A336E49DCCF83815B7B08FDC53E38A >`
- src hash (MD5): `< C843593624B2B3B87856D8760B19954 >`
- 505856 total sectors (258998272 bytes)
- Model (usb2.0Flash Disk) serial #()

### Log Highlights:
- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux
- Example from Tool log:

```
------ Image file segments -----
  1 258998272 2012-04-03 14:24 da-26.001
  2 1350 2012-04-03 14:24 da-26.001.txt
  3 3854086 2012-04-03 14:24 da-26.E01
  4 1094 2012-04-03 14:24 logfile.txt
  5 0 2012-04-03 14:25 ls.txt
```

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
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<tbody>
<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>
</tbody>
</table>

### Analysis:
Expected results achieved
5.2.58 DA-26-E012E

Test Case DA-26-E012E AccessData FTK Imager CLI v2.9

Case Summary: DA-26 Convert an image to an alternate image file format.

Assertions:

- AM-03 The tool executes in execution environment XE.
- AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Mar 27 14:06:48 2012

Drives: src(D5-Thumb) dst (none) other (24-LAP)

Source Setup:
- src hash (SHA1): < D68520BEF4A036E49DCCF83815B7B08FDC53E3E >
- src hash (MD5): < C843593624B2B3B878596D8760B19954 >
- 505856 total sectors (258998272 bytes)
- Model (usb2.0Flash Disk) serial # ()

Log Highlights:
- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux

----- Image file segments -----  
1  258998784 2012-04-03 14:34 da-26.E01
2  1348 2012-04-03 14:34 da-26.E01.txt
3  385088 2012-04-03 14:32 da-26.E01
4  1094 2012-04-03 14:32 da-26.E01.txt

------ Excerpt from Tool log -------

Case: da-26-e012e
Drive Geometry:
- Cylinders: 1019
- Heads: 8
- Sectors per Track: 62
- Sector Count: 505856

Physical Drive Information:
- Drive Model: CRUCIAL usb2.0Flash Disk
- Drive Interface Type: SCSI
- Source data size: 247 MB
- Source count: 505856
- Source hash: c843593624b2b3b878596d8760b19954
- SHA1: d68520ef74a336e49dccf83815b7b08f53e38a
- Verification hash: c843593624b2b3b878596d8760b19954
- SHA1: d68520ef74a336e49dccf83815b7b08f53e38a
- Segment list: /media/xxx/da-26.E01

------ End of Excerpt from Tool log -------

Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Analysis: Expected results achieved
## Test Case DA-26-E012S01

**AccessData FTK Imager CLI v2.9**

### Case Summary
DA-26 Convert an image to an alternate image file format.

### Assertions:
- **AM-03** The tool executes in execution environment XE.
- **AO-09** If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.

### Tester Information
- **Name:** csr
- **Test Host:** DeathStar
- **Test Date:** Tue Mar 27 14:06:48 2012
- **Drives:**
  - **src (D5-Thumb):** dbt (none) other (24-LAP)
  - **Setup:**
    - **src hash (SHA1):** < D68520E6F4A336E49DCCF83815B708FDC53E38A >
    - **src hash (MD5):** < C843593624B283B87856D8760B19954 >
    - **505856 total sectors (25899272 bytes)**
    - **Model (usb2.0Flash Disk) serial # ()**

### Log Highlights
- **OS:** Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux
- **Image file segments:**
  2. 3853919 2012-04-03 14:40 da-26.s01
  3. 1350 2012-04-03 14:40 da-26.s01.txt
  4. 1094 2012-04-03 14:39 logfile.txt
- **Excerpt from Tool log:**
  - **Case:** da-26-e012s01
  - **Drive Geometry:**
    - Cylinders: 1019
    - Heads: 8
    - Sectors per Track: 62
    - Sector Count: 505856
  - **Physical Drive Information:**
    - Drive Model: CRUCIAL usb2.0Flash Disk
    - Drive Interface Type: SCSI
  - **Source data size:** 247 MB
  - **Source hash:**
    - **MD5:** c843593624b283b87856d8760b19954
    - **SHA1:** d68520ef74a336e49dcdf83815b708fdec53e38a
  - **Verification hash:**
    - **MD5:** c843593624b283b87856d8760b19954
    - **SHA1:** d68520ef74a336e49dcdf83815b708fdec53e38a
  - **Segment list:**
    - /media/xxx/da-26.E01
- **End of Excerpt from Tool log**

### Results:

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
<th>Actual Result</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

### Analysis:
Expected results achieved
**Test Case DA-26-S012D**

**DA-26** Convert an image to an alternate image file format.

**Case Summary:**
DA-26 Convert an image to an alternate image file format.

**Assertions:**
- **AM-03** The tool executes in execution environment XE.
- **AO-09** If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- **AO-23** If the tool logs any log significant information, the information is accurately recorded in the log file.

**Tester Name:** csr

**Test Host:** DeathStar

**Test Date:** Tue Mar 27 14:06:48 2012

**Drives:**
- src (D5-Thumb)
- dst (none)
- other (24-LAP)

**Source Setup:**
- src hash (SHA1): `<D68520EF74A336E49DCCF83815B7B08FDC53E38A` >
- src hash (MD5): `<C843593624B2B3B87856D8760B19954` >
- 505856 total sectors (258998272 bytes)
- Model (usb2.0Flash Disk) serial #: ()

**Log Highlights:**
- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux
- Physical Drive Information:
  - Drive Geometry:
    - Cylinders: 1019
    - Heads: 8
    - Sectors per Track: 62
    - Sector Count: 505856
  - Drive Model: CRUCIAL usb2.0Flash Disk
  - Drive Interface Type: SCSI
  - Source data size: 247 MB
  - Sector count: 505856

- Source hash:
  - MD5: c843593624b2b3b87856d8760b19954
  - SHA1: d68520ef74a336e49dccf83815b7b08fecd53e38a

- Verification hash:
  - MD5: c843593624b2b3b87856d8760b19954
  - SHA1: d68520ef74a336e49dccf83815b7b08fecd53e38a

- Segment list:
  /media/xxx/da-26.s01

- **End of Excerpt from Tool log**

**Results:**

<table>
<thead>
<tr>
<th>Assertion &amp; Expected Result</th>
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</tr>
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<tbody>
<tr>
<td>AM-03 Execution environment is XE.</td>
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<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>
</tbody>
</table>

**Analysis:** Expected results achieved
5.2.61 DA-26-S012E

Test Case DA-26-S012E AccessData FTK Imager CLI v2.9

Case: DA-26 Convert an image to an alternate image file format.

Summary:
DA-26 Convert an image to an alternate image file format.

Assertions:
AM-03 The tool executes in execution environment XE.
AO-09 If the tool converts a source image file from one format to a target
image file in another format, the acquired data represented in the target
image file is the same as the acquired data in the source image file.
AO-23 If the tool logs any log significant information, the information is
accurately recorded in the log file.

Tester Name: csr

Test Host: DeathStar

Test Date: Tue Mar 27 14:06:48 2012

Drives:
src (D5-Thumb) dst (none) other (24-LAP)

Source:
src hash (SHA1): < D68520EF74A336E49DCCF3815B7B08FDC53E38A >
src hash (MD5): < C843593624B2B3688785960760B19954 >
setup: 505856 total sectors (258998272 bytes)
Model (usb2.0Flash Disk) serial # ()

Log Highlights:
OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC
2011 i686 GNU/Linux

====== Image file segments ======
1 258998784 2012-04-03 14:45 da-26E.001
2 1364 2012-04-03 14:45 da-26E.001.txt
3 3853920 2012-04-03 14:44 da-26.s01
4 1094 2012-04-03 14:44 da-26.s01.txt

======== Excerpt from Tool log ========
Case: da-26-s012e
Drive Geometry:
Cylinders: 1019
Heads: 8
Sectors per Track: 62
Bytes per Sector: 512
Sector Count: 505856

Physical Drive Information:
Drive Model: CRUCIAL usb2.0Flash Disk
Drive Interface Type: SCSI
Source data size: 247 MB
Sector count: 505856

Source hash:
MD5: c843593624b2b3688785960760b19954
SHA1: d68520ef74a336e49dccf3815b7b08fdc53e38a

Verification hash:
MD5: c843593624b2b3688785960760b19954
SHA1: d68520ef74a336e49dccf3815b7b08fdc53e38a

Segment list:
/media/xxx/da-26.s01

======== End of Excerpt from Tool log ========

--- Results ---

<table>
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<tr>
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</tbody>
</table>

Analysis: Expected results achieved
Case Summary: DA-26 Convert an image to an alternate image file format.

 Assertions:
- AM-03 The tool executes in execution environment XE.
- AO-09 If the tool converts a source image file from one format to a target image file in another format, the acquired data represented in the target image file is the same as the acquired data in the source image file.
- AO-23 If the tool logs any log significant information, the information is accurately recorded in the log file.

Tester Name: csr
Test Host: DeathStar
Test Date: Tue Mar 27 14:06:48 2012

Drives: src(D5-Thumb) dst (none) other (24-LAP)
Source src hash (SHA1): < D68520E8F74A336E49DBCF8381B7B08FDC53E38A >
Source hash (MD5): < C843593624B2B8785968760B19954 >
505856 total sectors (258999272 bytes)
Model (usb2.0Flash Disk) serial # ()

Log Highlights:
- OS: Linux ubuntu 2.6.32-33-generic #70-Ubuntu SMP Thu Jul 7 21:09:46 UTC 2011 i686 GNU/Linux
- ====== Image file segments ======
  1 3854088 2012-04-03 14:54 da-26.E01
  2 1366 2012-04-03 14:54 da-26.E01.txt
  3 3853919 2012-04-03 14:54 da-26.s01
  4 1094 2012-04-03 14:54 logfile.txt
- ===== Excerpt from Tool log =====
  Case: da-26-s012e01
  Drive Geometry:
    Cylinders: 1019
    Heads: 8
    Sectors per Track: 62
    Sector Count: 505856
  Physical Drive Information:
    Model: CRUCIAL usb2.0Flash Disk
    Drive Interface Type: SCSI
  Source data size: 247 MB
  Source count: 505856
  Source hash:
    MD5: c843593624b2b3b8785968760b19954
    SHA1: d68520ef74a336e49dccf8381b7b08f5d5c53e8a
  Verification hash:
    MD5: c843593624b2b3b8785968760b19954
    SHA1: d68520ef74a336e49dccf8381b7b08f5d5c53e8a
  Segment list:
/\media/xxx/da-26.s01
- ===== End of Excerpt from Tool log =====

Results:

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<td>AO-23 Logged information is correct.</td>
<td>as expected</td>
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</table>

Analysis: Expected results achieved
About the National Institute of Justice

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

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

Strategic Goals
NIJ has seven strategic goals grouped into three categories:

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

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

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

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

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