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Special **REPORT**

# Test Results for Mobile Device Acquisition Tool: AFLogical 1.4

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# Test Results for Mobile Device Acquisition Tool: AFLogical 1.4

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NIJ

**John Laub**

*Director, National Institute of Justice*

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**April 2011**

# Test Results for Mobile Device Acquisition Tool:
AFLogical 1.4

National Institute of
Standards and Technology
U.S. Department of Commerce

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# Introduction

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

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

This document reports the results from testing AFLogical Version 1.4, against the *Smart Phone Tool Test Assertions and Test Plan,* available at the CFTT Web site (http://www.cftt.nist.gov/mobile_devices.htm).

Test results from other software packages and the CFTT tool methodology can be found on NIJ's computer forensics tool testing Web page, http://www.nij.gov/nij/topics/forensics/evidence/digital/standards/cftt.htm.

# How to Read This Report

This report is divided into five sections. The report describes how the tests were conducted and provides documentation of test case run details that support the report summary. The first section is a summary of the results from the test runs. This section is sufficient for most readers to assess the suitability of the tool for its intended use. Sections 2 and 3 provide justification for the selection of test cases and assertions from the set of possible cases defined in the test plan for smart phone forensic tools. The test cases are selected, in general, based on features offered by the tool. Section 4 lists the hardware and software used to run the test cases. Section 5 contains a description of each test case, test assertions used in the test case, the expected result and the actual result.

## Test Results for Mobile Device Data Acquisition Tool

Tool Tested: AFLogical

Version: 1.4

Run Environment: Mac OS X 10.5.4

Supplier: viaForensics

Address: 1000 Lake Street, Suite 203
Oak Park, IL 60301

Tel: (312) 878-1101
Fax: (312) 268-7281

WWW: http://www.viaforensics.com

# 1 Results Summary

The tool logically acquired active data elements from the mobile device internal memory completely and accurately except for the following cases: a case where acquisition of Personal Information Management (PIM) data was attempted and a case where acquisition of Multimedia Messaging Service (MMS) data was attempted. Additionally, in a case that tested the tools behavior when connectivity is interrupted, the tool failed to notify the user that the acquisition had been disrupted.

The following anomalies were observed:

- Graphics files associated with address book entries were not reported. Test Case: SPT-06 (Droid 2, Droid X, Nexus One, Samsung Moment).
- Regular and maximum length PIM data (calendar entries, memos) were not reported. Test Case: SPT-06 (Droid 2, Droid X).
- Maximum length PIM data (memos) were not reported. Test Case: SPT-06 (Samsung Moment).
- The textual portions of outgoing MMS messages were not reported. Test Case: SPT-09 (Samsung Moment).
- Notification of device disruption during acquisition was not successful. Test Case: SPT-03 (Droid 2, Droid X, Nexus One, Samsung Moment).

# 2 Test Case Selection

Test cases are defined in *Smart Phone Tool Test 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 that are executed for every tool tested. Tool features guide the selection of additional test cases. If a given tool implements a given feature then the test

cases linked to that feature are run. Table 1 lists the features available in AFLogical Version 1.4 and the linked test cases selected for execution. Table 2 lists the test cases not available in AFLogical Version 1.4 and the test cases not executed.

**Table 1 Selected Test Cases (Droid 2, Droid X, Nexus One, Samsung Moment)**

| Supported Optional Feature | Cases selected for execution |
|---|---|
| Base Cases | SPT-01, SPT-02, SPT-03, SPT-04, SPT-05, SPT-06, SPT-07, SPT-08, SPT-09, SPT-12, & SPT-13 |
| Acquire mobile device internal memory and review data containing non-ASCII characters | SPT-33 |

**Table 2 Omitted Test Cases (Droid 2, Droid X, Nexus One, Samsung Moment)**

| Unsupported Optional Feature | Cases omitted (not executed) |
|---|---|
| Acquire mobile device internal memory and review reported stand-alone multimedia data (i.e., audio, graphics, video). | SPT-10 |
| Acquire mobile device internal memory and review application-related data (i.e., word documents, spreadsheet, presentation documents). | SPT-11 |
| Acquire Subscriber Identity Module (SIM) memory over supported interfaces (e.g., Personal Computer/Smart Card [PC/SC] reader). | SPT-14 |
| Attempt acquisition of a nonsupported SIM. | SPT-15 |
| Begin SIM acquisition and interrupt connectivity by interface disengagement. | SPT-16 |
| Acquire SIM memory and review reported subscriber and equipment-related information (i.e., Service Provider Name [SPN], Integrated Circuit Card Identifier [ICCID], International Mobile Subscriber Identity [IMSI], Mobile Subscriber International ISDN Number [MSISDN]). | SPT-17 |
| Acquire SIM memory and review reported Abbreviated Dialing Numbers (ADN). | SPT-18 |
| Acquire SIM memory and review reported Last Numbers Dialed (LND). | SPT-19 |
| Acquire SIM memory and review reported text messages (Short Message Service [SMS], Enhanced Message Service [EMS]). | SPT-20 |
| Acquire SIM memory and review recoverable deleted text messages (SMS, EMS). | SPT-21 |
| Acquire SIM memory and review reported location-related data (i.e., Location Information [LOCI], General Packet Radio Service Location [GPRSLOCI]). | SPT-22 |
| Acquire SIM memory by selecting a combination of supported data elements. | SPT-23 |
| Acquire mobile device internal memory and review reported data via supported generated report formats. | SPT-24 |
| Acquire mobile device internal memory and review reported data via the preview pane. | SPT-25 |

| Unsupported Optional Feature | Cases omitted (not executed) |
|---|---|
| Acquire SIM memory and review reported data via supported generated report formats. | SPT-26 |
| Acquire SIM memory and review reported data via the preview pane. | SPT-27 |
| Attempt acquisition of a password-protected SIM. | SPT-28 |
| After a successful mobile device internal memory, alter the case file via third-party means and attempt to reopen the case. | SPT-29 |
| After a successful SIM acquisition, alter the case file via third-party means and attempt to reopen the case. | SPT-30 |
| Perform a physical acquisition and review data output for readability. | SPT-31 |
| Perform a physical acquisition and review reports for recoverable deleted data. | SPT-32 |
| Acquire SIM memory and review data containing non-ASCII characters. | SPT-34 |
| Begin acquisition on a Personal Identification Number (PIN)-protected SIM to determine if the tool provides an accurate count of the remaining number of PIN attempts and if the PIN attempts are decremented when entering an incorrect value. | SPT-35 |
| Begin acquisition on a SIM whose PIN attempts have been exhausted to determine if the tool provides an accurate count of the remaining number of Personal Unlocking Key (PUK) attempts and if the PUK attempts are decremented when entering an incorrect value. | SPT-36 |
| Perform a stand-alone mobile device internal memory acquisition and review the status flags for text messages present on the SIM. | SPT-37 |
| Acquire mobile device internal memory and review hash values for vendor-supported data objects. | SPT-38 |
| Acquire SIM memory and review hash values for vendor-supported data objects. | SPT-39 |
| Acquire mobile device internal memory and review data containing Global Positioning System (GPS) longitude and latitude coordinates. | SPT-40 |

# 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 *Smart Phone Tool Test Assertions and Test Plan Version 1.0.* Table 3 summarizes the test results for all the test cases by their 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 the anomaly is discussed.

**Table 3 Assertions Tested: (Droid 2, Droid X, Nexus One, Samsung Moment)**

| Assertions Tested | Tests | Anomaly |
|---|---|---|

| Assertions Tested | Tests | Anomaly |
|---|---|---|
| SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device, then the tool shall successfully recognize the target device via all vendor-supported interfaces (e.g., cable, Bluetooth, IrDA). | 4 | |
| SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device, then the tool shall notify the user that the device is not supported. | 4 | |
| SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted, then the tool shall notify the user that connectivity has been disrupted. | 4 | 3.1 |
| SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error, then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report. | 8 | |
| SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error, then subscriber-related information shall be presented in a useable format. | 4 | |
| SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error, then equipment-related information shall be presented in a useable format. | 4 | |
| SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error, then address book entries shall be presented in a useable format. | 4 | |
| SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error, then maximum length address book entries shall be presented in a useable format. | 4 | |
| SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error, then address book entries containing special characters shall be presented in a useable format. | 4 | |
| SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error, then address book entries containing blank names shall be presented in a useable format. | 4 | |
| SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error, then e-mail addresses associated with address book entries shall be presented in a useable format. | 4 | |
| SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error, then graphics associated with address book entries shall be presented in a useable format. | 4 | 3.2 |
| SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error, then datebook, calendar, and note entries shall be presented in a useable format. | 4 | 3.2 |
| SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error, then maximum length datebook, calendar, and note entries shall be presented in a useable format. | 4 | 3.2 |
| SPT-CA-15 If a cellular forensic tool completes acquisition of the | 4 | |

| Assertions Tested | Tests | Anomaly |
|---|---|---|
| target device without error, then call logs (incoming/outgoing/missed) shall be presented in a useable format. | | |
| SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error, then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format. | 4 | |
| SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error, then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format. | 4 | |
| SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error, then the corresponding date/time stamps for text messages shall be presented in a useable format. | 4 | |
| SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error, then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format. | 4 | |
| SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error, then the corresponding sender/recipient phone numbers for text messages shall be presented in a useable format. | 4 | |
| SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error, then MMS messages and associated audio shall be presented in a useable format. | 4 | 3.3 |
| SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error, then MMS messages and associated graphic files shall be presented in a useable format. | 4 | 3.3 |
| SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error, then MMS messages and associated video shall be presented in a useable format. | 4 | 3.3 |
| SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error, then Internet-related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format. | 4 | |
| SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option, then the tool shall complete the acquisition of all data objects without error. | 4 | |
| SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects, then the tool shall complete the acquisition of all individually selected data objects without error. | 4 | |
| SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition, then the tool shall acquire each exclusive data object without error. | 8 | |
| SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error, then the payload (data objects) on the mobile device shall remain consistent. | 4 | |
| SPT-AO-40 If the cellular forensic tool supports display of non- | 4 | |

| Assertions Tested | Tests | Anomaly |
|---|---|---|
| ASCII characters, then the application should present address book entries in their native format. | | |
| SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters, then the application should present text messages in their native format. | 4 | |

Table 4 lists the assertions that were not tested, usually due to the tool not supporting an optional feature.

**Table 4. Assertions Not Tested (Droid 2, Droid X, Nexus One, Samsung Moment)**

| Assertions Not Tested |
|---|
| SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error, then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application. |
| SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error, then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application. |
| SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error, then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application. |
| SPT-CA-27 If a cellular forensic tool completes acquisition of the target device without error, then device specific application related data shall be acquired and presented in a useable format via either an internal application or suggested third-party application. |
| SPT-AO-01 If a cellular forensic tool provides support for connectivity of the target SIM, then the tool shall successfully recognize the target SIM via all tool-supported interfaces (e.g., PC/SC reader, proprietary reader, smart phone itself). |
| SPT-AO-02 If a cellular forensic tool attempts to connect to a nonsupported SIM, then the tool shall notify the user that the SIM is not supported. |
| SPT-AO-03 If a cellular forensic tool loses connectivity with the SIM reader, then the tool shall notify the user that connectivity has been disrupted. |
| SPT-AO-04 If a cellular forensic tool completes acquisition of the target SIM without error, then the SPN shall be presented in a useable format. |
| SPT-AO-05 If a cellular forensic tool completes acquisition of the target SIM without error, then the ICCID shall be presented in a useable format. |
| SPT-AO-06 If a cellular forensic tool completes acquisition of the target SIM without error, then the IMSI shall be presented in a useable format. |
| SPT-AO-07 If a cellular forensic tool completes acquisition of the target SIM without error, then the MSISDN shall be presented in a useable format. |
| SPT-AO-08 If a cellular forensic tool completes acquisition of the target SIM without error, then ASCII Abbreviated Dialing Numbers (ADN) shall be presented in a useable format. |
| SPT-AO-09 If a cellular forensic tool completes acquisition of the target SIM without error, then maximum length ADNs shall be presented in a useable format. |
| SPT-AO-10 If a cellular forensic tool completes acquisition of the SIM without error, |

| Assertions Not Tested |
| --- |
| then ADNs containing special characters shall be presented in a useable format. |
| SPT-AO-11 If a cellular forensic tool completes acquisition of the SIM without error, then ADNs containing blank names shall be presented in a useable format. |
| SPT-AO-12 If a cellular forensic tool completes acquisition of the target SIM without error, then Last Numbers Dialed (LND) shall be presented in a useable format. |
| SPT-AO-13 If a cellular forensic tool completes acquisition of the target SIM without error, then the corresponding date/time stamps for LNDs shall be presented in a useable format. |
| SPT-AO-14 If a cellular forensic tool completes acquisition of the target SIM without error, then ASCII SMS text messages shall be presented in a useable format. |
| SPT-AO-15 If a cellular forensic tool completes acquisition of the target SIM without error, then ASCII EMS text messages shall be presented in a useable format. |
| SPT-AO-16 If a cellular forensic tool completes acquisition of the target SIM without error, then the corresponding date/time stamps for all text messages shall be presented in a useable format. |
| SPT-AO-17 If a cellular forensic tool completes acquisition of the target SIM without error, then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format. |
| SPT-AO-18 If a cellular forensic tool completes acquisition of the target SIM without error, then the corresponding sender/recipient phone numbers for text messages shall be presented in a useable format. |
| SPT-AO-19 If the cellular forensic tool completes acquisition of the target SIM without error, then deleted text messages that have not been overwritten shall be presented in a useable format. |
| SPT-AO-20 If a cellular forensic tool completes acquisition of the target SIM without error, then location-related data (i.e., LOCI) shall be presented in a useable format. |
| SPT-AO-21 If a cellular forensic tool completes acquisition of the target SIM without error, then location-related data (i.e., GRPSLOCI) shall be presented in a useable format. |
| SPT-AO-22 If a cellular forensic tool provides the user with an “Acquire All” SIM data objects acquisition option, then the tool shall complete the acquisition of all data objects without error. |
| SPT-AO-23 If a cellular forensic tool provides the user with a “Select All” individual SIM data objects, then the tool shall complete the acquisition of all individually selected data objects without error. |
| SPT-AO-24 If a cellular forensic tool provides the user with the ability to “Select Individual” SIM data objects for acquisition, then the tool shall acquire each exclusive data object without error. |
| SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error, then the tool shall present the acquired data in a useable format via supported generated report formats. |
| SPT-AO-25 If a cellular forensic tool completes acquisition of the SIM without error, then the tool shall present the acquired data in a useable format via supported generated report formats. |
| SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error, then the tool shall present the acquired data in a useable format in a preview-pane |

| Assertions Not Tested |
| --- |
| view. |
| SPT-AO-26 If a cellular forensic tool completes acquisition of the SIM without error, then the tool shall present the acquired data in a useable format in a preview-pane view. |
| SPT-AO-27 If the case file or individual data objects are modified via third-party means, then the tool shall provide protection mechanisms disallowing or reporting data modification. |
| SPT-AO-28 If the SIM is password-protected, then the cellular forensic tool shall provide the examiner with the opportunity to input the PIN before acquisition. |
| SPT-AO-29 If a cellular forensic tool provides the examiner with the remaining number of authentication attempts, then the application should provide an accurate count of the remaining PIN attempts. |
| SPT-AO-30 If a cellular forensic tool provides the examiner with the remaining number of PUK attempts, then the application should provide an accurate count of the remaining PUK attempts. |
| SPT-AO-31 If the cellular forensic tool supports a physical acquisition of the target device, then the tool shall complete the acquisition without error. |
| SPT-AO-32 If the cellular forensic tool supports the interpretation of address book entries present on the target device, then the tool shall report recoverable active and deleted data or address book data remnants in a useable format. |
| SPT-AO-33 If the cellular forensic tool supports the interpretation of calendar, tasks, or notes present on the target device, then the tool shall report recoverable active and deleted calendar, tasks, or notes data remnants in a useable format. |
| SPT-AO-34 If the cellular forensic tool supports the interpretation of call logs present on the target device, then the tool shall report recoverable active and deleted call or call log data remnants in a useable format. |
| SPT-AO-35 If the cellular forensic tool supports the interpretation of SMS messages present on the target device, then the tool shall report recoverable active and deleted SMS messages or SMS message data remnants in a useable format. |
| SPT-AO-36 If the cellular forensic tool supports the interpretation of EMS messages present on the target device, then the tool shall report recoverable active and deleted EMS messages or EMS message data remnants in a useable format. |
| SPT-AO-37 If the cellular forensic tool supports the interpretation of audio files present on the target device, then the tool shall report recoverable active and deleted audio data or audio file data remnants in a useable format. |
| SPT-AO-38 If the cellular forensic tool supports the interpretation of graphic files present on the target device, then the tool shall report recoverable active and deleted graphic file data or graphic file data remnants in a useable format. |
| SPT-AO-39 If the cellular forensic tool supports the interpretation of video files present on the target device, then the tool shall report recoverable active and deleted video file data or video file data remnants in a useable format. |
| SPT-AO-42 If the cellular forensic tool supports stand-alone acquisition of internal memory with the SIM present, then the contents of the SIM shall not be modified during internal memory acquisition. |
| SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects, then the tool shall present the user with a hash value for each supported data object. |

| Assertions Not Tested |
| --- |
| SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data, then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format. |

The following sections provide detailed information for each anomaly found in Table 3.

### 3.1 Acquisition disruptions

Notification of device acquisition disruption was not successful in test case SPT-03 for the Droid 2, Droid X, Nexus One and the Samsung Moment. The acquisition was disrupted by removing the cable from the mobile device. Instead of informing the examiner that connectivity with the mobile device had been disrupted, the tool appeared to continue acquiring the contents of the mobile device.

### 3.2 Acquisition of PIM data

For test case SPT-06, graphics files associated with address book entries were not reported for the Droid 2, Droid X, Nexus One and Samsung Moment devices. Regular length (under 160 characters) PIM data (i.e., datebook, calendar, note entries) were not reported for the Droid 2 or Droid X; Maximum length (over 160 characters) PIM data (i.e., datebook, calendar, note entries) were not reported for the Droid 2, Droid X or the Samsung Moment.

### 3.3 Acquisition of MMS data

The textual portion of outgoing MMS messages was not reported for the Samsung Moment for test case SPT-09.

## 4 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the testing environment, including available computers, mobile devices and the data objects used to populate mobile devices and Subscriber Identity Modules.

### 4.1 Test Computers

One test computer was used. **p630542** has the following configuration:

MacBook Pro
Intel Core 2 Duo
Processor Speed: 2.6 GHz
Memory: 2 GB
Boot ROM Version: MBP31.0070.B05

### 4.2 Mobile Devices

The following table contains the mobile device used.

| Make | Model | OS | Network |
|---|---|---|---|
| Motorola | Droid 2 | Android | Verizon |
| Motorola | Droid X | Android | Verizon |
| HTC | Nexus One | Android | AT&T |
| Samsung | Moment | Android | Sprint |

## *4.3 Internal Memory Data Objects*

The following data objects were used to populate the internal memory of the smart phones.

| Data Objects | Data Elements |
|---|---|
| Address Book Entries | |
| | Regular Length |
| | Maximum Length |
| | Special Character |
| | Blank Name |
| | Regular Length, email |
| | Regular Length, graphic |
| | Deleted Entry |
| | Non-ASCII Entry |
| PIM Data | |
| | Regular Length |
| | Maximum Length |
| | Deleted Entry |
| | Special Character |
| Call Logs | |
| | Incoming |
| | Outgoing |
| | Missed |
| | Incoming — Deleted |
| | Outgoing — Deleted |
| | Missed — Deleted |
| Text Messages | |
| | Incoming SMS — Read |
| | Incoming SMS — Unread |
| | Outgoing SMS |
| | Incoming EMS — Read |
| | Incoming EMS — Unread |
| | Outgoing EMS |
| | Incoming SMS — Deleted |
| | Outgoing SMS — Deleted |
| | Incoming EMS — Deleted |
| | Outgoing EMS — Deleted |
| | Non-ASCII EMS |

| Data Objects | Data Elements |
|---|---|
| MMS Messages | |
| | Incoming Audio |
| | Incoming Graphic |
| | Incoming Video |
| | Outgoing Audio |
| | Outgoing Graphic |
| | Outgoing Video |
| Stand-alone data files | |
| | Audio |
| | Graphic |
| | Video |
| | Audio — Deleted |
| | Graphic — Deleted |
| | Video — Deleted |
| Application Data | |
| | Device Specific App Data |
| Location Data | |
| | GPS Coordinates |

# 5 Test Results

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

## *5.1 Test Results Report Key*

A summary of the actual test results is presented in this report. The following table presents a description of each section of the test report summary. The Tester Name, Test Host, Test Date, Device, 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 support scripts that were executed in support of test case setup and analysis.

**Table 5. Test Results Report Key**

| Heading | Description |
|---|---|
| First Line: | Test case ID, name and version of tool tested. |
| Case Summary: | Test case summary from *Smart Phone Tool Test Assertion and Test Plan.* |
| Assertions: | The test assertions applicable to the test case, selected from *Smart Phone Tool Test Assertion and Test Plan.* |
| Tester Name: | Name or initials of person executing test procedure. |
| Test Host: | Host computer executing the test. |
| Test Date: | Time and date that test was started. |

| Heading | Description |
|---|---|
| Device: | Source mobile device. |
| Source Setup: | Acquisition interface and tool execution environment. |
| Log Highlights: | Information extracted from various log files to illustrate conformance or nonconformance to the test assertions. |
| Results: | Expected and actual results for each assertion tested. |
| Analysis: | Whether or not the expected results were achieved. |

## *5.2 Test Details*

### 5.2.1 SPT–01 (Droid 2)

| | |
|---|---|
| Case Summary: | SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA). |
| Assertions: | SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).<br>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.<br>SPT-CA-30 If a cellular forensic tool provides the user with a "Select All" individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error.<br>SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 7 09:30:52 EST 2010 |
| Device: | Droid2 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 7 09:30:52 EST 2010<br>Acquisition finished: Tue Dec 7 09:32:58 EST 2010<br><br>Device connectivity was established via supported interface |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-CA-01 Device connectivity via supported interfaces. — as expected<br>SPT-CA-04 Readability and completeness of acquired data via supported reports. — as expected<br>SPT-CA-30 Select-All data objects acquisition. — as expected<br>SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications. — as expected |
| Analysis: | Expected results achieved |

### 5.2.2 SPT-02 (Droid 2)

<table>
<tr><td colspan="2">Test Case SPT-02 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-02 Attempt internal memory acquisition of a non-supported mobile device.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-02 If a cellular forensic tool attempts to connect to a non-supported device then the tool shall notify the user that the device is not supported.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 09:34:55 EST 2010</td></tr>
<tr><td>Device:</td><td>unsupported_device</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 09:34:55 EST 2010<br>Acquisition finished: Tue Dec 7 09:37:24 EST 2010<br><br>Identification of non-supported devices was successful<br><br><u>Notes</u>:<br>Unsupported devices are not recognized by the "adb devices" command. Therefore, if the device is not supported an acquisition cannot be attempted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-02 Identification of non-supported devices.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.3 SPT-03 (Droid 2)

<table>
<tr><th colspan="2">Test Case SPT-03 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 09:47:45 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 09:47:45 EST 2010<br>Acquisition finished: Tue Dec 7 09:50:06 EST 2010<br><br>Device acquisition disruption notification was not successful<br><br><u>Notes</u>:<br>Data acquisition ends without notifying the user that the acquisition was disrupted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-03 Notification of device acquisition disruption.</td><td>Not as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results Not achieved</td></tr>
</table>

### 5.2.4 SPT-04 (Droid 2)

<table>
<tr><td colspan="2">Test Case SPT-04 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-04 Acquire mobile device internal memory and review reported data via the preview-pane or generated reports for readability.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 09:54:03 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 09:54:03 EST 2010<br>Acquisition finished: Tue Dec 7 12:14:27 EST 2010<br><br>Readability and completeness of acquired data was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.5 SPT-05 (Droid 2)

<table>
<tr><th colspan="2">Test Case SPT-05 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.<br>SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 12:15:04 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 12:15:04 EST 2010<br>Acquisition finished: Tue Dec 7 12:17:28 EST 2010<br><br>IMEI, MEID/ESN were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-05 Acquisition of MSISDN, IMSI.</td><td>as expected</td></tr>
<tr><td>SPT-CA-06 Acquisition of IMEI/MEID/ESN.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.6 SPT-06 (Droid 2)

| **Test Case SPT-06 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-06 Acquire mobile device internal memory and review reported PIM related data. |
| Assertions: | SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.<br>SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.<br>SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.<br>SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.<br>SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.<br>SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.<br>SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.<br>SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 7 12:19:00 EST 2010 |
| Device: | Droid2 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 7 12:19:00 EST 2010<br>Acquisition finished: Tue Dec 7 12:33:31 EST 2010<br><br>Regular Length Address Book entries were acquired<br>Maximum Length Address Book entries were acquired<br>Special Character Address Book entries were acquired<br>Blank Name Address Book entries were acquired<br>Email addresses within Address Book entries were acquired<br>Embedded graphics within Address Book entries were not acquired<br>Basic PIM related data was not acquired<br>Maximum length PIM related data was not acquired |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-07 Acquisition of address book entries. | as expected |
| SPT-CA-08 Acquisition of maximum length address book entries. | as expected |
| SPT-CA-09 Acquisition of address book entries containing special characters. | as expected |
| SPT-CA-10 Acquisition of address book entries containing a blank name entry. | as expected |
| SPT-CA-11 Acquisition of embedded email addresses within address book entries. | as expected |
| SPT-CA-12 Acquisition of embedded graphics within address book entries. | Not as expected |
| SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). | Not as expected |
| SPT-CA-14 Acquisition of maximum length PIM data. | Not as expected |

| Test Case SPT-06 AFLogical 1.4 | |
|---|---|
| | |
| Analysis: | Expected results Not achieved |

### 5.2.7 SPT-07 (Droid 2)

<table>
<tr><th colspan="2">Test Case SPT-07 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-07 Acquire mobile device internal memory and review reported call logs.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.<br>SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 12:35:40 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 12:35:40 EST 2010<br>Acquisition finished: Tue Dec 7 12:37:23 EST 2010<br><br>All Call Logs (incoming, outgoing, missed) were acquired<br>All Call Log date/time stamps data were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-15 Acquisition of call logs.</td><td>as expected</td></tr>
<tr><td>SPT-CA-16 Acquisition of call log date/time stamps.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.8 SPT-08 (Droid 2)

| **Test Case SPT-08 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-08 Acquire mobile device internal memory and review reported text messages. |
| Assertions: | SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.<br>SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.<br>SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.<br>SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 7 12:43:05 EST 2010 |
| Device: | Droid2 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 7 12:43:05 EST 2010<br>Acquisition finished: Tue Dec 7 12:44:25 EST 2010<br><br>ALL text messages (SMS, EMS) were acquired<br>Correct date/time stamps were reported for all text messages<br>Correct status flags were reported for all text messages<br>Sender and Recipient phone numbers associated with text messages were correctly reported |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-17 Acquisition of text messages. | as expected |
| SPT-CA-18 Acquisition of text message date/time stamps. | as expected |
| SPT-CA-19 Acquisition of text message status flags. | as expected |
| SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages. | as expected |

| | |
|---|---|
| Analysis: | Expected results achieved |

### 5.2.9 SPT-09 (Droid 2)

<table>
<tr><td colspan="2">Test Case SPT-09 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.<br>SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.<br>SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 12:46:02 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 12:46:02 EST 2010<br><br>ALL MMS messages (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-21 Acquisition of audio MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-22 Acquisition of graphic data image MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-23 Acquisition of video MMS messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.10 SPT-12 (Droid 2)

<table>
<tr><th colspan="2">Test Case SPT-12 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 12:48:42 EST 2010</td></tr>
<tr><td>Device:</td><td>Droid2</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 12:48:42 EST 2010<br>Acquisition finished: Tue Dec 7 12:51:20 EST 2010<br><br>All Internet related data was acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-28 Acquisition of Internet related data.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.11 SPT-13 (Droid 2)

| **Test Case SPT-13 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements. |
| Assertions: | SPT-CA-30 If a cellular forensic tool provides the user with an "Select All" individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 7 12:51:57 EST 2010 |
| Device: | Droid2 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 7 12:51:57 EST 2010<br>Acquisition finished: Tue Dec 7 12:57:47 EST 2010<br><br>Select All acquisition was successful |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-CA-30 Select-All data objects acquisition. / as expected |
| Analysis: | Expected results achieved |

### 5.2.12 SPT-33 (Droid 2)

| **Test Case SPT-33 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters. |
| Assertions: | SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.<br>SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 7 13:07:46 EST 2010 |
| Device: | Droid2 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 7 13:07:46 EST 2010<br>Acquisition finished: Tue Dec 7 13:10:25 EST 2010<br><br>Non-ASCII Address book entries were acquired and properly displayed<br>Non-ASCII text messages were acquired and properly displayed |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs. / as expected<br>SPT-AO-41 Acquisition of non-ASCII text messages. / as expected |
| Analysis: | Expected results achieved |

### 5.2.13 SPT-01 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-01 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).<br>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.<br>SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.<br>SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 13:24:06 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 13:24:06 EST 2010<br>Acquisition finished: Tue Dec 7 13:32:47 EST 2010<br><br>Device connectivity was established via supported interface</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-01 Device connectivity via supported interfaces.</td><td>as expected</td></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
<tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.14 SPT-02 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-02 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-02 Attempt internal memory acquisition of a non-supported mobile device.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-02 If a cellular forensic tool attempts to connect to a non-supported device then the tool shall notify the user that the device is not supported.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 7 14:17:24 EST 2010</td></tr>
<tr><td>Device:</td><td>unsupported_device</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 7 14:17:24 EST 2010<br>Acquisition finished: Tue Dec 7 15:07:57 EST 2010<br><br>Identification of non-supported devices was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-02 Identification of non-supported devices.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.15 SPT-03 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-03 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Dec 8 08:59:51 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Dec 8 08:59:51 EST 2010<br>Acquisition finished: Wed Dec 8 09:02:56 EST 2010<br><br>Device acquisition disruption notification was not successful<br><br><u>Notes</u>:<br>Data acquisition ends without notifying the user that the acquisition was disrupted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-03 Notification of device acquisition disruption.</td><td>Not as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results Not achieved</td></tr>
</table>

### 5.2.16 SPT-04 (Droid X)

<table>
<tr><td colspan="2">Test Case SPT-04 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-04 Acquire mobile device internal memory and review reported data via the preview-pane or generated reports for readability.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Dec 8 09:04:43 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Dec 8 09:04:43 EST 2010<br>Acquisition finished: Wed Dec 8 09:06:42 EST 2010<br><br>Readability and completeness of acquired data was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.17 SPT-05 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-05 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.<br>SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Dec 8 09:08:00 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Dec 8 09:08:00 EST 2010<br>Acquisition finished: Wed Dec 8 09:14:26 EST 2010<br><br>IMEI, MEID/ESN were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-05 Acquisition of MSISDN, IMSI.</td><td>as expected</td></tr>
<tr><td>SPT-CA-06 Acquisition of IMEI/MEID/ESN.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.18 SPT-06 (Droid X)

| **Test Case SPT-06 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-06 Acquire mobile device internal memory and review reported PIM related data. |
| Assertions: | SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.<br>SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.<br>SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.<br>SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.<br>SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.<br>SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.<br>SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.<br>SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 10:10:15 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 10:10:15 EST 2010<br>Acquisition finished: Wed Dec 8 10:13:34 EST 2010<br><br>Regular Length Address Book entries were acquired<br>Maximum Length Address Book entries were acquired<br>Special Character Address Book entries were acquired<br>Blank Name Address Book entries were acquired<br>Email addresses within Address Book entries were acquired<br>Embedded graphics within Address Book entries were not acquired<br>Basic PIM related data was not acquired<br>Maximum length PIM related data was not acquired |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-07 Acquisition of address book entries. | as expected |
| SPT-CA-08 Acquisition of maximum length address book entries. | as expected |
| SPT-CA-09 Acquisition of address book entries containing special characters. | as expected |
| SPT-CA-10 Acquisition of address book entries containing a blank name entry. | as expected |
| SPT-CA-11 Acquisition of embedded email addresses within address book entries. | as expected |
| SPT-CA-12 Acquisition of embedded graphics within address book entries. | Not as expected |
| SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). | Not as expected |
| SPT-CA-14 Acquisition of maximum length PIM data. | Not as expected |

| Test Case SPT-06 AFLogical 1.4 | |
|---|---|
| | |
| Analysis: | Expected results Not achieved |

### 5.2.19 SPT-07 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-07 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-07 Acquire mobile device internal memory and review reported call logs.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.<br>SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Dec 8 12:34:19 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Dec 8 12:34:19 EST 2010<br>Acquisition finished: Wed Dec 8 12:35:55 EST 2010<br><br>All Call Logs (incoming, outgoing, missed) were acquired<br>All Call Log date/time stamps data were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-15 Acquisition of call logs.</td><td>as expected</td></tr>
<tr><td>SPT-CA-16 Acquisition of call log date/time stamps.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.20 SPT-08 (Droid X)

| **Test Case SPT-08 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-08 Acquire mobile device internal memory and review reported text messages. |
| Assertions: | SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.<br>SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.<br>SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.<br>SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 12:38:40 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 12:38:40 EST 2010<br>Acquisition finished: Wed Dec 8 13:15:49 EST 2010<br><br>ALL text messages (SMS, EMS) were acquired<br>Correct date/time stamps were reported for all text messages<br>Correct status flags were reported for all text messages<br>Sender and Recipient phone numbers associated with text messages were correctly reported |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-17 Acquisition of text messages. | as expected |
| SPT-CA-18 Acquisition of text message date/time stamps. | as expected |
| SPT-CA-19 Acquisition of text message status flags. | as expected |
| SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages. | as expected |

| | |
|---|---|
| Analysis: | Expected results achieved |

### 5.2.21 SPT-09 (Droid X)

<table>
<tr><th colspan="2">Test Case SPT-09 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.<br>SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.<br>SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Dec 8 13:16:14 EST 2010</td></tr>
<tr><td>Device:</td><td>DroidX</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Dec 8 13:16:14 EST 2010<br>Acquisition finished: Wed Dec 8 13:22:04 EST 2010<br><br>ALL MMS messages (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-21 Acquisition of audio MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-22 Acquisition of graphic data image MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-23 Acquisition of video MMS messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.22 SPT-10 (Droid X)

| **Test Case SPT-10 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-10 Acquire mobile device internal memory and review reported stand-alone multi-media data (i.e., audio, graphics, video). |
| Assertions: | SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.<br>SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.<br>SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 13:25:53 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 13:25:53 EST 2010<br>Acquisition finished: Wed Dec 8 13:27:14 EST 2010<br><br>ALL stand-alone data files (Audio, Image, Video) were acquired |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-CA-24 Acquisition of stand-alone audio files. / as expected<br>SPT-CA-25 Acquisition of stand-alone graphic files. / as expected<br>SPT-CA-26 Acquisition of stand-alone video files. / as expected |
| Analysis: | Expected results achieved |

### 5.2.23 SPT-12 (Droid X)

| **Test Case SPT-12 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites. |
| Assertions: | SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 13:28:23 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 13:28:23 EST 2010<br>Acquisition finished: Wed Dec 8 13:31:29 EST 2010<br><br>All Internet related data was acquired |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-CA-28 Acquisition of Internet related data. / as expected |
| Analysis: | Expected results achieved |

## 5.2.24 SPT-13 (Droid X)

| **Test Case SPT-13 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements. |
| Assertions: | SPT-CA-31 If a cellular forensic tool provides the user with the ability to "Select Individual" device data objects for acquisition then the tool shall acquire each exclusive data object without error. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 13:31:46 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 13:31:46 EST 2010<br>Acquisition finished: Wed Dec 8 13:34:58 EST 2010<br><br>Individual data element acquisition was successful |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-CA-31 Select-Individual data objects acquisition. / as expected |
| Analysis: | Expected results achieved |

## 5.2.25 SPT-33 (Droid X)

| **Test Case SPT-33 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters. |
| Assertions: | SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.<br>SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Wed Dec 8 13:37:46 EST 2010 |
| Device: | DroidX |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Wed Dec 8 13:37:46 EST 2010<br>Acquisition finished: Wed Dec 8 13:40:46 EST 2010<br><br>Non-ASCII Address book entries were acquired and properly displayed<br>Non-ASCII text messages were acquired and properly displayed |
| Results: | **Assertion & Expected Result** / **Actual Result**<br>SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs. / as expected<br>SPT-AO-41 Acquisition of non-ASCII text messages. / as expected |
| Analysis: | Expected results achieved |

## 5.2.26 SPT-01 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-01 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).<br>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.<br>SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error.<br>SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 12:56:16 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 12:56:16 EST 2010<br>Acquisition finished: Mon Dec 13 12:58:17 EST 2010<br><br>Device connectivity was established via supported interface</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-01 Device connectivity via supported interfaces.</td><td>as expected</td></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
<tr><td>SPT-CA-29 Acquire-All data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.27 SPT-02 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-02 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-02 Attempt internal memory acquisition of a non-supported mobile device.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-02 If a cellular forensic tool attempts to connect to a non-supported device then the tool shall notify the user that the device is not supported.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:01:24 EST 2010</td></tr>
<tr><td>Device:</td><td>unsupported_device</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:01:24 EST 2010<br>Acquisition finished: Mon Dec 13 13:02:56 EST 2010<br><br>Identification of non-supported devices was successful<br><br><u>Notes</u>:<br>Unsupported devices are not recognized by the "adb devices" command. Therefore, if the device is not supported an acquisition cannot be attempted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-02 Identification of non-supported devices.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.28 SPT-03 (Nexus One)

<table>
<tr><td colspan="2">Test Case SPT-03 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:08:00 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:08:00 EST 2010<br>Acquisition finished: Mon Dec 13 13:09:07 EST 2010<br><br>Device acquisition disruption notification was not successful<br><br><u>Notes</u>:<br>Data acquisition ends without notifying the user that the acquisition was disrupted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-03 Notification of device acquisition disruption.</td><td>Not as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results Not achieved</td></tr>
</table>

### 5.2.29 SPT-04 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-04 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-04 Acquire mobile device internal memory and review reported data via the preview-pane or generated reports for readability.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:16:59 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:16:59 EST 2010<br>Acquisition finished: Mon Dec 13 13:37:26 EST 2010<br><br>Readability and completeness of acquired data was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.30 SPT-05 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-05 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.<br>SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:39:49 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:39:49 EST 2010<br>Acquisition finished: Mon Dec 13 13:43:38 EST 2010<br><br>Subscriber and Equipment related data (i.e., MSISDN, IMEI) were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-05 Acquisition of MSISDN, IMSI.</td><td>as expected</td></tr>
<tr><td>SPT-CA-06 Acquisition of IMEI/MEID/ESN.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.31 SPT-06 (Nexus One)

| **Test Case SPT-06 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-06 Acquire mobile device internal memory and review reported PIM related data. |
| Assertions: | SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.<br>SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.<br>SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.<br>SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.<br>SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.<br>SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.<br>SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.<br>SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Mon Dec 13 13:46:35 EST 2010 |
| Device: | Nexus1 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Mon Dec 13 13:46:35 EST 2010<br>Acquisition finished: Mon Dec 13 13:53:09 EST 2010<br><br>Regular Length Address Book entries were acquired<br>Maximum Length Address Book entries were acquired<br>Special Character Address Book entries were acquired<br>Blank Name Address Book entries were acquired<br>Email addresses within Address Book entries were acquired<br>Embedded graphics within Address Book entries were not acquired<br>ALL PIM related data was acquired |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-07 Acquisition of address book entries. | as expected |
| SPT-CA-08 Acquisition of maximum length address book entries. | as expected |
| SPT-CA-09 Acquisition of address book entries containing special characters. | as expected |
| SPT-CA-10 Acquisition of address book entries containing a blank name entry. | as expected |
| SPT-CA-11 Acquisition of embedded email addresses within address book entries. | as expected |
| SPT-CA-12 Acquisition of embedded graphics within address book entries. | Not as expected |
| SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). | as expected |
| SPT-CA-14 Acquisition of maximum length PIM data. | NA |

| Test Case SPT-06 AFLogical 1.4 | |
|---|---|
| Analysis: | Partial results achieved |

### 5.2.32 SPT-07 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-07 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-07 Acquire mobile device internal memory and review reported call logs.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.<br>SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:54:49 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:54:49 EST 2010<br>Acquisition finished: Mon Dec 13 13:57:26 EST 2010<br><br>All Call Logs (incoming, outgoing, missed) were acquired<br>All Call Log date/time stamps data were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-15 Acquisition of call logs.</td><td>as expected</td></tr>
<tr><td>SPT-CA-16 Acquisition of call log date/time stamps.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.33 SPT-08 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-08 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-08 Acquire mobile device internal memory and review reported text messages.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.<br>SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.<br>SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.<br>SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Dec 13 13:57:57 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Dec 13 13:57:57 EST 2010<br>Acquisition finished: Mon Dec 13 14:00:34 EST 2010<br><br>ALL text messages (SMS, EMS) were acquired<br>Correct date/time stamps were reported for all text messages<br>Correct status flags were reported for all text messages<br>Sender and Recipient phone numbers associated with text messages were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-17 Acquisition of text messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-18 Acquisition of text message date/time stamps.</td><td>as expected</td></tr>
<tr><td>SPT-CA-19 Acquisition of text message status flags.</td><td>as expected</td></tr>
<tr><td>SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.34 SPT-09 (Nexus One)

<table>
<tr><td colspan="2">Test Case SPT-09 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.<br>SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.<br>SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 14 08:25:12 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 14 08:25:12 EST 2010<br>Acquisition finished: Tue Dec 14 08:26:58 EST 2010<br><br>ALL MMS messages (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-21 Acquisition of audio MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-22 Acquisition of graphic data image MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-23 Acquisition of video MMS messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.35 SPT-12 (Nexus One)

<table>
<tr><th colspan="2">Test Case SPT-12 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Dec 14 09:07:17 EST 2010</td></tr>
<tr><td>Device:</td><td>Nexus1</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Tue Dec 14 09:07:17 EST 2010<br>Acquisition finished: Tue Dec 14 09:14:04 EST 2010<br><br>All Internet related data was acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-28 Acquisition of Internet related data.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## 5.2.36 SPT-13 (Nexus One)

| **Test Case SPT-13 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements. |
| Assertions: | SPT-CA-29 If a cellular forensic tool provides the user with an "Acquire All" device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 14 09:14:25 EST 2010 |
| Device: | Nexus1 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 14 09:14:25 EST 2010<br>Acquisition finished: Tue Dec 14 09:18:25 EST 2010<br><br>Acquire All acquisition was successful |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-29 Acquire-All data objects acquisition. | as expected |

| | |
|---|---|
| Analysis: | Expected results achieved |

## 5.2.37 SPT-33 (Nexus One)

| **Test Case SPT-33 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters. |
| Assertions: | SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.<br>SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Tue Dec 14 09:24:45 EST 2010 |
| Device: | Nexus1 |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Tue Dec 14 09:24:45 EST 2010<br>Acquisition finished: Tue Dec 14 09:26:42 EST 2010<br><br>Non-ASCII Address book entries were acquired and properly displayed<br>Non-ASCII text messages were acquired and properly displayed |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs. | as expected |
| SPT-AO-41 Acquisition of non-ASCII text messages. | as expected |

| | |
|---|---|
| Analysis: | Expected results achieved |

## 5.2.38 SPT-01 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-01 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).<br>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.<br>SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.<br>SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 07:30:47 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 07:30:47 EST 2010<br>Acquisition finished: Mon Nov 22 07:42:35 EST 2010<br><br>Device connectivity was established via supported interface</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-01 Device connectivity via supported interfaces.</td><td>as expected</td></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
<tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.39 SPT-02 (Samsung Moment)

<table>
<tr><td colspan="2">Test Case SPT-02 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-02 Attempt internal memory acquisition of a non-supported mobile device.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-02 If a cellular forensic tool attempts to connect to a non-supported device then the tool shall notify the user that the device is not supported.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 07:44:41 EST 2010</td></tr>
<tr><td>Device:</td><td>unsupported_device</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 07:44:41 EST 2010<br>Acquisition finished: Mon Nov 22 07:49:12 EST 2010<br><br>Identification of non-supported devices was not successful<br><br><u>Notes</u>:<br>Unsupported devices are not recognized by the "adb devices" command. Therefore, if the device is not supported an acquisition cannot be attempted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-02 Identification of non-supported devices.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## 5.2.40 SPT-03 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-03 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 07:55:14 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 07:55:14 EST 2010<br>Acquisition finished: Mon Nov 22 07:59:42 EST 2010<br><br>Device acquisition disruption notification was not successful<br><br><u>Notes</u>:<br>Data acquisition ends without notifying the user that the acquisition was disrupted.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-03 Notification of device acquisition disruption.</td><td>Not as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results Not achieved</td></tr>
</table>

### 5.2.41 SPT-04 (Samsung Moment)

<table>
<tr><td colspan="2">Test Case SPT-04 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-04 Acquire mobile device internal memory and review reported data via the preview-pane or generated reports for readability.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview-pane or generated report.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 08:05:47 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 08:05:47 EST 2010<br>Acquisition finished: Mon Nov 22 08:12:47 EST 2010<br><br>Readability and completeness of acquired data was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.42 SPT-05 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-05 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.<br>SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 08:13:24 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 08:13:24 EST 2010<br>Acquisition finished: Mon Nov 22 08:17:01 EST 2010<br><br>IMEI, MEID/ESN were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-05 Acquisition of MSISDN, IMSI.</td><td>as expected</td></tr>
<tr><td>SPT-CA-06 Acquisition of IMEI/MEID/ESN.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## 5.2.43 SPT-06 (Samsung Moment)

| **Test Case SPT-06 AFLogical 1.4** | |
|---|---|
| Case Summary: | SPT-06 Acquire mobile device internal memory and review reported PIM related data. |
| Assertions: | SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.<br>SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.<br>SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.<br>SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.<br>SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.<br>SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.<br>SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.<br>SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format. |
| Tester Name: | rpa |
| Test Host: | p630542 |
| Test Date: | Mon Nov 22 08:18:42 EST 2010 |
| Device: | Samsung_Moment |
| Source Setup: | OS: MAC OS X<br>Interface: cable |
| Log Highlights: | Created by AFLogical<br>Acquisition started: Mon Nov 22 08:18:42 EST 2010<br>Acquisition finished: Mon Nov 22 10:18:45 EST 2010<br><br>Regular Length Address Book entries were acquired<br>Maximum Length Address Book entries were acquired<br>Special Character Address Book entries were acquired<br>Blank Name Address Book entries were acquired<br>Email addresses within Address Book entries were acquired<br>Embedded graphics within Address Book entries were not acquired<br>Basic PIM related data was acquired<br>Maximum length PIM related data was not acquired |
| Results: | |

| **Assertion & Expected Result** | **Actual Result** |
|---|---|
| SPT-CA-07 Acquisition of address book entries. | as expected |
| SPT-CA-08 Acquisition of maximum length address book entries. | as expected |
| SPT-CA-09 Acquisition of address book entries containing special characters. | as expected |
| SPT-CA-10 Acquisition of address book entries containing a blank name entry. | as expected |
| SPT-CA-11 Acquisition of embedded email addresses within address book entries. | as expected |
| SPT-CA-12 Acquisition of embedded graphics within address book entries. | Not as expected |
| SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). | as expected |
| SPT-CA-14 Acquisition of maximum length PIM data. | Not as expected |

| Test Case SPT-06 AFLogical 1.4 | |
|---|---|
| | |
| Analysis: | Partial results achieved |

### 5.2.44 SPT-07 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-07 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-07 Acquire mobile device internal memory and review reported call logs.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.<br>SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 10:25:08 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 10:25:08 EST 2010<br>Acquisition finished: Mon Nov 22 10:27:47 EST 2010<br><br>All Call Logs (incoming, outgoing, missed) were acquired<br>All Call Log date/time stamps data were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-15 Acquisition of call logs.</td><td>as expected</td></tr>
<tr><td>SPT-CA-16 Acquisition of call log date/time stamps.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.45 SPT-08 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-08 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-08 Acquire mobile device internal memory and review reported text messages.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.<br>SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.<br>SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.<br>SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 10:30:50 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 10:30:50 EST 2010<br>Acquisition finished: Mon Nov 22 10:34:17 EST 2010<br><br>ALL text messages (SMS, EMS) were acquired<br>Correct date/time stamps were reported for all text messages<br>Correct status flags were reported for all text messages<br>Sender and Recipient phone numbers associated with text messages were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-17 Acquisition of text messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-18 Acquisition of text message date/time stamps.</td><td>as expected</td></tr>
<tr><td>SPT-CA-19 Acquisition of text message status flags.</td><td>as expected</td></tr>
<tr><td>SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## 5.2.46 SPT-09 (Samsung Moment)

<table>
<tr><td colspan="2">Test Case SPT-09 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.<br>SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.<br>SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Jan 19 09:14:48 EST 2011</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Wed Jan 19 09:14:48 EST 2011<br>Acquisition finished: Wed Jan 19 09:37:11 EST 2011<br><br>Partial audio MMS messages were acquired<br>Partial image MMS messages were acquired<br>Partial video MMS messages were acquired<br><br><u>Notes</u>:<br>The textual portions of outgoing MMS messages were not acquired.<br><br>The textual portions of incoming MMS messages were acquired as well as the incoming and outgoing audio, video and graphic file attachments.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-21 Acquisition of audio MMS messages.</td><td>Partial</td></tr>
<tr><td>SPT-CA-22 Acquisition of graphic data image MMS messages.</td><td>Partial</td></tr>
<tr><td>SPT-CA-23 Acquisition of video MMS messages.</td><td>Partial</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Partial results achieved</td></tr>
</table>

### 5.2.47 SPT-12 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-12 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 12:54:46 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 12:54:46 EST 2010<br>Acquisition finished: Mon Nov 22 13:02:14 EST 2010<br><br>All Internet related data was acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-28 Acquisition of Internet related data.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## 5.2.48 SPT-13 (Samsung Moment)

<table>
<tr><th colspan="2">Test Case SPT-13 AFLogical 1.4</th></tr>
<tr><td>Case Summary:</td><td>SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 13:08:03 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 13:08:03 EST 2010<br>Acquisition finished: Mon Nov 22 13:20:25 EST 2010<br><br>Individual data element acquisition was successful</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

### 5.2.49 SPT-33 (Samsung Moment)

<table>
<tr><td colspan="2">Test Case SPT-33 AFLogical 1.4</td></tr>
<tr><td>Case Summary:</td><td>SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters.</td></tr>
<tr><td>Assertions:</td><td>SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.<br>SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Mon Nov 22 13:21:18 EST 2010</td></tr>
<tr><td>Device:</td><td>Samsung_Moment</td></tr>
<tr><td>Source Setup:</td><td>OS: MAC OS X<br>Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by AFLogical<br>Acquisition started: Mon Nov 22 13:21:18 EST 2010<br>Acquisition finished: Mon Nov 22 13:26:42 EST 2010<br><br>Non-ASCII Address book entries were acquired and properly displayed<br>Non-ASCII text messages were acquired and properly displayed</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs.</td><td>as expected</td></tr>
<tr><td>SPT-AO-41 Acquisition of non-ASCII text messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

## About the National Institute of Justice

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.

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

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*http://www.ncjrs.gov*