

# MDI Mobile Device Investigator®

**User Guide** 

Version 2.2



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APPENDIX A - REGEX CHEAT SHEET

## 1. Introduction

Mobile Device Investigator<sup>®</sup> (MDI), is an easy-to-use digital investigation tool designed to enable anyone to conduct rapid digital investigations of iOS and Android devices.

MDI was built on the ADF digital forensic platform which has traditionally been used processing and analyzing computers, external drives, drive images, and other media storage (e.g. USB flash drives and memory cards). Since the user interface is the same across all ADF tools, once you learn MDI, it is an easy transition to use ADF computer investigation tools as well.

MDI gives you speed, scalability, ease-of-use, and relevant results. The software has a proven track record in reducing forensic backlogs, streamlining digital investigations, and providing rapid access to digital evidence and intelligence.

The Mobile Device Investigator kit included:

Mobile Device Investigator Kit Contents
1 USB Authentication Key
1 USB to Lightning Cable (Apple)
1 USB to 30-pin Cable (Apple)
1 USB to Micro USB Cable (Android)
1 USB to USB-C Cable (Android)

Mobile Device Investigator requires the installation of drivers on the investigation computer to allow the application to communicate with connected devices over USB:

System	Requirement
Apple iOS	Install the drivers supplied with the ADF Smartphone Driver Pack Installation
Google Android drivers	https://developer.android.com/studio/run/win-usb
Samsung Android drivers	https://developer.samsung.com/galaxy/others/android-usb- driver-for-windows
Other Android brands	If your smartphone is not detected by Windows, please download the appropriate OEM drivers for it.

#### **Technical Specification**

A technical specification document is available and can be found at the following location:

https://www.adfsolutions.com/technical-specifications

#### User Guide

The latest version of this user guide can be found at the following location:

https://www.adfsolutions.com/product-user-guides



## 2. Installation

Mobile Device Investigator is designed to run on the following computers:

Operating System	Minimum System Requirements
Windows 7 64-bit	2GB of RAM, 20 GB of free hard drive space
Windows 8.1 64-bit	4GB of RAM, 20 GB of free hard drive space
Windows 10 64-bit	4GB of RAM, 20 GB of free hard drive space

#### **Mobile Device Investigator Installation**

- 1. Locate and execute the program installer called MDI-xxxxxx.exe (where xxxxxx represents the version number). The latest installer program can be found on the web page http://www.adfsolutions.com/Downloads.
- 2. Follow the installation wizard instructions Click the licensing and terms and conditions button to view the License Agreement. Click Install to start.





3. Details showing the current progress of installation will be displayed. A Cancel button is available to stop installing Mobile Device Investigator.



4. When installation is complete an option to install common Android and iOS drivers is offered, ticking the check box will do this. Click the Finish button to complete installation.



5. Running the installer when Mobile Device Investigator is already installed allows the installation to be repaired or the application to be removed.

ADF Mobile Device Investigator	
Repairs the ADF Mobile Device Investigator application by reinstalling essential files. Note that user data will not be affected.	
REPAIR	
Removes ADF Mobile Device Investigator from your computer.	
REMOVE	
	Repairs the ADF Mobile Device Investigator application by reinstalling essential files. Note that user data will not be affected.           REPAIR           Removes ADF Mobile Device Investigator from your computer.



#### **ADF Smartphone Driver Pack Installation**

1. Selecting the option to install common Android and iOS USB drivers during the installation of Mobile Device Investigator will start the ADF Smartphone Driver Pack installation process.



2. A progress bar will be displayed showing the progress of the installation. The user may be requested to confirm the installation of some drivers.

ADF Smartphone Driver Pack Setup	-		×
ADF Smartphone Drive	r Pack		
Setup Progress			
Processing: ADF INF Drivers			
		Can	cel

3. A prompt will appear when installation is complete, clicking the Close button will end the installation process.

劇 ADF Smartphone Driver Pack Setup	-		×
ADF Smartphone Driver P	ack		
Installation Successfully Completed			
		Clo	se



#### Automatic Software Update

Internet connected workstations will check for new versions when the application is started. When a new version is detected the latest version will be downloaded. When closing the application a prompt will appear to install the latest version or keep the current version on the workstation.

A newer version 5.0.0 of the application is available. Are you ready to install?	Automatic S	oftware Update	
	A newer version 5.0.0 of the application is availa	ble. Are you ready to install?	-
	Ver	No	-1

Clicking the Yes button will install the latest version, clicking the No button will leave the current version on the workstation.



## 3. User Interface

When executing the program the Home Screen is displayed, from here it is possible to access all the functions of Mobile Device Investigator.

	Mobile Device Investigator Home Screen	
	ADF Mobile Device Investigator	
Scan	Android/iOS Devices	
	onnected Android/iOS device or an Android/iOS advanced logical acquisition	
	ire Android/iOS Devices	
Perform	an advanced logical acquisition of a connected Android/iOS device	
	ew Scan Results scan results and create reports	
C Sotur	o Scans	
	nd edit Search Profiles	
ير Settir		
📎 Configu	re application's settings	
	Guide er guide in external viewer	
- Open us		

#### Scan Android/iOS Devices

This option enables the scanning of connected Android and iOS devices or backups of Android and iOS devices.

#### Acquire Android/iOS Devices

This option enables the creation of a backup of connected Android and iOS devices.

#### **Review Scan Results**

This option enables the user to review and analyze scan results.



#### **Setup Scans**

This option enables the creation and editing of Search Profiles and Captures.

#### Settings

This option allows the user to specify the default locations of Search Profiles, scan results, Android/iOS backup, exported reports and the license backup. Tag names can also be modified here. It is also possible to view and delete backed up licenses.

#### User Guide

Selecting this option will open a PDF copy of this user guide.



## 4. Settings

The settings view stores details relating to licenses, tags, scan information fields and data paths.

			_
Gancel	Settings		Quit
Licenses for Computer ID: AXZ-CRR-(	CFK-ARC-XXF		
Hardware Identifier	Expiration Date	Support Code	
s2wjnaah100411m	2020/12/31	1234	
Software Update			
Your application is up-to-date.			
Default Scan Results Tags			
0 - Level 0			
1 - Cat A			
2 - Cat B			
3 - Cat C			
4 - Level 4			
5 - Level 5			
6 - Level 6			
7 - Level 7			
8 - Level 8			
	ОК		



#### Backed-up Licenses

Software Update

#### Backed-up Licenses

lardware Identifier		Expiration Date	Support Code	
)7bc0c07442a430e		2020/12/01	1209	
PRODUCT EXP SUPPORT SUPEXP KEYSN MODULES	ADF Digital Evidence Inve 2020/12/01 1209 2020/12/01 07bc0c07442a430e smartphone,2020/12/01	stigator		
2wjnaah201361x		2020/12/01	1209	Delete Expand
2wjnaah100411m xpiring soon		2020/04/30	0001	

The Computer ID can be used with an electronic license file stored on your computer. This can be generated by contacting ADF and should be placed in ProgramData\ADF Solutions Inc\v4\LicBackup. The electronic license file negates the requirement for a license to be stored on a USB device connected to the workstation.

A list of licenses that have been backed up are displayed. By highlighting a license it is possible to delete it by clicking the Delete button that appears when highlighted.

Clicking the Expand button will display further details about the license such as the product and modules the license is valid for.

## Software Update Software Update Your application is up-to-date.

Details of available software updates will be displayed here.



#### **Default Tag Names**



This option enables the allocation of a default Tag Name for each of ten (10) available tags. Tags are described further in section 6 of this guide. Changes to the default tag names will not be applied retrospectively to previous scan results. To rename a tag double click on the highlighted name and type in the new name or click on the Rename button. In subsequent scan results the new tag names will be available.



#### **Scan Information Fields**

#### Scan Information Fields

ield Name	Default Value	Mandatory (*)
Scan Name	ΝΑ	$\checkmark$
Scan Date	NA	$\checkmark$
Scan Time	NA	$\checkmark$

By default, at the start of a scan, the user is requested to input a scan name, a scan date and a scan time. If additional fields are required for all scans, these fields can be defined here by specifying the name of the field in the row containing the prompt "Enter new field name...". Any field with the mandatory check box selected must be completed prior to the scan commencing.

#### **Data Paths**

	Data Paths	
Data Paths		
Search Profiles*	C:\ProgramData\ADF Solutions Inc\v4\SPro	
Scan results*	C:\Users\Stuart\Documents\ADF\Scan Results	
Android/iOS backup*	C:\ProgramData\ADF Solutions Inc\v4\phone_backup	
Exported reports*	C:\Users\Stuart\Desktop	
Licenses backup*	C:\ProgramData\ADF Solutions Inc\v4\LicBackup	
Whitelists *	C:\ProgramData\ADF Solutions Inc\v4\Whitelists	

The default locations (as shown below) of Search Profiles, Scan Results, Mobile Device Backups, Exported Reports, License Backup and Whitelists can be changed via the folder browser dialog button:

Setting	Default Location
Search Profiles	C:\ProgramData\ADF Solutions Inc\v4\SPro
Scan Results	C:\ProgramData\ADF Solutions Inc\v4\ScanResults
Android/iOS backup	C:\ProgramData\ADF Solutions Inc\v4\phone backup



Setting	Default Location
Exported Reports	C:\Users\ <user>\Desktop</user>
License Backup	C:\ProgramData\ADF Solutions Inc\v4\LicBackup
Whitelists	C:\ProgramData\ADF Solutions Inc\v4\Whitelists

#### **Search Profiles**

Search Profiles contains default and user created Search Profiles for MDI.

#### Scan Results

Scan Results contains scan results of scans carried out by the desktop application and any scan results imported from Collection Keys.

#### Android/iOS backup

Backups created with MDI will be stored here.

#### **Exported Reports**

Exported Reports default to the user's Desktop for ease of access.

#### License Backup

License Backup contains a backup of any licenses used with MDI.

#### Whitelists

Whitelists created when editing a Search Profile will be stored here and can be used within other user created Search Profiles.

## 5. Scan Android and iOS Devices

The Mobile Device Investigator application when installed upon a laboratory examination computer has the ability to scan attached Android and iOS devices and backups of Android and iOS devices. To access the scan screen click the Scan Android and iOS Devices button on the Home Screen.

Prior to scanning a device it is recommended to check the technical specification document to ensure the device is supported. This can be found at the following location: <a href="https://www.adfsolutions.com/technical-specifications">https://www.adfsolutions.com/technical-specifications</a>

#### **Function Toolbar**

Located vertically on the right side of the application is the Function Toolbar. This toolbar changes depending on the task at hand and contains the functionality for the displayed screen.

Option	Function
Quit	Closes the application immediately.

Function Toolbar	
	Function Toolbar







#### **Adding Target Devices**

The Target Devices section displays devices connected to the workstation that can be scanned. Devices such as the System drive and the Authentication key will be disabled; scanning these will not be possible.

The Target Devices section has a row of buttons allowing the user to add specific devices:

Option	Function
Add Phone	Starts the process of adding an Android or iOS device.
Add Phone Backup	Opens a folder browser dialog window to select an Android or iOS backup.

Toward Davisor Continue
Target Devices Section
Sect one or more targets         Add Phone       Edd Phone         Add Phone       Eddage         Image: Construction of the end of the e

Android: samsung - SM-... LE ...)(RF8M41XV74M) Backup

Android: Amazon - KFFO...

...0H40455110PSC) Backup

7

-,日



#### Adding a Phone

Clicking on the Add Phone button will start the process of adding an Android or iOS device to allow it to be scanned.

#### 1. Click the Add Phone button



2. Select the type of the phone you wish to add. Clicking the Cancel button will stop the phone addition process and return to the Desktop Scan view

	Select Device Type	
	Make sure your device is NOT connected then select its type	
Android		- 1
iOS		
	CANCEL	

3. Follow the on screen instructions to add your device. When the mobile device has been successfully added it will appear in the Target Devices list





#### Adding an Android Device

In order to properly scan an Android device some actions are required for the device to be scanned by the application:

- The device must be unlocked, if it is password protected you will need to obtain this
- Flight mode should be enabled
- Developer mode must be activated, the method to do so can differ depending on the make/model of your Android device
- USB debugging mode must be activated
- Authorize the execution of apps from unknown sources
- It is recommended to prevent the device from auto-locking, this can disrupt the backup process
- It is recommended to place the device in airplane mode
- When the device is connected, ensure the USB connection is set to file transfer

#### Adding an iOS Device

In order to properly scan an iOS device some actions are required for the device to be scanned by the application:

- It is recommended to set
- Airplane mode should be enabled
- The device must be unlocked, if it is password protected you will need to obtain this
- If a dialog appears on the device regarding trusting the computer, accept this

#### iOS Encrypted Backups

Encrypted iOS backups return more data than unencrypted backups. Where an unencrypted iOS device is about to be imaged or scanned, a dialog will display asking for the pass code to be entered into the device. This will temporarily encrypt the backup to allow more data to be extracted.

#### iOS Encryption Dialog

#### Enter Passcode on Device

Please enter the passcode on the iOS device to enable backup password change (setting it to 'adf' prior to the backup and removing it afterwards).



#### Adding a Phone Backup

Clicking on the Add Phone Backup button will start the process of adding an Android or iOS backup to the Target Devices allowing it to be scanned.

1. Click the Add Phone Backup button



2. A folder browser dialog window will open allowing you to select the root folder of an Android or iOS backup

→ ↑ ↑ A Phone Backup	p > LGE - Nexus 5X (Android - 8.1.0)(00a68a)	2d0b7e4ee4) 2018-12-18 16-24-01	✓ Ö Search	LGE - Nexus 5X (Ai	ndro 🔎
anize 👻 New folder				800	- 🕐
This PC	^ Name ^	Date modified	Туре	Size	
3D Objects	backup	14/03/2019 10:53	File folder		
Desktop					
Documents					
🕹 Downloads	_				
James's iPhone					
👌 Music					
Pictures					
- Videos					
OS (C:)					
WINPE (D:)					
CKY (E:)	~				
Folder:					
			Select F		ancel

3. A correctly formatted backup will be added to the list, incorrectly formatted backups will display an error message. It should be noted that some Android artifacts, such as calls, messages and contacts, will not be recovered as they require the phone to be connected





#### Running a Scan

1. Select the target device(s)



## Select the Search Profile All Search Profiles will be available including custom profiles.





3. Enter the Scan Information (note these details are not presented until a Search Profile is selected).

The Scan Name field defaults to the word Scan followed by a real-time date and timestamp but is user modifiable – TIP: Customize the name so the results are easily identifiable in Review Scan Results.

The Scan Date and Time fields are populated by querying the system clock of the computer running Digital Evidence Investigator and can be modified to reflect the actual time if the system clock is incorrect.

It is possible to supply a label for each device within the label field below the scan time field. This will allow easier identification of devices within the scan results.

Scan Infor	mation		
Scan Name*	Scan 2020	-01-08 16-55-4	46
	<u>م</u>	~	~
Scan Date*	2020	January	08
	$\nabla$	$\nabla$	$\nabla$
			~
Scan Time*	16	56	52
	$\nabla$	$\nabla$	$\nabla$
Label for iOS: Appl	le - iPho3.1.:	3)(C6KVH2SBJC	69) Backup

4. To start a scan insert the Authentication Key and then click on the scan button. If the Authentication Key is not inserted, the message *No license file found to run the scan* is displayed. Please insert the Authentication Key.



5. Once started the scan activity will be shown with the following:

**Progress bar** - Current area and files being scanned.

**Matches Log** - Real time preview (thumbnail) of File Capture matches collected. Images and Video files are represented by thumbnail images, keyword matches will show the keyword found, all other matches will be represented by an associated icon.

Capture results - Cumulative count of capture results.

**View Results button** –View results currently collected by the scan. The scan will continue to run in the background.

Image button –Stops the scan and allows devices to be imaged.

**Pause button** – Pauses the current scan. To resume a scan click on the Resume button that has replaced the Pause button.

MATCHES eMule torrent	emule.com https:%/	2F%2Fen.wikipe emule.dmg	\b(?i)\.dmg\b enuie.dmg	\b(?i:wipe)\b	Torch InterGroup LocatorChoosePanels	ib LocatorChe
APPLICATIONS		CHILD EXPLOITATION		COMMUNICATION		
Anti-Forensics Traces	1	CE - Hash Set Compr	rehensive speed optimiz	Calls		
Application Usage	4 X	CE - Keywords Comp	rehensive speed op Ø 17	' Emails		
nstalled Applications	51 X			Messages		
P2P Files Shared or Downloaded				Saved Contacts		
P2P Search Terms				Skype - Media_ca	che Folder	
P2P Traces	106			Skype Received F	iles	
Remote Access Traces						
Shareaza GUIDs						
DEVICE DATA		DOCUMENTS		MULTIMEDIA		
Connection Log	8 X	Referenced Files	10	) Pictures and Vide	os under 500MB speed opti	2
Device Information				Videos over 500M	1B - Comprehensive Frames	
OS Information	1 X					
USB History						
Virtual Disk Locator	3					
JSER DATA		WEB BROWSERS				
Calendar		Bookmarks				
Recent Files		Browser Cache	125 🧭			
User Accounts	1 X	Browsing History	4 🧭			
User Logins	8 X	Download History	1 🧭			
		Form Data				



6. When running a scan, clicking the View Results button allows any records currently identified to be reviewed. The scan will continue in the background. When viewing results while a scan is running in the background, a scan button will appear in the function toolbar, clicking this produces buttons to Pause (pause the scan), Stop (stop the scan) or Refresh (refresh the current results).

MATCHES       eMule torrent       Image: Description of the torrent of the t	Stop Progress Src7/Part	5/private/var/folder	zz/zyxvpxvq6csfxvn_n000000	0000000/C/PKpplications/i1	unes.app/Contents/Resources/ar.lproj/StoreBuyButton.png 🕃
Anti-Forensics Traces       1       CE - Hash Set Comprehensive speed optim       Ø       Calls         Application Usage       4       X       CE - Keywords Comprehensive speed optim       26       Emails         Installed Applications       51 X       Messages       Saved Contacts       Saved Contacts         P2P Files Shared or Downloaded       106       Skype - Media_cache Folder       Skype - Media_cache Folder         P2P Fraces       106       Skype Received Files       Skype Received Files         Remote Access Traces       DOCUMENTS       MULTIMEDIA         Shareaza GUIDs       DOCUMENTS       MULTIMEDIA         Device Information       1 X       Referenced Files       10       Pictures and Videos under 500MB speed opti 2         Videos over 500MB - Comprehensive Frames       2       Videos over 500MB - Comprehensive Frames       2         USB History       1 X       Bookmarks       Browser Cache       125 2       2         User Accounts       1 X       Browsing History       4 2       2         User Accounts       1 X       Browsing History       4 2       2         User Accounts       1 X       Browsing History       4 2       2         User Accounts       8 X       Download History	MATCHES eMule torrent	emule.com https:%2			
Application Usage       4 X       CE - Keywords Comprehensive speed optimi       26       Emails         Installed Applications       51 X       Messages       Saved Contacts         P2P Files Shared or Downloaded       Saved Contacts       Skype - Media_cache Folder         P2P Search Terms       106       Skype - Media_cache Folder         P2P Traces       106       Skype Received Files         Remote Access Traces       DOCUMENTS       MULTIMEDIA         Connection Log       8 X       Referenced Files         Device Information       1 X       Prictures       10         USB History       Virtual Disk Locator       3       VEB BROWSERS         User Accounts       1 X       Browsing History       4 2         User Accounts       1 X       Browsing History       4 2         User Accounts       1 X       Browsing History       4 2         User Logins       8 X       Download History       1 2	APPLICATIONS		CHILD EXPLOITATION		COMMUNICATION
Installed Applications 51 X Messages P2P Files Shared or Downloaded P2P search Terms P2P Traces 106 Remote Access Traces Shareaza GUIDs DEVICE DATA DOCUMENTS MULTIMEDIA Connection Log 8 X Referenced Files 10 Pictures and Videos under 500MB speed opti 2 Device Information 1 X USB History Virtual Disk Locator 3 USER DATA WEB BROWSERS Calendar Bookmarks Recent Files 1 X Browsing History 4 C User Accounts 1 X Browsing History 4 C User Logins 8 X Download History 1 C Form Data	Anti-Forensics Traces	1	CE - Hash Set Compreh	ensive speed opt 🔇	Calls
P2P Files Shared or Downloaded       Saved Contacts         P2P Search Terms       Skype - Media_cache Folder         P2P Traces       106         Remote Access Traces       Skype Received Files         Shareaza GUIDs       DOCUMENTS         Device DATA       DOCUMENTS         Connection Log       8 X         Referenced Files       10         Device Information       1 X         USB History       Videos over 500MB - Comprehensive Frames         Virtual Disk Locator       3         USER DATA       WEB BROWSERS         Calendar       Bookmarks         Recent Files       12 Sex         User Accounts       1 X         Browsing History       4 Q         User Logins       8 X	Application Usage		CE - Keywords Compreh	ensive speed optimi 26	Emails
P2P Search Terms     Skype - Media_cache Folder       P2P Traces     106       Remote Access Traces     Skype - Media_cache Folder       Shareaza GUIDs     Skype - Media_cache Folder       DEVICE DATA     DOCUMENTS       Connection Log     8 X       Referenced Files     10       Pictures and Videos under 500MB speed opti     2       Device Information     1 X       OS Information     1 X       USB History     Videos over 500MB - Comprehensive Frames       Virtual Disk Locator     3       USER DATA     WEB BROWSERS       Calendar     Bookmarks       Recent Files     Browser Cache       User Accounts     1 X       Browsing History     4 Ø       User Accounts     1 X       Browsing History     1 Ø       Form Data     Form Data		51 X			-
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Device Information     Videos over 500MB - Comprehensive Frames       OS Information     1 X       USB History     USB History       Virtual Disk Locator     3       USER DATA     WEB BROWSERS       Calendar     Bookmarks       Recent Files     Browser Cache       User Accounts     1 X       Browsing History     4 2       User Logins     8 X	DEVICE DATA		DOCUMENTS		MULTIMEDIA
OS Information 1 X USB History Virtual Disk Locator 3 USER DATA WEB BROWSERS Calendar Bookmarks Recent Files Browser Cache 125 2 User Accounts 1 X Browsing History 4 2 User Logins 8 X Download History 1 2 Form Data	Connection Log	8 X	Referenced Files	10	Pictures and Videos under 500MB speed opti 2
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Form Data	User Accounts	1 X	Browsing History	4 💋	
	User Logins	8 X	Download History	1 🧭	
VIEW RESULTS IMAGE PAUSE			Form Data		_
			IFW RESULTS	IMAGE	ALISE





7. Clicking the Image button will prompt the user to stop the scan: clicking the No button will resume the scan, clicking the Yes button will display the Imaging screen (see section 10 for further details on imaging devices).

Progress Src7/PartS/	ibrary/Dictionari	sylvew Oxford American Dictionarydict	ionary/Contents/Reso	urces/Images/morion.png
APPLICATIONS	42	CHILD EXPLOITATION		COMMUNICATION
Anti-Forensics Traces	1	CE - Hash Set Comprehensive spe	ed optimiz	Calls
Application Usage	4 X	CE - Keywords Comprehensive spe		Emails
nstalled Applications	51 X			Messages
2P Files Shared or Downloaded				Saved Contacts
2P Search Terms				Skype - Media_cache Folder
2P Traces	106			Skype Received Files
Remote Access Traces				
Shareaza GUIDs				
DEVICE DATA		DOCUMENTS		MULTIMEDIA
Connection Log	8 X	Referenced Files	10	Pictures and Videos under 500MB spe 😚 4980
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Recent Files		Browser Cache	125 🧭	I
Jser Accounts	1 X	Browsing History	4 🧭	
Jser Logins	8 X	Download History	1 🧭	
		Form Data		-
	N	IEW RESULTS IMAGE	PAU	SE

8. Clicking the Pause button will pause the scan. To resume the scan press the Resume button that replaces the Pause button while the scan has been paused.

	lcdefghlji	mathbb I	ПЈКСМ.	133ALM	efghijt	11113885338	bc befghijl	11X I M
APPLICATIONS		CHILD EXPLOI	TATION			COMMUNICATION		
Anti-Forensics Traces	1	CE - Hash Se	t Comprehensive	speed optimiz		Calls		
Application Usage	4 X	CE - Keyword	ls Comprehensiv	e speed optimi	26	Emails		
nstalled Applications	51 X					Messages		
P2P Files Shared or Downloaded						Saved Contacts		
2P Search Terms						Skype - Media_cache	Folder	
P2P Traces	106					Skype Received Files		
Remote Access Traces								
Shareaza GUIDs								
DEVICE DATA		DOCUMENTS				MULTIMEDIA		
Connection Log	8 X	Referenced F	iles		10	Pictures and Videos u	nder 500MB spe	↔ 9480
Device Information						Videos over 500MB -	Comprehensive Fr	a
OS Information	1 X							
JSB History								
/irtual Disk Locator	3							
JSER DATA		WEB BROWSER	RS					
Calendar		Bookmarks						
Recent Files		Browser Cach	ne	125	<u>×</u>			
Jser Accounts	1 X	Browsing His	tory	4	<u>×</u>			
Jser Logins	8 X	Download Hi	story	1	2			
		Form Data						_
	N/II	EW RESULTS	IMAG	F	PAUSE			

9. Once the scan has completed the user is prompted to view the results. Scan results are stored in the Scan Results folder (\ProgramData\ADF Solutions Inc\v4\ScanResults by default).



### 6. Review Scan Results

The Review Scan Results view allows the user to review the results of a scan, filter, sort, analyze, tag, and prepare a comprehensive report. Click the Review Scan Results from the Home Screen.

Review Scan Results Button	
Review Scan Results Analyze scan results and create reports	

The Scan Results view is then displayed:

can 2020-01-08 16-55-46 ate: 2020-01-08 Time: 16:57 - SearchProfile: Mobile Devices - Gen	SCAN IN Scan Name Scan Date Scan Time System Time Viewer Time Zone	Scan           2020-01-08           16-55-46           2020-01-08           16:57:41           2020-01-08           16:57:41           2020-01-08           16:57:41           Europe/London (GMT+0)	Name	CH PROFILE Mobile Devices - General Profiling Comprehensive scan - Runs all relevant mobile device artifact Captures, collects allocated, and embedded pictures, videos and frames	STATISTIC Scan Duration Scan Type Status Files Collected Applicatio n	0h 1m 30s Desktop Completed 2880 ADF Mobile	
	Scan Date Scan Time System Date System Time Viewer	16-55-46 2020-01-08 16:57:41 2020-01-08 16:57:41 Europe/London	Notes	Comprehensive scan - Runs all relevant mobile device artifact Captures, collects allocated, and embedded pictures, videos and frames	Scan Type Status Files Collected Applicatio	Completed 2880 ADF Mobile	
				from videos over 500MB and Office Documents using the Thorough Identification option for files without extensions. Searches for Remote Access and Cryptocurrency Traces, audio files, database, plist files and referenced files. Collects skipped files, protected files and files not processed by parser.		Device Investigator 2.1.0	
	CAPTURE This application p APPLICATION	performed an advanced logi	cal acquisition o	of an Android/IOS device. Artifacts :	may exist that are no	ot collected during this acc	
	Cryptocurrer	ncy Traces					

The Scan Name, Date and the Search Profile used are displayed on the left-hand side of the screen with the corresponding Scan Summary details shown on the right-hand side of the screen.

The Scan Results are listed in scan date and time order with the most recent scan at the top of the list.



For Scan Results that have been backed up onto the computer there are 3 options – Delete, Report and View. If the Scan Results are being accessed from a Collection Key then there is a  $4^{\text{th}}$  option – Backup – to the computer.

1. The following options are available for scan results, the picture shows a scan result being accessed from a collection key as the Backup option is available

Scan Results				
Quick scan exhibit RHJ27 Date: 2018-08-10 Time: 16:23 - SearchProfile: Quick - General Profiling	Delete	Backup	Report	) View

2. Clicking the Delete button will delete the report but there is a brief opportunity to undo this if the report has been deleted in error.





The summary view comprises five main sections: Scan Information, Search Profile, Statistics, Captures and Target Devices.

	UMMARY						Qut
SCAN INFORM	MATION	SEAR	CH PROFILE		STATISTICS		Search Tables
Scan Name Scan Date Scan Time System Date System Time Viewer Time Zone	Scan 2020-01-08 16-55-46 2020-01-08 16:57:41 2020-01-08 16:57:41 Europe/London (GMT+0)	Name Notes	Comprehe relevant m Captures, embeddec from videc Document Identificati extensions Access and audio files, referenced	vices - General Profiling nsive scan - Runs all obile device artifact collects allocated, and l pictures, videos and frames s over 500MB and Office s using the Thorough on option for files without .Searches for Remote d orpytocurrency Traces, database, plist files and files. Collects skipped files, files and files not processed	Scan Duration Scan Type Status Files Collected Application	0h 1m 30s Desktop Completed 2880 ADF Mobile Device Investigator 2.1.0	Classifi
CAPTURES This application performed APPLICATIONS	d an advanced logical acquisition of an A	ndroid/iOS device. Artifac	is may exist that are no	t collected during this acquisition and will r COMMUNICATION	not be presented in the sc	an results	
Cryptocurrency Tra	ces			Calls	65 哭	<b>% ()</b>	
Installed Application	ns	587 iOS		Emails		_	
Remote Access Trac	tes			Messages	307 💭	🤏 🦡	
				Saved Contacts	125 10	<b>Z</b> 🕒	
DEVICE DATA				DOCUMENTS			
Connection Log		7 <b>iOS</b>		Office Documents Compreh	ensive - speed opti	mized	
Database Files		259		Referenced Files		29	
Device Information		1 iOS					
		656					
Plist Files				USER DATA			
Plist Files MULTIMEDIA				Calendar	6	527 31 10	
		37		Caleriual			

The Scan Information section details the Scan Name, Scan Date and Scan Time, the System Date and System Time and the Viewer Time Zone.

The Search Profile section shows the Search Profile used to generate the Scan Results and any associated Notes on the Search Profile.

The Statistics section shows the Scan Duration, the Scan Type (Boot/Live/Desktop), the Status, the number of Files Collected and the application and version number used. The Tags Statistics are also shown if any exist.



The Scan Status can be one of 7 outcomes as shown in the table below. Any status other than Completed is shown in red:

Scan Status	Event	Scan Log Message (in scan log)
Completed	Scan completed successfully	NA
Interrupted	User stopped the scan	Scan was paused by the user.
Crashed	Application crashed during the scan	NA
Out of Storage	No space left on destination drive during scan	Destination drive ran out of storage space.
Incomplete	Not all files can be cached	File system metadata is corrupted for source or partition. Setting scan status as Incomplete as not all files could be cached.
Incomplete	No memory left	System ran out of memory, so the scan cannot complete.
Incomplete	Target device no longer accessible	Target device no longer accessible so the scan cannot complete.

The Captures section lists the Captures used in the Search Profile and alongside each capture the number of results found. Each of the Capture names are hyperlinks and by clicking them the individual Capture results are displayed. Captures where no results were identified during the scan will not have a result number next to them.

The Target Devices section shows the details of the target devices that were scanned. If the device being scanned was an Android or iOS device acquired at the time of the scan, the backup duration and backup status details are displayed here. Where a mobile device backup was not fully completed this will be noted here:

#### Incomplete Mobile Device Backup

0h 3m 31s
Incomplete (missing Shared data)



At the top left side of the screen are the Backward and Forward buttons. These allow navigation backwards and forwards between screens.

#### **Backward and Forward Buttons**



#### Capture and Navigation Toolbar

Located vertically on the left side of the application is the capture and navigation toolbar. This toolbar will allow navigation through the results and will be visible when in Review Scan Results. The following buttons are located on this toolbar:

Option	Function
Close	Closes the currently viewed Scan Results and returns to the list of all stored Scan Results
Summary	Access the Summary view.
Pictures	Access the Pictures view. This shows a gallery view of all pictures identified by the Captures in the Search Profile
Videos	Access the Videos view where it is also possible to access the frame view and video player functionality
Keywords	Access the Keywords view showing keyword hits from keyword searches



Option	Function
Timeline	Access the Timeline view showing a listing of all Artifact and File Capture records in a single timeline
Files	Access the Files View which lists all files and folders upon the target devices
Scan log	A log of encountered protected files and parsing or scanning events
Tagged	Access the Tagged View which lists all tagged items
Report	Access the Report creation view
More	Access to individual Capture results



More Button View

When clicking the More button, the following panel is displayed:

PPLICATIONS	COMMUNICATION	DEVICE DATA
	Calls 65 👺	Connection Log 7 IOS
Installed Applications 587 IOS		
	Messages 307 💭	Device Information 1 IOS
	Saved Contacts 125 10	
DOCUMENTS	MULTIMEDIA	USER DATA
Office Documents Comprehensive		Calendar 627 31 10
	Pictures and Videos under 500MB s 724	
	Videos over 500MB - Comprehensiv	
WEB BROWSERS		
Bookmarks 52 🚺		
Browsing History 157 🚺		
Search Terms 30 🚺		

This shows at a glance all the captures and their results which are hyperlinked, clicking on a capture name will open the relevant capture.

It should be noted that captures running a keyword search within files will display the number of files identified and not the number of keyword matches identified overall.



#### **Function Toolbars**

A Function Toolbar is located vertically on the right side of the results viewer. This toolbar is context specific and will adapt depending on what is being viewed:

Function	Option
Closes the application immediately	Quit
Search the scan result tables for specific Keywords	Search Tables
Add, remove or reorder columns from view. Changes made to column display also modify columns displayed within reports. Adjust sort order of displayed results	Columns
Deselects (unchecks) any selected records within the current view	Deselect All
Allows the application of context specific filters to the displayed records	Filter
Zoom function allows for resizing of preview thumbnails	Zoom
Apply Tags for selected record(s) in the current view. Renaming of Tags is available here.	Tags
Apply a Comment to selected record(s) in the current view	Comments
Displays Classifier progress and allows the Classifier to be paused and resumed. Facilitates access to the Pictures view, filtered by a Visual Class	Classifier



Function	Option
Only visible in the Files view. Toggles the path filter displayed as a hierarchical view of folders	Folders Tree
Toggles the display of the Details Pane which provides further information and functionality for the selected record	(i) Details

#### **Details Pane**

The details pane provides further information for individual file or artifact records. The options are displayed in a series of horizontal tabs. Further functionality is accessible via a toolbar displayed on the right side of the details pane. The following table lists the options available in the details pane:

Option	Function
Properties	Individual properties of the selected record
Metadata	Metadata extracted from the selected file
Excerpts	Displays up to 1000 keyword hits highlighted in yellow with surrounding text visible
Frames	Displays 50 frames taken at regular intervals from a video file
Preview	Pictures are viewable in this pane at their actual size, "other files may be viewed by clicking the Undock button on the Details Pane Function Toolbar. Videos are playable via an internal player subject to installed codecs
Duplicates	Displays a list of duplicate files which can be clicked in to see data relating to the duplicate file



#### Function Toolbar of Details Pane

Function	Option
Undocks the Preview window	Undock
Open the file with an external application	Open with
Save the file to a chosen location	Save as

### **Column controls**

Timestamp	, J∃ Activity	← → Principal	Recipient		
Left click and I	hold in between columr	ns will allow the resizing colum	n widths		
	Comments				
	Match	Columns Move			
	<ul> <li>Activity</li> </ul>	Deselect All			
Drag column name up and down in the Columns function pane to reposition column L or R Show or hide a column by using the checkbox					
Activity	Timestamp	Timestamp	Principal		
Left click, hold, drag to reposition column L or R					
Timestamp		Timestamp	\ L≜		
Click on the column header to sort Ascending or Descending (not all columns are sortable)					



#### **Preview Window**

The Preview tab in the details pane shows a preview of pictures and documents. On occasion it is not possible to display the file within the details pane, a warning message of "Please undock to view content" will be displayed in such cases. Clicking on the Undock button will open a Preview window.



#### Function Toolbar of Preview Window

Function	Option
Docks the Preview window	Dock
Open the file with an external application	Open with
Save the file to a chosen location	Save as
Print the contents of the Preview window	Print


## Filtering

Filtering is achieved by selecting the Filter button on the function toolbar. This will open the filter pane and present filters for the current view. After selecting the filter click the *APPLY* button on the bottom of the Filter Pane. To remove the filter, click the  $\sqrt{36}$  icon on the filter above the table view or click the  $\sqrt{36}$  icon next to the filter in the filter pane. Each table view will have its own set of filters depending on the type of records displayed.

Some fields can be filtered by pre-set values or by entering text. If text is entered into the "Enter text" field the magnifying glass button within the field must be clicked.

	Filter Options	
Tags	Enter text	
Comments	NO VALUE	O <sub>K</sub> Search
Match	Default	Tables
Date of Visit	molly	Columns
	samsh	
Page Title		Deselect All
URL		Filter
User Account		Tags
No of Visits		۲Ţ
URL Typed?		Comments
URL Status		Classifier
URL Type		

Click the Apply button to apply the filter.





Active Filters are shown next to the column name that has been filtered (represented by the  $\overline{\&}$  icon). The filter can be removed by clicking on that icon.

**Active Filters** 

URL	
User Name	73
No of Visits	
URL Typed?	73
URL Status	
URL Type	8

Active filters are also shown on the top of the columns with the  $\sqrt{3}$  icon. These filters can be removed by clicking on that icon.

	Active	Filters		
Browsing History	Sour User Name	URL Typed?	URL Type	
🛛 🖏 🖓 🧟 Date of Vis	it	Page Title		URL



### **Filtering by Path**

Enables the filtering of displayed files by path.

1. Clicking the Path option allows the results to be filtered by path. A selected folder indicates that all the items within that folder and any sub folders are selected. A black check box indicates a partial selection. Clicking the > icon will display sub folders.





2. ۱	When the	desired	folders	have	been	selected	click	on App	ly
------	----------	---------	---------	------	------	----------	-------	--------	----





#### **Enhanced Filtering Pictures & Videos**

Within the Pictures view or Capture view it is possible to filter within a Picture Width and Picture Height range. Within the Videos view or Capture view it is possible to filter by Video Duration (where this information has been extracted).

EXIF data such as Make, Model, Camera Serial Number, Date/Time and GPS Coordinates can also be filtered here.

Size	Select all	$\times$
	✓ □ Src3	Quit
	Part3	Search Tables
Path	> \$Extend \$OrphanFiles	Columns
Extension	<ul> <li>Program Files (x86)</li> </ul>	Deselect A
Protected	> Program Files	
Picture Width	> ProgramData	Filter
Picture Height	<ul><li>✓ molly</li></ul>	Tags
Video Duration	∽ AppData	Comments
Linked Artifacts		Classifier
Photo Probability	✓	
Visual Class	<ul> <li>✓ □ Office</li> <li>✓ □ 16.0</li> </ul>	
EXIF Make	✓ WebServiceCache	
EXIF Model	✓ ☐ AllUsers	
EXIF Camera Serial Number	omextemplates.com	nt
EXIF Date Time	> Wef > OneDrive	
EXIF Coordinates	> 🗌 Windows	
Auto-Tagged	> 🗌 Mozilla	
Match	> Opera Software	(i) Details
Captures	APPLY	Details



## **Photo Probability**

Photo Probability filtering is applicable to all pictures within the Picture File Types group. The Photo Probability score indicates how likely it is that the file is a photograph. Files with a score of 70% or more are highly likely to be a photograph as opposed to other graphic file types such as icons and clipart or similar.

The Picture and Capture views can be sorted based on the Photo Probability score, allowing non photographic graphic files to be quickly removed from the displayed results. High (80% and above), medium (70% and above) and low (50% and above) pre-set options are available.

i ioteetea	Preset probability values	Quit
Picture Width	🔵 Low 💿 Medium 💿 High	Quit
Picture Height	Greater than or equal to	Search Tables
Video Duration	Lower than or equal to	Columns
Linked Artifacts		
Photo Probability		Deselect Al
Visual Class		Filter
Entities		Zoom
EXIF Make		Tags
EXIF Model		
EXIF Camera Serial Number		Comments
EXIF Date Time		Classifier
EXIF Coordinates		
Auto-Tagged		(i)
Captures	APPLY	Details



## **Visual Class**

If the scan results have been partially or entirely processed by the Classifier, picture file types may be filtered by one or more of 11 visual classes. The visual classes are:

Bestiality, Child Abuse, Others (various innocuous class types), People, Pornography, Portrait, Scanned Doc, US Currency, Vehicle, Weapon, Upskirting.

Visu	ual Class Filter Op	otions		
Comments	Bestiality	0	100	
Match			85 100	O <sub>s</sub>
File Name	Child Abuse	0	= 100 85	Search Tables
File Type	Others	0	100 = 100 100 85	Columns
Type Group	People	0	100	Deselect All
Mismatch Type			85 100	Filter
File System Type	Pornography	0	= 100 85	
Origin	Portrait	0	100 100 100 85	$\bigcirc$
Size			100	Tags
Last Written	Scanned Doc	0	85 100	Comments
File Created	US Currency	0	= 100 85	Classifier
Path	Upskirting	0	100	
Extension			85 100	
Protected	Vehicle	0	85 100	
Picture Width	Weapon	0	100 = 100 100 85	
Picture Height			00	
Video Duration	NO VALUE			
Linked Artifacts				
Photo Probability				í
Visual Class	A	PPLY		Details



Each picture is processed by the Classifier in order to determine how likely it is to feature within a particular class and is given a probability score. A high visual class probability score indicates that the picture concerned is more likely to fall within that visual class.

Assigning a visual class score is not an exact science and some pictures may appear to be misclassified. However if the scan results include pictures that would correctly fall within a particular class, in most tests, filtering that class to show the top 15% would result in the filter displaying pictures belonging to that class.

Visual class scores filters can be adjusted in 5% increments.

The Classifier classifies automatically in the background as soon as the scan completes. Classifier progress is shown by the Yellow line around the Classifier icon.

#### **Visual Class Filter Options**





#### **Pausing the Classifier**

The Classifier can be paused and will not start again until the Resume button is clicked.



If the Classifier is running whilst the Scan results are closed then it will resume automatically the next time the Scan Results are opened.



## Sorting

Each table view will have different columns depending on the type of capture being viewed. A column, if sortable, will display whether ascending or descending with an arrow and line icon when clicked. Only one column can be sorted in each view.

Ascending	Descenc	ling
Date of Visit ↑≟	Date of Visit	V≣

## **Records Selection and Navigation**

There are several options for selecting records to be tagged or commented:

Image: Second system         File Name         File Type         Type Group		A Selected I	Picture	
	Preview	File Name	File Type	Туре Group

- 1. Select one record Single click or by pressing the space bar
- Select or Deselect multiple records: Shift + Click - select first record then shift and click on last record + (Plus) - Selects all fully visible records
   - (Minus) - Deselects all fully visible records
- 3. Page Down . (Period on number keypad) or Page Down key. Moves the selected view a page at a time
- 4. Page Up \* (Star on number keypad) or Page Up key. Moves the selected view a page at a time

 Navigation between records can also be achieved using: Arrow keys (left -right-up-down) Scroll bar Mouse scroll wheel

## Tagging

After selecting records there are ten (10) tags available that can be customized to suit the report. The default tags are named Level 0 through Level 9 and can be customized in the Settings view or by selecting Rename in the Tags function. Renamed Tags will be applied to the current scan results and do not apply to previous scan results.

```
    To tag records with a specific tag:
Select record(s) then select the appropriate tag in the Tags function
Or select record(s) then press number key 0-9 as appropriate
Records can have multiple tags
    To un-tag a record
Select record(s) to be untagged then select the tag to be removed from the Tags function
Or select record(s) to be untagged then press number key of the tag to be untagged
```





## Comments

Comments can be added to individual or multiple selected records by clicking the comments button on the function toolbar. Clicking on the comment button opens the comment pane with a text box. Comments will be saved in a list under the Comments text box. Highlighting the individual comments will reveal an edit and delete button for that comment.

To add a comment to record(s):
 Type the comment in the text box and click add
 The comment will be added to the selected records

 To remove/edit/delete a comment from record(s): Select records with comment(s) Open Comment function Deselect comment - Affects selected records only Edit Comment - Affects all records with that comment Delete Comment - Affects all records with that comment





## **Search Scan Results**

A keyword search can be carried out within the data contained in capture result tables. This keyword search is searching **only** the textual data within the results of Artifact Captures and the Files view.

1. To carry out a search click the Search Tables button. This opens up a text box for the search term, clicking the magnifying glass button alongside will carry out the search.

$\leftarrow \mid \rightarrow$	SUMMARY					Q.
Enter text						Sea Tab
SCAN INFO	ORMATION	SEARCH	PROFILE	STATISTIC	S	Class
Scan Name	Scan 2018-10-05 09-53-29	Name	Comprehensive - General Profiling	Scan Duration	0h 21m 15s	
Scan Date	2018-10-05	Notes	Comprehensive	Status	Completed	
Scan Time	09:53:30		scan - CAUTION -	Files	7483	
	2018-10-05		all videos files are	Collected		

2. The search bar will identify how many search results there are and allow navigation between them using the < and > buttons. The search term will be highlighted in red. The location of search hits is indicated above the search bar.

$\leftarrow \rightarrow$ Files	5					Records: Selected: Tags:	181593 1 Qut
canon		Q, (	1/2 >				Search Tables
es Select all Select a	Vekyb3d8bbwe Vekyb3d8bbwe Vekyb3d8bbwe	Excerpts	Preview Not Created Not Created	File Name FICE_OUTRO_UI.W ma music_Neutral_01_ PRE_OUTRO_02.W ma SongsAndThemes.	File Type Auvanced Systems Format Microsoft Advanced Systems Format	Type Group Video	Column Deselect
Microsoft Microsoft Microsoft AppCS Assets	Wekyb3d8bbwe			json AGMBackground.j Pg AlbumsOverrideB ackground.jpg	JPEG/JIFF Image	Picture	Tags Tags Commen
Moke Moke Serial Number Date Time Digitized		Preview					S dool n with 2 2 2 2 2 2
Aperture Value Application RecordVersion BitsPerSample ColorSpace Comment CustomRendered DateCreated	F2.8 4 8 8 8 sRGB Optimized by JPEGmini 3.1 Normal process 20151213	3.3.2TB 0x07b6cefb					Folders Tree Details



3. To conduct a search for dates, enter the date in the format yyyy/mm/dd where yyyy is the year, mm is the month and dd is the day (e.g. 2014/11/25), any dates matching this will be identified as a search hit.





## Timeline

The Timeline view lists all file and artifact records that have timestamp information. The contents of the Activity, Info and Virtual Location columns are context specific and contain data relevant to the type of record displayed.

		Timeline View	V
Digital Evidence Inves	tigator		↔ _ □
$\leftarrow   \rightarrow$	TIMELINE		Records: 23751 Selected Activities: 1 Tags:
Ö (	🗍 🖳 Timestamp 🗸	Activity	Info Preview
	16:26:15 (L)	visited	
	2018/01/24 16:26:15	Recent access	catalan- sheepdog-2.jpg
	2018/01/24 16:26:15	File created	catalan- sheepdog-2.jpg
	2018/01/24 16:26:15	Last written	catalan- sheepdog-2.jpg
	2018/01/24 16:26:06	Browser URL visited	
	2018/01/24 16:26:06	Recent access	catalan- sheepdog-3.jpg
Properti	es		
Target	catalan-sheepdog-2.jpg	Is Folder	No
Extension	jpg	File Type	Picture
User Account	samsh	Path	C:\Users\samsh\OneDrive\Gospix\
Drive Type	Fixed	Volume Se	erial 28A889C7
Date Accessed	2018/01/24 16:26:15		
Candidate	Src21/Part3/Users/samsh/0 [Referenced Files] [Pictures Comprehensive T		
Source	Microsoft Windows		
Source File	Src21/Part3/Users/samsh/A sheepdog-2.lnk	AppData/Roaming/Mio	crosoft/Windows/Recent/catalan-
Source Details	No details	Auto-Tagg	ned No

File Collection capture records list, within the File Created and Last Written columns, timestamps that hyperlink to the appropriate point within the Timeline View. Artifact Capture records may contain timestamps. Where these timestamps exist they hyperlink to the appropriate point within the Timeline View.



Timeline records that relate to a file may contain, within the Details view of that file, a hyperlink to the Files View filtered by the path of the file concerned.



## Files

The Files view lists all files and folders encountered on the target device(s). The Files view is accessed by clicking the Files button on the navigation toolbar. The Files view may also be accessible via hyperlinks from several differing artifact captures (e.g. Download History, Recent Files). File Collection capture records contain hyperlinks to the file path of the file concerned. When these hyperlinks are clicked the appropriate record is shown within the Files View filtered by the path of the containing folder.

The Files view can be viewed with or without the Folders Tree displayed. This view is toggled by the Folders Tree button on the Function Toolbar.



Files View records list, within the File Created and Last Written columns, timestamps that hyperlink to the appropriate point within the Timeline View. Files View records list, within the Linked Artifacts column, hyperlinks to any Artifact Captures that references the file shown.



### Messages

Artifact Captures that result in the identification of messages are displayed in the Messages view.

		Messages View		
$\leftarrow$ $\rightarrow$ Messages				-
🖏 🏹 👷 Excerpts	Message Thread	Message	Attachment Name	Date/Time ↓
	7	Unread message 100220-1606 447452938009 (Martin Mulholand) - 16:06:10		2020/02/10 16:06
	7	Snow lying now 447452938009 (Martin Mulholand) - 16:02:32	15813505528674 [Referenced Files] [Pictures and Vi	2020/02/10 16:02
	7	Group message from Martin 100220-1602 447452938009 (Martin Mulholand) - 16:02:03	·	2020/02/10 16:02
	7	Group message from Tom 100220-1601 447493764850 (Tom) - 16:01:02		2020/02/10 16:01:
	7	Group message from James 100219-1600 447452938011 (James McLevy) - 16:00:	22	2020/02/10 16:00
	7	408072901786790658 447452938011 (James McLevy) - 15:59:	39	2020/02/10 15:59
	7	Test Viber Group 447452938011 (James McLevy) - 15:59	15	2020/02/10 15:59
	7	Test Group 447452938011 (James McLew) - 15:58:		2020/02/10 15:58

The Messages view will display the message content in the Message column. Messages sent by the local user, known as Outgoing messages, will be displayed in a blue message bubble that is right aligned in the Message column. Messages sent from others to the local user, known as Incoming messages, will be displayed in a green message bubble and left aligned in the Message column.

The Message Thread column indicates if messages are part of a single conversation, clicking on a hyperlink in this column will filter the view to only show messages from that conversation. It is not possible to determine a message thread for all message applications.



## **Tagged View**

The Tagged view lists all tagged records.



All tagged records are accessible from this view. Each tag where appropriate will indicate the Artifact and File records associated with it.



## **Duplicate Files**

Files with matching hash values and file size identified during a scan are considered duplicate files. It is possible to identify duplicates of a file within the Files view and the Pictures view will display an icon to show a picture has duplicates.

#### **Files View**

Within the Files view, duplicate files are displayed in the details pane. Duplicate files are shown as a hyperlink which, when clicked, will display details for the duplicate file.

Properties	Preview	Duplicates	
Src6/Part2/Users/ADF Test/	AppData/Local/Pa	ackages/Microsoft.M	crosoftEdge_8wekyb3d8bbwe/AC/#!001/MicrosoftEdge/Cache/5LJC3US1/chrome-dial-pointer.310172ec[1].png

#### **Pictures View**

The Duplicates tab appears within the Pictures view. A Hash Deduplication option is also available within the Filter options. Selecting the Hide duplicates option will only display one picture in the gallery view if duplicates of the picture are identified.

Hash D	eduplication	Filter	
Hash D Tags Comments Hash Deduplication Match File Name File Type Type Group Mismatch Type	Deduplication	Filter	
File System Type Origin Size		ing Converse Cassier	

Pictures that have duplicates will display an icon showing that duplicate pictures were identified:

#### **Duplicate Picture Icon**





## **Referenced File Functionality**

The following Artifact Capture results contain records that may reference files on the target device(s) or files embedded within files on the target device(s). We refer to these files as Referenced Files.

Artifact Capture	Notes
Recent Files	This Artifact Capture identifies recently accessed files. Recently accessed files that can be located upon the target device(s) are treated as Referenced Files and are accessible by a hyperlink in the Candidate column to the relevant file record in the Files View. Candidate files are identified by matching their File Name and File Path with the information within the Artifact Capture record.
Download History	This Artifact Capture recovers information relating to downloaded files. Downloaded files that can be located upon the target device(s) are treated as Referenced Files and are accessible by a hyperlink in the File Name column. Hyperlinks will exist to the Files View record for the downloaded file and to any File Collections Captures that have collected the file concerned.
P2P Files Shared or Downloaded	This Artifact Capture recovers information relating to files downloaded or shared by P2P applications. If these files can be located upon the target device(s) they are treated as Referenced Files and are accessible by a hyperlink in the Candidate column to the relevant file record in the Files View. The Candidate column can also contain details of other Captures that reference the file.
Browser Cache	This Artifact Capture extracts cached files from containers used by the Google Chrome, Safari, Edge, Opera and Firefox browsers. The extracted cached files are listed within the Files View and shown as embedded files. We also treat these files as referenced files. These referenced files are accessible by a hyperlink in the Referenced File column. Hyperlinks will exist to the Files View record for the cached file and to any File Collection Captures that have collected the file concerned.
Messages	This Artifact Capture recovers messaging client messages. These messages may have associated attachments. These attachments are treated as referenced files. These referenced files are accessible by a hyperlink in the Attachment Name column. Hyperlinks will exist to the Files View record for the attached file and to any File Collection Captures that have collected the file concerned. The Attachment Name column can also contain details of other Captures that reference the file.



Artifact Capture	Notes
Emails	This Artifact Capture recovers email client messages. These messages may have associated attachments. These attachments are treated as referenced files. These referenced files are accessible by a hyperlink in the Attachment Names column. Hyperlinks will exist to the Files View record for the attached file and to any File Collection Captures that have collected the file concerned. The Attachment Names column can also contain details of other Captures that reference the file.

File Collection capture records list, within the Linked Artifacts column, hyperlinks to any Artifact Captures that references the file shown.



### Time Zone Section

#### Viewer Time Zone in Summary View

$\leftarrow$ $\rightarrow$ SU	MMARY
SCAN INFORMA	TION
Scan Name	Win10_CompGPsopt
Scan Date	2018-09-14
Scan Time	10:05:15
System Date	2018-09-14
System Time	10:05:15
Viewer Time Zone	Europe/London

When scans are carried out upon system drives the scanner tries to establish the configured time zone. If a time zone is established all timestamps that are displayed within the results viewer are adjusted where necessary to reflect the configured time zone. Within the Summary view the Viewer Time Zone value will reflect the established time zone.

When scans are carried out on multiple target devices in one scan the scanner searches for a system drive and if one is found establishes the configured time zone. If a time zone is established all timestamps that are displayed within the results viewer for all target devices are adjusted where necessary to reflect the configured time zone. If multiple system drives are located the most recently used system drive takes precedence and all timestamps that are displayed within the results viewer are adjusted in accordance with the time zone discovered on this device. In these cases, within the Summary view the Viewer Time Zone value will reflect the established time zone.

When scans are carried out upon target devices that are non-system drives (without an operating system) no timestamp adjustment is carried out. In this case within the Summary view the Viewer Time Zone will reflect the time zone used by the viewing computer.

In cases where the scanner cannot establish the time zone on system drives no timestamp adjustment is carried out. In this case within the Summary view the Viewer Time Zone will reflect the time zone used by the viewing computer.



# 7. Reporting

The Report view allows the creation of reports in various formats (HTML, PDF and CSV), the creation of a Project VIC JSON file (and an export of the associated files) or the creation of a Standalone Viewer report. The Report view can be accessed from the Navigation toolbar.

Reports can only be created when Mobile Device Investigator is running as a desktop application or when using the Standalone Viewer functionality. Reports cannot be created during live or boot mode scans.

	-													Quit
← → CREATE REPOR	(1		-											- OK
HTML OPDF OCSV OVIC	c O Star	daloon viewer	1		2	Option	S C:\Users\Stuar	t\Deskton\Sca	in 2018-08-28	11-58-50				
	s U star	datone viewer	<u> </u>			Paul		(Desktop (See	172010 00 20	11 30 30				4
Content Selection														
All records	✓ 0 - Leve	10 🖌 1 - Leve	1 🖌 2 - Lei	vel 2 🗸 3 - Le	vel 3 🖌 4 - Le	rel 4 🖌 5 - Le	rel 5 🖌 6 - Lev	rel 6 🖌 7 - Lev	el 7 🖌 8 - Lei	vel 8 🖌 9 - Lev	vel 9 No ta	ig 📕 Indude d	ori List layout	
SUMMARY														
APPLICATIONS>Anti-Forensics Tr											152			41.
APPLICATIONS>Application Usage											26			
APPLICATIONS>Installed Applica											24			41.
APPLICATIONS>P2P Traces											3			
COMMUNICATION>Calls											3			41.
COMMUNICATION > Messages											45			
COMMUNICATION>Saved Cont											5			41.
COMMUNICATION>Skype - Me						3					1			
COMMUNICATION>Skype Recei		✓ 1									7	~		
DEVICE DATA>OS Information											1			
DEVICE DATA>USB History											11			41.
DOCUMENTS>Referenced Files			✓ 1							✓ 1	11	~		
IPOC>IPOC - Keywords Compre		✔ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	179	~		
MULTIMEDIA>Pictures Compreh	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	748	~		
MULTIMEDIA>Videos under 100											3			
USER DATA>Recent Files											44			
USER DATA>User Accounts											6			
WEB BROWSERS>Browsing Hist											3396			
WEB BROWSERS>Search Terms											143			
TIMELINE	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	4256	~		
FILES	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	1857	~		
SCAN LOG											108			

The Create Report view has 4 main sections:

Section	Functionality
1 - Format	Select the desired report output
2 - Options	Choose the desired output location for the report and define orientation for PDF reports
3 - Content Selection	Select the records/files desired within the report
4 - Export Button	Create the report



## **HTML Report**

HTML reports are viewable with a web browser. The HTML report is customizable allowing the choice of specific Captures and tagged items to show in the report, alternatively, all records can also be included in a report. The underlying original files may also be exported (if collected) with the report and can be opened directly from the HTML report providing there are associated applications on the computer used to view the report.

$\leftarrow \rightarrow$ create r	EPORT												
						Onting	-						
Format	0					Option		0.0	2010 00 20				
HTML OPDF OCSV	⊖ VICS ⊖ St	andalone viewe	r			Path*	.:\Users\stuar	t\Desktop\Sca	an 2018-08-28	11-58-50			
Content Selection													
All records	✓ 0 - Le	vel 0 🗸 1 - Le	vel 1 🗸 2 - Le	vel 2 🗸 3 - Le	vel 3 🗸 4 - Le	vel 4 🗸 5 - Lev	/el 5 🗸 6 - Lev	el 6 🗸 7 - Lev	/el 7 🗸 8 - Lev	el 8 🗸 9 - Lev	vel 9 No ta	a Include	ori List layout
SUMMARY	_		-		-	-							
APPLICATIONS>Anti-Forer	sics Tr										152		
APPLICATIONS>Applicatio	n Usage										26		
APPLICATIONS>Installed A	pplica										24		
APPLICATIONS>P2P Traces											3		
											3		
	ges										45		
COMMUNICATION > Saved	Cont										5		
COMMUNICATION>Skype	- Me										1		
COMMUNICATION > Skype	Recei	✓ 1									7	~	
DEVICE DATA>OS Informa	ion										1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced	Files		<b>√</b> 1							✓ 1	11	~	
IPOC>IPOC - Keywords Co	mpre	✓ 1	✔ 1	✓ 1	✔ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	179	~	
MULTIMEDIA>Pictures Cor	npreh 🔽 1	✓ 1	✔ 1	✓ 1	✔ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	748	~	
MULTIMEDIA>Videos unde	r 100										3		
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing	g Hist										3396		
WEB BROWSERS>Search 1	erms										143		
TIMELINE	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	4256	~	
FILES	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	1857	~	
SCAN LOG											108		



2.

#### Select Format – HTML from the format section.



3.

By default, all tagged records are selected in the Content Selection section.

Format						Options	5						
	ICS 🔿 Sta	ndalone viewer				Path* C	:\Users\Stuar	t\Desktop\Scar	n 2018-08-28	11-58-50			
Content Selection													
													_
All records	🗸 0 - Lev	el 0 🖌 1 - Levi	sl 1 🗸 2 - Le	rel 2 🔽 3 - Le	vel 3 🖌 4 - Le	rvel 4 🖌 5 - Le	wel 5 🖌 6 - Le	wel 6 🗸 7 - Lev	/el 7 🔽 8 - Le	vel 8 🗸 9 - Le	vel 9 No t	ag 🔳 Include i	ori List layout
SUMMARY													
APPLICATIONS>Anti-Forensics Tr.											152		
APPLICATIONS>Application Usag	e										26		
APPLICATIONS>Installed Applica.											24		
APPLICATIONS>P2P Traces											3		
COMMUNICATION > Calls											3		
COMMUNICATION > Messages											45		
COMMUNICATION > Saved Cont.											5		
COMMUNICATION > Skype - Me											1		
COMMUNICATION > Skype Recei.		✓ 1									7	~	
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced Files			✓ 1							✓ 1	11	~	
IPOC>IPOC - Keywords Compre.		✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✓ 1	✓ 1	179	~	
MULTIMEDIA>Pictures Compreh.	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✔ 1	✔ 1	748	~	
MULTIMEDIA>Videos under 100											3		
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing Hist.											339	6	
WEB BROWSERS>Search Terms											143		
TIMELINE	✔ 1	✓ 1	✔ 1	✔ 1	✓ 1	✓ 1	✓ 1	✔ 1	✔ 1	✔ 1	425	6 🗸	
FILES	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✓ 1	✓ 1	185	7 🗸	
SCAN LOG											108		
						EXPORT							_



#### 4.

Optional - Select the all records checkbox to include all records.

Format						Options							
	ICS O Stand	lalone viewer				Path* C:\Us	ers\Stuart\De	sktop\Scan 20	18-08-28 11-5	i8-50			
Content Selection													
content selection													
✓ All records	🗸 0 - Level (	0 🖌 1 - Level	1 🗸 2 - Level 2	2 🖌 3 - Level	4 - Level	4 🗸 5 - Level 5	✔ 6 - Level 6	🗸 7 - Level 7	✓ 8 - Level 8	8 🗸 9 - Level 9	🖌 No tag	Include ori	List layout
SUMMARY													
✓ APPLICATIONS>Anti-Forensics Tr.											✓ 152		
APPLICATIONS>Application Usag	e										<b>√</b> 26		
<ul> <li>APPLICATIONS&gt;Installed Applica</li> </ul>											✓ 24		
✓ APPLICATIONS>P2P Traces											<b>√</b> 3		
COMMUNICATION > Calls											✔ 3		
✓ COMMUNICATION > Messages											✓ 45		
<ul> <li>COMMUNICATION &gt; Saved Cont.</li> </ul>											✓ 5		
COMMUNICATION > Skype - Me											<b>√</b> 1		
<ul> <li>COMMUNICATION &gt; Skype Recei.</li> </ul>		✓ 1									✔ 7	~	
DEVICE DATA>OS Information											✔ 1		
✓ DEVICE DATA>USB History											<b>v</b> 11		
DOCUMENTS>Referenced Files			✓ 1							✔ 1	✓ 11	~	
✓ IPOC>IPOC - Keywords Compre.		✓ 1	✓ 1	✓ 1	✓ 1	<b>✓</b> 1	<b>✓</b> 1	<b>√</b> 1	<b>✓</b> 1	<b>√</b> 1	✓ 179	~	
MULTIMEDIA>Pictures Compreh.	✓ 1	✔ 1	✓ 1	✓ 1	✓ 1	<b>√</b> 1	✔ 1	✔ 1	✓ 1	✔ 1	✔ 748	~	
MULTIMEDIA>Videos under 100											✔ 3		
✓ USER DATA>Recent Files											✓ 44		
✓ USER DATA>User Accounts											✔ 6		
WEB BROWSERS>Browsing Hist.											✔ 3396		
✔ WEB BROWSERS>Search Terms											✓ 143		
✓ TIMELINE	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✓ 1	<b>√</b> 1	✓ 1	✔ 1	<b>√</b> 4256	~	
✓ FILES	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✓ 1	<b>√</b> 1	✓ 1	✔ 1	✓ 1857	~	
SCAN LOG											✓ 108		

5. Optional - Select the checkbox next to each capture to include all records in that capture within the report.

Format						Options							
	CS O Stand	lalone viewer				Path* C	\Users\Stuart	\Desktop\Scar	2018-08-28 1	1-58-50			
Content Selection													
All records	0 - Level	0 🔳 1 - Leve	11 🔳 2 - Lev	el 2 🔳 3 - Lev	rel 3 🔳 4 - Le	vel 4 🔳 5 - Lev	vel 5 🔳 6 - Lev	el 6 🔳 7 - Lev	el 7 🔳 8 - Lev	el 8 🔳 9 - Level	9 🔳 No tag	Include ori	List layout
SUMMARY													
APPLICATIONS>Anti-Forensics Tr.											152		
APPLICATIONS>Application Usag	e										26		
APPLICATIONS>Installed Applica.											24		
APPLICATIONS>P2P Traces											3		
COMMUNICATION > Calls											3		
COMMUNICATION > Messages											45		
COMMUNICATION>Saved Cont.											5		
COMMUNICATION > Skype - Me											1		
COMMUNICATION > Skype Recei.		1									7		
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced Files			1							1	11		
IPOC>IPOC - Keywords Compre		1	1	1	1	1	1	1	1	1	179		
✓ MULTIMEDIA>Pictures Compreh.	. 🗹 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 748		
MULTIMEDIA>Videos under 100	-										3		
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing Hist											3396		
WEB BROWSERS>Search Terms											143		
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256		
FILES	1	1	1	1	1	1	1	1	1	1	1857		
SCAN LOG											108		
						EXPORT							



6. Optional - Select the checkbox above each tag column to include all of these tagged records within the report.



7.

Optional - Select the checkbox to export original files where collected.

Format						Options							
	S O Stand	dalone viewer				Path* C:	Users\Stuart\	Desktop\Scan	2018-08-28 1	1-58-50			
Content Selection													
All records	0 - Level (	0 1 - Level	1 2 - Leve	el 2 3 - Lev	el 3 4 - Lev	el 4 5 - Lev	el 5 6 - Lev	el 6 7 - Level	7 8 - Lev	el 8 📃 9 - Level	9 No tag	Include ori.	List layout
SUMMARY													
APPLICATIONS>Anti-Forensics Tr											152	<b>v</b>	
APPLICATIONS>Application Usage											26		
APPLICATIONS>Installed Applica											24		
APPLICATIONS>P2P Traces											3	~	
COMMUNICATION > Calls											3		
COMMUNICATION > Messages											45		
COMMUNICATION>Saved Cont											5		
COMMUNICATION > Skype - Me											1	~	
COMMUNICATION>Skype Recei		1									7	~	
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced Files			1							1	11	~	
IPOC>IPOC - Keywords Compre		1	1	1	1	1	1	1	1	1	179	~	
MULTIMEDIA>Pictures Compreh	1	1	1	1	1	1	1	1	1	1	748	~	
MULTIMEDIA>Videos under 100											3	~	
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing Hist											3396		
WEB BROWSERS>Search Terms											143		
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256	~	
FILES	1	1	1	1	1	1	1	1	1	1	1857	~	
SCAN LOG											108	~	



8. Optional - Select the checkbox to have a list layout instead of table layout within the report.

ormat						Options							
	VICS O Stand	dalone viewer				Path* C:\Us	ers\Stuart\De	sktop\Scan 20	18-08-28 11-5	8-50			
Contract Colorition													
Content Selection													
All records	0 - Level	0 1 - Level	1 2 - Level	2 3 - Level	3 4 - Level	4 5 - Level 5	6 - Level 6	7 - Level 7	8 - Level 8	9 - Level 9	No tag	Include ori	<ul> <li>List layout</li> </ul>
SUMMARY													
APPLICATIONS>Anti-Forensics 1	r										152		~
APPLICATIONS>Application Usa	ge										26		✓
APPLICATIONS>Installed Applica	ì										24		✓
APPLICATIONS>P2P Traces											3		✓
COMMUNICATION > Calls											3		✓
COMMUNICATION > Messages											45		✓
COMMUNICATION > Saved Cont											5		✓
COMMUNICATION > Skype - Me											1		✓
COMMUNICATION > Skype Rece		1									7		<ul><li>✓</li></ul>
DEVICE DATA>OS Information											1		✓
DEVICE DATA>USB History											11		✓
DOCUMENTS>Referenced Files			1							1	11		✓
IPOC>IPOC - Keywords Compre		1	1	1	1	1	1	1	1	1	179		✓
MULTIMEDIA>Pictures Compreh	🗌 1	1	1	1	1	1	1	1	1	1	748		~
MULTIMEDIA>Videos under 100											3		✓
USER DATA>Recent Files											44		~
USER DATA>User Accounts											6		×
WEB BROWSERS>Browsing Hist											3396		~
WEB BROWSERS>Search Terms											143		<b>v</b>
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256		✓
FILES	1	1	1	1	1	1	1	1	1	1	1857		<b>v</b>
SCAN LOG											108		✓

9.

Optional - Select the checkbox to have a Summary page included within the report.

ormat						Options							
	CS O Stand	alone viewer				Path* C	\Users\Stuart	Desktop\Scan	2018-08-28 1	1-58-50			
ontent Selection													
All records	0 - Level (	1 - Level	1 2 - Lev	el 2 3 - Le	vel 3 4 - Lev	vel 4 5 - Le	rel 5 6 - Lev	el 6 7 - Leve	17 8 - Lev	el 8 9 - Level 9	No tag	g Include ori	List layout
SUMMARY												-	
APPLICATIONS>Anti-Forensics Tr											152		
APPLICATIONS>Application Usage	)										26		
APPLICATIONS>Installed Applica											24		
APPLICATIONS>P2P Traces											3		
COMMUNICATION > Calls											3		
COMMUNICATION > Messages											45		
COMMUNICATION > Saved Cont											5		
COMMUNICATION > Skype - Me											1		
COMMUNICATION > Skype Recei		1											
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced Files			1							1	11		
IPOC>IPOC - Keywords Compre		1	1	1	1	1	1	1	1	1	179		
MULTIMEDIA>Pictures Compreh	1	1	1	1	1	1	1	1	1	1	748		
MULTIMEDIA>Videos under 100											3		
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing Hist											3396		
WEB BROWSERS>Search Terms											143		
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256		
FILES	1	1	1	1	1	1	1	1	1	1	1857		
SCAN LOG											108		
						EXPORT							



10. Optional - Choose path to save report to (default value is the Desktop of the currently logged in user, the default location can be changed in the Settings view).

Format						Options							
	CS 🔿 Star	ndalone viewer				Path* C	:\Users\Stuart	Desktop\Scan	2018-08-28	1-58-50			
Content Selection													
All records											-10	a la dude	ori List layout
SUMMARY	- U - Leve	10 - Lev	er i 📕 2 - Lev	erz = 3 - Le	vers 📕 🖛 - Lev	614 B - 16	ers o- Lev	ero V - Leve	el /	ero <b>a</b> a - rec		gInclude	List layout
APPLICATIONS>Anti-Forensics Tr.											152		
APPLICATIONS>Application Usag											26		
APPLICATIONS>Installed Applica.											24		
APPLICATIONS>P2P Traces											3		
COMMUNICATION > Calls											3		
COMMUNICATION > Messages											45		
COMMUNICATION>Saved Cont.											5		
COMMUNICATION>Skype - Me											1		
COMMUNICATION>Skype Recei.		1									7		
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		
DOCUMENTS>Referenced Files			1							1	11		
✓ IPOC>IPOC - Keywords Compre		✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 179		
MULTIMEDIA>Pictures Compreh.	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 748		
MULTIMEDIA>Videos under 100											3		
USER DATA>Recent Files											44		
USER DATA>User Accounts											6		
WEB BROWSERS>Browsing Hist											3396		
WEB BROWSERS>Search Terms											143		
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256		
FILES	1	1	1	1	1	1	1	1	1	1	1857		
SCAN LOG											108		

11.

Click on the Export button to create the HTML report.

Format						Options								
	CS 🔿 Star	idalone viewer				Path* C	\Users\Stuart	Desktop\Scar	2018-08-28	1-58-50				
Content Selection														
All records	0 - Leve	10 🔳 1 - Leve	1 🔳 2 - Lev	el 2 🔳 3 - Le	rel 3 🔳 4 - Lev	vel 4 🔳 5 - Lev	rel 5 🔳 6 - Lev	el 6 🔳 7 - Lev	el 7 🔳 8 - Le	rel 8 🔳 9 - Lev	el 9 🔳 No ta	g Include	ori List layout	
SUMMARY														
APPLICATIONS>Anti-Forensics Tr.											152			
APPLICATIONS>Application Usag	е										26			
APPLICATIONS>Installed Applica.											24			
APPLICATIONS>P2P Traces											3			
COMMUNICATION > Calls											3			
COMMUNICATION > Messages											45			
COMMUNICATION > Saved Cont											5			
COMMUNICATION > Skype - Me											1			
COMMUNICATION>Skype Recei		1									7			
DEVICE DATA>OS Information											1			
DEVICE DATA>USB History											11			
DOCUMENTS>Referenced Files			1							1	11			
✓ IPOC>IPOC - Keywords Compre		✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 179			
MULTIMEDIA>Pictures Compreh	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 748			
MULTIMEDIA>Videos under 100											3			
USER DATA>Recent Files											44			
USER DATA>User Accounts											6			
WEB BROWSERS>Browsing Hist											3396			
WEB BROWSERS>Search Terms											143			
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256			
FILES	1	1	1	1	1	1	1	1	1	1	1857			
SCAN LOG											108			
						EXPORT								



#### **Opening HTML Report**

HTML reports are stored within a folder as specified within the Option path field. To open an HTML report, browse to the location where the folder was created, open the folder and double click on the *index.html* file therein:

Name ^	Date modified	Туре
📕 html_pages	29/08/2018 10:41	File folder
previews	29/08/2018 10:41	File folder
🗹 📀 index.html	29/08/2018 10:41	Chrome HTML Document

When viewing an HTML report it will open within the default web browser.

The HTML report displays the same columns that were visible in the viewer in the order they were displayed. To remove columns from the HTML report hide them within the viewer prior to creating the report. A navigation bar appears when moving the cursor over the turquoise section at the left-hand side of the report containing the >> symbol.

	*	CTATICTICS		TACC CTATICTICS	
	:H PROFILE	STATISTICS		TAGS STATISTICS	
	Comprehensive - IPOC speed optimized Comprehensive scan - Runs all	Scan Duration Status Files Collected	Completed	0 - Level 0 1 1 - Level 1 1 2 - Level 2 1	
	artifact Captures, collects alloc embedded, and deleted pictur and videos, searches for comm	es	ADF Digital Evidence Investigator 0.0.0	3 - Level 3 1 4 - Level 4 1 5 - Level 5 1	
	IPOC keywords, and searches f known hash values using the	or		6 - Level 6 1 7 - Level 7 1	
	Thorough Identification for File Without Extension option. Sea for anti-forensics traces, remot	rches e		8 - Level 8 1 9 - Level 9 1	
	access traces, P2P traces and fi from Skype caches. Collects protected files and files not	les			
	processed by parser				
Messages	DEVICE DATA		DOCUMENTS	IPOC	
	3 S Connection Log Device Informat	ion 0	Referenced Files 13	IPOC - Hash Set Comprehensive speed	0
	45 S OS Information 5 S USB History	1 11		optimized IPOC - Keywords Comprehensive speed	886
MULTIMEDIA> Pictures Comprehensive - speed optimized	1 1			optimized	
	8				
	WEB BROWSE	RS			
	0 Browsing Histor 44 Download Histo	-	e		
	6 Search Terms 0	143 😔	e		



### **PDF Report**

The PDF report is customizable allowing the choice of specific Captures and tags to show in the report, all records can also be shown in the report. Where files have been collected with a scan these can be exported with the report, these can then be opened directly from the PDF report providing there are associated applications on the computer viewing the report.

← → CREATE REPOR	RT													Quit
Format						Options								
	s 🔿 st	andalone viewer				Path* C	:\Users\Stuart	\Desktop\Sca	n 2018-08-28	11-58-50 PDF				
						Orientati	on: <ul> <li>Landsci</li> </ul>	0.0						
						Orientatio	on. <ul> <li>Landsci</li> </ul>	ape O Port	rait					
Content Selection														
All records	🔳 0 - Le	vel 0 🔳 1 - Lev	el 1 🔳 2 - Le	evel 2 🔳 3 - Le	svel 3 🔳 4 - Li	evel 4 🔳 5 - Le	vel 5 🔳 6 - Lev	rel 6 🔳 7 - Le	vel 7 🔳 8 - Le	vel 8 🔳 9 - Le	vel 9 🔳 No ta	g 🖌 Indude	ori List layout	
SUMMARY														
APPLICATIONS>Anti-Forensics Tr											152	~		
APPLICATIONS>Application Usage											26			
APPLICATIONS>Installed Applica											24			
APPLICATIONS>P2P Traces											3	~		
COMMUNICATION > Calls											3			
COMMUNICATION > Messages											45			
COMMUNICATION>Saved Cont											5			
COMMUNICATION > Skype - Me											1	~		
COMMUNICATION > Skype Recei		1									7	~		
DEVICE DATA>OS Information											1			
DEVICE DATA>USB History											11			
DOCUMENTS>Referenced Files			1							1	11	~		
✓ IPOC>IPOC - Keywords Compre		✔ 1	✓ 1	✓ 1	✔ 1	✓ 1	✔ 1	✓ 1	✓ 1	<b>√</b> 1	✓ 179	~		
MULTIMEDIA>Pictures Compreh	✔ 1	✔ 1	✔ 1	✓ 1	✔ 1	✓ 1	✔ 1	✓ 1	✔ 1	✔ 1	✔ 748	~		
MULTIMEDIA>Videos under 100											3	~		
USER DATA>Recent Files											44			
USER DATA>User Accounts											6			
WEB BROWSERS>Browsing Hist											3396			
WEB BROWSERS>Search Terms											143			
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256	~		
FILES	1	1	1	1	1	1	1	1	1	1	1857	~		
SCAN LOG											108	~		
						EXPORT								

When creating a PDF report Landscape or Portrait orientation can be selected. Reports containing a large number of columns are best produced in Landscape as some columns may not be displayed in Portrait orientation due to the limited page space available.

Options	
Path* C:\Users\Stuart\Desktop\Scan 2018-08-28 11-58-50 - PDF 3	



#### **Opening PDF Report**

PDF reports are stored within a folder as specified within the Option path field. To open a PDF report, browse to the location where the folder was created, open the folder and double click on the *<scan name>.pdf* file therein:

	Openin	g PDF Repo	rt	
Name Scan 2018-08-28 11-58-50.pdf	Date modified 29/08/2018 14:01	Type PDF File	Size	3,300 KB

When viewing a PDF report it will open within the default application used to open PDF files.

The PDF report displays the same columns that were visible in the viewer in the order they were displayed. To remove columns from the PDF report hide them within the viewer prior to creating the report. With limited page space it is recommended to remove columns irrelevant to the report prior to creating a PDF report.

SARCHPROFILES SUMMARY  SAN NAME SAN 2018-08-28 11-58-50 San Date 2018-08-50 San Date 2018-08-50 San Date 2018-08-50 San Date 2018-08-50 San Date 2018-50 San Dat		OF Report	
SCAN INFORMATION     SUBJECT       Such Name     2018-06-28 11-15-5:0       Such Time     1158:51       System Dave     2018-06-28       System Time     1158:51       System Dave     2018-06-28       System Time     1158:51       System Dave     2018-06-28       System Time     EuroperLondon       STATISTICS       Scan Duration     0h ofn 295       Status     Completed       Torough Identification for Files     and Gale for common POC Levels       Application     0h ofn 295       Status     Completed       Torough Identification for Files     Status       Object     0h ofn 295       Status     Completed       Torough Identification for Files     Status       Object     0h ofn 295       Status     Opplication for Files       Application     0h ofn 295       Application     0h ofn 295       Application     0h ofn 295       Appleation     0h ofn 295 <td< th=""><th>can 2018-08-28 11-58-50</th><th></th><th></th></td<>	can 2018-08-28 11-58-50		
Scan Name     Scan 2018-08-281 1-58-50       Scan Date     2018-08-281       System Date     EuroperLondon       Some     Statistics       San Duration     00 701       Status     Comprehensive stocks for common BPC speed detections on the Composition of the Tiles Without Elemsion option.       Sanus     Composition of the mask speed detection of the System Date of the	SUMMARY		
Scan Date     2016-06-28       San Time     11.58.51       System Date     2016-06-28       System Time     11.58.51       System Time     11.58.51       System Time     Europe/London       Stan Duration     00 m 29:       Stan Duration     00 m 29:       Stan Duration     ADP Digital Evidence Investigator       Application     ADP Digital Evidence Investigator       CAPTURES     Computer Time       Application     ADP Digital Evidence Investigator       CAPTURES     Common PDC       Application     ADP Digital Evidence Investigator       CAPTURES     ComMUNICATION       Carling and the processed by parter     1       Carling and the processed by anner     1	SCAN INFORMATION		SEARCH PROFILE
Staus     Collects protected files and files not processed by pairs       Application     0.0       Application     0.0       I - Level 3     1       I - Level 4     1       I - Level 3     1       I - Level 3     1       I - Level 4     1       S - Level 5     1       I - Level 1     1       I - Level 3     1       I - Level 4     1       S - Level 5     1       G - Level 6     1       I - Level 1     1       I - Level 3     1       I - Level 4     1       S - Level 5     1       G - Level 6     1       I - Level 1     1       Level 8     1       P - Level 9     1	Scan Name         Scan 2018-08-28 11-58-50           Scan Date         2018-08-28           Scan Time         11-58-51           System Date         2018-08-28           System Time         11-58-51           Viewer Time         11-58-51           Zone         Europe/London		Comprehensive - IPOC speed optimized Comprehensive scan - Runs all artifact Captures, collects allocated, embedded, and deleted pictures and videos, searches for common IPOC keywords, and searches for known hash values using the Thorough Identification for Files Without Estension option. Searches for anti-forensics traces, remote access traces, P2P traces
Application         0.0         Tables           0.0         0.0         0.0         0.0           0.1         1. Level 1         1         1. Level 1         1           1. Level 1         1         2. Level 2         1         3. Level 3         1           1. Level 4         1         5. Level 5         1         6. Level 6         1           2. Level 5         1         6. Level 6         1         7. Level 7         1           0. Level 6         1         7. Level 7         1         8. Level 8         1           0. Level 9         1         0         1         9. Level 9         1	Status Completed		Collects protected files and files
CAPTURES  Arti-formics 201 Arti-formics 201 Arti-formics 201 Arti-formics 201 Arti-formics 201 Application 26 Devel 29 Fish 20 Devel 20 De	Application 0.0.0 ADF Digital Evidence Investigator		TAGS STATISTICS
2 - Level 2       1         3 - Level 3       1         4 - Level 4       1         5 - Level 5       16         6 - Level 6       1         7 - Level 7       1         8 - Level 8       1         9 - Level 9       1         COMMUNICATION         Communication         1 - Level 9       1         1 - Level 9       1 <td>0.010</td> <td></td> <td>1</td>	0.010		1
APPLICATIONS  APPLICATIONS  APPLICATIONS  Applications 26  Applications 24  P2P Fraces 3  Received Files 8  Support 6  P2P Fraces 3  Received Files 8  Build Contacts 5  Support 6  P2P Fraces 3  Received Files 8  DOCUMENTS  DOCUMENTS  Referenced 12  DOC			
A-Level 4 1 3-Level 5 1 4-Level 5 1 4-Level 6 1 7-Level 7 1 8-Level 8 1 9-Level 9 1 COMUNICATION Calis 3 S Emais 0 Usages 45 S Superior 0 Downloaded P2P Files Superior 0 Downloaded P2P Files 3 Remote 3 Remote 4 DCUMENTS DOCUMENTS			
S-Level 5 1 6-Level 6 1 7-Level 7 1 8-Level 8 1 9-Level 9 1 CARIS 201 Application 26 Application 26 Application 26 Application 26 P25 File 0 P25 File 0			
CAPTURES APPLICATIONS APPLICATIONS APPLICATIONS APPLICATIONS APPLICATIONS ANDIA Calis 3 COMMUNICATION Application 26 Application 24 Applicati			
B - Level B 1 9 - Level 9 1 CAPTURES COMMUNICATION Calis 3 \$ Communication Application Application P2P Fines Devenloaded P2P Fines P2P Fines			
P-Level 9 1		7 - Level 7	1
CAPTURES APPLICATIONS Calls 3 S Frances Application 26 Installed Application 24 Application 2 App		8 - Level 8	1
Arti-Formatics 201 Arti-Formatics 201 Arti-Formatics 201 Luage PopUration 26 Application 24 Appl		9 - Level 9	1
Remote 0 Access Traces 0 DOCUMENTS Shareaa 0 Referenced a	APPLICATIONS Anti-forensics 201 Traces Application 26 Application 24 Application 24 P2P Files Shared ar 0 Downloaded P2P Search 0 Terms 0	Emails Messages Saved Contacts Skype - Media_cache Folder Skype	3 S 0 45 S 5 S 1
Access Traces DOCUMENTS Shareaza O Referenced	Down of the	Received Files	
	Access Traces		DOCUMENTS
		Referenced Files	13



## **CSV** Report

The CSV report is customizable allowing the choice of specific Captures and tags to show in a report, all records can also be shown in the report. Results where files were captured can be set to export the files which will be maintained in a ZIP archive in its' original path. The CSV report has the same options as the HTML report with the exception that all the records' properties are always exported, and exporting the results in a list view is not an option. An individual CSV file is created for every capture that an item has been selected for inclusion in the report.

← → CREATE REPC	RT												N.O.
Format						Options							
	ics O si	andalone viewer					:\Users\Stuart	Desktop\Scar	1 2018-08-28 1	1-58-50 - 2			
						_							_
Content Selection													
All records	📕 0 - Le	vel 0 🔳 1 - Leve	l 1 🔳 2 - Le	vel 2 🔳 3 - Le	el 3 🔳 4 - Le	vel 4 🔳 5 - Le	vel 5 🔳 6 - Lev	el 6 🔳 7 - Lev	vel 7 🔳 8 - Lev	el 8 🔳 9 - Le	vel 9 🔳 No tag	g Include ori	
APPLICATIONS > Anti-Forensics Tr.											152		
APPLICATIONS > Application Usag	e										26		
APPLICATIONS>Installed Applica.											24		_
APPLICATIONS>P2P Traces											3		
COMMUNICATION>Calls											3		_
COMMUNICATION>Messages											45		
COMMUNICATION>Saved Cont.											5		_
COMMUNICATION>Skype - Me													
COMMUNICATION>Skype Recei.		1									7		_
DEVICE DATA>OS Information											1		
DEVICE DATA>USB History											11		_
DOCUMENTS>Referenced Files			1							1	11		
IPOC>IPOC - Keywords Compre.		✔ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✔ 179		_
✓ MULTIMEDIA>Pictures Compreh.	✓ 1	✔ 1	✔ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✔ 1	✔ 748		
MULTIMEDIA>Videos under 100											3		_
USER DATA>Recent Files											44		_
USER DATA>User Accounts											6		_
WEB BROWSERS>Browsing Hist.											3396		_
WEB BROWSERS>Search Terms											143		_
TIMELINE	1	1	1	1	1	1	1	1	1	1	4256		_
FILES	1	1	1	1	1	1	1	1	1	1	1857		
SCAN LOG											108		
									_				



#### **Opening CSV Report**

CSV reports are stored within a folder as specified within the Option path field. To open a CSV report, browse to the location where the folder was created, open the folder and double click on the desired *<capture>.csv* file therein:

Name	Date modified	Туре	Size
original_files	20/09/2018 10:26	File folder	
APPLICATIONS-Anti-Forensics Traces-FILES.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	6 KB
APPLICATIONS-Application Usage.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	21 KB
APPLICATIONS-Cloud Storage Traces-FILES.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	30 KB
APPLICATIONS-Installed Applications.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	3 KB
APPLICATIONS-Social Media Traces-Browser Cache.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	12 KB
APPLICATIONS-Social Media Traces-Browsing History.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	16 KB
APPLICATIONS-Social Media Traces-FILES.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	8 KB
DEVICE DATA-Connection Log.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	3 KB
DEVICE DATA-OS Information.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	2 KB
LEVICE DATA-USB History.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	4 KB
DEVICE DATA-Windows Registry Files.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	8 KB
DOCUMENTS-Office Documents Comprehensive thorough ID .csv	20/09/2018 10:26	Microsoft Excel Comma Separated	13 KB
DOCUMENTS-Referenced Files.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	627 KB
FILES.csv	20/09/2018 10:27	Microsoft Excel Comma Separated	62,939 KB
MULTIMEDIA-Pictures Comprehensive Thorough ID no carving.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	3,348 KB
MULTIMEDIA-Videos All - Comprehensive Thorough ID.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	215 KB
SCAN LOG.csv	20/09/2018 10:27	Microsoft Excel Comma Separated	91 KB
TIMELINE.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	4,596 KB
🚵 USER DATA-Desktop shortcut files.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	2 KB
USER DATA-Recent Files.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	46 KB
🐁 USER DATA-User Accounts.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	3 KB
🚵 USER DATA-User Logins.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	199 KB
WEB BROWSERS-Browser Cache.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	965 KB
WEB BROWSERS-Browsing History.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	302 KB
WEB BROWSERS-Download History.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	4 KB
WEB BROWSERS-Form Data.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	2 KB
WEB BROWSERS-Search Terms.csv	20/09/2018 10:26	Microsoft Excel Comma Separated	5 KB

When viewing a CSV report it will open within the default application used to open CSV files.



## **VICS Report**

For investigators using Project VIC hashsets, the VICS report option allows the creation of a VICS (Video Image Classification Standard) compatible output folder. This folder contains selected picture and video files together with a VICS compatible JSON file. This report is compatible with and can be imported into other applications that support Project VIC including Griffeye. The output Project VICS JSON file can also be used to create Mobile Device Investigator hash captures for use in other cases.

<														$\boxtimes$
	← → CREATE REPORT													Qut
Summary	nary						Options							
Pictures	tures						Path* C:\Users\Stuart\Desktop\Scan 2018-08-28 11-58-50 VICS 2							
18 Videos	Content Selection													
		🗸 0 - Level 0 🔳 1 -	- Level 1 🔳 2 - L	evel 2 🗸 3 - L	evel 3 🖌 4 - L	evel 4 🗸 5 - Le	vel 5 🗸 6 - Le	wel 6 🗸 7 - Le	ivel 7 🔽 8 - Le	rel 8 🔳 9 - Le		Indude ori.	-	
Keywords	COMMUNICATION>Skype - Me	1									1	✓ ✓		
Timeline	DOCUMENTS>Referenced Files	·	1							1	11			
Files	MULTIMEDIA>Pictures Compreh	✓ 1   ✓ 1		✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	748			
	MULTIMEDIA>Videos under 100										3	~		

#### **Using VICS Report Output**

The Project VICS output is stored within a folder as specified within the Option path field. When asked to import a Project VICS JSON file within another application, browse to this location and select the *<scan name>.json* file:

#### Project VICS JSON File


Name ^	Date modified	Туре	Size	
oriainal files	29/08/2018 17:10 29/08/2018 17:10	File folder JSON File		2,197 KB
				_

### **Standalone Viewer**

The Standalone Viewer option outputs all of the scan results into a self-contained folder that includes a built in standalone application that can view the results. This standalone application runs independently of Mobile Device Investigator and can be run on any Windows computer where the user has sufficient privileges. No license is required to view these reports. All Tags and Comments that have been created during the review are included in the output. The Standalone Viewer cannot be run from read-only storage devices such as CDs or DVDs. Standalone Viewer reports allow easy collaboration with other investigators and provide a good method of archiving Scan Results.

Standalone Viewer		
CREATE REPORT		Cur
Format	Options	
HTML OPDF OCSV VICS Standalone viewer	Path* C\Users\Stuart\Desktop\Scan 2018-08-28 11-58-50 SAV	
CREATE REPORT Format CANA C		
laport		
≫ More		
	EXPORT	



#### **Opening Standalone Viewer**

The Standalone Viewer is stored within a folder as specified within the Option path field. To open the Standalone Viewer, browse to the location where the folder was created, open the folder and double click on the *ADF Viewer.bat* file therein:

Name ^	Date modified	Туре	Size	
ScanResults		File folder	0.24	
	20/09/2018 11:01	File folder		
win	20/09/2018 11:01			4.100
ADF Viewer.bat	27/07/2018 13:28	Windows Batch File		1 KE

The Standalone Viewer will operate as Mobile Device Investigator does when reviewing scan results, see section 6 for further details.

# 

# 8. Managing and creating Search Profiles

Mobile Device Investigator comes with three ready to use default Search Profiles. A Search Profile is a combination of Captures. Artifact Captures recover specific records or information e.g. browsing history records or user account information. Users cannot create or edit Artifact Captures. File Collection Captures recover files matching certain criteria such as file properties, inclusion of keywords or matching hash values. File Collection Captures are supplied with the program and can also be user created.

Mobile Device Investigator allows the creation of custom Search Profiles containing a combination of default and user created Captures. Copies of the default Search Profiles may also be modified to suit operational requirements.

To create a Search Profile, select Setup Scans from the Home screen which will display the Manage Search Profiles view. From here it is possible to create, edit, or delete profiles. The default Search Profiles cannot be edited or deleted, these can only be copied allowing the copy to be edited.

	Manage Search Profiles View
Back	Manage Search Profiles
Mobile Devices - Comprehensive scan - Runs	from the mobile device then process the screenshots to extract textual information that can be used for keyword searching
	all relevant mobile device artifact Captures, collects allocated, and embedded pictures and videos and frames from videos



# **Hiding Default Profiles**

To hide a Default Search Profile a file entitled config.json file must be edited, this is located by default at "\Users\<User Account>\AppData\Local\ADF Solutions Inc\ADF Mobile Device Investigator\config.json".

1. Whilst the ADF DEI program is not running open the JSON file in an editor of your choice (notepad will suffice)



2. Scroll to the "Display Default Search Profiles" section and change the "show" value to "false" for the Search Profile to hide

"Displa	y Default Search Profiles": [	^
},	"name": "Comprehensive - Collect Pictures from Free Space", "show": true	1
{	"name": "Comprehensive - General Profiling speed optimized", "show": true	1
}, { },	"name": "Comprehensive - General Profiling", "show": false	1
{ },	"name": "Comprehensive - IPOC speed optimized", "show": true	1
{ },	"name": "Comprehensive - IPOC", "show": true	1
{		~

3. Save the edited file

4. To display hidden Default Search Profiles change the "show" value from "false" to "true"



# **Creating a new Search Profile**



2. Enter a unique name for the profile

Cancel	Define Search Profile	Quit
Name* Mobile Messages Only		New Capture
Notes		import Capture

3. Optional - Enter notes describing what the search profile will do





4. The left hand side of the Define Search Profile view contains groups of Captures available. Clicking on a Capture Group displays the Captures on the right hand side



5. Clicking on an Artifact Capture allows the option to Expand: this shows further details for the type of data the Artifact Capture will collect. Clicking Collapse will return to the Capture selection view

Capture Groups					Captu
elect at least one Capture.	Captures				Сари
APPLICATIONS 0/	/ 6 📃 Calls <mark>S</mark> 🧏 🤷 🕓 🕻	<b>S 🕲 😋 </b>			
CHILD EXPLOITATION	/ 2 📃 Emails 📴 🖂 💽 🐛				
COMMUNICATION 0/	/4		S f 80		
DEVICE DATA 0/		iOS Messages	S Skype	Collap © TextMe	ise
DOCUMENTS 0/				~	
USER DATA 0/	/4	k Kik Messenger	00V00	VKontakte Messenge	er
WEB BROWSERS	D Badoo Messenger	🕓 WhatsApp	F Facebook	🔇 Viber	
	Tinder	une Line	y Twitter	Chatous	
	cake	🗊 Tango	Instagram	Grindr	



6. To select a Capture click on the check box next to it and a tick will appear. To select all Captures within a Category, Click on the check box next to the Category.



7. When the desired Captures for the Search Profile have been selected, click the Next button to continue. If any overlapping Captures have been detected a warning dialog will be presented showing them. Clicking Proceed here will continue creating the Search Profile with overlapping Captures, clicking Cancel will allow these to be amended





8. It is now possible to add or delete custom fields of information that the user enters at the point of starting a scan or to use scan information fields setup in the Settings view. By default there are three mandatory fields: Scan Name, Scan Date, and Scan Time. Additional fields can be added to prompt for more information by typing in the "enter new field name" text box. It is possible to include a default value and make this new field mandatory. To delete a custom field, click on the Delete button alongside it

Ise the fields defined in the application settin	lgs	
se the following fields		
Field Name	Default Value	Mandatory (*)
Scan Name	NA	$\checkmark$
Scan Date	NA	$\checkmark$
Scan Time	NA	<b>v</b>
Custom Field		

9. There are five Scan Options:

**Skip files processed for more than X min** – set a time value for when files that are taking too long to process are skipped. This feature is useful if corrupt files are stopping scans from completing quickly. Type a numerical value and select minutes or seconds

**Collect skipped files** – collects files less than 2GB that were skipped during a scan **Collect protected files** – this copies any password protected files detected by Captures to the

Scan Results. **Collect files that crashed parser –** this copies any files that Captures cannot read to the Scan Results.

Activate Bitlocker on Collection Key – this will encrypt any Scan Results written to the key securing the data against loss or theft

Scan Options	
Skip files processed for more than	60
Collect protected files encountered by the	e Captures (max 2GB)
Collect files that crashed the parsers (max	2GB)
Activate BitLocker on Collection Key (it is ir	mpossible to recover the data if the password is lost)



10. Select the post-scan options. Selecting a tick box will automatically start that task when the scan is finished. Highlighting a task shows an order button, clicking this and dragging the mouse allows the task to be ordered above or below the other tasks determining the order these tasks are ran upon scan completion. The Entity Extraction task requires the Rosoka module add-on to be purchased



11. Add a Whitelist. This can be added based on a folder of files, a CSV file containing hash values or a JSON file of hash values. See the section on Whitelists for further details



12. Click on the Save button and the new Search Profile will be listed on the Manage Search Profiles screen and can edited or deleted



#### **Captures with Saved Contacts**

When creating a Search Profile that contains Captures with user details (such as Messages for message Principal or message Recipient) the Saved Contacts Capture should be selected in order to resolve the user names. Failure to select the Saved Contacts will result in a User ID being displayed but no Friendly Name.



# Whitelists

Whitelists are a list of files to be ignored during a scan. There are three ways to add a whitelist: selecting a folder of files, adding a CSV file containing hash values or adding a JSON file containing hash values.

The location where whitelists are saved can be changed in the Settings view. Whitelists created in one Search Profile will be available for use in all user created Search Profiles.

#### Add Folder of Files



2. Select the folder containing the files you want to add to the whitelist



3. A message will be displayed showing the status of the whitelist creation. Any errors that occurred during the whitelist creation are displayed, these can include duplicate files or files locked by other applications such as database files. Click the OK button to continue



4. Give the whitelist a name, this is mandatory and must differ from other whitelist names, pressing the enter/return key will complete the naming of the whitelist





#### Add Files from CSV

1. Click on the Import CSV button in the Whitelists section



2. Select the CSV file. The CSV file must contain one hash value column (titled "sha-1", "sha1" or "md5") and an optional file size column (titled "filesize" or "file size")



3. A message will be displayed showing the status of the whitelist creation. Any errors that occurred during the whitelist creation are displayed, such as duplicate hash values. Click the OK button to continue

Import completed Hash values imported: 467491 Warnings/errors: 0	mporting Hash	Values	
	mport completed		- 1
		1	
			_

4. Give the whitelist a name, this is mandatory and must differ from other whitelist names, pressing the enter/return key will complete the naming of the whitelist





#### Add Files from JSON

#### 1. Click on the Add Files button in the Whitelists section



#### 2. Select the project VIC formatted JSON file you wish to add as a whitelist



3. A message will be displayed showing the status of the whitelist creation. Any errors that occurred during the whitelist creation are displayed, such as duplicate hash values. Click the OK button to continue

Importing VICS Data	
Import completed	
Records: 11 Warnings/errors: 0	

4. Give the whitelist a name, this is mandatory and must differ from other whitelist names, pressing the enter/return key will complete the naming of the whitelist





#### **Deleting Whitelists**

1.	Highlight the whitelist to delete, a delete button will appear, clicking on this will start the
	deletion process

Whitelists	Add Files Import SSN	
Folder of I	Files	
Project VI	C	
CSV White	list	Delete

2. The whitelist will not be deleted instantly, a short time delay allows the option to undo the deletion by clicking on the UNDO button that appears

Whitelists Add Files	Import CSV JSON	
Folder of Files		
Project VIC		
CSV Whitelist	Deleted	UNDO

# **Selecting Whitelists**

1. To add a whitelist to a search profile, click on the check box next to the whitelists required





# **Editing a Search Profile**

It is possible to edit any user created Search Profile, it is not possible to edit any default Search Profiles, however, default Search Profiles can be copied and the copies edited.

1. To edit a Search Profile, click on Setup Scans on the Home screen and then highlight the Search Profile to edit, this will reveal an edit button that when clicked allows the editing of the Search Profile.





# **Deleting a Search Profile**

1. To delete a Search Profile, click on Setup Scans on the Home screen and then highlight the Search Profile to delete, this will reveal a Delete button that when clicked deletes that Search Profile.



2. When a Search Profile is deleted there will an opportunity to undo the deletion for a small period of time. To undo the deletion, click on the Undo button.





# **Copying a Search Profile**

Copies of the default Search Profiles may be modified to suit operational requirements.

1. To copy a Search Profile, click on Setup Scans on the Home screen and then highlight the Search Profile to copy, this will reveal a Copy button that when clicked creates a copy of that Search Profile.



2. Copying a profile will present the Define Search Profile screen. From here captures may be added/deleted or modified.

Cancel	Define Search Profile	
Name*		
Enter a name.		Capture
Notes Recover only m		Import Capture
Capture Groups	Captures	
APPLICATIONS	0/6 🗌 Calls 😮 🎭 🐿 🕲 🕲 😋 🗊	
CHILD EXPLOITATION	0/2 Emails 📴 🖄 🍇 S	
	2/4	
DEVICE DATA	0/6 💌 Messages 📮 🖸 😒 🧏 🕸 🐱 🔍 🕊 🗗 😒 📑 😒 🕐 💬 🗩 🖗 🔟 🖻 🔳	
DOCUMENTS	0/2 🗹 Saved Contacts 📴 💷 10 💷 🏨 📮 🔾 S 🎭 🖀 k 🕐 唑 🖢 S 두 🚱 🥥 🥥 🛫	
MULTIMEDIA	0/3	
USER DATA	0/4	
WEB BROWSERS	0/7	
	NEXT	



# **Exporting a Search Profile**

It is possible to create a Search Profile on one computer and export it so that it is available to be used in another computer. This allows the creation of a Search Profile that can be shared with other team members or creates a profile in the office to provide to staff who are conducting onsite examinations. An exported Search Profile can only be imported within the same version of Mobile Device Investigator and Triage Investigator.

1. To export a Search Profile, click on Setup Scans on the Home screen and then highlight the Search Profile to export and click the Export button that is revealed.



2. When the Export button is clicked, a folder browser dialog window will appear to select the location the exported profile will be saved. After a folder has been selected a message will be displayed when the exporting process is complete.

Exporting Search Profile	- 1
ОК	



3. Exported Search Profiles will be named after the Search Profile and contain a .profile file extension.

Name	Date modified	Туре	Size
Messages Only.profile	21/03/2019 10:49	PROFILE File	2 K



# **Importing a Search Profile**

1. To import a Search Profile, click on Setup Scans on the Home screen and then click on the Import Profile button.



2. Clicking on the import button will open a file browser dialog window; from here the profile to import can be selected. After the profile has been imported a message will be displayed to show the process has completed.

	Importing Search Profile Import completed	ľ
	ОК	
-		



# 9. Managing and creating File Captures

File Captures can locate and collect files based on their File Properties, included Keyword(s) or their Hash Value.

Captures are grouped within nine default Capture Groups:

Applications, Communication, Device Data, Documents, Intel Keywords, IPOC, Multimedia, User Data and Web Browsers.

# Hiding Default File Captures

To hide a Default Search Profile a file entitled config.json file must be edited, this is located by default at "\Users\<User Account>\AppData\Local\ADF Solutions Inc\ADF Mobile Device Investigator\config.json".

1. Whilst the ADF DEI program is not running open the JSON file in an editor of your choice (notepad will suffice)





2. Scroll to the "Display Default Captures" section and change the "show" value to "false" for the Capture to hide



3. Save the edited file

4. To display hidden Default Search Profiles change the "show" value from "false" to "true"



# Creating a New File Capture

Select Setup	Scans from the Home screen.	
_	ADF Mobile Device Investigator	
	oid/iOS Devices Android/iOS device or an Android/iOS advanced logical acquisition	
Acquire Ar Perform an advan	droid/iOS Devices ced logical acquisition of a connected Android/iOS device	
Review Sca Analyze scan resu	n Results Is and create reports	
Create and edit Se	S arch Profiles	
Settings Configure applica	ion's settings	
Open user guide		



#### 2. Click on the New Profile button in the Function Toolbar.



#### 3. Click on the New Capture button from the Function Toolbar.

Cancel	Define Search Profile	Quit
Name*		New Capture
Notes		Import Capture
Capture Groups	Captures	
APPLICATIONS	0/6 📃 Calls 🔇 🦫 🚰 🕓 🕓 🚱 💬 🇊	
CHILD EXPLOITATION	0/2 Emails 📴 🖂 🚉 🎬	
COMMUNICATION	0/4	
DEVICE DATA	0/6 Messages 😕 🖸 🛇 🧏 🏠 🕅 🕅 🚾 🖒 🛇 🐨 ⊅ 🎱 🗊 🗐 🛡	
	0/2 Saved Contacts 📴 💷 10 🖆 🏨 📮 🛇 S 🎭 🤷 🗟 🐼 💟 🕊 🖢 🛇 🥤 🗐 🤍 🖤	
MULTIMEDIA	0/3	
USER DATA	0/4	
WEB BROWSERS	0/7	
	NEXT	



### 4. Choose one of the four options below:



Option	Note	
Collect files	Search for and collect files based on their file type, properties and location.	
Search for keywords	Search for files by keyword(s) using substrings or regular expressions.	
Search for hash values	Search for files using MD5 or SHA1 hash values.	
Search for visual similarities	Searches for visually similar pictures to ones provided by the user and groups visually similar pictures together.	



# **Collect Files**

1.	

Type an existing Capture Group name or a new Capture Group name appropriate to the Capture.

oture Group Name* APPLICATIONS	Define Files to Collect Capture Name*	
le Types	Options	File Sources
All Files	Only detect files (no collection)	Entire file system
Specific Files	File identification method	Targeted folders
Archive	Fast identification	Files referenced by artifact records
Audio File	O Thorough identification for files without extensions	Deleted files
Binary File	O Thorough identification for all files	Carve pictures from Unallocated space
Database File	Search selected file types in	
Disk Image	Archive	
Document	Document	
Email File	Picture DB File	
Internet File	File Properties	
Mac Os Artifact	Include files when size is within boundaries	
Misc Artifact	4 B > < FILE SIZE <	100 < MB >
P2P File	Include pictures with width and height greater than	pixels
Picture	Include files when created timestamp is within boundaries	
Picture DB File	YYYY / MM / DD	YY / MM / DD
Text File	Include files when modified timestamp is within boundaries	_
Video	YYYY / MM / DD	YY / MM / DD
Windows Registry		
	ENTER ALL REOFIRED INFORMATION	

- 2.
- Type in a Capture Name which is not already in use.

apture Group Name* APPLICATIONS	Define Files to Collect	7 Prefetch Files
ile Types	Options	File Sources
All Files	Only detect files (no collection)	Entire file system
Specific Files	File identification method	Targeted folders
Archive	Fast identification	Files referenced by artifact records
Audio File	O Thorough identification for files without extensions	Deleted files
Binary File	O Thorough identification for all files	Carve pictures from Unallocated space
Database File	Search selected file types in	
Disk Image	Archive	
Document	Document	
Email File	Picture DB File	
Internet File	File Properties	
Mac Os Artifact	Include files when size is within boundaries	
Misc Artifact	d B ▷ < FILE SIZE <	100 4 MB >
P2P File	Include pictures with width and height greater than	pixels
Picture	Include files when created timestamp is within boundaries	
Picture DB File	YYYY / MM / DD	YY / MM / DD
Text File	Include files when modified timestamp is within boundaries	
Video	YYYY / MM / DD	YY / MM / DD
Windows Registry		



3. Pick a File Type: it is possible to specify which file types to include in the search. Searches for All Files or Specific Files are available. It is possible to add multiple specific file types. If the file type required does not exist it is possible to create one by clicking on View on any File Type group and then following the instructions within the Adding a Custom File Type section.

Cancel	Define Files to Collect			
Capture Group Name* APPLICATIONS	Capture Name* W7 Prefetch Files			
File Types	Options	File Sources		
All Files	Only detect files (no collection)	Entire file system		
Specific Files	File identification method	Targeted folders		
Archive	Fast identification	Files referenced by artifact records		
Audio File	O Thorough identification for files without extensions	Deleted files		
✓ Binary File Vew	O Thorough identification for all files	Carve pictures from Unallocated space		
Database File	Search selected file types in			
Disk Image	Archive			
Document	Document			
Email File	Picture DB File			
Internet File	File Properties			
Mac Os Artifact	Include files when size is within boundaries			
Misc Artifact	d B ⇒ < FILE SIZE <	100 4 MB >		
P2P File	Include pictures with width and height greater than	pixels		
Picture	Include files when created timestamp is within boundaries			
Picture DB File	YYYY / MM / DD	YY / MM / DD		
Text File	Include files when modified timestamp is within boundaries			
Video	YYYY / MM / DD T < LAST WRITTEN (UTC) < YY	YY / MM / DD		



4.	Select the Capture Options:
	Only detect files (no collection) The original files will not be collected but preview
	thumbnails of images are created.
	File identification method –
	Fast identification identifies file types using the file extension only
	Thorough identification for files without extensions uses file signature analysis to identify
	files that have no file extension and fast identification on those that do
	Thorough identification for all files uses file signature analysis to identify all files. This will
	increase the time the scan takes to run
	Search selected file types in -
	Archives Searches for all selected file types within archives
	Documents Searches for all selected file types embedded within Document file types
	Picture DB files Searches for all selected Picture file types within Windows thumbcache and
	thumbs.db files and Apple ithmb files

Options	
Only detect files (no collection)	
File identification method	
Fast identification	
O Thorough identification for files without extensions	
O Thorough identification for all files	
Search selected file types in	
Archive	
Document	
Picture DB File	



5. Select the File Properties for the File Collection:

**File Size** The left hand size specifies the minimum file size whilst the right hand size specifies the maximum file size. It is possible to specify Bytes, Kilobytes, Megabytes and Gigabytes by clicking on the arrows next to the size unit

Pixel size Limit the pictures collected by setting the minimum pixel width and heightCreated Date Specifies a UTC created date range for the selected file typesModified Date Specifies a UTC modified date range for the selected file types

File Properties	
Include files when size is within boundaries	
d B ▷ < FILE SIZE < 100	⊲ MB ⊳
nclude pictures with width and height greater than	pixels
nclude files when created timestamp is within boundaries	
YYYY / MM / DD TI < FILE CREATED (UTC) < YYYY / MM / DE	1
nclude files when modified timestamp is within boundaries	
YYYY / MM / DD	1

6. Select the File Source options: Entire file system Searches all live files **Targeted folders** May be used to limit the extent of the scan making it run quicker. These can be used to limit the search to areas where evidential material is likely to exist. In addition, Targeted folders are searched before other folders and are not searched again if both Targeted folders and Entire file system are selected. See the Targeted Folder section for more details Files referenced by artifact records Used to target files referenced by Artifact Captures (e.g. email attachments)" Deleted Files Targets deleted files for which references can still be found in the file system Carve pictures from Unallocated space This searches unallocated space and collects any picture files where the file header starts at a sector boundary. When the original size of the picture cannot be determined the following occurs: JPG files: the end of file is searched for in the following 30 MB after the header, if the end of the file cannot be detected the first 5MB is collected PNG and GIF files: the end of file is searched for in the following 5 MB after the header, if the end of file cannot be located no file is carved

BMP files are fully identified as the file size is in the header

File Sources Select a source.
Entire file system
Targeted folders
Files referenced by artifact records
Deleted files
Carve pictures from Unallocated space

7. When the required options are selected click the Save button.



#### Adding a Custom File Type

1. Within the File Types section click on View on any File Type group and then click the Add File Type button to add a new file type.

	Name	Extension	File Name	Header Byte Sequence	Parser	Add
]	Dynamic Link Library	dll		Internal definition	Default parser	File Type
	ELF Binary	SO		Internal definition	Default parser	
	Executable	exe		Internal definition	Default parser	
	Foo Test 1	foo	Enter file name	Enter byte sequence	Default parser	;
	Foo Test 2	Enter extension	FOO File	\xF1\xF2\xF3	Default parser	;
	Java Class	class		Internal definition	Default parser	
	Registry	dat	Enter file name	Enter byte sequence	Default parser	;

- 2. There are three options available to identify a file: Extension, File Name and Header Byte Sequence. It is a requirement to enter at least one of these options and when searching for a custom file by file name a header byte sequence has to be added.
- 3. Add the file extension by clicking on the Enter extension text box and adding the extension, it is not required to add a dot prior to the extension



4. Add the file name by clicking on the Enter file name text box and adding the file name. A header byte sequence also needs to be entered when searching for files using this criteria. This allows the addition of custom files that have no file extension, differing names but the same header byte sequence such as Windows registry files.



5. Add the header byte sequence by clicking on the Enter byte sequence text box and entering it as a regular expression e.g.- \x17\x00\x00\x53\x43\x43\x41).

× I



6. Add Parser type (document, image, text or video). If unknown - select Default Parser.



#### Adding Targeted Folders

1. Within the File Sources section highlight Targeted folders and click on View >. From here click the Include Folder button on the Function Toolbar.

Folders to Include		
.*/desktop/.*		Crder Delete
.*/ProgramData/Microsoft/Search/D	ata/Applications/Windows.*	
.*/MobileSync/Backup/.*		
	ОК	

2. Add the desired folder path represented by a regular expression. It is possible to use .\* characters to substitute for parts of the path that may vary or be unknown. Example .\*/desktop/.\* Example .\*/users/.\* Example /users/.\*/ntuser\.dat
When desired paths have been added click OK.



# Search for Keywords

When creating any Capture, a Capture Group and name must be provided for the Capture. See the Collect Files section for further details.

lancel	Define	Keyword Capture	Quit
apture Group Name* Enter a name.		Capture Name* Enter a name.	Import
Search Expressions nter search expressions Search Expression	Auto-Tag	Auto-Comment	Clear Table
Search Scope	No tag	Options	
Select a scope.		Search type:  Substring  Regular Expression	
Files content and metadata		✓ Collect matching files	
Artifact records from other Captures			

There are two ways to add keywords. They can be typed in individually or imported from a CSV file or text file, both of which can contain multiple keywords. See the section Importing a list of keywords for further help with importing keyword lists.



#### Adding a keyword manually

1. Keywords can be typed into the Search Expression field. A tag value (0-9) can be assigned and a comment (1000 characters maximum) for hits resulting from this keyword.

Adding a keyword will automatically add a new line for further keywords.

oture Group Name*		Capture Name*	
Enter a name.		Enter a name.	Import
earch Expressions			Clear Table
earch Expression	Auto-Tag	Auto-Comment	
New Keyword	1	Comment for new keyword	
Enter value	No tag	Delete	2
Search Scope elect a scope.		Options	
File and folder names		Search type:      Substring      Regular Expression	
Files content and metadata		✓ Collect matching files	
Artifact records from other Captures			
		SAVE	



#### Importing a list of keywords

1. It is possible to import a CSV file containing keywords and optional information about those keywords and it is also possible to import a list of keywords from a text file. Within the Define Keyword Capture screen press the Import button. This will open a file browser dialog.

pture Group Name*		Capture Name*	E
Enter a name.		Enter a name.	Import
earch Expressions			Clear Table
iearch Expression	Auto-Tag	Auto-Comment	Clear table
lew Keyword	1		کے elete
nter value	No tag	Enter comment	sete
eearch Scope		Options	
File and folder names		Search type:      Substring      Regular Expression	
Files content and metadata		Collect matching files	
Artifact records from other Captures			
		SAVE	

2. Within the file browser dialog select the keyword CSV file and click Open.

· 🛧 💻	> This PC	✓ Č Search This PC	Q
Organize 🔻			• •
Manual Pictures	^ ∨ Folders (6) Desktop	Documents	^
💱 Dropbox 🍊 OneDrive	Downloads	Music	
This PC	Pictures	Videos	
<ul> <li>Documents</li> <li>Downloads</li> <li>Music</li> <li>NAS-STORE</li> </ul>	Devices and drives (1) OS (C:) 37.8 GB free of 463 GB		
> 📄 Pictures > 📳 Videos > 🏪 OS (C:)	Vetwork locations (1) NAS-STORE		~
	File name:	CSV files (*.csv)	→ ancel



3. The CSV file must be in the following format:

The following column is required: **keyword**: the keyword to add

The following columns are optional: auto-tag: the tag to automatically assign to keyword hits (numbers 1-9 to only) auto-comment: the comment to assign to keyword hits (1000 characters maximum)



4. The text file must be in the following format:

The text **keyword** must be on the first row of the text file, one keyword per row thereafter.



5. Once imported the table is populated with the keywords, and a dialog box is displayed showing the number of keywords imported, and if there were any errors, such as duplication or improper formatting.

Cancel	Define Keyword Capture	Que
apture Group Name*	Capture Name*	Import
1	error(s)	
Artifact records from other Captur	OK	



# **Deleting and Clearing Keywords**

#### 1. To delete a single keyword, highlight the keyword to delete and click the Delete button.

apture Group Name*		Capture Name*	
Enter a name.		Enter a name.	Import
earch Expressions			
Search Expression	Auto-Tag	Auto-Comment	
New Keyword	1	_Comment for new keyword	e
Enter value	No tag	Enter comment	
Search Scope		Options	
File and folder names		Search type:      Substring      Regular Expression	
Files content and metadata		Collect matching files	
Artifact records from other Captures			

2. To delete all keywords click the Clear Table button on the function toolbar.

pture Group Name*		Capture Name*	
Enter a name. earch Expressions		Enter a name.	Im
Search Expression	Auto-Tag	Auto-Comment	Clea
New Keyword	1	Comment for new keyword	Delete
Enter value	No tag	Enter comment	Delete
Search Scope		Options	
File and folder names		Search type:      Substring      Regular Expression	
Files content and metadata		Collect matching files	
Artifact records from other Captures			
		SAVE	



# Search Scope

The Search Scope options detail where the capture searches for keywords.

Search Scope	
File and folder names	
Files content and metadata	Define files
Artifact records from other Captures	

Option	Function
File and Folder Names	Keywords are searched for in file and folder names
File Content and Metadata	Keywords are searched for within the content of each file and any associated file metadata. The user must define the files to be searched by clicking on the Define Files button (see Collect Files section)
Artifact records from other Captures	Keywords are searched for in other Capture results e.g. browsing history


# Options

The Keyword Options allows the selection of Substring or Regular Expression keyword search types and the option to collect matching files.

Option	Function
Substring	The keyword is searched for exactly as it is shown in the keyword list and can be part of a longer string of data i.e. Searching for the character string <i>pot</i> would find any text string containing those three (3) letters in that order for example pot, pots, potting, potter, spot, spots, spotting, spotter, spotted, potent, potentate, teapot, tinpot, etc.
Regular Expression	Allows for complex search terms using the Regular Expression search pattern language (See Appendix A - RegEx Cheat Sheet) to be entered into the Search Expression field.
Collect Matching Files	Selecting this will collect the file in which the keyword was found.



Search for Hash Values Screen

# Search for Hash Values

Cancel	Define Hash Values	Quit
Capture Group Name* Enter a name. Hash List Add hash values. Hash values in this Capture: 0	Capture Name * Erter a name.	Add Files Integrat Integrat Utgate Utgate Integrat Utgate Integrat I
	NEXT	

There are three (3) ways to add Hash Values to a Hash Capture. It is possible to hash files located in a folder; import a CSV format or text file containing multiple hash values; or import a project VIC formatted JSON file. The CSV/text file must contain at least 1 column header entitled either md5 or sha1. The CSV file can optionally include columns for file size, category, auto-tag and auto-comment (see Import CSV section for further details). Using file sizes for all the hash values may shorten the scan time.



#### Add Files

Mobile Device Investigator can create a hash set from all files in a folder by clicking on the Add Files button on the Function Toolbar and navigating to and selecting the folder containing the files.

1.	Within the search for hash files screen click the Add Files button.

Capture Group Name*	Capture Name*	
Enter a name.	Enter a name.	Add Files
Hash List Add teath values. Hash values in this Capture: 0		
		Remove A
	NEXT	

2. This will bring up a folder browser dialog, selecting a folder will hash all of the files within that folder and any sub folders.

→ ▼ ↑ → This PC	> home (\\nas-stor	re) (Y:) > Data Sets		✓ Ö Search [	Data Sets	م ر
ganize 🔻 New folder						- ?
This PC	^	Name	Date modified	Туре	Size	
3D Objects		Picture Data	11/10/2018 14:41	File folder		
Desktop		Sample Pictures	22/03/2016 11:27	File folder		
Documents		Sample Videos	22/03/2016 11:10	File folder		
Downloads						
Music						
Pictures						
📑 Videos						
S (C:)						
🖋 sblive (D:)						
🔗 CAINE (E:)						
🕳 Virtual Machines (F:)	~					
Folder: San	mple Pictures					
				Select F	older C	ancel



3. After selecting a folder it is possible to automatically assign a tag and comment to all files identified during a scan that have hash values matching the files in the folder. Clicking the OK button will hash the files in the selected folder.

Cancel	Define Hash Values	Quit
	Assign Tags and Comments	
	Assign a tag automatically to this hash set?	
	No tag	
	2 - Level 2 3 - Level 3 4 - Level 4	
	5 - Level 5 6 - Level 6 7 - Level 7	
	8 - Level 8 9 - Level 9	
	Assign a comment automatically to this hash set?	
	ОК	
	NEXT	
		_

4. When all files have been hashed a message will be displayed showing the result of the file hashing.

ancel	[	Define Hash Values	Quit
apture Group Name*	DOCUMENTS	Capture Name* IP Theft Documents	Add Files
	Computation complete	d.	
	2/2 0 error(s)		
		OK	



## Import List

Click on the Import List button on the Function Toolbar and navigate to the csv or text file. The dialog box defaults to search for csv files, choose All Files (\*) from the file type selector to select a text file.

1. Within the search for hash files screen press the Import List button.



 The CSV file must be in the following format:
 One of the following columns are required: md5: hash value as a 32 character hexadecimal string sha1: hash value as a 40 character hexadecimal string (base-16 SHA-1) or a 32 character string (base-32 SHA-1)

The following columns are optional: file size: the size of the file in bytes auto-tag: the tag to automatically assign (numbers 1-9 to only) auto-comment: the comment to assign to the file (1000 characters maximum)

	А	В	С	D
1	md5	file size	auto-tag	auto-comment
2	146826FB97638B6B3ADFA628CAD89C19	1438	1	Text file containing IP



3. When a CSV file is selected, a message will be displayed if the import has been successful. A warning message will be displayed if the CSV file is incorrectly formatted.

Cancel	Defi	ne Hash Values		Quit
Capture Group Name*		Capture Name*		Add Files
	Import completed.			_
	0 error(s)			_
				_
		ОК		
-				



#### **Import VICS**

It is possible to import Project Vic formatted JSON files containing hash values. Project VIC JSON files containing category information will auto-tag matching files during a scan with that category number.

1. Within the search for hash files screen press the Import VICS button. This will open a file browser dialog window for selection of the JSON file.



2. A message will be displayed showing the outcome of the import. If the JSON format is unsupported a warning will appear here.

ancel	Define Hash Values	Quit
apture Group Name*	Capture Name*	Add Files
Impo	rt completed.	
11		
U er	ror(s)	
	ОК	
	ENTER ALL REQUIRED INFORMATION	



#### **Remove Hash Values**

It is possible to remove all of the hash values stored within a hash value file capture.

1. Within the search for hash files screen click the Remove All button.

Cancel	Define Hash Values	Quit
Capture Group Name* DOCUMENTS	Capture Name* IP Theft Documents	
Hash List		Add Files
Hash values in this Capture: 25		Import CSV Import VICS
		Import VICS
		Remove Al
	NEXT	



# **Search for Visual Similarities**

The search for visual similarities Capture allows the identification of visually similar images to ones already possessed. When reviewing the output of this Capture pictures will be sorted based on how similar they are to the set of pictures possessed, this also has the effect of roughly grouping together pictures that are themselves similar even if they do not match any of the pictures in the Capture

	Search for Visual Si	milarities Screen	
Cancel	Define Photo	DNA set	Quit
Capture Group Name*	Capt	ture Name*	Add Files
PhotoDNA Set	File Types		Add Files
Add PhotoDNA values. PhotoDNA values in this Capture: 0	✓ Pictures	All pictures collected during the scan by the other Captures	
	SAVE		



## **Add Files**

The Capture requires that at least one picture be added. There is no limit on how many pictures can be added but it will significantly slow down the scan if a large number of pictures are added.

1. After providing a Capture Group Name and a Capture Name press the Add Files button.

Cancel	Define Photo	JINA SEL	Quit
Capture Group Name* Photos	Captu	ure Name* Place of Interest	Add Files
PhotoDNA Set	File Types	File Sources	
Add PhotoDNA values. PhotoDNA values in this Capture: 0	✓ Pictures	All pictures collected during the scan by the other Captures	Temose Al

2. This will bring up a folder browser dialog, selecting a folder will add any picture files contained within it to the Capture, non-picture files are ignored.

→ < ↑ -> This	PC → Documents	> ADF > Test			√ 0	earch Test		P
rganize 🔻 🛛 New folder							8:: •	0
ADF 💉 ^	Name	^	Date modified	Туре	Size			
ADF 🖈	PhotoDNA		16/02/2018 11:22	File folder				
Documents								
Guides								
Images Temp								
Registry Test								
💱 Dropbox								
ConeDrive								
This PC								
3D Objects Desktop								
Documents								
Documents								
Music								
Pictures								
Videos								
S (C:)								
Virtual Machines								
CKY (E:)								
Corsair (F:) V								
Folder:	PhotoDNA							
						elect Folder	Cance	
						recerronder	Cance	· ·



3. After selecting a folder a results screen will show how many pictures have been added and if there are any errors or warnings (such as a file not being a picture).

ancel	Define Ph	notoDNA set		
apture Group Name*	PhotoDNA	Capture Name* People of	Interest	Add Files
	Computation completed			
	PhotoDNA values computed: 1 Warnings/errors: 0			_
	Hannings, and is o			_
				_
				_
				_
		OK		
		OK		_
	SAV		_	



## **Remove All Files**

1. To remove pictures from the Capture press the Remove All button.





#### **Reviewing Visual Similarity Results**

1. The following picture was added to a Search for Visual Similarities Capture.



2. The folder that was scanned contained an exact copy of this picture, slightly edited versions of the picture, pictures of the same building from slightly different angles and pictures of the same building downloaded from the Internet.







3. When reviewing the results of this capture the pictures displayed are sorted by PhotoDNA score. Pictures that have the highest PhotoDNA score are presented first.

In this example the Capture identified the exact picture as the first result followed by the edited picture and those from slightly different angles. Pictures containing similar buildings scored highly followed by pictures which scored lower on visual similarity.





# **Editing a File Capture**

It is possible to edit any user created File Capture, it is not possible to edit any default File Captures, however, default File Captures can be copied and the copies edited.

1. To edit a File Capture, click on Setup Scans on the Home screen and then edit any user created Search Profile. Highlighting the File Capture to be edited will reveal an Edit button that when clicked allows editing of the File Capture.

Cancel	Define Search Profile	Quit
Name* Custom Profile	1	New
lotes		Capture
Categories	Captures	Capture
APPLICATIONS	1/7 Application Usage 🕂 🗶	
COMMUNICATION	0/4 Cryptocurrency Traces	
DEVICE DATA	0/6 🖸 Custome File Capture 1	
DOCUMENTS	0/2 Export Delete Copy Edit	
IPOC	0/2 Installed Applications 🕂 🗙 iOS	
MULTIMEDIA	0/2 📃 P2P Files Shared or Downloaded 🛛 🎽 🕹 🛞 🚫 🖻	
USER DATA	0/4 🗌 P2P Search Terms 🞽 🔶 🙊	
WEB BROWSERS	0/7 Remote Access Traces	
	NEXT	



# **Deleting a File Capture**

It is possible to delete any user created File Capture, it is not possible to delete any default File Captures.

1. To delete a File Capture, click on Setup Scans on the Home screen and then edit any user created Search Profile. Highlighting the File Capture to delete will reveal a Delete button that when clicked deletes the File Capture.

ancel		Quit
Name* Custom Profile	1	New
Notes		Capture
		Import Capture
Categories	Captures	
	1/7 Application Usage	
	0/4 Cryptocurrency Traces	
DEVICE DATA		
DOCUMENTS	✓     Custome File Capture 1       Ø/2     ✓	
IPOC	$_{0/2}$ Installed Applications $\blacksquare X$ iOS	
MULTIMEDIA	0/2 📃 P2P Files Shared or Downloaded 🛛 🛓 🔶 🕲 💽 🖻	
USER DATA	0/4 🗌 P2P Search Terms 🎽 🔶 🙊	
WEB BROWSERS	0 / 7 Remote Access Traces	
	NEXT	



# **Copying a File Capture**

It is possible to copy any user created File Capture and any default File Captures.

1. To copy a File Capture, click on Setup Scans on the Home screen and then edit any user created Search Profile or create a new Search Profile. Highlighting the File Capture to copy will reveal a Copy button that when clicked creates a copy of the File Capture. The appropriate File Capture definition view will appear with all of the File Captures current settings selected, a new name has to be provided for this File Capture.

Cancel		Define Search Profile	Quit
Name*			New Capture
Notes			Import
Capture Groups		Captures	Capture
APPLICATIONS	0/11	Apple Lockdown Files Collection	
CHILD EXPLOITATION	0/8	🗌 Calls 😒 🦫 🜇 🕓 💟 🗐 🗊	
	1/9 0/10	Custom File Capture	< 🗗 🖉
DEVICE DAIA	0/10	🗌 Emails 📴 🖂 🔄 😻 🏴	Export Delete Copy Edit
INTEL KEYWORDS	0 / 11	Messages 📮 🖸 S 🎭 🚳 🚺	) w b \$ f \$ 0 =
MULTIMEDIA	0/21	Saved Contacts 📴 🛐 10 🔳 🕦	
USER DATA	0/5	Skype - Media_cache Folder	
WEB BROWSERS	0/7	Skype Received Files	
		iOS MobileSync Collection	
		NEXT	



# **Exporting a File Capture**

It is possible to export any user created File Capture, it is not possible to export default file captures. Exporting a File Capture creates a file with a CAPTURE file extension. This can then be imported into another instance of Mobile Device Investigator, this must be the same version as the instance used to export the File Capture.

1. To export a File Capture, highlight the user created capture to export then click on the Export button. This will open a folder browser dialog window to select the location where the exported capture will be saved.



2. After selecting a folder for the capture to be saved to a message will be displayed showing the outcome of the File Capture export.

Exporting Capture Export completed	
OK	



# Importing a File Capture

Exported File Captures can be shared and imported into Search Profiles in other instances of Mobile Device Investigator, provided the same version of Mobile Device Investigator is used.

1. To import a File Capture, click on the Import Capture button within the function toolbar of the Define Search Profile screen. This will open a file browser dialog window to select the File Capture to import.

Categories       Captures         APPLICATIONS       1/7       Application Usage         COMMUNICATION       0/4       Cryptocurrency Traces         DEVICE DATA       0/6         DOCUMENTS       0/2         IPOC       0/2         Installed Applications         MULTIMEDIA       0/2	otes		New Capture
<ul> <li>APPLICATIONS</li> <li>1/7</li> <li>Application Usage ↓ ×</li> <li>COMMUNICATION</li> <li>O/4</li> <li>Cryptocurrency Traces</li> <li>DEVICE DATA</li> <li>O/6</li> <li>DOCUMENTS</li> <li>O/2</li> <li>Custome File Capture 1</li> <li>Custome File Capture 1</li> <li>IPOC</li> <li>O/2</li> <li>Installed Applications ↓ × iOS</li> <li>MULTIMEDIA</li> <li>O/2</li> <li>P2P Files Shared or Downloaded × ♥ ♥ ♥ ♥ €</li> </ul>		Captures	Import Capture
COMMUNICATION       0/4         DEVICE DATA       0/6         DOCUMENTS       0/2         IPOC       0/2         MULTIMEDIA       0/2         P2P Files Shared or Downloaded       \$	-		
DEVICE DATA       0/6         DOCUMENTS       0/2         IPOC       0/2         Installed Applications       ↓ × iOS         MULTIMEDIA       0/2         P2P Files Shared or Downloaded       ▲ ♦ ♥ ♥ ♥ €	COMMUNICATION	0/4	
DOCUMENTS     0/2       IPOC     0/2       INStalled Applications     ↓ X iOS       MULTIMEDIA     0/2       P2P Files Shared or Downloaded       X 🕹 🛞 (V) C	DEVICE DATA	0/6	
MULTIMEDIA 0/2 P2P Files Shared or Downloaded 🔬 🔶 🛞 🕓 🖻	DOCUMENTS	0/2 Custome File Capture 1	
	IPOC	0/2 Installed Applications 🕂 🗙 iOS	
	MULTIMEDIA	0/2 📃 P2P Files Shared or Downloaded 🛛 🎽 🕹 🛞 💽 💽	
OSER DAIA 074 P2P Search Terms 🔬 🔶 👰	USER DATA	0/4	
WEB BROWSERS 0/7 Remote Access Traces	WEB BROWSERS	0/7	

2. After selecting the File Capture to import a message will be displayed showing the outcome of the File Capture import.

Importing Capture Import completed			ľ
	ОК	I	



# **Referenced Files Capture**

The Referenced Files Capture targets files referenced by the P2P, Email, Messages, Recent files, Browser Cache and Download History captures. E-mail attachments can be linked to its message or a picture to a jump list entry.

This Capture is located in the Documents file capture group.

Categories	Captures
APPLICATIONS	6 / 11 Office Documents Comprehensive - speed optimized
	7/9 Office Documents Comprehensive thorough ID
DEVICE DATA	5 / 10
	2 / 4
INTEL KEYWORDS	0 / 11 Referenced Files



# **10.** Acquiring Android and iOS Devices

The application can be used to create backups of Android and iOS devices. Backups can be scanned using the application at a later date.

1.

Click on the Backup Android and iOS Devices button on the Home screen.



2. Select the mobile device to be backed up, clicking on the Source combo box will display a list of attached mobile devices. If no device is available but one is connected, clicking the Add Phone button will start the process for adding it.

K Back	Enter Information	Quit
Source*	LGE - Nexus 5X (Android - 8.1.0)	L Add Phone
Destination *	C:\Users\Stuart\Documents\ADF\Phone Backup	
Image Name*	s 5X (Android - 8.1.0)(00a68a2d0b7e4ee4) 2019-07-09 14-45-44	
	IMAGE	



# 3. Enter a destination for the image. Clicking on the "..." button will show a folder browser dialog box to select a destination folder.



4. Add the name for the backup; a default name is supplied on selecting a device.

Back	Enter Information	Quit
Source*	LGE - Nexus 5X (Android - 8.1.0)	Add Phone
Destination *	C:\Users\Stuart\Documents\ADF\Phone Backup	
Image Name*	ıs 5X (Android - 8.1.0)(00a68a2d0b7e4ee4) 2019-07-09 14-47-1	13
		-
	IMAGE	



5. When all of the details have been entered, clicking the Image button will start the backup process.

K Back	Enter Information	Quit
Source*	LGE - Nexus 5X (Android - 8.1.0)	Ç Add Phone
Destination *	C:\Users\Stuart\Documents\ADF\Phone Backup	
Image Name*	s 5X (Android - 8.1.0)(00a68a2d0b7e4ee4) 2019-07-09 14-47-58	
	IMAGE	

6. The backup process will begin. When complete, the user will be informed. Click the OK button to return to the Home Screen.

Creating device backup	Quit
LGE - Nexus 5X (Android - 8.1.0)	
Time elapsed: 56s Backup size: 182.2 MB	



# 11. Mobile Device Screenshots

ADF

Screenshots of iOS and Android mobile devices can be taken when creating a backup or scanning a mobile device with a Search Profile containing the Screenshot Capture. Screenshots can have user notes associated with them and text identified within the screenshot will be extracted.

The Screenshots Capture is located in the Applications Capture Group:

	Screenshots Capto	ure
~	Screenshots   🏟 iOS	
	📫 Google Android	iOS Apple iOS

# **Screenshots During Backup Creation**





Image Attached Devices Image hard drives, connected media and perform an advanced logical acquisition of an Android/iOS device

2. Add the mobile device by clicking on the Add Phone button and following the wizard (see adding Mobile Devices section) and selecting it from the Source combo box

< k	Enter Information	Quit
urce*		Add Phone
stination*	HUAWEI - EML-L09 (Android 9)	
	NVMe THNSN5512GPUK NV - 476.9GB	
age Name*	Mandatory field. Enter a value.	
	IMAGE	



# 3. Enter a Destination for the backup and an Image Name and click the Image button

Back	Enter Information	Quit
Source*	HUAWEI - EML-L09 (Android 9)	Add Phone
Destination*	C:\Users\Stuart\Documents\ADF\Phone Backup	
Image Name*	HUAWEI - EML-L09 (Android 9)(BPN0218403001006) 2020-04-27 10-21-55	
	IMAGE	

4. The Screenshots Capture view is presented, instructions for taking screenshots are present within this screen

kons icreenshots (0)	S	creenshots Capture	Que
	Scr	reenshots Area	
Device: HUAWEI - EML-L09 (Android 9) icreenshot group*: Default Group	Tale Screenshot	How to Take Screenshots 1. On the mobile device, navigate to a relevant app and screen 2. On this screen, enter a group name corresponding to the app on the mobile device 3. Add comments (optional) 4. Click on the Take Screenshot button to collect a copy of what is displayed on the mobile device 5. Go back to step #1 to collect more screenshots 6. Click FINISH to save the screenshots and go to the Home page, or 7. Click CONTINUE to save the screenshots and move to the advanced logical acquisition 8. Click Home to discard the screenshots and go to the Home page	
		FINISH	



5. When taking a screenshot by clicking the Take Screenshot button, whatever is displayed on your mobile device is captured, the screenshot taken is displayed in the Screenshots Area. The name of the screenshot is the value entered in the Screenshot group with an auto-incremented number appended to the end



6. To delete a screenshot highlight it in the Screenshots Area and click the Delete button that appears





7. Clicking the Home button will return to the Home screen and discard all screenshots. Clicking the CONTINUE button will carry out the logical extraction of the mobile device. Clicking the FINISH button will save the Screenshots; these can then be processed to extract text content





# **Screenshots During Scan Device**

1. Click the Scan Devices and Images button on the Home Screen

 Scan Devices and Images

 Scan Android/iOS devices, memory cards, external hard drive, flash drive, folder or drive image

2. Add the mobile device by clicking on the Add Phone button and following the wizard (see adding Mobile Devices section) and selecting it from the Target Devices list



3. Select a Search Profile containing the Screenshots Capture. All default Mobile Devices Search Profiles contain the Screenshots Capture

# Search Profile Mobile Devices - Screenshots Manually collect screenshots from the mobile device then process the screenshots to extract textual information that can be used for keyword searching and entity extraction/translation (with Rosoka add-on). Mobile Devices - General Profiling Comprehensive scan - Runs all relevant mobile device artifact Captures, collects allocated, and embedded pictures, videos and frames from videos over 500M... Mobile Devices - Child Exploitation Comprehensive scan - Runs all relevant mobile device artifact Captures, collects allocated, and embedded pictures and videos and frames from videos ove...



# 4. Enter the Scan Information then click the Scan button to bring up the Screenshots view

Scan Name*	Scan 2020-04-2	27 12-24-21	
	۵	<u>م</u>	~
Scan Date*	2020	April	27
	$\bigtriangledown$	$\nabla$	$\bigtriangledown$
			<u>م</u>
Scan Time*	12	24	21
	$\bigtriangledown$	$\nabla$	$\nabla$
Test			
Examiner*	Stuart		

5. Taking screenshots uses the same procedure described in the Screenshots During Backup Creation section. There is no Finish button, clicking the Continue button will run the selected Search Profile on the mobile device

	Screenshots Capture
reenshots (0) Sc	creenshots Area
evice: HUAVEI - EML-L09 (Android 9) creenshot group*: Default Group creenshot name: Default Group_001 Comments: Comments:	How to Take Screenshots 1. On the mobile device, navigate to a relevant app and screen 2. On this screen, enter a group name corresponding to the app on the mobile device 3. Add comments (optional) 4. Click on the Take Screenshot button to collect a copy of what is displayed on the mobile device 5. Go back to step #1 to collect more screenshots 6. Click CONTINUE to save the screenshots and move to the scan screen 7. Click Home to discard the screenshots and go to the Home page



# **Reviewing Screenshots**

Clicking on Screenshots within the Summary screen will load the Screenshots view.



1. The left hand pane shows the Screenshot Group names entered when the screenshots were taken



2. Clicking on a Screenshot Group name will show a gallery of screenshots taken under that name

Chatous Instagram Kik Line LivU Messages	1 1 2 1 1 2 2		]		Search Tables Fiter Zoom
Propertie	s Entities	Preview	Textual Content	Ŕ	Tags
Preview		Name	Messages_002		Commer
Group	Messages	Timestamp	2020/04/28 13:30:59	Open wit	•
Textual Content	13:30 all vodafone UK & me < View all			Save as	Classifie
Entities	ORG>vodafone united kir PLACE>gaza (1) TIMESPAN>morning now TIMESTAMP>2000-01-01T1	(1)			
Origin	Allocated	Source	Apple iOS		
Auto-Tagged	No	Captures	Screenshots		(i) Detail



3. Clicking on a screenshot in the gallery will update the Details pane. The Properties tab will show details associated with the screenshot such as the name, the date/time the screenshot was taken and any user entered comments



4. The Preview tab will show a full size image of the screenshot





5. The Textual Content tab will show any text information that was extracted from the screenshot. The textual content may not accurately reflect the text that was present on screen at the time and some text may not have been identified. It is possible to use the Search Tables function to search for any text that has been extracted from screenshots. Keyword search captures can also search extracted text within screenshots if Artifact records from other Captures is selected within the Keyword search capture's Search Scope



## 6. Screenshots can be tagged like any file or record



# 12. Glossary

Term	Meaning	
Artifact	A digital record created by a computer process.	
Artifact Capture	An automated process that collects and analyzes artifacts on the target device.	
Authentication Key	A USB device that contains the license file for Mobile Device Investigator	
BIOS	BIOS (basic input/output system) is the program a personal computer's microprocessor uses to get the computer system started after it is powered on.	
Carving	Recovering data that has been deleted and no longer referenced by the file system. This is done by searching for file signatures within unallocated space.	
Collection Key	A bootable USB device used to conduct a Boot Scan or Live Scan and collect and store the scan results.	
Encryption	Data encryption translates data into another form, or code, so that only people with access to a secret key or password can read it.	
Evidence Image File	A forensic image is a container that is used to store a digitally identical copy of the target media.	
File Capture	An automated process that collects files based on file properties and or keywords and or hash values.	
File Extension	A file extension is typically 3 characters after the full stop in a file name. The extension identifies the file type.	
File Header	Generally a short sequence of bytes placed at the beginning of the file used to identify the format of the file.	
File System	A File System is used to control how data is stored on and retrieved from digital storage devices.	
Firmware	Firmware is a software program or set of instructions programmed onto a hardware device. It provides the necessary instructions for how the device communicates with the other computer hardware.	
Gigabyte (GB)	A gigabyte (also referred to as GB) is a unit of data equal to 1,000,000,000 bytes of data.	
Hash Hash Value Hashing	A hash value is a numeric value of a fixed length that uniquely identifies data. Hash values are useful to prove that computer data has not changed or to quickly identify certain known files.	
HTML	Hyper Text Markup Language (HTML) is the standard markup language for creating web pages and web applications.	

Term	Meaning
Kilobyte (KB)	A Kilobyte (KB) is a unit of data equal to 1,024 bytes.
Logical Drive	A logical drive is a drive space that is created on top of a physical hard disk drive. A logical drive is a separate partition with its own parameters and functions, and it operates independently. A logical drive can also be called a logical drive partition or logical disk partition.
Megabyte (MB)	A Megabyte (MB) is a unit of data equal to 1,048,576 bytes.
Partition	A partition is a section of a hard disk that is treated as a separate unit by operating systems and file systems.
Physical Disk	A physical disk (also known a hard disk drive) is a data storage device used for storing and retrieving digital information using one or more rigid rapidly rotating disks (platters) coated with magnetic material.
Pixel	The <i>pixel</i> (a word invented from "picture element") is the basic unit of programmable color on a computer display or in a computer image file.
Regular Expression (Regex)	Regular expressions enable users to create complex search terms following the Regular Expression search pattern language and specify what to do when each pattern match is found.
Search Profile	A compilation of Artifact Captures and File Captures used to scan a target device.
Solid State Drive (SSD)	A data storage device containing non-volatile flash memory, used in place of a hard disk drive for its much greater speed.
Standalone Viewer	Mobile Device Investigator's tool that enables the export of Scan Results for review and analysis on another computer without requiring a license.
Substring	A string of characters or symbols that is part of a longer string or characters or symbols.
UEFI (Unified Extensible Firmware Interface)	Unified Extensible Firmware Interface (UEFI) is a specification that defines a more modernized model for the interface between computer operating systems and platform firmware during the boot, or start-up, process.
Unallocated	Unallocated clusters (also referred to as unallocated space or free space) are the available drive storage space that is not allocated to file storage by a volume. Unallocated clusters can be a valuable source of evidence in a computer forensics examination because they can contain deleted files or remnants of deleted files created by the Operating System and / or computer users.
USB (Universal Serial Bus)	A hardware interface for attaching peripherals to a computer.



Term	Meaning
Volume	A volume or logical drive) is a single accessible storage area with a single file system, typically (though not necessarily) resident on a single partition of a hard disk.

# Appendices

# **Appendix A - RegEx Cheat Sheet**

# • regularexpressions

Anchors		Sample Patterns				
^	Start of line +	([A-Za-z0-	9-]+)	Letters, numbers and hyphens		
\A	Start of string +		\d{1,2}\/\d{4})	Date (e.g. 21/3/2006)		
\$	End of line +		=\.(jpg gif png))\.\2)	jpg, gif or png image		
١Z	End of string +		}\$ ^[1-4]{1}[0-9]{1}\$ ^50\$)	Any number from 1 to 50 inclusive		
\b	Word boundary +	(#?([A-Fa-	f0-9]){3}(([A-Fa-f0-9]){3})?)	Valid hexadecimal colour code		
∖B	Not word boundary +	((?=.*\d)(	?=.*[a-z])(?=.*[A-Z]).{8,15})	8 to 15 character string with at least one		
\<	Start of word			upper case letter, one lower case letter,		
>	End of word			and one digit (useful for passwords).		
		(\w+@[a-zA-Z_]+?\.[a-zA-Z]{2,6})		Email addresses		
Character Classes		(\<(/?[^\>]+)\>)		HTML Tags		
\c	Control character	Т	hese patterns are intended for referer	ice purposes a	and have not been extensively tested.	
\s	White space	Note Please use with caution and test thoroughly before use.				
\s	Not white space					
\d	Digit	Quantifiers		Ranges		
\D	Not digit	Quantinei		runges		
\w	Word	*	0 or more +	8	Any character except	
\W	Not word	*?	0 or more, ungreedy +		new line (\n) +	
\xhh	Hexadecimal character hh	+	1 or more +	(a b)	a or b +	
\Oxxx	Octal character xxx	+?	1 or more, ungreedy +	()	Group +	
710		?	0 or 1 +	(?:)	Passive Group +	
POSIX Character Classes		??	0 or 1, ungreedy +	[abc]	Range (a or b or c) +	
		{3}	Exactly 3 +	[^abc]	Not a or b or c +	
[:upper:]	Upper case letters	{3,}	3 or more +	[a-q]	Letter between a and q +	
[:lower:]	Lower case letters	{3,5}	3, 4 or 5 +	[A-Q]	Upper case letter +	
[:alpha:]	All letters	{3,5}?	3, 4 or 5, ungreedy +		between A and Q +	
[:alnum:]	Digits and letters			[0-7]	Digit between 0 and 7 +	
[:digit:]	Digits	Special Ch	aracters	\n	nth group/subpattern +	
[:xdigit:]	Hexadecimal digits					
[:punct:]	Punctuation	1	Escape Character +	Note	Ranges are inclusive.	
[:blank:]	Space and tab	\n	New line +		-	
[:space:]	Blank characters	\r	Carriage return +	-		
[:cntrl:]	Control characters	\t	Tab +	Pattern	Modifiers	
[:graph:]	Printed characters	\v	Vertical tab +		And an	
[:print:]	Printed characters and	\f	Form feed +	g	Global match	
	spaces	\a	Alarm	i	Case-insensitive	
[:word:]	Digits, letters and	[\b]	Backspace	m	Multiple lines	
	underscore	\e	Escape	S	Treat string as single line	
		\N{name}	Named Character	x	Allow comments and	
Assertions					white space in pattern	
?=	Lookahead assertion +	String Rep	placement (Backreferences)	e U	Evaluate replacement	
r	Negative lookahead +	¢n	ath page page	- 0	Ungreedy pattern	
?<=	Lookbehind assertion +	\$n ¢2	nth non-passive group			
?!= or ? </td <td>Negative lookbehind +</td> <td>\$2 \$1</td> <td>"xyz" in /^(abc(xyz))\$/</td> <td>Metacha</td> <td>aracters (must be escaped)</td>	Negative lookbehind +	\$2 \$1	"xyz" in /^(abc(xyz))\$/	Metacha	aracters (must be escaped)	
?>	Once-only Subexpression		"xyz" in /^(?:abc)(xyz)\$/	~	Ĩ	
?()	Condition [if then]	\$` \$'	Before matched string	\$	ل . ۲ *	
?()	Condition [if then else]	\$+	After matched string Last matched string	\$ (	{ * \ +	
?#	Comment	\$ <del>+</del> \$8.	Entire matched string	)	\ +   ?	
• *	comment	\$_ \$_	Entire input string		>	
Them	ne marked + should work in meet	₽_ \$\$	Literal "\$"		-	
	ns marked + should work in most ular expression implementations.	ዋዋ	Literal p		Available free from	