## **Technical Procedure for Hard Drive Removal**

Version 3

Effective Date: 10/31/2013

- **1.0 Purpose** The purpose of this procedure is to remove the hard drives from computers submitted for examination while maintaining the integrity of the evidence.
- **2.0 Scope** This procedure describes the steps to be taken by personnel of the State Crime Laboratory in removing hard drives from computers which are evidence in forensic computer examinations.

## 3.0 Definitions

• **BIOS** – Basic Input Output System. A number of machine code routines that are stored in ROM and available for execution at boot.

## 4.0 Equipment, Materials and Reagents

- Computer repair tool kit
- Permanent markers
- Camera

## 5.0 Procedure

- **5.1** Record the system information from the evidence computer.
- **5.2** If requested by the submitting agency, photograph the condition of the evidence computer prior to opening the case.
- **5.3** Open the case on the computer.
- **5.4** If requested by the submitting agency, photograph the internal contents of the evidence computer prior to removing the hard drive(s).
- **5.5** Mark the cords connecting the hard drive to the evidence computer to facilitate proper reassembly.
- **5.6** Remove the hard drive(s) from the evidence computer.
- **5.7** Label the hard drive removed from the evidence computer to prevent contamination. Complete labeling as provided in the Laboratory Procedure for Evidence Management.
- **5.8** Record the drive information (e.g., make, model, serial number, number of sectors, number of heads, and jumper settings).
- **5.9** With the hard drive removed, boot the evidence computer into the BIOS. If the date and time differ from the actual date and time, record the difference.
- **5.10** The hard drive from many laptop computers can be removed and imaged by using an adapter with the same procedures as the hard drives removed from desktop computers.
- **5.11** As stated in their respective manufacturer's manuals, some laptop hard drives can only be removed by trained service personnel and some laptop hard drives have security devices which do not allow

them to be used outside of the laptop computer. In these cases, image these computers using the Cable Acquisition Protocol.

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- **5.12** Reassemble the computer.
- 5.13 Standards and Controls N/A
- **5.14 Calibrations N/A**
- **5.15** Maintenance N/A
- 5.16 Sampling N/A
- **5.17 Calculations N/A**
- 5.18 Uncertainty of Measurement N/A
- **6.0 Limitations -** Care shall be exercised to guard against electrostatic discharges which can damage or destroy the evidence hard drive.
- **7.0 Safety -** N/A
- 8.0 References
  - How Computers Work
  - Upgrading and Repairing PCs
- 9.0 Records N/A
- 10.0 Attachments N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document
12/07/2012	2	5.10 - reworded for clarity
10/31/2013	3	Added issuing authority to header