Computer Extraction Processing Steps North Carolina State Crime Laboratory Digital Evidence Section

- 1. Review Legal Authority
- 2. Restore Forensic Tower to a known Image
- 3. Check that the date/time on Forensic Tower is correct
- 4. Select a wiped and formatted target drive of appropriate size
- 5. Perform a write blocker verification
- 6. Perform a software verification
- 7. Document evidence packaging
- 8. Document Suspect System Information
- 9. Remove the Hard Drive
- 10. Run an Initial Hash value on the evidence drive with software tool of choice
- 11. Open Axiom Process
 - 11.1 Tools menu, click Settings Imaging
 - 11.2. Select Image Segmentation
 - IMAGE SEGMENTATION

Image segmentation for full Android images and drive images:

None	•
CD	
DVD	
DVD DL	h value for each evidence source that's being acquired.
Blu-ray	······································
FAT	value of each acquired image file (E01 image files only).
Custom	
None	

11.3 Image hashing

IMAGE HASHING

Calculate a hash value for each evidence source that's being acquired.

✓ Verify the hash value of each acquired image file (E01 image files only).

11.4 Select Compression method (none, best, fast)

COMPRESSION

The method of compression used for E01 images

Best 🔹

11.5 Under processing select Image Hash Verification

IMAGE HASH VERIFICATION

✓ Verify the hash value of each image (E01 and AFF4 only).

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11.6 Uncheck File size limit of hashing

HASHING

FILE SIZE LIMIT FOR HASHING

To optimize processing time, don't calculate hashes for files larger than

11.7 Select Hash Format (MD5, SH1, or both)

HASH FORMATS

When hashing is enabled, calculate hashes in the following formats:

MD5 🔻

12. Create New Case

P N	Aagnet A	XIOM Process 6.10.0.3	1490			
File	Tools	Help				
	CREA	TE NEW CASE				
		CREATE NEW CASE				

13. Complete Case Details

		CASE DETAILS	
CASE DETAILS			
EVIDENCE SOURCES		CASE INFORMATION	
PROCESSING DETAILS		Case number	
Search archives and mobile backups	On	Case type	
Add keywords to search	7.10	LOCATION FOR CASE FILES	
Extract text from files (OCR)		Folder name	
Calculate hashes and find matches	On	File path	BROWSE
Analyze chats with Magnet Al		Available space: 860.08 GB	
Analyze pictures with Magnet Al		LOCATION FOR ACQUIRED EVIDENCE	
Add CPS data to search		Folder name	
Find more artifacts		File path	BROWSE
ARTIFACT DETAILS	0	Available space: 860.08 GB	
Computer artifacts		SCAN INFORMATION	
Mobile artifacts			
Cloud artifacts		SCAN 1	
Vehicle artifacts		Scanned by	
Parse and carve artifacts		Description	
Date range filter			
ANALYZE EVIDENCE			
		REPORT OPTIONS	
		REPORT OF HONS	
		Cover logo	BROWSE
		Image resized to 150x150 pixels	

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Computer Extraction Processing Steps North Carolina State Crime Laboratory Digital Evidence Section 14. Select Computer

	EVIDENCE SOURCES	
CASE DETAILS		
EVIDENCE SOURCES		
PROCESSING DETAILS		
Search archives and mobile backups		
Add keywords to search		
Extract text from files (OCR)		
Calculate hashes and find matches C	n	
Analyze chats with Magnet Al		
Analyze pictures with Magnet.Al		
Add CPS data to search	EVIDENCE SOURCES ADDED TO CASE	
Find more artifacts	Type Image - location name	Evidence number

15. Select proper OS



16. Acquire Evidence

EVIDENCE SOURCES



17. Select Physical Drive



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18. Select Full Contents

	EVIDENCE SOURCES		
kups On hes On	COMPUTER SELECT IMAGE TYPE Please select the type of image you want to acquire: Full Entire contents of the drive in E01 format More inf Entire contents of the drive in raw format More info All files and folders More info Cuick Targeted acquisition More info		
	– 🗆 X		
	kups On hes On		

- 20. Select Go to Processing
- 21. Maintain default settings for all processing details except for artifact details
- 22. Artifact Details/Computer artifacts select all allowable (items not grayed out)

CASE DETAILS		
EVIDENCE SOURCES	1	COMPOTER ARTIFACTS
PROCESSING DETAILS		CLEAR ALL
Search archives and mobile backu	ips On	ADDITIONAL SOURCES (4 of 4)
Add keywords to search		APPLICATION USAGE (7 of 7)
Extract text from files (OCR)		CLOUD STORAGE (6 of 6)
Calculate backer and find matche	. On	COMMUNICATION (39 of 39)
calculate hashes and find matche	s on	CONNECTED DEVICES (9 of 9)
Analyze chats with Magnet Al		CUSTOM ARTIFACTS (5 of 5)
Analyze pictures with Magnet.Al		DOCUMENTS (17 of 17)
Add CPS data to search		EMAIL & CALENDAR (14 of 14)
Find more artifacts		ENCRYPTION & CREDENTIALS (5 of 5)
	231	LOCATION & TRAVEL (1 of 1)
ARTIACT DETAILS	201	MEDIA (13 of 13)
Computer artifacts	231 of 252	MEMORY (0 of 21)
Mobile artifacts		OPERATING SYSTEM (71 of 71)
Cloud artifacts		PEER TO PEER (11 of 11)
Vehicle artifacts		SOCIAL NETWORKING (9 of 9)
Parse and carve artifacts		VOLATILE ARTIFACTS (1 of 1)
Date range filter		WEB RELATED (19 of 19)
and the second and the second and		

*Update worksheet dropdowns before selecting next

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Computer Extraction Processing Steps North Carolina State Crime Laboratory Digital Evidence Section

24. Create a Portable Case

	EXPORT / REPORT FORM	AT		C MANAGE TEMPLATE
EXPORT / REPORT FORMAT				
ITEMS TO INCLUDE			A	
Select artifacts	«/»	~		RE
Configure artifact details	HTML	PDF	PORTABLE CASE	MAGNET REVIEW
Customize title page	View evidence in a	Share evidence in a read-	Create a portable case to	Export evidence from
Customize formatting options	browser format with	only format that's easy to	collaborate on cases with	AXIOM Examine to share
Provide additional information	search and sort options	print	stakenuluers	in magnet inconcore
PREVIEW AND SAVE	CSV CSV Export evidence in a comma-separated value file	EXCEL Export evidence in a spreadsheet to use in Excel (ulss)		
	UP> XML Export evidence to use with another tool or script			
	IDENTIFIERS Share identifier data with other organizations (json)	KML Export GPS coordinates from the evidence to plot on a map browser	PST Export Outlook emails to review in a PST viewer	VICS Submit categorized media to Project VIC or CAID (json)

25. Select Items to Include (All evidence)

	ITEMS TO INCLUDE	C MANAGE TEMPLATES
EXPORT / REPORT FORMAT	ITEMS TO INCLUDE	
Select artifacts Configure artifact details Customize title page Customize formatting options Provide additional information PREVIEW AND SAVE	Select which items from the case you want to include in your export / report. Use a template (includes specific artifact types, columns, and format options) All evidence (IRC) (Items in the current view (IRC)	

26. Select all Artifacts

Computer Extraction Processing Steps North Carolina State Crime Laboratory Digital Evidence Section

Create export / report		
	ITEMS TO INCLUDE	C MANAGE TEMPLATES
EXPORT / REPORT FORMAT ITEMS TO INCLUDE Select antitats Configure antifact details Contonine from entropy optimes Provide additional information Provide additional information PREVIEW AND SAVE	TEMS TO INCLUDE Figure 2 Figure 2 Figure 2 Andread Addread Artification Bits Temperature 2 Control Andread Store 4 Control Control Andread Store 4 Control	

27. Preview and Save

	PREVIEW AND SAVE	C MANAGE TEMPLATES
EXPORT / REPORT FORMAT ITEMS TO INCLUDE Select anfacts Configure antilist details Controve the page Controve humating options Provede addisonal elementor	PEVVEW AND SAVE Texture your report / report below before saving your file. Failer location: C/Userstation/Coststop/Usion Proteitor Ent/Case The appoint cash filter and casts the following item. When you and the protein free to be one included	EROWSE a case to another user, make sure that all of the
Preview and save	Constitution for the vector for the	cite Intel® case. Intel® case.
CANCEL	SAVE SETTINGS TO TEMPLATE	BACK DIPORT

- 28. Generate post verification hash value of the image file.
- 29. Transfer the Portable case folder to removable media (Do not rename the folders)

30. Save forensic image file to removable media in a folder named "Item # Forensic Image DO NOT OPEN".

- 31. Rename Portable Case folder to "Item # Portable Case"
- 32. Save the image_info.txt to PDF and upload to the Case Record Object Repository

image_info.txt is in the folder where the forensic image was saved

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