



# FTK SUITE 8.2 SP2 - ARTIFACTS GUIDE

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## About Exterro

Exterro was founded with the simple vision that applying the concepts of process optimization and data science to how companies manage digital information and respond to litigation would drive more successful outcomes at a lower cost. We remain committed to this vision today. We deliver a fully integrated Data Risk Management platform that enables our clients to address their privacy, regulatory, compliance, digital forensics, and litigation risks more effectively and at lower costs. We provide software solutions that help some of the world's largest organizations, law enforcement and government agencies work smarter, more efficiently, and support the Rule of Law.

## 1 Supported Chat Apps

Application	Android	iOS
Android Messages	13.0.10.73	<i>Not Applicable</i>
Discord	176.21	176
Facebook messenger	406.0.0.13.115	412
Google Meet/chat	177.0.485451249.duo.android_20 221002.73_p3.s	6.0.230417
IMOPlus	2023.04.2051	2023.4.5
Instagram	281.0.0.19.105	281
iOS Messages (iOS)	<i>Not Applicable</i>	iOS 14.0
KakaoTalk	10.1.8	10.1.8
Kik	15.51.1.28280	16.9.3
Line	13.6.1	13.6.1
LinkedIn (Chats)	4.1.818.1	9.1.318
Microsoft Teams (Chats)	1416/1.0.0.2023072702	5.8.0
Signal	6.19.6	0.417
Skype	8.96.0.409	Supported
Slack	23.04.40.0	Supported
Snapchat	12.33.0.19	Supported

Application	Android	iOS
Telegram	9.6.5	9.6.3
Threema	5.0.5	Supported
TikTok	<i>Not Applicable</i>	<i>Not Applicable</i>
Tinder (Partial Support)	13.21.1	Supported
Twitter (Chats, Posts, and Tweets)	9.87.0-release.0	9.56.1
Uber (Cached Data)	4.472.10002	3.569.10000
Viber	19.9.4.0	19.9.1
WeChat (Partial Support)	<i>Not Applicable</i>	<i>Not Applicable</i>
WhatsApp	2.23.8.76	23.8.78
Wickrme	6.2.7	6.226.4.2
Mega	11.0 (233270828) (odc1a146b7)	13.1.1
Burner	5.2.8	<i>Not Applicable</i>
ChatGPT	1.2025.189	1.2025.196

## Operating System Support

- **Android** – Android 7.0 Nougat to Android 15
- **iOS** – iOS 12 to iOS 18

## File Types

- **Android:** Physical Images, File system images, android backup (adb) encrypted/unencrypted, UFD.
- **iOS:** Full File System Images, iOS backups, and File System images.

## Mobile Chat Features

You can now view message replies from the following chat applications:

### Message Replies Supported:

- Microsoft Teams
- WhatsApp
- Skype
- Line
- KakaoTalk
- iMO Plus
- Instagram
- Facebook Messenger
- Threema
- Viber

You can also view information regarding deleted or modified messages from the following chat applications:

### Deleted Messages:

- iMO Plus
- Skype
- LinkedIn
- Google Chat
- WhatsApp
- Facebook Messenger
- Microsoft Teams
- KIK

### Edited Messages:

- WhatsApp
- Viber
- Telegram
- Microsoft Teams
- Google Chat
- Skype
- Discord
- LinkedIn
- Slack
- KIK

### Additional Features:

- **LinkedIn Drafts:** Support for LinkedIn chat drafts.
- **WhatsApp Polls:** Ability to view WhatsApp polls.
- **Facebook Secret Messages:** You can now view Facebook secret messages.

## 2 Chat Apps supported with Logical Collection

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- Skype
- Kik
- Viber
- IMO
- WhatsApp
- Line
- Threema
- KakaoTalk
- Microsoft Teams (upto 7.5.0)
- Mega
- Tinder
- iMessage

### 3 Windows OS (Basic Layout)

#### Applications

<b>Description</b>	This section will contain information relating to applications which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as install states, start up and auto run states; it also includes information regarding drivers. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, application name, file path, and file sizes may be found under the <b>Installed</b> attribute.
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Attribute	Associated Columns	
Installed	<ul style="list-style-type: none"> <li>• User Name</li> <li>• File Path</li> <li>• Version</li> <li>• Publisher</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Install Date</li> <li>• Size</li> <li>• Provenance</li> </ul>
Prefetch	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Run Count</li> <li>• Application Path</li> <li>• File Created Date/Time</li> <li>• 3rd Last Run Date/Time</li> <li>• 5th Last Run Date/Time</li> <li>• 7th Last Run Date/Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Last Run Time</li> <li>• Volume</li> <li>• 2nd Last Run Date/Time</li> <li>• 4th Last Run Date/Time</li> <li>• 6th Last Run Date/Time</li> <li>• 8th Last Run Date/Time</li> </ul>
User Assist	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Run Count</li> <li>• File Path</li> <li>• Focus Seconds</li> </ul>	<ul style="list-style-type: none"> <li>• File Name</li> <li>• Last Run Time</li> <li>• Focus Count</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
AmCache Driver Binaries	<ul style="list-style-type: none"> <li>• Driver Name</li> <li>• Last Installed Date/Time</li> <li>• Product</li> <li>• Service</li> <li>• Driver in Box</li> <li>• Signed</li> <li>• Company</li> <li>• Driver Timestamp</li> <li>• Key</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Driver Version</li> <li>• Last Write Date/Time</li> <li>• Product Version</li> <li>• Key</li> <li>• Kernel Mode</li> <li>• Checksum</li> <li>• Driver ID</li> <li>• Driver Type</li> <li>• Image Size</li> </ul>
AmCache Driver Packages	<ul style="list-style-type: none"> <li>• Key</li> <li>• Class</li> <li>• Driver In Box</li> <li>• Inf</li> <li>• Submission ID</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Last Installed Date/Time</li> <li>• Directory</li> <li>• HWIDs</li> <li>• Company</li> <li>• Sysfile</li> </ul>
AmCache File Entries	<ul style="list-style-type: none"> <li>• Name</li> <li>• File Extension</li> <li>• SHA1 Hash</li> <li>• Link Date</li> <li>• Size</li> <li>• Program ID</li> <li>• PE File</li> <li>• Bin Product Version</li> <li>• Associated Application Name</li> </ul>	<ul style="list-style-type: none"> <li>• Last Updated Date/Time</li> <li>• Key</li> <li>• OS Component</li> <li>• Product Name</li> <li>• Version</li> <li>• Key</li> <li>• Bin File Version</li> <li>• Language</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
AmCache PnP Devices	<ul style="list-style-type: none"> <li>• Driver Name</li> <li>• Description</li> <li>• Class Value</li> <li>• Container ID</li> <li>• Driver Package Strong Name</li> <li>• Driver Version</li> <li>• HWID</li> <li>• Install Date</li> <li>• Matching ID</li> <li>• Parent ID</li> <li>• Provider</li> <li>• STACKID</li> </ul>	<ul style="list-style-type: none"> <li>• Last Updated Date/Time</li> <li>• Key</li> <li>• Class GUID</li> <li>• Driver ID</li> <li>• Driver Date</li> <li>• Enumerator</li> <li>• Inf</li> <li>• Manufacturer</li> <li>• Model</li> <li>• Problem Code</li> <li>• Service</li> <li>• Provenance</li> </ul>
AmCache Program Entries	<ul style="list-style-type: none"> <li>• Name</li> <li>• Install Date</li> <li>• Publisher</li> <li>• Inbox Modern App</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Last Updated Date/Time</li> <li>• Version</li> <li>• Hidden App</li> <li>• File Path</li> </ul>
AutoRun Items	<ul style="list-style-type: none"> <li>• Name</li> <li>• Trigger Condition</li> <li>• Command</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Type</li> <li>• File Path</li> <li>• Modified Date/Time</li> </ul>
StartUp Items	<ul style="list-style-type: none"> <li>• Name</li> <li>• Last Modified Date/Time</li> <li>• Deleted</li> </ul>	<ul style="list-style-type: none"> <li>• Type</li> <li>• Path</li> <li>• Provenance</li> </ul>
System Services	<ul style="list-style-type: none"> <li>• Name</li> <li>• Start Type</li> <li>• Dependencies</li> </ul>	<ul style="list-style-type: none"> <li>• Type</li> <li>• User Account</li> <li>• Description</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"><li>• Service Location</li><li>• Display Name</li><li>• Hosted Service</li><li>• Error Control</li><li>• Group</li><li>• Hosted</li><li>• Hosted Service Parameters</li><li>• Provenance</li></ul>
Shim Cache	<ul style="list-style-type: none"><li>• Name</li><li>• Last Updated Date/Time</li><li>• File Path</li><li>• Last Run Date/Time</li><li>• Executed</li><li>• Provenance</li></ul>

## Device Interaction

<b>Description</b>	This section will contain information relating to device interactions which can be discovered and recovered using the Forensic Tool Kit. This includes information such as USB connections. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found.
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Attribute	Associated Columns
USB Devices	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Last Removal Time</li> <li>• Vendor ID</li> <li>• Product ID</li> <li>• Revision</li> <li>• Last User Mount Time</li> <li>• Mount Locations</li> <li>• First Connect Since Reboot</li> <li>• Data Provenance</li> <li>• Last Connect Time</li> <li>• Vendor</li> <li>• Product</li> <li>• Instance ID</li> <li>• Revision ID</li> <li>• First Connect Time (Local)</li> <li>• Volume Label</li> <li>• Friendly Name</li> <li>• Provenance</li> </ul>
USB Volume Storage	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Instance ID</li> <li>• Last Removal</li> <li>• First Connect</li> <li>• Last Connect</li> <li>• Provenance</li> <li>• Data Provenance</li> </ul>
AmCache Device Containers	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Model</li> <li>• Device Type</li> <li>• Model ID</li> <li>• Discover Method</li> <li>• Active</li> <li>• Machine Container</li> <li>• Paired</li> <li>• Device Friendly Name</li> <li>• Last Updated</li> <li>• Manufacturer</li> <li>• State</li> <li>• Icon</li> <li>• Connected</li> <li>• Networked</li> </ul>

## Browsers

<b>Description</b>	This section will contain information relating to browser information items which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as downloads, searches, and history; also found here is information concerning categories of URLs. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, if looking at the <b>Phishing URLs</b> attribute, present nodes would include URL Title and Last Visit Time.
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Attribute	Associated Columns	
Keyword Searches	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Provenance</li> </ul>
Credentials	<ul style="list-style-type: none"> <li>• User</li> <li>• URL</li> <li>• Password</li> </ul>	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Browser</li> </ul>
Downloads	<ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> </ul>	<ul style="list-style-type: none"> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> </ul>
Cookies	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Value</li> <li>• Creation Time</li> <li>• Domain</li> <li>• Expiration Time</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Last Access Time</li> <li>• Browser</li> <li>• Path</li> </ul>
Rebuilt webpages	<ul style="list-style-type: none"> <li>• Title</li> <li>• Created Date/Time</li> <li>• Cache Table</li> </ul>	<ul style="list-style-type: none"> <li>• URL</li> <li>• Domain</li> </ul>
Social Media URLs	<ul style="list-style-type: none"> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit Time</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> </ul>	<ul style="list-style-type: none"> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> </ul>
Darknet URLs	<ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit Time</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> </ul>
Cryptocurrency URLs	<ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit Time</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> </ul>
Tax Site URLs	<ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit Time</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> </ul>
Google Searches	<ul style="list-style-type: none"> <li>• Search Term</li> <li>• URL</li> <li>• Date/Time</li> <li>• Page Load Date/Time</li> <li>• Activity</li> </ul>	<ul style="list-style-type: none"> <li>• Original Search Query</li> <li>• Web Page Title</li> <li>• Search Session Start Date/Time</li> <li>• Session Type</li> </ul>
Google MAPS Queries	<ul style="list-style-type: none"> <li>• Search Term</li> <li>• Source</li> <li>• Centre of Map</li> <li>• Activity</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• Destination</li> <li>• Browser</li> </ul>

Attribute	Associated Columns
Phishing URLs	<ul style="list-style-type: none"><li>Name</li><li>URL</li><li>Category</li><li>Description</li><li>Metadata</li><li>Last Visit Time</li><li>URL Title</li><li>Sub Category</li><li>Activity</li></ul>
Pornography URLs	<ul style="list-style-type: none"><li>Name</li><li>URL</li><li>Category</li><li>Description</li><li>Metadata</li><li>Last Visit Time</li><li>URL Title</li><li>Sub Category</li><li>Activity</li></ul>

## Networks

<b>Description</b>	This section will contain network information which can be discovered and recovered using the Forensic Tool Kit. This includes information such as network connections and wireless profiles. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, MAC addresses and IP addresses, as well as DNS and DHCP servers may be found under the <b>Network Interfaces</b> attribute.
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Attribute	Associated Columns
Network Shares	<ul style="list-style-type: none"> <li>User Name</li> <li>Last Connect Time</li> <li>Network Path</li> </ul>
Network Connections	<ul style="list-style-type: none"> <li>User Name</li> <li>Last Connect Time</li> <li>Profile Name</li> <li>Connection Mode</li> <li>Encryption</li> <li>First Connect Time</li> <li>Network Name</li> <li>Network Category</li> <li>Authentication</li> <li>Password</li> </ul>
Wireless Profiles	<ul style="list-style-type: none"> <li>User Name</li> <li>Wireless Authentication</li> <li>Profile Name</li> <li>Authentication</li> <li>Password</li> <li>SSID</li> <li>Wireless Encryption</li> <li>Connection Mode</li> <li>Encryption</li> </ul>
Network Interfaces	<ul style="list-style-type: none"> <li>Adapter Name</li> <li>Gateway MAC Address</li> <li>DHCP Enabled</li> <li>DHCP IPv4 Subnet Mask</li> <li>DHCP Server</li> <li>DHCP DNS Domain</li> <li>Lease Obtained Date/Time</li> <li>IPV4 Address</li> <li>IPV4 Gateways</li> <li>DNS Domain</li> <li>MAC Address</li> <li>Is Wireless Connection</li> <li>DHCP IPv4 Address</li> <li>DHCP IPv4 Gateway</li> <li>DHCP DNS Servers</li> <li>DHCP IPv4 Address</li> <li>Less Expiry Date/Time</li> <li>IPV4 Subnet Mask</li> <li>DNS Servers</li> </ul>

## Recent Files/Folders

<b>Description</b>	This section will contain information relating to recently used files and folders which can be discovered and recovered using the Forensic Tool Kit.
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Attribute	Associated Columns	
Keyword Searches	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Search Date/Time</li> </ul>	<ul style="list-style-type: none"> <li>• Search Term</li> <li>• Provenance</li> </ul>
Shortcuts (LNK)	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Extension</li> <li>• Target Last Write Time</li> <li>• Target Creation Time</li> <li>• Volume Serial Number</li> <li>• Net Bios Name</li> <li>• MAC Address</li> <li>• Provenance</li> <li>• LF Create Date</li> <li>• LF Access Data</li> </ul>	<ul style="list-style-type: none"> <li>• File Name</li> <li>• Target File Path</li> <li>• Target Last Write</li> <li>• Target Attributes</li> <li>• Volume Name</li> <li>• Target File Size</li> <li>• Pinned To List</li> <li>• Arguments</li> <li>• LF Modify Data</li> </ul>
Jump List	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Application Name</li> <li>• Target File Path</li> <li>• Run Count</li> <li>• Target Last Access</li> <li>• Target Last Write</li> <li>• Target Creation Time</li> <li>• Pinned to List</li> <li>• Application ID</li> <li>• Vol Name</li> <li>• Vol Serial#</li> <li>• Target NetBIOS Name</li> </ul>	<ul style="list-style-type: none"> <li>• Target MAC Address</li> <li>• Target File Size</li> <li>• Destlist Last Modified FT</li> <li>• Path</li> <li>• Category</li> <li>• Created</li> <li>• Drive Type</li> <li>• Arguments</li> <li>• Jump List Type</li> <li>• Provenance</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
AmCache Shortcuts	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Target Last Write Time</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Shortcut Path</li> <li>• Category</li> <li>• Provenance</li> </ul>
MRU Run Commands	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Target Last Write Time</li> <li>• Value Name</li> </ul>	<ul style="list-style-type: none"> <li>• Run Command</li> <li>• Registry Order</li> <li>• Provenance</li> </ul>
MRU Recent Files & Folders	<ul style="list-style-type: none"> <li>• User Name</li> <li>• File/Folder Link</li> <li>• Registry Order</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• File/Folder Name</li> <li>• Target Last Write Time</li> <li>• Value</li> <li>• Category</li> <li>• Provenance</li> </ul>
MRU Recent Open/Saved Files	<ul style="list-style-type: none"> <li>• User Name</li> <li>• File/Folder Link</li> <li>• Registry Order</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• File Name</li> <li>• Target Last Write Time</li> <li>• Value</li> <li>• Category</li> <li>• Provenance</li> </ul>
MRU Folder Access	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Directory</li> <li>• Registry Order</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Target Last Write Time</li> <li>• Value</li> <li>• Category</li> <li>• Provenance</li> </ul>
Shell Bags	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Target Last Write Time</li> <li>• Target Creation Time</li> <li>• Bag Slot</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Target File Path</li> <li>• Target Last Access Time</li> <li>• Type</li> <li>• Provenance</li> <li>• Registry Key Last Write Time</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"><li data-bbox="591 285 797 310">• 1<sup>st</sup> Interacted</li><li data-bbox="591 342 732 367">• Reg Key</li><li data-bbox="591 399 743 424">• Category</li><li data-bbox="1065 285 1287 310">• Last Interacted</li><li data-bbox="1065 342 1166 367">• Path</li></ul>

## Operating System Information

<b>Description</b>	This section will contain information relating to operating system information which can be discovered and recovered using the Forensic Tool Kit. This includes features such as owner and user account information. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, username and logon times may be found under the <b>User Accounts</b> attribute.
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Attribute	Associated Columns	
Desktop Items	<ul style="list-style-type: none"> <li>• Usr Acct</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Data Provenance</li> </ul>
MUICache Information	<ul style="list-style-type: none"> <li>• Usr ID</li> <li>• Usr Acct</li> <li>• Data</li> </ul>	<ul style="list-style-type: none"> <li>• Path</li> <li>• Provenance</li> <li>• Data Provenance</li> </ul>
Shell Bags	<ul style="list-style-type: none"> <li>• Bag Slot</li> <li>• Registry Key Last Written</li> <li>• 1<sup>st</sup> Interacted</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Last Interacted</li> <li>• Reg Key</li> <li>• Path</li> <li>• Provenance</li> <li>• Data Provenance</li> </ul>
Owner Information	<ul style="list-style-type: none"> <li>• Product Name</li> <li>• Current Version</li> <li>• Current Type</li> <li>• Product Key</li> <li>• DigitalProductID4</li> <li>• Path</li> <li>• Software Type</li> <li>• Installation Type</li> <li>• EditionSubString</li> <li>• Current Version</li> <li>• CurrentMinorVersionNumber</li> </ul>	<ul style="list-style-type: none"> <li>• Edition ID</li> <li>• Install Date</li> <li>• Registered Owner</li> <li>• Product ID</li> <li>• DigitalProductID</li> <li>• System Root</li> <li>• ReleaseID</li> <li>• EditionSubVersion</li> <li>• Edition SubManufacturer</li> <li>• Current Type</li> <li>• Current Build Number</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Current Build</li> <li>• BuildLabEx</li> <li>• Build GUID</li> </ul>	<ul style="list-style-type: none"> <li>• CompositionEditionID</li> <li>• BuildLab</li> <li>• BuildBranch</li> </ul>
Timezone Information	<ul style="list-style-type: none"> <li>• Standard Timezone Name</li> <li>• Daylight Timezone Name</li> <li>• Standard Timezone Start Date/Time - Local Time</li> </ul>	<ul style="list-style-type: none"> <li>• Current Timezone Offset (Minutes)</li> <li>• Daylight Timezone offset (minutes)</li> <li>• Daylight Timezone Start Date/Time - Local Time</li> </ul>
User Accounts	<ul style="list-style-type: none"> <li>• User Name</li> <li>• SID</li> <li>• Last Login Date/Time</li> </ul>	<ul style="list-style-type: none"> <li>• User Type</li> <li>• Profile Path</li> </ul>
Group Accounts	<ul style="list-style-type: none"> <li>• Group Name</li> <li>• SID</li> <li>• Description</li> <li>• Rest of the user account columns</li> </ul>	<ul style="list-style-type: none"> <li>• Group Type</li> <li>• RID</li> <li>• Users in Group</li> </ul>
Windows Notifications Center	<ul style="list-style-type: none"> <li>• Notification</li> <li>• App Name</li> <li>• Received Date/Time</li> <li>• Created Date/Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• SubText</li> <li>• Notification Type</li> <li>• Expiry Date/Time</li> <li>• Modified Date/Time</li> </ul>
Windows Timeline Activity	<ul style="list-style-type: none"> <li>• Display Name</li> <li>• Content</li> <li>• End Date/Time</li> <li>• Focus (Seconds)</li> <li>• Platform</li> <li>• Last Modified Date/Time</li> <li>• OnClient Modification Date/Time</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Start Date/Time</li> <li>• Type</li> <li>• Activity ID</li> <li>• Created Date/Time</li> <li>• Cloud Creation Date/Time</li> <li>• Provenance</li> </ul>

## SRUM

<b>Description</b>	This section will contain information relating to Windows System Resource Usage Monitor (SRUM) which can be discovered and recovered using the Forensic Tool Kit. SRUM collects statistics on the execution of binaries. This includes features such as network connections and usage. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, examining network usage by an application, the nodes under <b>Storage Events</b> attribute would provide information such as the application name, bytes sent and received, and the recorded dates.
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Attribute	Associated Columns
SRUM Network Connections	<ul style="list-style-type: none"> <li>• SSID</li> <li>• Duration</li> <li>• Recorded Date/Time</li> <li>• Connection Start Date/Time</li> <li>• Interface Type</li> <li>• Provenance</li> </ul>
SRUM Network Usage	<ul style="list-style-type: none"> <li>• App Name</li> <li>• SSID</li> <li>• Bytes Received</li> <li>• Recorded Date/Time</li> <li>• Provenance</li> <li>• SID</li> <li>• Bytes Sent</li> <li>• Interface Type</li> <li>• App Path</li> </ul>
SRUM Push Notifications	<ul style="list-style-type: none"> <li>• App Name</li> <li>• Recorded Date/Time</li> <li>• Network Type</li> <li>• Provenance</li> <li>• SID</li> <li>• Notification Type</li> <li>• Payload Size</li> </ul>

## Windows Events

<b>Description</b>	This section will contain information relating to Windows Event Logs (EVTX) which can be discovered and recovered using the Forensic Tool Kit. EVTX files store system log information. This includes features such as Shell, Storage, Login/Logout and other events. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, examining network usage by an application, the nodes under <b>Storage Events</b> attribute would provide information such as the manufacturer, drive GUID, and serial numbers.
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Attribute	Associated Columns	
Account Management Events	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Event Src</li> <li>• Created</li> <li>• Path</li> </ul>	<ul style="list-style-type: none"> <li>• Task Category</li> <li>• Event Level</li> <li>• Description</li> <li>• Category</li> </ul>
Audit Policy Change Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Created</li> <li>• Category</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Path</li> <li>• Provenance</li> </ul>
Firewall Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>
Kernel Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>
Login/Logout Events	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Event Src</li> </ul>	<ul style="list-style-type: none"> <li>• Task Category</li> <li>• Event Level</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Created</li> <li>• Path</li> </ul>	<ul style="list-style-type: none"> <li>• Description</li> <li>• Category</li> </ul>
Network Auditing Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>
Other Windows Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>
Power Entry Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>
Remote Desktop Protocol Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>
Scheduled Task Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Event Level</li> <li>• Created</li> <li>• Provenance</li> <li>• Task Category</li> </ul>
Security Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> </ul>	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Data Provenance</li> </ul>	
Shared Object Events	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Event Src</li> <li>• Created</li> <li>• Path</li> <li>• Task Category</li> <li>• Event Level</li> <li>• Description</li> <li>• Category</li> </ul>	
Shell Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Level</li> <li>• Category</li> <li>• Path</li> <li>• Data Provenance</li> <li>• Event ID</li> <li>• Event Data</li> <li>• Created</li> <li>• Provenance</li> </ul>	
Storage Events	<ul style="list-style-type: none"> <li>• Event Src</li> <li>• Event Level</li> <li>• Category</li> <li>• Vol Serial #</li> <li>• Disk Capacity</li> <li>• Registry Entry ID</li> <li>• Parent ID</li> <li>• Created</li> <li>• Version</li> <li>• Container ID</li> <li>• Task Count</li> <li>• Volume Correlation ID</li> <li>• Computer Name</li> <li>• Process ID</li> <li>• Provenance</li> <li>• Event ID</li> <li>• Event Data</li> <li>• Model</li> <li>• Full Vol Serial #</li> <li>• Location Title</li> <li>• Manufacturer</li> <li>• Partition Style</li> <li>• Path</li> <li>• Drive Name</li> <li>• Work Time (ms)</li> <li>• Drive GUID</li> <li>• Vol ID</li> <li>• User SID</li> <li>• Thread ID</li> <li>• Data Provenance</li> </ul>	

## 4 Mac OS (Mac Column Sets)

### Applications

<b>Description</b>	This section will contain information relating to applications which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as install states and application permissions. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, application name, file path, and file sizes may be found under the <b>Installed</b> attribute.
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Attribute	Associated Columns
Installed	<p><b>Apps-Installed (Mac)</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• Pkg Name</li> <li>• Installed</li> <li>• Internal Vers</li> <li>• App Store Action</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Application Name</li> <li>• File Path</li> <li>• Display Vers</li> <li>• File Size</li> <li>• Publisher</li> <li>• Category</li> <li>• Provenance</li> </ul>
Application Permissions - MAC	<p><b>Apps-Permission (Mac)</b></p> <ul style="list-style-type: none"> <li>• Application Name</li> <li>• Permission Granted</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Service</li> <li>• Path</li> <li>• Provenance</li> </ul>
Resumed Apps - MAC	<p><b>Apps-Resumed Apps (Mac)</b></p> <ul style="list-style-type: none"> <li>• Application Name</li> <li>• Owing BundleID</li> <li>• Path</li> <li>• User Name</li> <li>• Bckgnd State</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Category Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Data Provenance</li> </ul>
StartUp Items - MAC	<b>Apps- Startup Items (Mac)</b> <ul style="list-style-type: none"> <li>• Application Name</li> <li>• Type</li> <li>• Disabled?</li> <li>• Category</li> <li>• Category Provenance</li> </ul>	
Menu Bar Apps - MAC	<b>Apps-Menu bar Items (Mac)</b> <ul style="list-style-type: none"> <li>• Application Name</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	
Dock Items - MAC	<b>Apps- Dock Items (Mac)</b> <ul style="list-style-type: none"> <li>• Pkg Name</li> <li>• State</li> <li>• GUID</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	
Core Analytics - MAC	<b>Apps-Core_Analytics</b> <ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• #Activations</li> <li>• Proc Name</li> <li>• Uptime (s)</li> <li>• Start Time</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	

Attribute	Associated Columns
KnowledgeC Application Activities	<p><b>Apps- KnowledgeC Apps Activities</b></p> <ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• Assoc URL Title</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Content Desc</li> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Application Focus	<p><b>Apps- KnowledgeC Apps Focus</b></p> <ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• Generated UUID</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Usage In Seconds</li> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Application Usage	<p><b>Apps- KnowledgeC Apps Usage</b></p> <ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> <li>• Usage in Seconds</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

## Device Interaction

<b>Description</b>	This section will contain information relating to device interactions which can be discovered and recovered using the Forensic Tool Kit. This includes information such as USB and Bluetooth connections, as well as peripheral device information. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, last connect, device name, and product vendor may be found under the <b>Peripheral Device Information</b> attribute.
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Attribute	Associated Columns
USB Devices	<p><b>USB Devices</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• Last Removal</li> <li>• Vendor ID</li> <li>• Product ID Instance ID</li> <li>• Revision ID</li> <li>• First Connect Local</li> <li>• Volume Labels</li> <li>• Friendly Name</li> <li>• Category</li> <li>• Provenance</li> <li>• Last Connect</li> <li>• Vendor</li> <li>• Product</li> <li>• Revision</li> <li>• Last User Mount</li> <li>• Mount Location</li> <li>• First Connect</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
USB Connections History	<p><b>Device-USB Connection History</b></p> <ul style="list-style-type: none"> <li>• Serial#</li> <li>• Vendor ID, Product ID</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Connection Start</li> <li>• Dev Release</li> <li>• Category</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns
AirDrop Discoverability	<b>Device-Airdrop Discoverability (Mac)</b> <ul style="list-style-type: none"> <li>• Mode Change Time</li> <li>• Transact Log</li> <li>• Category</li> <li>• Provenance</li> <li>• Mode</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
AirDrop Background Activity	<b>Device-AirDrop Background Activity (Mac)</b> <ul style="list-style-type: none"> <li>• Date/Time</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Transact Log</li> <li>• Path</li> <li>• Provenance</li> </ul>
Bluetooth Devices	<b>Device-Bluetooth Devices (Mac)</b> <ul style="list-style-type: none"> <li>• Bluetooth Addr</li> <li>• Connect Type</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Dev Name</li> <li>• Last Seen</li> <li>• Category</li> <li>• Provenance</li> </ul>
Peripheral Device Information	<b>Device-Peripheral Information (Mac)</b> <ul style="list-style-type: none"> <li>• Dev Name</li> <li>• Built-in?</li> <li>• Vendor ID</li> <li>• Registry Entry ID</li> <li>• Category</li> <li>• Provenance</li> <li>• Last Connect</li> <li>• Connected</li> <li>• Product ID</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

## Browsers

<b>Description</b>	This section will contain information relating to browser information items which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as downloads, searches, and history; also found here is information concerning categories of URLs. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, if looking at the <b>Phishing URLs</b> attribute, present nodes would include URL Title and Last Visit Time.
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Attribute	Associated Columns
iCloud Downloads	<p><b>Browser-iCloud Downloads</b></p> <ul style="list-style-type: none"> <li>• File Size</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Download Request Time</li> <li>• Path</li> <li>• Provenance</li> </ul>
iCloud Local Files	<p><b>Browser-iCloud Local Files</b></p> <ul style="list-style-type: none"> <li>• Pkg Name</li> <li>• Created</li> <li>• Category</li> <li>• Data Provenance</li> <li>• File Size</li> <li>• Modified</li> <li>• Path Provenance</li> </ul>
iCloud Uploads	<p><b>Browser-iCloud Uploads</b></p> <ul style="list-style-type: none"> <li>• File Size</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Upload Request Time</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Safari History	<p><b>Browser-KnowledgeC Safari History</b></p> <ul style="list-style-type: none"> <li>• Vol UUID</li> <li>• Content Desc</li> <li>• Title</li> <li>• Bundle ID</li> <li>• Source</li> <li>• Generated UUID</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Keyword Searches	<p><b>Browser-Keyword Searches</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Credentials	<p><b>Browser-Credentials</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• User Name</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Last Visit</li> <li>• URL</li> <li>• Password</li> <li>• Category</li> <li>• Provenance</li> </ul>
Downloads	<p><b>Browser-Downloads</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> <li>• Provenance</li> </ul>
Cookies	<p><b>Browser-Cookies</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• Value</li> <li>• Name</li> <li>• Last access</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Creation Time</li> <li>• Domain</li> <li>• Expires</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Browser</li> <li>• File Path</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Social Media URLs	<b>Browser-URLs</b> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul>	
Darknet URLs	<b>Browser-URLs</b> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul>	
Cryptocurrency URLs	<b>Browser-URLs</b> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul>	

Attribute	Associated Columns
Tax Site URLs	<p><b>Browser-URLs</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul> <ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Google Searches	<p><b>Browser-URLs</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul> <ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Phishing URLs	<p><b>Browser-URLs</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul> <ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Pornography URLs	<p><b>Browser-URLs</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> </ul> <ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Unknown URLs	<p><b>Unknown URLs</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul> <ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	

## Networks

<b>Description</b>	This section will contain information relating to networks which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as network profiles and interfaces. These are displayed in the Attribute column. In the Associated Columns column, nodes linking to their associated Attribute will be found. For example, MAC, BSD Name, Network Type may be found under the Network Interfaces – MAC attribute.
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Attribute	Associated Columns
Network Utilities - MAC	<p><b>Network-Utilities (Mac)</b></p> <ul style="list-style-type: none"> <li>• Utility Tool</li> <li>• Modified</li> <li>• Category</li> <li>• Provenance</li> <li>• Search Qry</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Network Profiles - MAC	<p><b>Network-Profiles (Mac)</b></p> <ul style="list-style-type: none"> <li>• SSID</li> <li>• Last Connect</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• MAC</li> <li>• Status</li> <li>• Category</li> <li>• Provenance</li> </ul>
Network Interfaces - MAC	<p><b>Network-Interfaces (Mac)</b></p> <ul style="list-style-type: none"> <li>• Network Name</li> <li>• BSD Name</li> <li>• Active</li> <li>• Srvc Path</li> <li>• Category</li> <li>• Provenance</li> <li>• MAC</li> <li>• Network Type</li> <li>• USB Product Name</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Daily Logs - Network Interface Status - MAC	<b>Network Interface Status</b>	
	<ul style="list-style-type: none"> <li>• MAC</li> <li>• Errors In</li> <li>• MTU</li> <li>• Network Name</li> <li>• Packets Out</li> <li>• Path</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Collision</li> <li>• Packets In</li> <li>• Name</li> <li>• Errors Out</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

## Recent Files/Folders

<b>Description</b>	This section will contain information relating to recently used files and folders which can be discovered and recovered using the Forensic Tool Kit.
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Attribute	Associated Columns
Bash/ZSH Sessions	<b>Recent-Bash/ZSH Session (Mac)</b>
	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Start Time</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Sess ID</li> <li>• End Date</li> <li>• Category</li> <li>• Provenance</li> </ul>
Finder MRU - MAC	<b>Recent-Finder MRU (Mac)</b>
	<ul style="list-style-type: none"> <li>• Creator Name</li> <li>• MRU Type</li> <li>• Category</li> <li>• Provenance</li> <li>• Fldr Path</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Recently Used Items	<b>Recent-Recently Used Items (Mac)</b>
	<ul style="list-style-type: none"> <li>• File Name</li> <li>• MRU Type</li> <li>• Creation Time</li> <li>• Vol UUID</li> <li>• Volume Created</li> <li>• Vol Name</li> <li>• Provenance</li> <li>• Fldr Path</li> <li>• Access Order</li> <li>• Generated UUID</li> <li>• Last Access</li> <li>• Creator</li> <li>• Vol Size</li> <li>• Data Provenance</li> </ul>
Spotlight Shortcuts	<b>Recent-Spotlight Shortcut (Mac)</b>
	<ul style="list-style-type: none"> <li>• Search Qry</li> <li>• URL</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Display Name</li> <li>• Last Access</li> <li>• Category</li> <li>• Provenance</li> </ul>

## Operating System Information

<b>Description</b>	This section will contain information relating to operating system information which can be discovered and recovered using the Forensic Tool Kit. This includes features such as owner and account information. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, username, password hashes, and home directories may be found under the <b>User Accounts</b> attribute.
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Attribute	Associated Columns
Owner Information - MAC	<p><b>Owner Information - MAC</b></p> <ul style="list-style-type: none"> <li>• Product Name</li> <li>• Product Version</li> <li>• Prod Major Vers</li> <li>• Time Zone</li> <li>• Installed</li> <li>• IOS Major Vers</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
	<ul style="list-style-type: none"> <li>• Prod C</li> <li>• Prod User Visible Vers</li> <li>• Computer Name</li> <li>• Curr Build #</li> <li>• Country Code</li> <li>• IOS Supported Vers</li> <li>• Path</li> <li>• Provenance</li> </ul>
Apple Accounts	<p><b>OS-Apple Accounts (Mac)</b></p> <ul style="list-style-type: none"> <li>• User Name</li> <li>• Acct ID</li> <li>• Parent Acct ID</li> <li>• Acct Type</li> <li>• Owning BundleID</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
	<ul style="list-style-type: none"> <li>• Local Account</li> <li>• Account Added</li> <li>• Acct Desc</li> <li>• Acct Cred Type</li> <li>• Last Credential Expiry</li> <li>• Category</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
User Accounts - MAC	<b>OS-User Accounts (Mac)</b>	
	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Usr ID</li> <li>• Profile Creation</li> <li>• Pwd Hash</li> <li>• Pwd Hint</li> <li>• Last Bad Pwd Login</li> <li>• Profile Img</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Full Name</li> <li>• Vol UUID</li> <li>• Home Dir</li> <li>• Pwd Hash Algorithm</li> <li>• Login Failure Cnt</li> <li>• Last Pwd Change</li> <li>• Profile Img Path</li> <li>• Category</li> <li>• Provenance</li> </ul>
Deleted Accounts	<b>OS-Deleted Accounts (Mac)</b>	
	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Vol UUID</li> <li>• Delete Date</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Full Name</li> <li>• Home Dir</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Homebrew Cask Application		
	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• System Info Version</li> <li>• System Info Description</li> <li>• System Info URL</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info Application Name</li> <li>• System Info Install Time</li> <li>• Homepage</li> <li>• SHA 256</li> <li>• Data Provenance</li> </ul>
Homebrew Information	<b>Normal</b>	
	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Path</li> <li>• Physical Size</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Extension</li> <li>• File Type</li> <li>• Logical Size</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li>• MD5 Hash</li> <li>• SHA256 Hash</li> <li>• Accessed Date</li> <li>• SHA1 Hash</li> <li>• Created Date</li> <li>• Modified Date</li> </ul>
	<p><b>Homebrew Build Dependency</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Full Name</li> <li>• Data Provenance</li> <li>• Label</li> <li>• Homebrew Entry Name</li> <li>• System Info Provenance</li> </ul>
	<p><b>Homebrew Entry</b></p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• System Info Version</li> <li>• Compiler</li> <li>• Built On OS</li> <li>• Built On CPU Family</li> <li>• Built On OS CLT</li> <li>• Homepage</li> <li>• SHA 256</li> <li>• Poured From Bottle</li> <li>• Installed As Dependency</li> <li>• System Info InstallTime</li> <li>• Changed Files</li> <li>• URL Mirrors</li> <li>• Data Provenance</li> <li>• Label</li> <li>• System Info Application Name</li> <li>• Home Brew Version</li> <li>• Architecture</li> <li>• Built On OS Version</li> <li>• Built On OSX Code</li> <li>• System Info Description</li> <li>• System Info URL</li> <li>• Built As Bottle</li> <li>• Loaded From API</li> <li>• Installed On Request</li> <li>• Source Modification Time</li> <li>• Aliases</li> <li>• System Info Provenance</li> </ul>

Attribute	Associated Columns
	<p data-bbox="467 279 737 306"><b>Homebrew Resources</b></p> <ul data-bbox="532 338 1370 594" style="list-style-type: none"><li data-bbox="532 338 651 365">• Name</li><li data-bbox="532 396 740 424">• Item Number</li><li data-bbox="532 455 699 483">• Full Name</li><li data-bbox="532 514 678 541">• SHA 256</li><li data-bbox="532 573 781 600">• Data Provenance</li><li data-bbox="1036 338 1146 365">• Label</li><li data-bbox="1036 396 1360 424">• Homebrew Entry Name</li><li data-bbox="1036 455 1276 483">• System Info URL</li><li data-bbox="1036 514 1370 541">• System Info Provenance</li></ul> <p data-bbox="467 674 873 701"><b>Homebrew Runtime Dependency</b></p> <ul data-bbox="532 732 1370 989" style="list-style-type: none"><li data-bbox="532 732 651 760">• Name</li><li data-bbox="532 791 740 819">• Item Number</li><li data-bbox="532 850 862 877">• System Info Application</li><li data-bbox="532 909 786 936">• Declared Directly</li><li data-bbox="532 968 781 995">• Data Provenance</li><li data-bbox="1036 732 1146 760">• Label</li><li data-bbox="1036 791 1360 819">• Homebrew Entry Name</li><li data-bbox="1036 850 1317 877">• System Info Version</li><li data-bbox="1036 909 1370 936">• System Info Provenance</li></ul>

## Other KnowledgeC, PowerLog & Logs Data

<b>Description</b>	This section will contain information relating to KnowledgeC, PowerLog & Logs Data which can be discovered and recovered using the Forensic Tool Kit. This includes device information such as battery and activity level. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, disk capacity, file system, and available disk may be found under the <b>Daily Logs - Disk Status</b> attribute.
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Attribute	Associated Columns
PowerLog Timezone Information	<p><b>PowerLog Timezone Information</b></p> <ul style="list-style-type: none"> <li>• Timestamp</li> <li>• GMT Offset</li> <li>• Category</li> <li>• Provenance</li> <li>• Country Code</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
PowerLog Process Data Usage	<p><b>PowerLog Process Usage</b></p> <ul style="list-style-type: none"> <li>• Proc Name</li> <li>• Start Time</li> <li>• WiFi Bytes Sent</li> <li>• Mobile Bytes Sent</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Owing Bundle ID</li> <li>• End Date</li> <li>• WiFi Bytes Rcvd</li> <li>• Mobile Bytes Rcvd</li> <li>• Category</li> <li>• Provenance</li> </ul>
PowerLog Battery Level	<p><b>PowerLog Battery Level</b></p> <ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Raw Batt Level</li> <li>• Full Charge</li> <li>• Path</li> <li>• Provenance</li> <li>• Batt Level</li> <li>• Charging</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns
KnowledgeC Activity Level	<p><b>KnowledgeC Activity Level</b></p> <ul style="list-style-type: none"> <li>• Activity</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Start Time</li> <li>• Recorded</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Notification Usage	<p><b>KnowledgeC Notification Usage</b></p> <ul style="list-style-type: none"> <li>• BundleID</li> <li>• Proc Name</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Type</li> <li>• Start Time</li> <li>• Recorded</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Screen Backlight States	<p><b>KnowledgeC Screen Backlight States</b></p> <ul style="list-style-type: none"> <li>• Status</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Start Time</li> <li>• Recorded</li> <li>• Path</li> <li>• Provenance</li> </ul>
Daily Logs - Disk Status	<p><b>Daily Logs - Disk Status</b></p> <ul style="list-style-type: none"> <li>• Disk Capacity</li> <li>• Disk Space Available</li> <li>• Mount Point</li> <li>• Path</li> <li>• Provenance</li> <li>• File System</li> <li>• Disk Space Used</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns
Daily Logs - Local System Status	<p><b>Daily Logs - Local System Status</b></p> <ul style="list-style-type: none"> <li>• Usr</li> <li>• Load Avg Last 5 min</li> <li>• Uptime</li> <li>• Path</li> <li>• Provenance</li> <li>• Load Avg Last min</li> <li>• Load Avg Last 15min</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>

## Apple KeyChain Generic Password

<b>Description</b>	This section will contain information relating to Apple KeyChain items which can be discovered and recovered using the Forensic Tool Kit.
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Attribute	Associated Columns
Apple KeyChain Generic Password	<p><b>Apple KeyChain Generic Password</b></p> <ul style="list-style-type: none"> <li>• Usr Acct</li> <li>• PW/Value</li> <li>• Service</li> <li>• Modified Category</li> <li>• Created</li> <li>• Data Provenance</li> <li>• Display Name</li> <li>• Creation Time</li> <li>• Record#</li> <li>• Path</li> <li>• Provenance</li> </ul>

## 5 Mobile Forensics - Android

### Application Usage

<b>Description</b>	This section will contain information relating to mobile application items which can be discovered and recovered using the Forensic Tool Kit. These include application information such as install states and application permissions; also found here is information concerning Google Play Store. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, the application name, file path, and install dates may be found under the <b>Installed Applications</b> attribute.
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Attribute	Associated Columns
Android Device Information	<ul style="list-style-type: none"> <li>• Device ID</li> <li>• Brand</li> <li>• Product</li> <li>• Android Version</li> <li>• Locale ID</li> <li>• IMEI List</li> <li>• Location Services?</li> <li>• MAC</li> <li>• Model</li> <li>• Product Device</li> <li>• Manufacturer</li> <li>• Timezone</li> <li>• Advertising Key</li> <li>• Factory Rest Time</li> <li>• Serial#</li> </ul>
Android Usage History	<ul style="list-style-type: none"> <li>• Log Type</li> <li>• Class</li> <li>• Activity Event Type</li> <li>• Data Provenance</li> <li>• Pkg Name</li> <li>• Timestamp</li> <li>• Provenance</li> </ul>
Android User Dictionary	<ul style="list-style-type: none"> <li>• Word</li> <li>• Locale</li> <li>• Path</li> <li>• Description</li> <li>• User Dict. Freq.</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
Application Activity - Android	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Bundle ID</li> <li>• Activity Type</li> <li>• User Activity String</li> <li>• Invocation Phrase</li> <li>• App ID Activity UUID</li> <li>• Dat of Week</li> <li>• Entry Creation</li> <li>• Generated UUID</li> <li>• Assoc URL</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Group</li> <li>• Content Desc</li> <li>• Content URL</li> <li>• Unique ID Source</li> <li>• Title</li> <li>• GMT Offset</li> <li>• App Expiry</li> <li>• Window Title</li> <li>• Json Payload</li> <li>• Data Provenance</li> </ul>
Application Permissions - Android	<ul style="list-style-type: none"> <li>• Pkg Name</li> <li>• App Install Time</li> <li>• Associated Account</li> <li>• App Version</li> <li>• Install Path</li> <li>• Is From Google Playstore?</li> <li>• Denied Permissions List</li> </ul>	<ul style="list-style-type: none"> <li>• Is Auto Update Enable?</li> <li>• Last Updated</li> <li>• Title</li> <li>• Data Storage Path</li> <li>• Install Source</li> <li>• Granted Permissions List</li> <li>• Provenance</li> </ul>
Application Power Usage	<ul style="list-style-type: none"> <li>• Interval Start Time</li> <li>• Bundle ID</li> <li>• Bkg Time (s)</li> <li>• Bkg Location Usage (s)</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Interval (m)</li> <li>• Screenshot (s)</li> <li>• Bkd Aud Played (s)</li> <li>• Provenance</li> </ul>
Google Play Application Details	<ul style="list-style-type: none"> <li>• Search Term</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Data provenance</li> </ul>
Google Play Installed Applications	<ul style="list-style-type: none"> <li>• Associated Account</li> <li>• Purchased</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Data Delivery</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• First Download</li> <li>• App Install Time</li> <li>• Bytes Total</li> <li>• Title</li> <li>• Is Auto Update Enabled?</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Last Update</li> <li>• Install Reason</li> <li>• Client Event ID</li> <li>• Last Notified Ver</li> <li>• Desired Ver</li> </ul>
Google Play Searches	<ul style="list-style-type: none"> <li>• Search Term</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Timestamp</li> </ul>
Installed Applications	<ul style="list-style-type: none"> <li>• App</li> <li>• App ID</li> <li>• Permissions</li> <li>• App GUID</li> <li>• App Description</li> <li>• App Vendor</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• App Version</li> <li>• App Install Time</li> <li>• App Update Timestamp</li> <li>• App Category</li> <li>• App Deleted Date</li> <li>• Copyright</li> <li>• Category</li> <li>• Description</li> </ul>

## Communication

<b>Description</b>	This section will contain information relating to general communication items which can be discovered and recovered using the Forensic Tool Kit. These include generic mobile features such as contact lists, SMS/MMS messages, and SIM card information; also found here is information concerning communications and messaging applications. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, names, addresses, and phone numbers may be found under the <b>Contacts</b> attribute.
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Attribute	Associated Columns
AIM Buddies	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Android Call Logs	<ul style="list-style-type: none"> <li>• ID, Phone Number</li> <li>• Via Number</li> <li>• Duration (s)</li> <li>• Subscription ID</li> <li>• Number Type</li> <li>• Country ISO</li> <li>• Contact ID</li> <li>• Post Dial Digits</li> <li>• Timestamp</li> <li>• Type</li> <li>• Contact Name</li> <li>• Number Label</li> <li>• Geocoded Location</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
Android Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Android Kik Messenger Attachments	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> </ul>
Android Kik Messenger Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Android Kik Messenger Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>

Attribute	Associated Columns	
Android Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Android MMS	<ul style="list-style-type: none"> <li>• Subject</li> <li>• Sender</li> <li>• Sent</li> <li>• Attachments</li> <li>• MMS To</li> <li>• MMS BCC</li> <li>• Category</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Message</li> <li>• Recipient(s)</li> <li>• Received</li> <li>• Src</li> <li>• MMS CC</li> <li>• Path</li> <li>• Created</li> </ul>
Android Sim Card Information	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• IMSI</li> <li>• Display Name</li> <li>• MCC</li> <li>• MNC</li> <li>• SIM Change Time</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Service Provider</li> <li>• SIM ID</li> <li>• Phone No</li> <li>• Country ISO</li> <li>• Provenance</li> </ul>
Android SMS	<ul style="list-style-type: none"> <li>• Description</li> <li>• SMS From Number</li> <li>• Message</li> <li>• Recipient(s)</li> <li>• Sent</li> <li>• Time Sent</li> </ul>	<ul style="list-style-type: none"> <li>• SMS Type</li> <li>• SMS To Number</li> <li>• Sender</li> <li>• Incoming</li> <li>• Read</li> <li>• Time Received</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• SMS Time Zone of Sender</li> <li>• SMS Hdr.</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Src</li> <li>• SMSC Time</li> <li>• Category</li> </ul>
Android SMS/MMS	<ul style="list-style-type: none"> <li>• ID</li> <li>• Address</li> <li>• Timestamp</li> <li>• Read</li> <li>• Type</li> <li>• Direction</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Subject</li> <li>• Sent</li> <li>• Seen SMS</li> <li>• Message</li> <li>• Creator</li> </ul>
Android SMS/MMS (Content Provider)	<ul style="list-style-type: none"> <li>• ID</li> <li>• Address</li> <li>• Timestamp</li> <li>• Read</li> <li>• Type</li> <li>• Direction</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Subject</li> <li>• Time Sent</li> <li>• Seen SMS</li> <li>• Message</li> <li>• Creator</li> <li>• Data Provenance</li> </ul>
Android SnapChat Photo Transfers	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Android SnapChat Received Images	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Android SnapChat Friends	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Discord Logged-in Account	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Discord Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook Messenger Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Direction</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook Messenger Groups	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Created</li> </ul>	
Facebook Messenger Messages	<ul style="list-style-type: none"> <li style="width: 50%;">• Sender</li> <li style="width: 50%;">• Recipient(s)</li> <li style="width: 50%;">• Time Sent</li> <li style="width: 50%;">• Time Received</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Read</li> <li style="width: 50%;">• Msg App</li> <li style="width: 50%;">• # Attachment</li> <li style="width: 50%;">• Message</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	
Facebook Messenger Users Contacted	<ul style="list-style-type: none"> <li style="width: 50%;">• Phone Number</li> <li style="width: 50%;">• Last Name</li> <li style="width: 50%;">• First Name</li> <li style="width: 50%;">• Number Type</li> <li style="width: 50%;">• Mobile Number</li> <li style="width: 50%;">• Home Number</li> <li style="width: 50%;">• Work Number</li> <li style="width: 50%;">• Email</li> <li style="width: 50%;">• Address</li> <li style="width: 50%;">• Address1</li> <li style="width: 50%;">• Address2</li> <li style="width: 50%;">• State</li> <li style="width: 50%;">• Zip Src</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	
Google Duo Group Calls	<ul style="list-style-type: none"> <li style="width: 50%;">• Description</li> <li style="width: 50%;">• Participants</li> <li style="width: 50%;">• Convo Name</li> <li style="width: 50%;">• Topic</li> <li style="width: 50%;">• Chat Count</li> <li style="width: 50%;">• Msg App</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> </ul>	
Google Duo Groups	<ul style="list-style-type: none"> <li style="width: 50%;">• Description</li> <li style="width: 50%;">• Participants</li> <li style="width: 50%;">• Convo Name</li> <li style="width: 50%;">• Topic</li> <li style="width: 50%;">• Chat Count</li> <li style="width: 50%;">• Msg App</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> </ul>	

Attribute	Associated Columns	
Google Hangouts Cached Images	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Google Hangouts Voice Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Direction</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>
Houseparty Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Houseparty Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
imo Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Created</li> </ul>
imo Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
KakaoTalk Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
LINE Chats	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
LINE Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
LINE Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
LINE Pictures	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Samsung Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Signal	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Signal For Android	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Signal Conversations - Android	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Message App</li> <li>• Path</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Created</li> </ul>	
Signal Group Members	<ul style="list-style-type: none"> <li style="width: 50%;">• Phone Number</li> <li style="width: 50%;">• Last Name</li> <li style="width: 50%;">• First Name</li> <li style="width: 50%;">• Number Type</li> <li style="width: 50%;">• Mobile Number</li> <li style="width: 50%;">• Home Number</li> <li style="width: 50%;">• Work Number</li> <li style="width: 50%;">• Email</li> <li style="width: 50%;">• Address</li> <li style="width: 50%;">• Address1</li> <li style="width: 50%;">• Address2</li> <li style="width: 50%;">• State</li> <li style="width: 50%;">• Zip Src</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	
Signal Groups	<ul style="list-style-type: none"> <li style="width: 50%;">• Description</li> <li style="width: 50%;">• Participants</li> <li style="width: 50%;">• Convo Name</li> <li style="width: 50%;">• Topic</li> <li style="width: 50%;">• Chat Count</li> <li style="width: 50%;">• Msg App</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> </ul>	
Signal Local User	<ul style="list-style-type: none"> <li style="width: 50%;">• Profile Name</li> <li style="width: 50%;">• Profile</li> <li style="width: 50%;">• Service Type</li> <li style="width: 50%;">• Password</li> <li style="width: 50%;">• Country</li> <li style="width: 50%;">• Country Code</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	
Signal Messages - Android	<ul style="list-style-type: none"> <li style="width: 50%;">• Sender</li> <li style="width: 50%;">• Recipient(s)</li> <li style="width: 50%;">• Time Sent</li> <li style="width: 50%;">• Time Received</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Read</li> <li style="width: 50%;">• Msg App</li> <li style="width: 50%;">• # Attachment</li> <li style="width: 50%;">• Message</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	

Attribute	Associated Columns	
Signal Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Direction</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Chat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Chatsync Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Description</li> </ul>
Skype Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Skype File Transfers	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Skype Group Chat	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Message App</li> <li>• Path</li> </ul>
Snapchat Chat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Snapchat Received Videos	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Telegram Chats - Android	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Message App</li> <li>• Path</li> </ul>
Telegram Contacts - Android	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Telegram Messages - Android	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Telegram Users - Android	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Viber Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
WeChat Friends	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
WeChat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
WhatsApp	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
WhatsApp for Android	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>

Attribute	Associated Columns	
Android WhatsApp Accounts Information	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Android WhatsApp Chats	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Android WhatsApp Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>
Android WhatsApp Groups	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path Created</li> </ul>
Android WhatsApp Live Locations	<ul style="list-style-type: none"> <li>• Location Name</li> <li>• Device Long.</li> <li>• Location Country</li> <li>• Location Address</li> </ul>	<ul style="list-style-type: none"> <li>• Device Lat.</li> <li>• City</li> <li>• Location Category</li> <li>• Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Created</li> </ul>
Android WhatsApp Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachment</li> <li>• Path</li> <li>• Description</li> </ul>
Android WhatsApp Profile Pictures	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Android WhatsApp User Profiles	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>

## Connected Devices

<b>Description</b>	This section will contain information relating to items connectable to the mobile device, which can be discovered and recovered using the Forensic Tool Kit. These include health tracking devices, recording steps and heart rates; also found here is information concerning general Bluetooth and SIM card activity. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found.
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Attribute	Associated Columns
Fitbit Floors	<ul style="list-style-type: none"> <li>DataSource Model</li> <li>End Time</li> <li>Start Time</li> <li>Number of Floors</li> </ul>
Fitbit Heart Rate	<ul style="list-style-type: none"> <li>DataSource Model</li> <li>End Time</li> <li>Provenance</li> <li>Start Time</li> <li>Measurement</li> <li>Data Provenance</li> </ul>
Fitbit Steps	<ul style="list-style-type: none"> <li>Start Time</li> <li>Number of Steps</li> <li>End Time</li> </ul>
Fitbit Profiles	<ul style="list-style-type: none"> <li>Profile Name</li> <li>Service Type</li> <li>Country</li> <li>Category</li> <li>Created</li> <li>Profile</li> <li>Password</li> <li>Country Code</li> <li>Path</li> <li>Description</li> </ul>
Samsung Health Steps (Device)	<ul style="list-style-type: none"> <li>Start Time</li> <li>Number of Steps</li> <li>End Time</li> </ul>
Samsung Health Steps (Wearable)	<ul style="list-style-type: none"> <li>Start Time</li> <li>Number of Steps</li> <li>End Time</li> </ul>
Samsung Health User Profiles	<ul style="list-style-type: none"> <li>Profile Name</li> <li>Service Type</li> <li>Country</li> <li>Category</li> <li>Created</li> <li>Profile</li> <li>Password</li> <li>Country Code</li> <li>Path</li> <li>Description</li> </ul>

Attribute	Associated Columns	
Bluetooth Devices	<ul style="list-style-type: none"> <li>• Hw Address</li> <li>• Type</li> <li>• Last Name Updt</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Last Svc Updt</li> <li>• Provenance</li> </ul>
SIM Card Activity	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• Last Update</li> <li>• Home Budget</li> </ul>	<ul style="list-style-type: none"> <li>• Number</li> <li>• Slot ID</li> <li>• Roaming Budget</li> </ul>
SIM Card ICCID	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• Slot ID</li> <li>• Roaming Budget</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Number Last Update</li> <li>• Home Budget</li> <li>• Provenance</li> </ul>
SIM Card IMSI	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• IMSI</li> <li>• Display Name</li> <li>• MCC MNC</li> <li>• SIM Change Time</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Service Provider</li> <li>• SIM ID</li> <li>• Phone No</li> <li>• Country ISO</li> <li>• Provenance</li> </ul>
SIM Card Phone Numbers	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• Slot ID</li> <li>• Roaming Budget</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Number Last Update</li> <li>• Home Budget</li> <li>• Provenance</li> </ul>
SIM Card Service Providers	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• IMSI</li> <li>• Display Name</li> <li>• MCC MNC</li> <li>• SIM Change Time</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Service Provider</li> <li>• SIM ID</li> <li>• Phone No</li> <li>• Country ISO</li> <li>• Provenance</li> </ul>
SIM Card SMS Messages	<ul style="list-style-type: none"> <li>• Description</li> <li>• SMS From Number</li> </ul>	<ul style="list-style-type: none"> <li>• SMS Type</li> <li>• SMS To Number</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"><li>• Message</li><li>• Recipient(s)</li><li>• Sent</li><li>• Time Sent</li><li>• SMS Time Zone of Sender</li><li>• SMS Hdr.</li><li>• SMSC Time</li><li>• Category</li><li>• Sender</li><li>• Incoming</li><li>• Read</li><li>• Time Received</li><li>• Src</li><li>• SMS Country</li><li>• Path</li><li>• Created</li></ul>

## Email and Calendar

<b>Description</b>	This section will contain information relating to general email and calendar items which can be discovered and recovered using the Forensic Tool Kit. These include emails sent and received from providers such as Gmail and Yahoo; also found here is calendar information, again from providers such as Google, and those included as built-in applications featured on an Android mobile device. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, names, email addresses, and message bodies may be found under the <b>Emails</b> attribute.
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Attribute	Associated Columns	
Android Emails	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Message Row ID</li> <li>• To</li> <li>• BCC</li> <li>• Snippet</li> <li>• Timestamp</li> </ul>	<ul style="list-style-type: none"> <li>• ID</li> <li>• From</li> <li>• CC</li> <li>• Subject</li> <li>• Message Body</li> </ul>
Android Gmail Conversations	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Message App</li> <li>• Path</li> </ul>
Android Yahoo Mail Attachments	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> </ul>
Android Yahoo Mail Emails	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Message Row ID</li> <li>• To</li> <li>• BCC</li> <li>• Snippet</li> </ul>	<ul style="list-style-type: none"> <li>• ID</li> <li>• From</li> <li>• CC</li> <li>• Subject</li> <li>• Message Body</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Timestamp</li> </ul>	
Android Yahoo Mail User Accounts	<ul style="list-style-type: none"> <li style="width: 50%;">• Profile Name</li> <li style="width: 50%;">• Profile</li> <li style="width: 50%;">• Service Type</li> <li style="width: 50%;">• Password</li> <li style="width: 50%;">• Country</li> <li style="width: 50%;">• Country Code</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Description</li> </ul>	
Calendar Events	<ul style="list-style-type: none"> <li style="width: 50%;">• ID</li> <li style="width: 50%;">• Title</li> <li style="width: 50%;">• Cal Description</li> <li style="width: 50%;">• Location</li> <li style="width: 50%;">• Latitude</li> <li style="width: 50%;">• Longitude</li> <li style="width: 50%;">• Deleted</li> <li style="width: 50%;">• Alarm?</li> <li style="width: 50%;">• Is All Day?</li> <li style="width: 50%;">• Start Time</li> <li style="width: 50%;">• End Time</li> <li style="width: 50%;">• Last Time</li> <li style="width: 50%;">• Map Bytes</li> <li style="width: 50%;">• Self Attendee?</li> <li style="width: 50%;">• Organiser</li> <li style="width: 50%;">• Provenance</li> </ul>	
Calendar Events (UFED Agent)	<ul style="list-style-type: none"> <li style="width: 50%;">• ID</li> <li style="width: 50%;">• Title</li> <li style="width: 50%;">• Cal Description</li> <li style="width: 50%;">• Location</li> <li style="width: 50%;">• Latitude</li> <li style="width: 50%;">• Longitude</li> <li style="width: 50%;">• Deleted</li> <li style="width: 50%;">• Alarm?</li> <li style="width: 50%;">• Is All Day?</li> <li style="width: 50%;">• Start Time</li> <li style="width: 50%;">• End Time</li> <li style="width: 50%;">• Last Time</li> <li style="width: 50%;">• Map Bytes</li> <li style="width: 50%;">• Self Attendee?</li> <li style="width: 50%;">• Organizer</li> <li style="width: 50%;">• Provenance</li> <li style="width: 50%;">• Data Provenance</li> </ul>	
Gmail Emails	<ul style="list-style-type: none"> <li style="width: 50%;">• Thread ID</li> <li style="width: 50%;">• ID</li> <li style="width: 50%;">• Message Row ID</li> <li style="width: 50%;">• From</li> <li style="width: 50%;">• To</li> <li style="width: 50%;">• CC</li> <li style="width: 50%;">• BCC</li> <li style="width: 50%;">• Subject</li> </ul>	

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Snippet</li> <li>• Timestamp</li> </ul>	<ul style="list-style-type: none"> <li>• Message Body</li> </ul>
Google Calendar Calendars	<ul style="list-style-type: none"> <li>• Acct ID</li> <li>• Calendar Name</li> <li>• Has Owner Access?</li> <li>• Internal Data Location</li> </ul>	<ul style="list-style-type: none"> <li>• Calendar ID</li> <li>• Calendar Details</li> <li>• To Be Removed?</li> <li>• Provenance</li> </ul>
Google Calendar Events	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Description</li> <li>• End Time</li> <li>• URL</li> </ul>	<ul style="list-style-type: none"> <li>• Event Name</li> <li>• Start Time</li> <li>• Creation Time</li> <li>• Provenance</li> </ul>
ProtonMail Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> </ul>
ProtonMail Emails	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Message Row ID</li> <li>• To</li> <li>• BCC</li> <li>• Snippet</li> <li>• Timestamp</li> </ul>	<ul style="list-style-type: none"> <li>• ID</li> <li>• From</li> <li>• CC</li> <li>• Subject</li> <li>• Message Body</li> </ul>
Samsung Email Logs	<ul style="list-style-type: none"> <li>• Thread ID</li> <li>• Message Row ID</li> <li>• To</li> </ul>	<ul style="list-style-type: none"> <li>• ID</li> <li>• From</li> <li>• CC</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"><li data-bbox="630 281 727 310">• BCC</li><li data-bbox="630 338 769 367">• Snippet</li><li data-bbox="630 394 808 424">• Timestamp</li><li data-bbox="630 451 878 480">• Data Provenance</li></ul> <ul style="list-style-type: none"><li data-bbox="1084 281 1224 310">• Subject</li><li data-bbox="1084 338 1305 367">• Message Body</li><li data-bbox="1084 394 1273 424">• Provenance</li></ul>

## Encryption and Credentials

<b>Description</b>	This section will contain information relating to Android KeyStore items which can be discovered and recovered using the Forensic Tool Kit.
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Attribute	Associated Columns
Android KeyStore	<ul style="list-style-type: none"> <li>• Result Type</li> <li>• Description</li> <li>• Decrypted Data</li> <li>• Application Name</li> <li>• Encrypted Data</li> <li>• Provenance</li> </ul>
Android KeyStore - GrayKey	<ul style="list-style-type: none"> <li>• Result Type</li> <li>• Description</li> <li>• Decrypted Data</li> <li>• Data Provenance</li> <li>• Application Name</li> <li>• Encrypted Data</li> <li>• Provenance</li> </ul>

## Location and Travel

<b>Description</b>	This section will contain information relating to location and travel items which can be discovered and recovered using the Forensic Tool Kit. These include mobile map applications such as Google Maps, as well as mobility service providers such as Uber. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, locations, directions, and addresses may be found under the <b>Locations</b> attribute.
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Attribute	Associated Columns
Android Google Maps	<ul style="list-style-type: none"> <li>• Ext</li> <li>• Category</li> <li>• L-Size</li> <li>• SHA1</li> <li>• Created</li> <li>• Modified</li> <li>• Path</li> <li>• P-Size</li> <li>• MD5</li> <li>• SHA256</li> <li>• Accessed</li> </ul>
Android Wi-Fi Profiles	<ul style="list-style-type: none"> <li>• SSID</li> <li>• MAC</li> <li>• Last Connect</li> <li>• Updated Time</li> <li>• Creator UID</li> <li>• Ephemeral?</li> <li>• Valid Internet Access?</li> <li>• Has Ever Connected?</li> <li>• Data Provenance</li> <li>• WiFi Security</li> <li>• Connection Time List</li> <li>• Creation Time</li> <li>• Connection Priority</li> <li>• Network ID</li> <li>• SelfAdded?</li> <li>• Shared?</li> <li>• Provenance</li> </ul>
Google Maps Directions	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Estimated Travel</li> <li>• Data Provenance</li> <li>• Journey Steps Information</li> <li>• Provenance</li> </ul>
Last Known Locations	<ul style="list-style-type: none"> <li>• Location Name</li> <li>• Device Lat.</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Device Long.</li> <li>• Location Country</li> <li>• Location Address</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• City</li> <li>• Location Category</li> <li>• Category</li> <li>• Created</li> </ul>
Uber Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Uber Cached Locations	<ul style="list-style-type: none"> <li>• Location Name</li> <li>• Device Long.</li> <li>• Location Country</li> <li>• Location Address</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Device Lat.</li> <li>• City</li> <li>• Location Category</li> <li>• Category</li> <li>• Created</li> </ul>
Uber Payments	<ul style="list-style-type: none"> <li>• Creation Time</li> <li>• Timestamp</li> <li>• Amount</li> <li>• Merchant Industry</li> <li>• Merchant Category</li> <li>• Location Time</li> <li>• Longitude</li> <li>• Horiz Accuracy</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Organization Name</li> <li>• Currency Code</li> <li>• Merchant Name</li> <li>• Serial#</li> <li>• Latitude</li> <li>• Elevation</li> <li>• Vert Accuracy</li> <li>• Data Provenance</li> </ul>
Uber Profiles	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li>• Category</li> <li>• Created</li> </ul>
Waze Places	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> <li>• Location Name</li> <li>• Device Lat.</li> <li>• Device Long.</li> <li>• City</li> <li>• Location Country</li> <li>• Location Category</li> <li>• Location Address</li> <li>• Category</li> <li>• Path</li> <li>• Created</li> <li>• Description</li> </ul>

## Media

<b>Description</b>	This section will contain information relating to media items which can be discovered and recovered using the Forensic Tool Kit. These include generic mobile features such as pictures and videos; also found here is information concerning photo sharing and storage services such as Google Photos. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, capture dates, makes and models of the device used, may be found under the <b>Pictures</b> attribute.
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Attribute	Associated Columns
AMR Files	
Audio	<ul style="list-style-type: none"> <li>• Created</li> <li>• L-Size</li> <li>• Path</li> <li>• Modified</li> <li>• Category</li> </ul>
Carved Video	<ul style="list-style-type: none"> <li>• Created</li> <li>• L-Size</li> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Modified</li> <li>• Category</li> <li>• Make</li> <li>• Latitude</li> <li>• Path</li> </ul>
Google Photos Albums	<ul style="list-style-type: none"> <li>• ID</li> <li>• UTC Time</li> <li>• Capture Time</li> <li>• Type</li> <li>• Is VR?</li> <li>• Hidden</li> <li>• Partial Backup Downloaded</li> <li>• OEM Special Type</li> <li>• In Camera Folder?</li> <li>• Overlay Type</li> <li>• Date Header UTC Time</li> <li>• Ded Up Key</li> <li>• GMT Offset</li> <li>• Month Random Time</li> <li>• Deleted</li> <li>• Has Local?</li> <li>• Composition Type</li> <li>• Is Archive?</li> <li>• Is Favourite?</li> <li>• In Primary Stage?</li> <li>• Min Upload UTC Time</li> <li>• Trash Time</li> </ul>

Attribute	Associated Columns	
Google Photos Media	<ul style="list-style-type: none"> <li>• Type</li> <li>• ID</li> <li>• UTC Time</li> <li>• Capture Time</li> <li>• Type</li> <li>• Is VR?</li> <li>• Hidden</li> <li>• Partial Backup Downloaded</li> <li>• OEM Special Type</li> <li>• In Camera Folder?</li> <li>• Overlay Type</li> <li>• Date Header UTC Time</li> <li>• Type</li> </ul>	<ul style="list-style-type: none"> <li>• Provenance</li> <li>• Ded Up Key</li> <li>• GMT Offset</li> <li>• Month Random Time</li> <li>• Deleted</li> <li>• Has Local?</li> <li>• Composition Type</li> <li>• Is Archive?</li> <li>• Is Favourite?</li> <li>• In Primary Stage?</li> <li>• Min Upload UTC Time</li> <li>• Trash Time</li> <li>• Provenance</li> </ul>
Motion Photos	<ul style="list-style-type: none"> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Duplicate File</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Make</li> <li>• Latitude</li> <li>• L-Size</li> <li>• Path</li> <li>• Created</li> </ul>
Pictures	<ul style="list-style-type: none"> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Duplicate File</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Make</li> <li>• Latitude</li> <li>• L-Size</li> <li>• Path</li> <li>• Created</li> </ul>
Videos	<ul style="list-style-type: none"> <li>• Created</li> <li>• L-Size</li> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Category</li> <li>• Make</li> <li>• Latitude</li> <li>• Path</li> </ul>

## Mobile Application Attachment

This is applicable for Microsoft Teams, Slack, LinkedIn and ChatGPT.

Attribute	Associated Columns
Attachment	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info File Name</li> <li>• System Info File Size</li> <li>• Item Source</li> <li>• System Info Provenance</li> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD File Type</li> <li>• System Info Target Creation Time</li> <li>• System Info Source</li> <li>• Data Provenance</li> </ul>

## Mobile Contacts

This is applicable for Microsoft Teams, Skype, Slack, LinkedIn, TikTok and ChatGPT.

Attribute	Associated Columns
Contacts	<ul style="list-style-type: none"> <li>• Label</li> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Item Source</li> <li>• Path</li> <li>• Item Description</li> <li>• Item Number</li> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• File Type</li> <li>• Created Date</li> <li>• Name</li> </ul>

## Mobile Chat Conversations

This is applicable for Microsoft Teams, Skype, Slack, LinkedIn, TikTok and ChatGPT.

Attribute	Associated Columns	
Conversations	<ul style="list-style-type: none"> <li>• Label</li> <li>• Item Description</li> <li>• Conversation Name</li> <li>• Chat Message Count</li> <li>• File Type</li> <li>• Created Date</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Chat Participants</li> <li>• Chat Topic</li> <li>• Message Application</li> <li>• Path</li> <li>• Name</li> </ul>

## Mobile Calls

This is applicable for Microsoft Teams and Skype.

Attribute	Associated Columns	
Calls	<ul style="list-style-type: none"> <li>• Label</li> <li>• Calling Name</li> <li>• Message Sender</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Call Result Status</li> <li>• Call Country Code</li> <li>• Path</li> <li>• Item Description</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Call Number</li> <li>• Message Recipient(s)</li> <li>• Call Time</li> <li>• Direction</li> <li>• Item Source</li> <li>• File Type</li> <li>• Created Date</li> <li>• Name</li> </ul>

## Mobile Messages

This is applicable for Microsoft Teams, Skype, Slack, LinkedIn, TikTok and ChatGPT.

Attribute	Associated Columns
Messages	<ul style="list-style-type: none"><li>• Label</li><li>• Message Sender</li><li>• Message Sent Time</li><li>• File Type</li><li>• Message Application</li><li>• Message Body</li><li>• Created Date</li><li>• Name</li><li>• Item Number</li><li>• Message Recipient(s)</li><li>• Message Received Time</li><li>• Message Is Read</li><li>• Message Attachment Count</li><li>• Path</li><li>• Item Description</li></ul>

## Operating System

<b>Description</b>	This section will contain information relating to operating system information which can be discovered and recovered using the Forensic Tool Kit. These include features such as android accounts information, downloads, and WiFi logs. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, SSID and connection times, may be found under the <b>Wi-Fi Logs</b> attribute.
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Attribute	Associated Columns
Accounts Information	<ul style="list-style-type: none"> <li>Type</li> <li>Password</li> </ul>
FCM (Firebase Cloud Messaging)	<ul style="list-style-type: none"> <li>Name</li> <li>Label</li> <li>Item Number</li> <li>Timestamp Date/Time</li> <li>Package Name</li> <li>Record ID</li> <li>System Info Provenance</li> <li>Data Provenance</li> </ul>
Android Downloads	<ul style="list-style-type: none"> <li>File Path</li> <li>MIME</li> <li>HTTP Status</li> <li>Last Update</li> <li>Notification Package</li> <li>Bytes Total</li> <li>Creator UID</li> <li>Title</li> <li>Description</li> <li>Is Public API?</li> <li>Is Visible Download UI?</li> <li>Media Provider URI</li> <li>Deleted</li> <li>Error Msg</li> <li>Request Header URI</li> <li>Remote URI</li> </ul>
Google Accounts	<ul style="list-style-type: none"> <li>Profile Name</li> <li>Profile</li> <li>Service Type</li> <li>Password</li> <li>Country</li> <li>Country Code</li> <li>Category</li> <li>Path</li> <li>Created</li> <li>Description</li> </ul>

Attribute	Associated Columns
Wi-Fi Logs - Android	<ul style="list-style-type: none"><li>• SSID</li><li>• MAC</li><li>• Last Connect</li><li>• Updated Time</li><li>• Creator UID</li><li>• Ephemeral?</li><li>• Valid Internet Access?</li><li>• Has Ever Connected?</li><li>• Data Provenance</li><li>• WiFi Security</li><li>• Connection Time List</li><li>• Creation Time</li><li>• Connection Priority</li><li>• Network ID</li><li>• SelfAdded?</li><li>• Shared?</li><li>• Provenance</li></ul>

## Social Networking

<b>Description</b>	This section will contain information relating to general social media items which can be discovered and recovered using the Forensic Tool Kit. These include mobile social media features for a variety of application, such as application users, messages, and contacts. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, profile names and passwords may be found under the <b>Profiles/Users</b> attributes.
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Attribute	Associated Columns	
Android Instagram Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Android Tinder Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Android Tinder Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Android Tinder Photos	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Facebook Android Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook Android Pictures	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Facebook Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook User/Friends	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• First Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address2</li> <li>• Zip Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Last Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Address1</li> <li>• State</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
Instagram Direct Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Instagram Group Members	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Instagram Media	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Instagram Profiles	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Musical.ly Local Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Musical.ly Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient</li> <li>• Received</li> <li>• Read</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Musical.ly Posts	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Musical.ly Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Reddit Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Tumblr Chat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Twitter Direct Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> </ul>

Attribute	Associated Columns
Twitter Users	<ul style="list-style-type: none"><li>• Created</li><li>• Profile Name</li><li>• Service Type</li><li>• Country</li><li>• Category</li><li>• Created</li><li>• Description</li><li>• Profile</li><li>• Password</li><li>• Country Code</li><li>• Path</li><li>• Description</li></ul>

## Twitter

Attribute	Associated Columns	
Users	• Label	• Item Number
	• User ID	• System Info User Name
	• Image URL	• User Flags
	• DMS Muted	• Active Creator
	• NFT Avatar	• Blue Verified
	• Super Followers Count	• Twitter Articles
	• Verified Phone	• Header URL
	• System Info Description	• Web URL
	• URL Entity	• Location
	• Structured Elements	• Followers
	• Fast Followers	• Friends
	• Statuses	• Favourites
	• Media Count	• Profile Creation Date/Time
	• Profile Update Time	• Pinned Tweet Time
	• Advertiser Type	• Professional Elements
	• Tip JAR Settings	• Hash
	• Translator Type	• Profile Interstitial Type
	• User Label Data Elements	• Friendship
	• Friendship Time	• System Info Provenance
	• Data Provenance	• Name

Attribute	Associated Columns	
Tweets	<ul style="list-style-type: none"> <li>• Label</li> <li>• User ID</li> <li>• Status ID</li> <li>• Created Time</li> <li>• In status ID</li> <li>• Favourites</li> <li>• Retweet Count</li> <li>• View Count</li> <li>• Latitude</li> <li>• Place Data Element</li> <li>• Unified Card Element</li> <li>• Conversation Control Element</li> <li>• Reaction Meta Element</li> <li>• Eligibility Element</li> <li>• System Info Language</li> <li>• Reply Count</li> <li>• Self Thread ID</li> <li>• Composer Source</li> <li>• Limited Action</li> <li>• Community ID</li> <li>• Trusted Friend Screen Name</li> <li>• Unmentioned Info Elements</li> <li>• Rent Content Elements</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• System Info User Name</li> <li>• Content Element</li> <li>• In Ruser ID</li> <li>• In screen Name</li> <li>• Favourites</li> <li>• Quote Count</li> <li>• Flags</li> <li>• Longitude</li> <li>• Card Element</li> <li>• Perma Link Element</li> <li>• Voice Information Element</li> <li>• Community Element</li> <li>• Control Element</li> <li>• Quoted Tweet ID</li> <li>• Conversation ID</li> <li>• Reported</li> <li>• Tweet Source</li> <li>• Bird Watch Nodes</li> <li>• Down Voted</li> <li>• Quick Promote Elements</li> <li>• Content Elements</li> <li>• Retweeted</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Live Events	<ul style="list-style-type: none"> <li>• Label</li> <li>• Event ID</li> <li>• Date Time (String)</li> <li>• Short Title</li> <li>• Refresh Rate</li> <li>• Social Context Elements</li> <li>• Carousel Elements</li> <li>• Hash Tag</li> <li>• Description Entities</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Sensitive</li> <li>• System Info Description</li> <li>• Updated Time</li> <li>• System Info Category</li> <li>• Live Sports Score Elements</li> <li>• Timeline Elements</li> <li>• System Info Title</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>
Interest Topic	<ul style="list-style-type: none"> <li>• Label</li> <li>• Topic ID</li> <li>• Following</li> <li>• Not Interested</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Topic ID Hash</li> <li>• System Info Description</li> <li>• Icon URL</li> <li>• Data Provenance</li> </ul>
Information / User Information	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Modified Date</li> <li>• Extension</li> <li>• MD5 Hash</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Created Date</li> <li>• File Type</li> <li>• Path</li> <li>• Logical Size</li> </ul>

Uber

Attribute	Associated Columns	
Account	<ul style="list-style-type: none"> <li>• Label</li> <li>• Device UUID</li> <li>• Origin Time</li> <li>• Last Name</li> <li>• Owner Picture URL</li> <li>• Confirmed Mobile</li> <li>• SMS Notification</li> <li>• Mobile Digits</li> <li>• Payment Profile UUID</li> <li>• Referral Code</li> <li>• Role</li> <li>• Rating</li> <li>• Riders Trip Count</li> <li>• Longitude Value</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Last Modified Time</li> <li>• First Name</li> <li>• Email</li> <li>• Admin</li> <li>• Confirmed Mobile Status</li> <li>• Country ISO</li> <li>• No Password</li> <li>• Payment Profile Google Wallet</li> <li>• System Info Referring URL</li> <li>• Profile Type</li> <li>• Confirmed Email</li> <li>• Latitude Value</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>
Cached Shortcuts	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• Full Address</li> <li>• Longitude Value</li> <li>• Locale</li> <li>• System Info Title</li> <li>• Icon URL</li> <li>• City ID</li> <li>• Score(Double)</li> <li>• Sub Title</li> <li>• Analytics</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Device UUID</li> <li>• Latitude Value</li> <li>• Identifier</li> <li>• System Info Provider</li> <li>• Accelerator Type</li> <li>• Tag Key</li> <li>• Confidence(String)</li> <li>• Expiry Time</li> <li>• Distance (m)</li> <li>• System Info Provenance</li> </ul>

Attribute	Associated Columns
Cached Location	<ul style="list-style-type: none"> <li>• Data Provenance</li> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• Reference ID</li> <li>• Tag</li> <li>• Subtitle Segment</li> <li>• Latitude Value</li> <li>• Total Trips</li> <li>• City ID</li> <li>• System Info Provenance</li> <li>• Name</li> <li>• Name</li> <li>• Item Number</li> <li>• Uber ID</li> <li>• Hash</li> <li>• Title Segment</li> <li>• Relevance</li> <li>• Longitude Value</li> <li>• Expiry Time</li> <li>• Historical</li> <li>• Data Provenance</li> </ul>

## Web Related

<b>Description</b>	This section will contain information relating to general web browser items which can be discovered and recovered using the Forensic Tool Kit. These include browser features such as browser history, bookmarks, and downloads; also found here is autofill information, such as credit cards and login details. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, searches and corresponding URLs and web page titles may be found under the <b>Search Terms</b> attributes.
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Attribute	Associated Columns	
Android Browser Bookmarks	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Android Browser Search Terms	<ul style="list-style-type: none"> <li>• User name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> </ul>
Android Browser Web History	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Android Firefox Bookmarks	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Android Firefox Web History	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Referring URL</li> </ul>	
Chrome Archived Keyword Search Terms	<ul style="list-style-type: none"> <li style="width: 50%;">• User name</li> <li style="width: 50%;">• Date/Time</li> <li style="width: 50%;">• Search Term</li> <li style="width: 50%;">• URL</li> <li style="width: 50%;">• Web Page Title</li> <li style="width: 50%;">• Browser</li> <li style="width: 50%;">• Search Engine</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Provenance</li> </ul>	
Chrome Autofill Profiles	<ul style="list-style-type: none"> <li style="width: 50%;">• Object ID</li> <li style="width: 50%;">• Object Name</li> <li style="width: 50%;">• Browser Origin</li> <li style="width: 50%;">• Name</li> <li style="width: 50%;">• Value</li> <li style="width: 50%;">• Creation Ft</li> <li style="width: 50%;">• Last Use Ft</li> <li style="width: 50%;">• Count</li> <li style="width: 50%;">• Provenance</li> <li style="width: 50%;">• Data Provenance</li> </ul>	
Chrome Autofill	<ul style="list-style-type: none"> <li style="width: 50%;">• Object ID</li> <li style="width: 50%;">• Object Name</li> <li style="width: 50%;">• Browser Origin</li> <li style="width: 50%;">• Name</li> <li style="width: 50%;">• Value</li> <li style="width: 50%;">• Creation Ft</li> <li style="width: 50%;">• Last Use Ft</li> <li style="width: 50%;">• Count</li> <li style="width: 50%;">• Provenance</li> <li style="width: 50%;">• Data Provenance</li> </ul>	
Chrome Bookmarks	<ul style="list-style-type: none"> <li style="width: 50%;">• Created</li> <li style="width: 50%;">• Modified</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Ext</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• MD5</li> <li style="width: 50%;">• L-Size</li> </ul>	
Chrome Cookies	<ul style="list-style-type: none"> <li style="width: 50%;">• User Name</li> <li style="width: 50%;">• Name</li> <li style="width: 50%;">• Value</li> <li style="width: 50%;">• Last Access</li> <li style="width: 50%;">• Creation Time</li> <li style="width: 50%;">• Browser</li> <li style="width: 50%;">• Domain</li> <li style="width: 50%;">• File Path</li> <li style="width: 50%;">• Expires</li> <li style="width: 50%;">• Path</li> <li style="width: 50%;">• Category</li> <li style="width: 50%;">• Created</li> </ul>	

Attribute	Associated Columns	
Chrome Downloads	<ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> </ul>
Chrome Keyword Search Terms	<ul style="list-style-type: none"> <li>• User name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> </ul>
Chrome Logins	<ul style="list-style-type: none"> <li>• Login Row ID</li> <li>• Action URL</li> <li>• Username Value</li> <li>• Password Value</li> </ul>	<ul style="list-style-type: none"> <li>• Origin URL</li> <li>• Username Element</li> <li>• Password Element</li> </ul>
Chrome Saved Credit Cards	<ul style="list-style-type: none"> <li>• Card Type(s)</li> <li>• Expiration Year</li> <li>• Name on Card</li> <li>• Status</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Expiration Month</li> <li>• Last 4</li> <li>• Issuer</li> <li>• Provenance</li> </ul>
Chrome Tab History	<ul style="list-style-type: none"> <li>• ID</li> <li>• URL</li> <li>• Original Request URL</li> <li>• Transition Type</li> </ul>	<ul style="list-style-type: none"> <li>• Index Entry</li> <li>• Title</li> <li>• Referrer URL</li> </ul>
Chrome Top SitesUs	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Title</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Builtin?</li> <li>• URL</li> <li>• Description</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Chrome Web History	<ul style="list-style-type: none"> <li>• Visit ID</li> <li>• Title</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• URL</li> <li>• Visit Count</li> <li>• Data Provenance</li> </ul>
Chrome Web Visits	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Edge Chromium Bookmarks	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Edge Chromium FavIcons	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Last Update</li> </ul>	<ul style="list-style-type: none"> <li>• Page URL</li> </ul>
Edge Chromium Keyword Search Terms	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Data/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Edge Chromium Tab History	<ul style="list-style-type: none"> <li>• ID</li> <li>• URL</li> <li>• Original Request URL</li> <li>• Transition Type</li> </ul>	<ul style="list-style-type: none"> <li>• Index Entry</li> <li>• Title</li> <li>• Referrer URL</li> </ul>
Edge Chromium Web History	<ul style="list-style-type: none"> <li>• Visit ID</li> <li>• Title</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• URL</li> <li>• Visit Count</li> <li>• Data Provenance</li> </ul>
Edge Chromium Web Visits	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>

Attribute	Associated Columns	
Firefox Cookies	<ul style="list-style-type: none"> <li>• Name</li> <li>• Last Access</li> <li>• Browser</li> <li>• File Path</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Value</li> <li>• Creation Time</li> <li>• Domain</li> <li>• Expires</li> <li>• Category</li> </ul>
Firefox Web History	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Firefox Web Visits	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Opera Autofill	<ul style="list-style-type: none"> <li>• Browser Origin</li> <li>• Value</li> <li>• Last Use</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Name</li> <li>• Creation Time</li> <li>• Count</li> <li>• Data Provenance</li> </ul>
Opera Bookmarks	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
Opera Cookies	<ul style="list-style-type: none"> <li>• Name</li> <li>• Last Access</li> <li>• Browser</li> <li>• File Path</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Value</li> <li>• Creation Time</li> <li>• Domain</li> <li>• Expires</li> <li>• Category</li> </ul>
Opera Downloads	<ul style="list-style-type: none"> <li>• User Name</li> </ul>	<ul style="list-style-type: none"> <li>• File Path</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> </ul>
Opera FavIcons	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Last Update</li> </ul>	<ul style="list-style-type: none"> <li>• Page URL</li> </ul>
Opera Keyword Search Terms	<ul style="list-style-type: none"> <li>• User name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> </ul>
Opera Top Sites	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Title</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Builtin?</li> <li>• URL</li> <li>• Description</li> <li>• Data Provenance</li> </ul>
Opera Web History	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Opera Web Visits	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
UC Browser Bookmarks	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
UC Browser Cookies	<ul style="list-style-type: none"> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Value</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li>• Last Access</li> <li>• Browser</li> <li>• File Path</li> <li>• Path</li> <li>• Created</li> <li>• Creation Time</li> <li>• Domain</li> <li>• Expires</li> <li>• Category</li> </ul>
UC Browser Downloads	<ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> </ul>
UC Browser History	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> <li>• Visit Count</li> <li>• Title</li> </ul>

## Mobile Privacy Dashboard

- Object Id
- Operation Type
- Bundle Name
- Data Provenance
- Object Name
- Activity Type
- Provenance
- Timestamp time

## Mobile Intelligence Battery Usage

- Name
- Item Number
- Foreground Usage Time Millise
- ID
- User ID(Number)
- Package Name
- Battery Status
- Boot Time
- Total Power mAh
- Percentage Of Total Power
- Data Provenance
- Label
- Application Label
- Background usage Time Millise
- UID
- Battery Percentage
- Summary MD Timezone
- System Info Is Hidden
- Timestamp Date/Time
- Consumed Power mAh
- System Info Provenance

## Recent Tasks

- Snapshot Image
- Object Name
- Real Activity
- Calling UID
- Calling Package
- Component
- Snapshot Image Path
- Data Provenance
- Object ID
- Task ID
- Affinity
- Effective UID
- User ID
- App Action
- Provenance
- Last Moved Time

## Device Power

- Object Id
- Requester
- Timezone
- Data Provenance
- Utc Time
- Object Name
- Reason
- Provenance
- Local Time

## Google Keep Application

This is applicable for **Google Keep Account**, **Google Keep Note** and **Google Keep Shared**.

- Name
- Item
- Modified Date
- Extension
- MD5
- Object Name
- Object ID
- Last Modified
- Physical Size
- Logical Size
- MD5 Hash
- SHA256 Value
- Label
- Created Date
- Category
- Path
- L-size
- Labels
- Created Date
- File Type
- Extension
- Path
- SHA1 Hash

## Google Fit

- Name
- Pkg name
- Activity Name
- Type Activity
- Provenance
- Object Name
- Activity ID
- Activity String
- Summary Start Time
- Data Provenance
- Label
- Activity ID
- Activity String
- Start Time
- Data Provenance
- Labels
- Summary Description
- Activity Time
- End Time
- Status
- Item
- Description
- Activity Time
- End Time
- Object ID
- Pkg name
- Activity Name
- Type Activity
- Provenance
- Search Hits

## Google Keyboard

- Name
- Training Target
- End Time
- Provenance
- Object Name
- Pkg name
- Session Number
- Data Provenance
- Labels
- Summary Start time
- Locale
- Status
- Item
- Start time
- Locale
- Object ID
- Training Target
- End Date
- Provenance
- Search Hits

## Garmin Health Fitness Application

### Applicable for the below Sub-Nodes:

- Application Notification

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- Cached Activity Information
  - Cached Activity

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- Polyline Co-ordinates
  - Cached Activity summary
  - Sleep Event
  - Smart device
  - User daily Summary
  - User Profile
  - Weather Information

The following are the list of Columns:

- |                |                 |                 |
|----------------|-----------------|-----------------|
| • Name         | • Label         | • Item          |
| • Created Date | • Modified Date | • Category      |
| • Extension    | • Path          | • MD5           |
| • L-size       | • Object Name   | • Labels        |
| • Object ID    | • Created Date  | • Last Modified |
| • File Type    | • Physical Size | • Extension     |
| • Logical Size | • Path          | • MD5 Hash      |
| • SHA1 Hash    | • SHA256 Value  |                 |

**Android turbo Health**

Attribute	Associated Columns	
Mobile Turbo Application Launch Event	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Launchtime Value</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Package Name</li> <li>• System Info Provenance</li> </ul>
Mobile turbo Battery Event	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Battery Level Value</li> <li>• Time zone</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• Charge Type</li> <li>• System Info Provenance</li> </ul>

## 6 Mobile Forensics - iOS

### Application Usage

<b>Description</b>	This section will contain information relating to mobile application items which can be discovered and recovered using the Forensic Tool Kit. This includes application information such as install states and application permissions; also found here are attributes concerning KnowledgeC application information. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, application name, file path, and install dates may be found under the <b>Installed Applications</b> attribute.
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Attribute	Associated Columns	
Application Install States	<ul style="list-style-type: none"> <li>• Recorded</li> <li>• End Time</li> <li>• App Category</li> <li>• Type</li> </ul>	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Bundle ID</li> <li>• Application Name</li> <li>• Provenance</li> </ul>
Application Permissions - MacOS, iOS	<ul style="list-style-type: none"> <li>• Service</li> <li>• Perm Granted?</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Service Type</li> <li>• Assoc User</li> </ul>
Installed Applications	<ul style="list-style-type: none"> <li>• Usr</li> <li>• Pkg Name</li> <li>• Install Date</li> <li>• Internal Vers</li> <li>• App Store Action</li> <li>• Bundle ID</li> <li>• CTR Moved</li> <li>• Dumped Loc</li> </ul>	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• File Path</li> <li>• Display Vers</li> <li>• File Size</li> <li>• Publisher</li> <li>• CTR Made Live</li> <li>• CTR Path</li> <li>• Provenance</li> </ul>
InteractionC Contacts	<ul style="list-style-type: none"> <li>• Creation Time</li> </ul>	<ul style="list-style-type: none"> <li>• First Inbound Interact</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Last Inbound Interact</li> <li>• Last Outbound Interact</li> <li>• # Outbound Interacts</li> </ul>	<ul style="list-style-type: none"> <li>• First Outbound Interact</li> <li>• # Inbound Interacts</li> <li>• Address Display Name</li> </ul>
InteractionC Interactions	<ul style="list-style-type: none"> <li>• Ext</li> <li>• Category</li> <li>• L-Size</li> <li>• SHA1</li> <li>• Created</li> <li>• Modified</li> </ul>	<ul style="list-style-type: none"> <li>• Path</li> <li>• P-Size</li> <li>• MD5</li> <li>• SHA256</li> <li>• Accessed</li> </ul>
Biome App In Focus (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• Bundle ID</li> <li>• Action GUID</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Time</li> <li>• Write Time</li> <li>• Transition</li> <li>• System Info Activity</li> <li>• Data Provenance</li> </ul>
Biome Application Install (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• Bundle ID</li> <li>• System Info Activity</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Time</li> <li>• Write Time</li> <li>• Action GUID</li> <li>• System Info Provenance</li> </ul>
Biome Application Intent (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• Donated By Siri</li> <li>• Bundle ID</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Time</li> <li>• System Info Duration</li> <li>• Identifier</li> <li>• Intent</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Intent Action</li> <li>• Group ID</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Direction(Number)</li> <li>• Intent Strings</li> <li>• Data Provenance</li> </ul>
Biome Backlight (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Backlight Active</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• System Info Provenance</li> </ul>
Biome Battery Percentage (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• Battery Percentage</li> <li>• System Info Activity</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Time</li> <li>• Write Time</li> <li>• Action GUID</li> <li>• System Info Provenance</li> </ul>
Biome Device plugged (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• Device Power Plugged</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Time</li> <li>• Write Time</li> <li>• System Info Activity</li> <li>• Data Provenance</li> </ul>
Biome Hardware Reliability (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Hardware</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• System Info Provenance</li> </ul>
Biome Notification (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Bundle ID</li> <li>• Field2</li> <li>• Field4</li> <li>• Field6</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• Field1</li> <li>• Field3</li> <li>• Field5</li> <li>• System Info Provenance</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Data Provenance</li> </ul>	
Biome Text Input Session (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Bundle ID</li> <li>• Data Provenance</li> <li>• Label</li> <li>• Start Time</li> <li>• System Info Provenance</li> </ul>	
Biome User Activity (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Activity Type</li> <li>• Field2</li> <li>• System Info Provenance</li> <li>• Label</li> <li>• Start Time</li> <li>• Field1</li> <li>• Field3</li> <li>• Data Provenance</li> </ul>	
Biome WiFi (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary MD End Time</li> <li>• System Info Activity</li> <li>• Data Provenance</li> <li>• Label</li> <li>• Start Time</li> <li>• Device Name</li> <li>• System Info Provenance</li> </ul>	
iTunes Metadata (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Bundle Short Version String</li> <li>• Account Alt DSID</li> <li>• Account DS Person ID</li> <li>• Account Family ID</li> <li>• Purchase Date</li> <li>• Game Center Ever Enabled</li> <li>• Genre ID</li> <li>• Is Auto Download</li> <li>• Is Factory Install</li> <li>• Item Name</li> <li>• Label</li> <li>• Artist</li> <li>• Bundle Version</li> <li>• Account Apple ID</li> <li>• Account Downloader ID</li> <li>• Account Purchaser ID</li> <li>• Game Center Enabled</li> <li>• Genre</li> <li>• Messages Extension</li> <li>• Is Purchased</li> <li>• Redownloaded</li> <li>• Item ID</li> <li>• Kind</li> </ul>	

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Launch Prohibited</li> <li>• Rating Rank</li> <li>• Device Based VPP</li> <li>• External Identifier</li> <li>• Variant ID</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Rating Label</li> <li>• Release Date</li> <li>• Version Bundle ID</li> <li>• Source Application</li> <li>• System Info Provenance</li> </ul>
File Application Smart Folder (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Filename</li> <li>• Last Hit Time</li> <li>• System Info Modified</li> <li>• Is Uploading</li> <li>• Is Downloading</li> <li>• Uploaded</li> <li>• Trashed</li> <li>• In Pinned Folder</li> <li>• Provider Identifier</li> <li>• Content Type Identifier</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Folder ID</li> <li>• Summary MD File Type</li> <li>• Created Time</li> <li>• Frecency At Last Hit Date</li> <li>• Is Ubiquitous</li> <li>• Download</li> <li>• Container Pristine</li> <li>• Shared By Current User</li> <li>• Item Identifier</li> <li>• System Info Display Name</li> <li>• User Info</li> <li>• Data Provenance</li> </ul>
Mobile Application Permission (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• System Info Service</li> <li>• Application Permission Granted</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Bundle ID</li> <li>• Service Type</li> <li>• Associated User</li> <li>• Data Provenance</li> </ul>
Mobile Installed Application (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• User</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• System Info Application Name</li> <li>• System Info Target File Path</li> <li>• Display Version</li> <li>• System Info File Size</li> <li>• System Info Publisher</li> <li>• Container Made Live Time</li> <li>• Container Path</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Package Name</li> <li>• System Info Install Date</li> <li>• Internal Version</li> <li>• App Store Action</li> <li>• Bundle ID</li> <li>• Container Moved Time</li> <li>• Dumped Location</li> <li>• Data Provenance</li> </ul>
Library Notification (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Bundle Name</li> <li>• Suppress Screen Light Up</li> <li>• Interruption Level</li> <li>• Prevent Notification Dismissal After Default Action</li> <li>• Trigger Time Interval</li> <li>• Present Alert</li> <li>• Ignore Accessibility Disabled Vibration</li> <li>• Sound Repeat</li> <li>• Reply To CurrentUser</li> <li>• App Summary Argument</li> <li>• Mentions Current User</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Bundle ID</li> <li>• Created Time</li> <li>• Suppress Sync Dismissal When Removed</li> <li>• UNNotification Center Destination</li> <li>• Ignore Downtime</li> <li>• Play Sound</li> <li>• Tone Alert Type</li> <li>• Use Request Identifier Dismissal Sync</li> <li>• Hide Date</li> <li>• Lock Screen Destination</li> <li>• Icon System Image Name</li> <li>• Trigger Repeat Interval</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li>• Sound Maximum Duration</li> <li>• Realert Count</li> <li>• Preempt Presented Notification</li> <li>• System Info Notification Type</li> <li>• Should Authenticate Default Action</li> <li>• App Notification Title</li> <li>• Ignore Do Not Disturb</li> <li>• Notification Summary Argument Count</li> <li>• Notify Recipient Anyway</li> <li>• Relevance Score</li> <li>• Footer</li> <li>• Alert Destination</li> <li>• Car Play Destination</li> <li>• Trigger Repeats</li> <li>• Ignore Ringer Switch</li> <li>• Should Hide Time</li> <li>• Context System Image</li> <li>• System Info Provenance</li> <li>• UN Notification Default Destinations</li> <li>• App Notification Identifier</li> <li>• Background Default Action</li> <li>• Media Library Item Identifier</li> <li>• Presentation Options</li> <li>• Context Recipient Count</li> <li>• Notification Title Localization Key</li> <li>• Notification Subordinate Icon</li> <li>• SBS Push Store Category Key</li> <li>• Badge Application Icon</li> <li>• Header</li> <li>• Default Action Key</li> <li>• Critical Alert Sound</li> <li>• Display Actions Inline</li> <li>• Notification Message Localization Key</li> <li>• Schema Version</li> <li>• App Notification Message</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Stream Notification (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Timestamp2</li> <li>• System Info Title</li> <li>• Bundle ID</li> <li>• Additional Identifier</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp1</li> <li>• Device UUID</li> <li>• Body</li> <li>• Additional Text</li> <li>• Additional Metadata</li> <li>• Data Provenance</li> </ul>
Weather Application (iOS)	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Latitude (Double)</li> <li>• City Timezone Update Date Key</li> <li>• Last Update Time</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Longitude (Double)</li> <li>• Time zone</li> <li>• Last Refreshed Time</li> <li>• System Info Provenance</li> </ul>
iOS Device Information	<ul style="list-style-type: none"> <li>• IMEI</li> <li>• Dev Name</li> <li>• Model ID</li> <li>• IMSI</li> <li>• Last iCloud Backup</li> <li>• Find MyiPhone Svc Added Reported Phone#</li> <li>• Bundle ID</li> <li>• Carrier Config Path</li> <li>• Locale ID</li> <li>• iCloud Backup?</li> <li>• App Delete Prohibit?</li> </ul>	<ul style="list-style-type: none"> <li>• Serial#</li> <li>• Display Name</li> <li>• ICCID</li> <li>• Location Services?</li> <li>• Find MyiPhone On?</li> <li>• SIM Phone#</li> <li>• Carrier Config File</li> <li>• Device TZ</li> <li>• Language</li> <li>• iCloud Backup</li> <li>• Encryption Req Last iCloud Backup TZ</li> <li>• App Install Prohibit?</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>Last System Vers</li> </ul>	<ul style="list-style-type: none"> <li>Provenance</li> </ul>
iOS User Shortcut Dictionary	<ul style="list-style-type: none"> <li>Word</li> <li>Locale Category</li> <li>Path</li> <li>Description</li> </ul>	<ul style="list-style-type: none"> <li>User Dict. Freq.</li> <li>Category</li> <li>Created</li> </ul>
iOS User Word Dictionary	<ul style="list-style-type: none"> <li>Word</li> <li>Locale Category</li> <li>Path</li> <li>Description</li> </ul>	<ul style="list-style-type: none"> <li>User Dict. Freq.</li> <li>Category</li> <li>Created</li> </ul>
KnowledgeC Activity Level	<ul style="list-style-type: none"> <li>Activity</li> <li>End Date</li> <li>Provenance</li> <li>Path</li> </ul>	<ul style="list-style-type: none"> <li>Start Time</li> <li>Recorded</li> <li>Category</li> <li>Created</li> </ul>
KnowledgeC Application Activities	<ul style="list-style-type: none"> <li>Provenance</li> <li>Content Desc</li> <li>Title</li> <li>End Date</li> <li>Category</li> <li>Created</li> </ul>	<ul style="list-style-type: none"> <li>Bundle ID</li> <li>Assoc URL</li> <li>Start Time</li> <li>Entry Creation</li> <li>Path</li> </ul>
KnowledgeC Application Focus	<ul style="list-style-type: none"> <li>Provenance</li> <li>Usage In Seconds</li> <li>Start Time</li> <li>Entry Creation</li> </ul>	<ul style="list-style-type: none"> <li>Bundle ID</li> <li>Generated UUID</li> <li>End Date</li> <li>Category</li> </ul>
KnowledgeC Application Install States	<ul style="list-style-type: none"> <li>Recorded</li> <li>End Time</li> <li>App Category</li> <li>Type</li> </ul>	<ul style="list-style-type: none"> <li>Start Time</li> <li>Bundle ID</li> <li>Application Name</li> </ul>

Attribute	Associated Columns	
KnowledgeC Application Intents	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• Bundle ID</li> <li>• Intent Verb</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Intent Type</li> <li>• Intent Class</li> </ul>
KnowledgeC Application Usage	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Usage In Seconds</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Bundle ID</li> <li>• Usage In Minutes</li> </ul>
KnowledgeC Application Web Usage	<ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• Start Time</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Usage in Seconds</li> <li>• End Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> </ul>
KnowledgeC Device Lock States	<ul style="list-style-type: none"> <li>• Adj Time</li> </ul>	<ul style="list-style-type: none"> <li>• State</li> </ul>
KnowledgeC Device Orientation States	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Mobile</li> </ul>
KnowledgeC Device Plugged-in States	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Is Power Plugged?</li> <li>• Usage in Minutes</li> <li>• Day of Week</li> <li>• Entry Creation</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Usage in Seconds</li> <li>• Title</li> <li>• GMT Offset</li> <li>• Generated UUID</li> </ul>
KnowledgeC Do Not Disturb Usage	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• Usage In Minutes</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Usage in Seconds</li> <li>• Provenance</li> </ul>
KnowledgeC Keybag Lock States	<ul style="list-style-type: none"> <li>• Adj Time</li> </ul>	<ul style="list-style-type: none"> <li>• State</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Provenance</li> </ul>	
KnowledgeC Notification Usage	<ul style="list-style-type: none"> <li>• Bundle ID</li> <li>• Proc Name</li> <li>• End Date</li> <li>• Provenance</li> <li>• Path</li> <li>• Type</li> <li>• Start Time</li> <li>• Recorded</li> <li>• Category</li> <li>• Created</li> </ul>	
KnowledgeC Safari History	<ul style="list-style-type: none"> <li>• Vol UUID</li> <li>• Content Desc</li> <li>• Title</li> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Path</li> <li>• Provenance</li> <li>• Bundle ID</li> <li>• Source</li> <li>• Generated UUID</li> <li>• End Date</li> <li>• Category</li> <li>• Created</li> </ul>	
KnowledgeC Screen Backlight States	<ul style="list-style-type: none"> <li>• Status</li> <li>• End Date</li> <li>• Provenance</li> <li>• Path</li> <li>• Start Time</li> <li>• Recorded</li> <li>• Category</li> <li>• Created</li> </ul>	
KnowledgeC Siri UI Usage	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• End Time</li> <li>• Bundle ID</li> </ul>	
Screen Time Application Usage	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Usage in Seconds</li> <li>• Device Pickup Count</li> <li>• Given Name</li> <li>• End Time</li> <li>• Notification Count</li> <li>• Dev Name</li> <li>• Family Name</li> </ul>	
Screen Time Synced Applications	<ul style="list-style-type: none"> <li>• Application Name</li> <li>• Dev Name</li> <li>• Family Name</li> <li>• Device ID</li> <li>• Given Name</li> <li>• Acct Type</li> </ul>	
Wallet Payment Cards	<ul style="list-style-type: none"> <li>• Card Expiry</li> <li>• Contact Name</li> </ul>	

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Full Name</li> <li>• Card Desc</li> <li>• Country Code</li> <li>• Mobile Phone</li> <li>• Card Types(s)</li> <li>• DPAN</li> <li>• Modified</li> </ul>	<ul style="list-style-type: none"> <li>• Organization Name</li> <li>• PMT Selected?</li> <li>• Contact Website</li> <li>• Payment Type</li> <li>• Serial#</li> <li>• Creation Time</li> </ul>
Wallet Transactions	<ul style="list-style-type: none"> <li>• Creation Time</li> <li>• Timestamp</li> <li>• Amount</li> <li>• Merchant Industry</li> <li>• Merchant Category</li> <li>• Location Time</li> <li>• Longitude</li> <li>• Horiz Accuracy</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Organization Name</li> <li>• Currency Code</li> <li>• Merchant Name</li> <li>• Serial#</li> <li>• Latitude</li> <li>• Elavation</li> <li>• Vert Accuracy</li> <li>• Data Provenance</li> </ul>

## Communication

**Description** This section will contain information relating to general communication items which can be discovered and recovered using the Forensic Tool Kit. These include generic mobile features such as contact lists, SMS/MMS messages, and call information; also found here is information concerning communications and messaging applications. These are displayed in the **Attribute** column. In the **Associated Columns** column, nodes linking to their associated Attribute will be found. For example, names, addresses, and phone numbers may be found under the **Contacts** attribute.

Attribute	Associated Columns	
AIM Buddies	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
AIM Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Apple Contacts - iOS	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Last Name</li> <li>• Department</li> <li>• Job Title</li> </ul>	<ul style="list-style-type: none"> <li>• Middle Name</li> <li>• Organization Name</li> <li>• DOB</li> <li>• Creation Time</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Prefix</li> <li>• Note</li> <li>• Middle Name Phonetic</li> <li>• First Name Pronunciation</li> <li>• Last Name Pronunciation</li> <li>• Mobile Number</li> <li>• Email Address</li> <li>• City</li> <li>• Thumbnail Avatar</li> </ul>	<ul style="list-style-type: none"> <li>• Nickname</li> <li>• Suffix</li> <li>• First Name Phonetic</li> <li>• Last Name Phonetic</li> <li>• Middle Name</li> <li>• Work Number</li> <li>• Home Number</li> <li>• Street</li> <li>• FullSize Avatar</li> <li>• Provenance</li> </ul>
Discord Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook Messenger Calls	<ul style="list-style-type: none"> <li>• Calling Name Call Number</li> <li>• Call Time</li> <li>• Direction</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Call Type</li> <li>• Call Duration</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>
Facebook Messenger Groups	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Chat Count</li> <li>• Category</li> </ul>	<ul style="list-style-type: none"> <li>• Msg App</li> <li>• Path</li> </ul>
Facebook Messenger Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Facebook Messenger Users Contacted	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
Google Duo Accounts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
Google Duo Group Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Scr</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Direction</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>
Google Duo Groups	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Google Duo Users	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
Google Hangouts Voice Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>
Houseparty Messages	<ul style="list-style-type: none"> <li>• Sender</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Houseparty Users	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
imo Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
imo Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
iOS Call Logs	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>
iOS Google Hangouts Cached Images	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
iOS Google Hangouts Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
iOS iMessage/SMS/MMS	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Description</li> </ul>
iOS Kik Messenger Attachments	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> </ul>
iOS Kik Messenger Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
iOS Kik Messenger Users	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
iOS Snapchat Conversations	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat</li> <li>• Msg App</li> <li>• Path Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Count</li> <li>• Category</li> </ul>
iOS Voice Mail	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> </ul>
Skype Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Calls	<ul style="list-style-type: none"> <li>• Calling Name</li> <li>• Call Type</li> <li>• Call Duration</li> <li>• Country</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Call Number</li> <li>• Call Time</li> <li>• Src</li> <li>• Category</li> <li>• Created</li> </ul>
Skype Chat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Skype Chatsync Messages		
Skype Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Created</li> </ul>
Skype File Transfers	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Skype Group Chat	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Skype SMS	<ul style="list-style-type: none"> <li>• Description</li> <li>• SMS From Number</li> <li>• Message</li> <li>• Recipient(s)</li> <li>• Read</li> <li>• Time Received</li> <li>• Src</li> <li>• SMS Country</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• SMS Type</li> <li>• SMS To Number</li> <li>• Sender</li> <li>• Incoming</li> <li>• Time Sent</li> <li>• SMS Time Zone of Sender</li> <li>• SMS Hdr.</li> <li>• SMSC Time</li> <li>• Category</li> </ul>
Skype Voicemails	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Slack Channel Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Received</li> </ul>	<ul style="list-style-type: none"> <li>• Time Sent</li> <li>• Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>
Slack Channels	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Slack Direct Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Slack Files	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Slack Users	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Slack Workspaces	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>

Attribute	Associated Columns	
Snapchat Chat Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Snapchat Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
Snapchat Group Members	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Telegram Channel Chats - iOS	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Telegram Chats - iOS	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Msg App</li> <li>• Path</li> </ul>
Telegram Messages - iOS	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Telegram Users - iOS	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
WhatsApp for iOS	<ul style="list-style-type: none"> <li>• Created</li> <li>• Category</li> <li>• Path</li> <li>• L-Size</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Ext</li> <li>• MD5</li> </ul>
iOS WhatsApp Accounts Information	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns	
iOS WhatsApp Chats	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
iOS WhatsApp Contacts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
iOS WhatsApp Groups	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
iOS WhatsApp Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>

## Connected Devices

<b>Description</b>	This section will contain information relating to items connectable to the mobile device, which can be discovered and recovered using the Forensic Tool Kit. These include health tracking devices, recording steps and heart rates; also found here is information concerning general Bluetooth and SIM card activity. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found.
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Attribute	Associated Columns
Apple Health Distance	<ul style="list-style-type: none"> <li>Start Time</li> <li>Distance (m)</li> <li>Duration (s)</li> <li>DataSource Model</li> <li>End Time</li> <li>Distance (ft)</li> <li>Duration (m)</li> </ul>
Apple Health Floors	<ul style="list-style-type: none"> <li>DataSource Model</li> <li>End Time</li> <li>Start Time</li> <li>Number of Floors</li> </ul>
Apple Health Heart Rate	<ul style="list-style-type: none"> <li>DataSource Model</li> <li>End Time</li> <li>Provenance</li> <li>Start Time</li> <li>Measurement</li> <li>Data Provenance</li> </ul>
Apple Health Steps	<ul style="list-style-type: none"> <li>Start Time</li> <li>Number of Steps</li> <li>End Time</li> </ul>
Bluetooth Devices	<ul style="list-style-type: none"> <li>Hw Address</li> <li>Type</li> <li>Last Name Updt</li> <li>Name</li> <li>Last Svc Updt</li> <li>Provenance</li> </ul>
Seen Bluetooth Devices	<ul style="list-style-type: none"> <li>Hw Address</li> <li>Type</li> <li>Last Name Updt</li> <li>Name</li> <li>Last Svc Updt</li> </ul>
SIM Card Activity	<ul style="list-style-type: none"> <li>ICCID</li> <li>Last Update</li> <li>Home Budget</li> <li>Number</li> <li>Slot ID</li> <li>Roaming Budget</li> </ul>

Attribute	Associated Columns
SIM Card ICCID	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• Slot ID</li> <li>• Roaming Budget</li> <li>• Data Provenance</li> <li>• Number Last Update</li> <li>• Home Budget</li> <li>• Provenance</li> </ul>
SIM Card Phone Numbers	<ul style="list-style-type: none"> <li>• ICCID</li> <li>• Slot ID</li> <li>• Roaming Budget</li> <li>• Data Provenance</li> <li>• Number Last Update</li> <li>• Home Budget</li> <li>• Provenance</li> </ul>
SIM Card SMS Messages	<ul style="list-style-type: none"> <li>• Description</li> <li>• SMS From Number</li> <li>• Message</li> <li>• Recipient(s)</li> <li>• Sent</li> <li>• Time Sent</li> <li>• SMS Time Zone of Sender</li> <li>• SMS Hdr.</li> <li>• SMSC Time</li> <li>• Category</li> <li>• SMS Type</li> <li>• SMS To Number</li> <li>• Sender</li> <li>• Incoming</li> <li>• Read</li> <li>• Time Received</li> <li>• Src</li> <li>• SMS Country</li> <li>• Path</li> <li>• Created</li> </ul>

## Email and Calendar

<b>Description</b>	This section will contain information relating to general email and calendar items which can be discovered and recovered using the Forensic Tool Kit. These include emails sent and received from providers such as Gmail and Yahoo, as well as Apple Mail. Further found here is calendar information, again from providers such as Google, and those included as built-in applications featured on an Apple mobile device. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, names, email addresses, and message bodies may be found under the <b>Emails</b> attribute.
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Attribute	Associated Columns
Apple Mail	<ul style="list-style-type: none"> <li>• Message Row ID</li> <li>• Sender Addr</li> <li>• Account Name</li> <li>• Body File Path</li> <li>• Subject Prefix</li> <li>• Mailbox URL</li> <li>• Snippet</li> <li>• Received Time</li> <li>• Last Viewed Time</li> <li>• Ext UUID</li> <li>• Sender ID</li> <li>• Sender Comment</li> <li>• Message Body</li> <li>• Subject</li> <li>• Mailbox ID</li> <li>• Thread ID</li> <li>• Sent Time</li> <li>• Created Time</li> <li>• Is Read?</li> <li>• Is Mime Wrapped?</li> </ul>
Calendar Events	<ul style="list-style-type: none"> <li>• Event Summary</li> <li>• Event Description</li> <li>• Event Start Time</li> <li>• Attendees</li> <li>• Repeat Rule</li> <li>• Repeat Until</li> <li>• Priority</li> <li>• Event Status</li> <li>• Event Category</li> <li>• Location</li> <li>• Event End Time</li> <li>• Repeat Days</li> <li>• Repeat Interval Count</li> <li>• Event Phone Number</li> <li>• All Day</li> </ul>

Attribute	Associated Columns	
Gmail Emails	<ul style="list-style-type: none"> <li>• Message Row ID</li> <li>• Sender Addr</li> <li>• Account Name</li> <li>• Body File Path</li> <li>• Subject Prefix</li> <li>• Mailbox URL</li> <li>• Snippet</li> <li>• Received Time</li> <li>• Last Viewed Time</li> <li>• Ext UUID</li> </ul>	<ul style="list-style-type: none"> <li>• Sender ID</li> <li>• Sender Comment</li> <li>• Message Body</li> <li>• Subject</li> <li>• Mailbox ID</li> <li>• Thread ID</li> <li>• Sent Time</li> <li>• Created Time</li> <li>• Is Read?</li> <li>• Is Mime Wrapped?</li> </ul>
Google Calendar Calendars	<ul style="list-style-type: none"> <li>• Acct ID</li> <li>• Calendar Name</li> <li>• Has Owner Access?</li> <li>• Internal Data Location</li> </ul>	<ul style="list-style-type: none"> <li>• Calendar ID</li> <li>• Calendar Details</li> <li>• To Be Removed?</li> <li>• Provenance</li> </ul>
Google Calendar Events	<ul style="list-style-type: none"> <li>• Event ID</li> <li>• Description</li> <li>• End Time</li> <li>• URL</li> </ul>	<ul style="list-style-type: none"> <li>• Event Name</li> <li>• Start Time</li> <li>• Creation Time</li> <li>• Provenance</li> </ul>

## Encryption and Credentials

<b>Description</b>	This section will contain information relating to Apple KeyChain items which can be discovered and recovered using the Forensic Tool Kit.
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Attribute	Associated Columns
Apple Keychain Generic Passwords	<ul style="list-style-type: none"> <li>• Usr Acct</li> <li>• PW/Value</li> <li>• Service</li> <li>• Modified</li> <li>• Path</li> <li>• Provenance</li> <li>• Display Name</li> <li>• Creation Time</li> <li>• Record#</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Apple Keychain Internet Passwords	<ul style="list-style-type: none"> <li>• Usr Acct</li> <li>• PW/Value</li> <li>• Service</li> <li>• Modified</li> <li>• Path</li> <li>• Provenance</li> <li>• Display Name</li> <li>• Creation Time</li> <li>• Record#</li> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Apple Keychain Saved Credit Cards	<ul style="list-style-type: none"> <li>• Record#</li> <li>• Modified</li> <li>• Card Expiry</li> <li>• Card Number</li> <li>• Provenance</li> <li>• Created</li> <li>• Cardholder Name</li> <li>• Card Name</li> <li>• Accessed</li> </ul>

## Location and Travel

<b>Description</b>	This section will contain information relating to location and travel items which can be discovered and recovered using the Forensic Tool Kit. These include mobile map applications such as Apple Maps, as well as mobility service providers such as Uber. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, locations, directions, and addresses may be found under the <b>Locations</b> attribute.
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Attribute	Associated Columns
Apple Maps Searches	<ul style="list-style-type: none"> <li>• Creation Time</li> <li>• Latitude</li> <li>• Location Display</li> <li>• Search Qry</li> <li>• Modified</li> <li>• Longitude</li> <li>• Is Nearby Search?</li> <li>• Provenance</li> </ul>
Apple Maps Trips	<ul style="list-style-type: none"> <li>• Ext</li> <li>• Category</li> <li>• L-Size</li> <li>• SHA1</li> <li>• Created</li> <li>• Path</li> <li>• P-Size</li> <li>• MD5</li> <li>• SHA256</li> <li>• Accessed</li> </ul>
Cached Locations	<ul style="list-style-type: none"> <li>• Latitude</li> <li>• Elevation</li> <li>• Speed m/s</li> <li>• Horiz Accuracy</li> <li>• Timestamp</li> <li>• Longitude</li> <li>• Course</li> <li>• MPH</li> <li>• KM/H</li> <li>• Vert Accuracy</li> <li>• Provenance</li> </ul>
iOS Google Map Coordinates	<ul style="list-style-type: none"> <li>• Latitude</li> <li>• Provenance</li> <li>• Longitude</li> <li>• Data Provenance</li> </ul>
iOS Maps	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Latitude</li> <li>• Address</li> <li>• Longitude</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Search Qry</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Metadata</li> <li>• Data Provenance</li> </ul>
iOS Wi-Fi Profiles	<ul style="list-style-type: none"> <li>• SSID</li> <li>• WiFi Signal Strength</li> <li>• Last Autojoined Time</li> <li>• Last Join Time</li> <li>• BSSID</li> <li>• Hidden Ntwk?</li> <li>• Channel</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Age</li> <li>• Last Updated Time</li> <li>• Pwd Mod Time</li> <li>• Prev Join Time</li> <li>• Autojoined?</li> <li>• Enabled?</li> <li>• Provenance</li> </ul>
Parked Car Locations	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Longitude</li> <li>• Loc Uncertainty</li> </ul>	<ul style="list-style-type: none"> <li>• Latitude</li> <li>• VIN</li> </ul>
Significant Locations	<ul style="list-style-type: none"> <li>• Entry Time</li> <li>• Creation Time</li> <li>• Latitude</li> </ul>	<ul style="list-style-type: none"> <li>• Exit Time</li> <li>• Entry Time (min)</li> <li>• Longitude</li> </ul>
Significant Locations Visits	<ul style="list-style-type: none"> <li>• Entry Time</li> <li>• Creation Time</li> <li>• Latitude</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Exit Time</li> <li>• Entry Time (min)</li> <li>• Longitude</li> <li>• Data Provenance</li> </ul>
Uber Accounts	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> </ul>	<ul style="list-style-type: none"> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Path</li> <li>• Description</li> </ul>	<ul style="list-style-type: none"> <li>• Created</li> </ul>
Uber Cached Locations	<ul style="list-style-type: none"> <li>• Latitude</li> <li>• Elevation</li> <li>• Speed m/s</li> <li>• KM/H</li> <li>• Vert Accuracy</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Longitude</li> <li>• Course</li> <li>• MPH</li> <li>• Horiz Accuracy</li> <li>• Timestamp</li> <li>• Data Provenance</li> </ul>
Uber Locations		
Uber Profiles	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Uber Rider Payment Details	<ul style="list-style-type: none"> <li>• Creation Time</li> <li>• Timestamp</li> <li>• Amount</li> <li>• Merchant Industry</li> <li>• Merchant Category</li> <li>• Location Time</li> <li>• Longitude</li> <li>• Horiz Accuracy</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Modified</li> <li>• Organization Name</li> <li>• Currency Code</li> <li>• Merchant Name</li> <li>• Serial#</li> <li>• Latitude</li> <li>• Elevation</li> <li>• Vert Accuracy</li> <li>• Data Provenance</li> </ul>
Waze Places	<ul style="list-style-type: none"> <li>• Location Name</li> <li>• Device Long.</li> <li>• Location Country</li> <li>• Location Address</li> <li>• Path</li> </ul>	<ul style="list-style-type: none"> <li>• Device Lat.</li> <li>• City</li> <li>• Location Category</li> <li>• Category</li> <li>• Created</li> </ul>

Attribute	Associated Columns
WiFi Locations	<ul style="list-style-type: none"><li data-bbox="630 268 808 296">• Description</li><li data-bbox="630 327 808 354">• Timestamp</li><li data-bbox="630 386 732 413">• MAC</li><li data-bbox="630 445 792 472">• Info Mask</li><li data-bbox="630 504 756 531">• Course</li><li data-bbox="630 562 740 590">• Score</li><li data-bbox="630 621 849 648">• Horiz Accuracy</li><li data-bbox="630 680 773 707">• Latitude</li><li data-bbox="1016 327 1143 354">• Coords</li><li data-bbox="1016 386 1159 413">• Channel</li><li data-bbox="1016 445 1133 472">• Speed</li><li data-bbox="1016 504 1195 531">• Confidence</li><li data-bbox="1016 562 1133 590">• Reach</li><li data-bbox="1016 621 1227 648">• Vert Accuracy</li><li data-bbox="1016 680 1179 707">• Longitude</li></ul>

## Media

<b>Description</b>	This section will contain information relating to media items which can be discovered and recovered using the Forensic Tool Kit. These include generic mobile features such as pictures and videos; also found here is information concerning photo sharing and storage services such as Google Photos. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, capture dates, makes and models of the device used, may be found under the <b>Pictures</b> attribute.
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Attribute	Associated Columns
Audio	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• Bundle ID</li> <li>• Genr</li> <li>• Usage In Seconds</li> <li>• End Time</li> <li>• Album</li> <li>• Artist</li> <li>• Duration</li> <li>• Usage in Minutes</li> </ul>
Carved Video	<ul style="list-style-type: none"> <li>• Created</li> <li>• L-Size</li> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Modified</li> <li>• Category</li> <li>• Make</li> <li>• Latitude</li> <li>• Path</li> </ul>
Google Photos Albums	
Google Photos Media	
iOS Snapshots	
Live Photos	<ul style="list-style-type: none"> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Dupliacted File</li> <li>• Category</li> <li>• Modified</li> <li>• Make</li> <li>• Latitude</li> <li>• L-Size</li> <li>• Path</li> <li>• Created</li> </ul>

Attribute	Associated Columns
Photos Albums	
Photos Media Information	
Pictures	<ul style="list-style-type: none"> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Dupliacted File</li> <li>• Category</li> <li>• Modified</li> <li>• Make</li> <li>• Latitude</li> <li>• L-Size</li> <li>• Path</li> <li>• Created</li> </ul>
Videos	<ul style="list-style-type: none"> <li>• Created</li> <li>• L-Size</li> <li>• Capture Date</li> <li>• Model</li> <li>• Longitude</li> <li>• Modified</li> <li>• Category</li> <li>• Make</li> <li>• Latitude</li> <li>• Path</li> </ul>

## Mobile Application Attachment

This is applicable for Microsoft Teams, Slack, LinkedIn and ChatGPT.

Attribute	Associated Columns
Attachment	<ul style="list-style-type: none"><li>• Label</li><li>• System Info File Name</li><li>• System Info File Size</li><li>• Item Source</li><li>• System Info Provenance</li><li>• Name</li><li>• Item Number</li><li>• Summary MD File Type</li><li>• System Info Target Creation Time</li><li>• System Info Source</li><li>• Data Provenance</li></ul>

**Media Information**

Attribute	Associated Columns	
Business Category Cache	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Country ISO</li> <li>• Business Category</li> <li>• Latitude Value</li> <li>• App Update Timestamp</li> <li>• Cache Category</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• MUID</li> <li>• Geo Service Provider</li> <li>• Radius</li> <li>• Longitude Value</li> <li>• Category (Number)</li> <li>• System Info Provenance</li> </ul>
For Place List & Sorted List Node	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Area</li> <li>• Place Type</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Dominant Order Type</li> <li>• System Info Name</li> <li>• System Info Provenance</li> </ul>
Location Cache	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Address Dictionary</li> <li>• Updated Time</li> <li>• Sub Thorough fare</li> <li>• Sub Administrative Area</li> <li>• Ocean</li> <li>• country ISO</li> <li>• Geo Service Provider</li> <li>• Administrative Area</li> <li>• Region Latitude</li> <li>• Latitude Value</li> <li>• Island</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Areas Of Interest</li> <li>• Address</li> <li>• Thorough fare</li> <li>• Sub Locality</li> <li>• Region Identifier</li> <li>• Locality(String)</li> <li>• Inland Water</li> <li>• Administrative Area Code</li> <li>• Region Radius</li> <li>• Region Longitude</li> <li>• Longitude Value</li> <li>• Postal Address</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns	
Postal Address	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Formatted Address</li> <li>• Street</li> <li>• Location Country</li> <li>• Locality(String)</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• State (String)</li> <li>• City</li> <li>• Postal Code</li> <li>• Sub Administrative Area</li> <li>• Country ISO</li> <li>• Data Provenance</li> </ul>
Public event query	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Latitude Value</li> <li>• Radius</li> <li>• App Update Timestamp</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Summary MD End Time</li> <li>• Longitude Value</li> <li>• Start Time</li> <li>• System Info Provenance</li> </ul>
Reverse Geo Location	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary Country Code</li> <li>• Version</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Home</li> <li>• Address</li> <li>• Geo Service Provider</li> <li>• Data Provenance</li> </ul>
Reverse Geo Location	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Summary Country Code</li> <li>• Version</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Home</li> <li>• Address</li> <li>• Geo Service Provider</li> <li>• Data Provenance</li> </ul>

**Geo Service**

Attribute	Associated Columns	
Geo Service	<ul style="list-style-type: none"><li>Name</li><li>Item Number</li><li>Count Type</li><li>Usage String</li><li>System Info Provenance</li></ul>	<ul style="list-style-type: none"><li>Label</li><li>Creation Time</li><li>System Info Application ID</li><li>Usage</li><li>Data Provenance</li></ul>

## Mobile Phone (iOS)

## iCloud Documents

Attribute	Associated Columns	
iCloud Client item	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Zone Name</li> <li>• File Length</li> <li>• Modification</li> <li>• System Info Provenance</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info File Name</li> <li>• System Info Version</li> <li>• Creation Time</li> <li>• Element Type</li> <li>• Data Provenance</li> </ul>
iCloud Server Items	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Version Size</li> <li>• Device Name</li> <li>• Birthtime</li> <li>• Last Used Time</li> <li>• System Info Version</li> <li>• Item Type</li> <li>• Data Provenance</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Item Rank</li> <li>• Version Device ID</li> <li>• Quota Bytes Used</li> <li>• Version Modified Time</li> <li>• Filename</li> <li>• Zone Name</li> <li>• System Info Provenance</li> <li>•</li> </ul>
iCloud Sync Name	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Device Name</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• ID</li> <li>• System Info Provenance</li> </ul>

## Biome

Attribute	Associated Columns	
Audio routing	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Connection Status</li> <li>• Device Class</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Entry Time</li> <li>• Identifier</li> <li>• Device Name</li> <li>• Data Provenance</li> </ul>
Biome Application Launch	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Bundle ID</li> <li>• Display Version</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Write Time</li> <li>• Associated Launch Reason</li> <li>• Internal Version</li> <li>• Data Provenance</li> </ul>
Device Orientation	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• System Info End Date/Time</li> <li>• System Info GUID</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Date/Time</li> <li>• System Info Recorded Time</li> <li>• Mobile Orientation</li> <li>• Data Provenance</li> </ul>
Screen Backlight	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• System Info End Date/Time</li> <li>• System Int GUID</li> <li>• System Info Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Start Date/Time</li> <li>• System Info Recorded Time</li> <li>• Backlight Active</li> <li>• Data Provenance</li> </ul>
Spotlight	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item</li> <li>• User Typed Strings</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp</li> <li>• Provenance</li> </ul>

## Device Information

Attribute	Associated Columns	
Mobile Device Activation Record	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Unbrick</li> <li>• Account Token Certificate</li> <li>• Fair Play Key Data</li> <li>• IMEI 2</li> <li>• Unique Device ID</li> <li>• SIM ICCID</li> <li>• Manufacturing Time</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• LD Activation Version</li> <li>• Device Certificate</li> <li>• Unique Device Certificate</li> <li>• IMEI 1</li> <li>• Product Type</li> <li>• Serial Number</li> <li>• Mobile Equipment Identifier</li> <li>• System Info provenance</li> </ul>

## Map Transition

Attribute	Associated Columns
Mobile Apple Map Transition	<ul style="list-style-type: none"><li data-bbox="456 401 578 428">• Name</li><li data-bbox="456 459 667 487">• Item Number</li><li data-bbox="456 518 683 546">• Origin Latitude</li><li data-bbox="456 577 748 604">• Destination Latitude</li><li data-bbox="456 636 837 663">• System Info Target Creation</li><li data-bbox="456 695 829 722">• System Info End Date/Time</li><li data-bbox="456 753 708 781">• Data Provenance</li><li data-bbox="997 401 1110 428">• Label</li><li data-bbox="997 459 1216 487">• Duration Span</li><li data-bbox="997 518 1243 546">• Origin Longitude</li><li data-bbox="997 577 1308 604">• Destination Longitude</li><li data-bbox="997 636 1235 663">• Start Date/Time</li><li data-bbox="997 695 1333 722">• System Info Provenance</li></ul>

## Mobile Sharing Daemon

Attribute	Associated Columns	
Sharing Daemon	<ul style="list-style-type: none"> <li>Name</li> </ul>	<ul style="list-style-type: none"> <li>Label</li> </ul>
	<ul style="list-style-type: none"> <li>Item Number</li> </ul>	<ul style="list-style-type: none"> <li>Hash Manager Last updated Date Key Time</li> </ul>
	<ul style="list-style-type: none"> <li>Hash Manager Last Rebuilt Date Key Time</li> </ul>	<ul style="list-style-type: none"> <li>Last Key Verification Time</li> </ul>
	<ul style="list-style-type: none"> <li>Last Keychain Count Time</li> </ul>	<ul style="list-style-type: none"> <li>Last All Good Time</li> </ul>
	<ul style="list-style-type: none"> <li>Last Sign In Time</li> </ul>	<ul style="list-style-type: none"> <li>Airdrop Random Hash IJJID Key 1</li> </ul>
	<ul style="list-style-type: none"> <li>Airdrop Random Hash LILIED Key 2</li> </ul>	<ul style="list-style-type: none"> <li>Airdrop Random Hash LILIED Key 3</li> </ul>
	<ul style="list-style-type: none"> <li>Airdrop Random Hash LILIID Key 4</li> </ul>	<ul style="list-style-type: none"> <li>Airdrop ID</li> </ul>
	<ul style="list-style-type: none"> <li>Stream ID</li> </ul>	<ul style="list-style-type: none"> <li>Apple ID</li> </ul>
	<ul style="list-style-type: none"> <li>First Name</li> </ul>	<ul style="list-style-type: none"> <li>Last Name</li> </ul>
	<ul style="list-style-type: none"> <li>Validated Email Addresses</li> </ul>	<ul style="list-style-type: none"> <li>System Info Provenance</li> </ul>
	<ul style="list-style-type: none"> <li>Data Provenance</li> </ul>	

## Mobile Call

This is applicable for Skype.

Attribute	Associated Columns
Call	<ul style="list-style-type: none"><li>• Name</li><li>• Item Number</li><li>• Call Number</li><li>• Message Recipient(s)</li><li>• Call Time</li><li>• Direction</li><li>• Item Source</li><li>• File Type</li><li>• Created Date</li><li>• Label</li><li>• Calling Name</li><li>• Message Sender</li><li>• Call Type</li><li>• Call Duration</li><li>• Call Result Status</li><li>• Call Country Code</li><li>• Path</li><li>• Item Description</li></ul>

## Mobile Contacts

This is applicable for iMessage, Skype, Slack, Microsoft Teams, LinkedIn and ChatGPT.

Attribute	Associated Columns	
Contacts	<ul style="list-style-type: none"> <li>• Label</li> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Item Source</li> <li>• Path</li> <li>• Item Description</li> <li>• Avatar Images</li> <li>• Associate phone addresses</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• File Type</li> <li>• Created Date</li> <li>• Name</li> <li>• Associate email addresses</li> <li>• Created timestamp</li> </ul>

## Mobile Chat Conversations

This is applicable for iMessage, Skype, Slack, Microsoft Teams, LinkedIn and ChatGPT.

Attribute	Associated Columns	
Conversations	<ul style="list-style-type: none"> <li>• Label</li> <li>• Item Description</li> <li>• Conversation Name</li> <li>• Chat Message Count</li> <li>• File Type</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Chat Participants</li> <li>• Chat Topic</li> <li>• Message Application</li> <li>• Path</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"> <li data-bbox="630 285 831 310">• Created Date</li> <li data-bbox="1084 285 1205 310">• Name</li> </ul>

## Mobile Messages

This is applicable for iMessage, Skype, Slack, Microsoft Teams, LinkedIn and ChatGPT.

Attribute	Associated Columns
Messages	<ul style="list-style-type: none"> <li data-bbox="630 718 737 743">• Label</li> <li data-bbox="630 779 867 804">• Message Sender</li> <li data-bbox="630 837 902 863">• Message Sent Time</li> <li data-bbox="630 896 781 921">• File Type</li> <li data-bbox="630 955 919 980">• Message Application</li> <li data-bbox="630 1014 846 1039">• Message Body</li> <li data-bbox="630 1073 831 1098">• Created Date</li> <li data-bbox="630 1131 743 1157">• Name</li> <li data-bbox="1084 718 1289 743">• Item Number</li> <li data-bbox="1084 779 1382 804">• Message Recipient(s)</li> <li data-bbox="1084 837 1409 863">• Message Received Time</li> <li data-bbox="1084 896 1325 921">• Message Is Read</li> <li data-bbox="1084 955 1459 980">• Message Attachment Count</li> <li data-bbox="1084 1014 1182 1039">• Path</li> <li data-bbox="1084 1073 1325 1098">• Item Description</li> </ul>

## Operating System

<b>Description</b>	This section will contain information relating to operating system information which can be discovered and recovered using the Forensic Tool Kit. These include features such as Apple accounts information, network usage, and Powerlog information. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, computer name and product version, may be found under the <b>Owner Information</b> attribute
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Attribute	Associated Columns
.DS_Store Records	<ul style="list-style-type: none"> <li>• Name Len</li> <li>• Struct ID</li> <li>• Summary: Raw Value</li> <li>• Summary Record Value</li> <li>• Name</li> <li>• Struct Type</li> <li>• Summary: Record Type</li> <li>• Provenance</li> </ul>
AirDrop Background Activity	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Provenance</li> <li>• Log Msg</li> </ul>
AirDrop Discoverability	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Log Msg</li> <li>• Mode</li> </ul>
Apple Accounts	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Account Added</li> <li>• Acct Desc</li> <li>• Acct Cred Type</li> <li>• Last Credential Expiry</li> <li>• Category</li> <li>• Provenance</li> <li>• Acct ID</li> <li>• Parent AcctID</li> <li>• Acct Type</li> <li>• Owing Bundle ID</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Cell Tower Locations	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Mobile Ntwk Code</li> <li>• Loc Area Code</li> <li>• Longitude</li> <li>• Country Code</li> <li>• Cell ID</li> <li>• Latitude</li> <li>• Range</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Confidence</li> </ul>	<ul style="list-style-type: none"> <li>• Provenance</li> </ul>
Google Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
Network Usage - Application Data	<ul style="list-style-type: none"> <li>• Process Last Uded</li> <li>• Last Connected</li> <li>• Proc Name</li> <li>• WiFi Bytes Out</li> <li>• WWAN Bytes Out</li> <li>• Wired Bytes Sent</li> <li>• Mobile Bytes Sent</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Process First Used</li> <li>• Bundle ID</li> <li>• WiFi Bytes In</li> <li>• WWAN Bytes In</li> <li>• Wired Bytes Rcvd</li> <li>• Mobile Bytes Rcvd</li> <li>• Type</li> <li>• Data Provenance</li> </ul>
Network Usage - Connections	<ul style="list-style-type: none"> <li>• First Network Attachment Time</li> <li>• Last Network Attachment Time</li> <li>• # Conn Attempt</li> <li>• Network Name</li> <li>• Known Good?</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Timestamp</li> <li>• Network Type</li> <li>• # Successful Conn</li> <li>• MAC</li> <li>• Provenance</li> <li>•</li> </ul>
Owner Information	<ul style="list-style-type: none"> <li>• Product Name</li> <li>• Product Version</li> <li>• Prod Major Vers</li> <li>• Time Zone</li> <li>• Installed</li> <li>• IOS Major Vers</li> </ul>	<ul style="list-style-type: none"> <li>• Prod C</li> <li>• Prod User Visible Vers</li> <li>• Computer Name</li> <li>• Curr Build #</li> <li>• Country Code</li> <li>• IOS Supported Vers</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Category</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Path</li> <li>• Provenance</li> </ul>
PowerLog App Usage	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Entry Creation</li> <li>• Usage in Seconds</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• Bundle ID</li> <li>• Usage in Minutes</li> <li>• Data Provenance</li> </ul>
PowerLog Application State	<ul style="list-style-type: none"> <li>• Interval Start Time</li> <li>• Bundle ID</li> <li>• Bkg Time (s)</li> <li>• Bkg Location Usage (s)</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Interval (m)</li> <li>• Screenshot (s)</li> <li>• Bkg Aud Played (s)</li> <li>• Provenance</li> </ul>
PowerLog Battery Level	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Raw Batt Level</li> <li>• Full Charge</li> <li>• Offset Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Batt Level</li> <li>• Charging</li> <li>• Orig Time</li> <li>• Time Offset</li> </ul>
PowerLog Battery Shutdown	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Raw Batt Level</li> <li>• Full Charge</li> <li>• Offset Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Batt Level</li> <li>• Charging</li> <li>• Orig Time</li> <li>• Time Offset</li> <li>• Data Provenance</li> </ul>
PowerLog Camera State	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Camera Type</li> <li>• Offset Time</li> <li>• Bundle ID</li> </ul>	<ul style="list-style-type: none"> <li>• State</li> <li>• Orig Camera Time</li> <li>• Time Offset</li> <li>• Provenance</li> </ul>
PowerLog Device Lock State	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• State</li> <li>• Data Provenance</li> </ul>

Attribute	Associated Columns
PowerLog Lightning Cable Status	<ul style="list-style-type: none"> <li>• Adj Time</li> </ul>
PowerLog Process Data Usage	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Bundle ID</li> <li>• Incoming</li> <li>• Wifi Bytes In</li> <li>• Orig Time</li> <li>• Time Offset</li> <li>• Adj End Time</li> <li>• Proc Name</li> <li>• Outgoing</li> <li>• Wifi Bytes Out</li> <li>• Offset Time</li> </ul>
PowerLog Screen Autolock	<ul style="list-style-type: none"> <li>• Adj Time</li> </ul>
PowerLog Timezone Information	<ul style="list-style-type: none"> <li>• Adj Time</li> <li>• Country Code</li> <li>• GMT Offset</li> <li>• Trigger</li> <li>• Time Offset</li> <li>• Device TZ</li> <li>• Locale ID</li> <li>• TZ DST?</li> <li>• Offset Time</li> </ul>
Siri Message Search Suggestions	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Creation Time</li> <li>• Provenance</li> <li>• End Time</li> <li>• Bundle ID</li> <li>• Data Provenance</li> </ul>

## Social Networking

<b>Description</b>	This section will contain information relating to general social media items which can be discovered and recovered using the Forensic Tool Kit. These include mobile social media features for a variety of application, such as application users, messages, and contacts. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, profile names and passwords may be found under the <b>Profiles/Users</b> attributes.
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Attribute	Associated Columns
iOS Facebook Friends	<ul style="list-style-type: none"> <li>• Phone Number</li> <li>• Last Name</li> <li>• Mobile Number</li> <li>• Work Number</li> <li>• Address</li> <li>• Address1</li> <li>• State</li> <li>• Src</li> <li>• Path</li> <li>• Description</li> <li>• First Name</li> <li>• Number Type</li> <li>• Home Number</li> <li>• Email</li> <li>• Work Address</li> <li>• Address2</li> <li>• Zip</li> <li>• Category</li> <li>• Created</li> </ul>
iOS Facebook Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Instagram Direct Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>
Instagram Group Members	<ul style="list-style-type: none"> <li>• Description</li> <li>• Convo Name</li> <li>• Chat Count</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Participants</li> <li>• Topic</li> <li>• Msg App</li> <li>• Path</li> </ul>
Instagram Media	<ul style="list-style-type: none"> <li>• File Name</li> <li>• File Size</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Type</li> <li>• External URL</li> <li>• Data Provenance</li> </ul>
Instagram Profiles	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
iOS Instagram Posts		
iOS Tinder Accounts	<ul style="list-style-type: none"> <li>• Profile Name</li> <li>• Service Type</li> <li>• Country</li> <li>• Category</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Profile</li> <li>• Password</li> <li>• Country Code</li> <li>• Path</li> <li>• Description</li> </ul>
iOS Tinder Messages	<ul style="list-style-type: none"> <li>• Sender</li> <li>• Time Sent</li> <li>• Category</li> <li>• Msg App</li> <li>• Message</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• Recipient(s)</li> <li>• Time Received</li> <li>• Read</li> <li>• # Attachments</li> <li>• Path</li> <li>• Description</li> </ul>

Attribute	Associated Columns
iOS Tinder Photos	<ul style="list-style-type: none"><li data-bbox="646 268 813 296">• File Name</li><li data-bbox="646 327 792 354">• File Size</li><li data-bbox="646 386 834 413">• Provenance</li><li data-bbox="1092 268 1247 296">• File Type</li><li data-bbox="1092 327 1292 354">• External URL</li><li data-bbox="1092 386 1344 413">• Data Provenance</li></ul>

## Twitter

Attribute	Associated Columns	
Profile Banner Media	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• DMCA Restricted</li> <li>• Video View Count</li> <li>• Monetizable</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• Media Type (Number)</li> <li>• Media URL</li> <li>• NFT Avatar</li> <li>• Data Provenance</li> </ul>
User	<ul style="list-style-type: none"> <li>• Label</li> <li>• Updated Time</li> <li>• Protected User</li> <li>• System Info User Name</li> <li>• Identity Type</li> <li>• Verified</li> <li>• Created Time</li> <li>• System Info URL</li> <li>• Suspended</li> <li>• Followers</li> <li>• Media Count</li> <li>• Pinned Tweet Time</li> <li>• Bio</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Profile Update Time</li> <li>• Full Name</li> <li>• User ID(Number)</li> <li>• Relevance</li> <li>• Blue Verified</li> <li>• Extended Birthday</li> <li>• Location</li> <li>• Following</li> <li>• Followers Normal</li> <li>• Favourites</li> <li>• NFT Avatar</li> <li>• Status Count</li> <li>• Data Provenance</li> </ul>
User Birthday	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• Year Visible</li> <li>• Year</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• Day Visible</li> <li>• Month</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Day</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• System Info Provenance</li> <li>• Name</li> </ul>
URL	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• Original Display URL</li> <li>• Expanded URL</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• System Info URL</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>
Structured Location	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• Name Value</li> <li>• Full Name</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• Place ID</li> <li>• Place Type</li> <li>• Data Provenance</li> </ul>
Tweets	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• Retweet Count</li> <li>• System Info Language</li> <li>• From User ID</li> <li>• Card Data URL</li> <li>• Updated Time</li> <li>• Auto Translatable</li> <li>• Original Text</li> <li>• Retweeted</li> <li>• Favourites By Loading Account</li> <li>• Status ID</li> <li>• Mention User ID</li> <li>• Symbol</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• System Info Source</li> <li>• Quote Count</li> <li>• Translatable</li> <li>• Reply Count</li> <li>• Date</li> <li>• Possibly Sensitive</li> <li>• Conversation ID</li> <li>• Favourites</li> <li>• Include in Profile Timeline</li> <li>• Retweeted User ID(String)</li> <li>• Hash Tag</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>

Attribute	Associated Columns	
Media	<ul style="list-style-type: none"> <li>• Label</li> <li>• System Info User Name</li> <li>• Media Key</li> <li>• Monetizable</li> <li>• DMCA Restricted</li> <li>• Video View Count</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• User ID(Number)</li> <li>• Media Type (Number)</li> <li>• Media ID</li> <li>• NFT Avatar</li> <li>• Media URL</li> <li>• Data Provenance</li> </ul>
Status Information	<ul style="list-style-type: none"> <li>• Name</li> <li>• Item Number</li> <li>• Modified Date</li> <li>• Extension</li> <li>• MD5 Hash</li> </ul>	<ul style="list-style-type: none"> <li>• Label</li> <li>• Created Date</li> <li>• File Type</li> <li>• Path</li> <li>• Logical Size</li> </ul>

## Uber

Attribute	Associated Columns	
Cached Location	<ul style="list-style-type: none"> <li>• Label</li> <li>• Timestamp Date/Time</li> <li>• Reference ID</li> <li>• Sub Title</li> <li>• Longitude Value</li> <li>• Full Address</li> <li>• System Info Category</li> <li>• Address Line1</li> <li>• Locale</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Item Number</li> <li>• Uber ID</li> <li>• System Info Title</li> <li>• Latitude Value</li> <li>• Historical (Number)</li> <li>• System Info Name</li> <li>• System Info Provider</li> <li>• Address Line2</li> <li>• System Info Provenance</li> <li>• Name</li> </ul>

## Web Related

<b>Description</b>	This section will contain information relating to general web browser items which can be discovered and recovered using the Forensic Tool Kit. These include browser features such as browser history, bookmarks, and downloads; also found here is autofill information, such as credit cards and login details. These are displayed in the <b>Attribute</b> column. In the <b>Associated Columns</b> column, nodes linking to their associated Attribute will be found. For example, searches and corresponding URLs and web page titles may be found under the <b>Search Terms</b> attributes.
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Attribute	Associated Columns
Chrome Archived Keyword Search Terms	<ul style="list-style-type: none"> <li>User name</li> <li>Search Term</li> <li>Web Page Title</li> <li>Search Engine</li> <li>Category</li> <li>Provenance</li> <li>Date/Time</li> <li>URL</li> <li>Browser</li> <li>Path</li> <li>Created</li> </ul>
Chrome Archived Web History	<ul style="list-style-type: none"> <li>Visit ID</li> <li>URL</li> <li>Provenance</li> <li>This Visit Time</li> <li>Visit Duration</li> <li>Data Provenance</li> </ul>
Chrome Autofill Profiles	<ul style="list-style-type: none"> <li>Browser Origin</li> <li>Value</li> <li>Last Use</li> <li>Provenance</li> <li>Name</li> <li>Creation Time</li> <li>Count</li> <li>Data Provenance</li> </ul>
Chrome Autofill	<ul style="list-style-type: none"> <li>Browser Origin</li> <li>Value</li> <li>Last Use</li> <li>Provenance</li> <li>Name</li> <li>Creation Time</li> <li>Count</li> <li>Data Provenance</li> </ul>
Chrome Bookmarks	<ul style="list-style-type: none"> <li>Browser</li> <li>URL</li> <li>Title Preview Text</li> <li>Category</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Description</li> <li>• Creation Time</li> <li>• Modified by Device</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• User Defined?</li> <li>• Modified</li> <li>• Provenance</li> </ul>
Chrome Cookies	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Value</li> <li>• Creation Time</li> <li>• Domain</li> <li>• Expires</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Mane</li> <li>• Last Access</li> <li>• Browser</li> <li>• File Path</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Chrome Current Session	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Private Window?</li> <li>• Selected Tab Title</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Close Time</li> <li>• Selected Tab Index</li> <li>• Provenance</li> </ul>
Chrome Current Tabs	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Close Time</li> <li>• Tab Index Title</li> <li>• Muted?</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• URL</li> <li>• Last Visit</li> <li>• Encrypted?</li> <li>• Provenance</li> </ul>
Chrome Downloads	<ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> <li>• Provenance</li> </ul>
Chrome FavIcons	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Last Update</li> </ul>	<ul style="list-style-type: none"> <li>• Page URL</li> <li>• Provenance</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• Data Provenance</li> </ul>	
Chrome Keyword Search Terms	<ul style="list-style-type: none"> <li>• User name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> </ul>	
Chrome Last Session	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Private Window?</li> <li>• Selected Tab Title</li> <li>• Data Provenance</li> <li>• Close Time</li> <li>• Selected Tab Index</li> <li>• Provenance</li> </ul>	
Chrome Last Tabs	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Close Time</li> <li>• Tab Index Title</li> <li>• Muted?</li> <li>• Data Provenance</li> <li>• URL</li> <li>• Last Visit</li> <li>• Encrypted?</li> <li>• Provenance</li> </ul>	
Chrome Logins	<ul style="list-style-type: none"> <li>• Login Row ID</li> <li>• Action URL</li> <li>• Username Value</li> <li>• Origin URL</li> <li>• Username Element</li> <li>• Password Element</li> </ul>	
Chrome Saved Credit Cards	<ul style="list-style-type: none"> <li>• Card Type(s)</li> <li>• Expiration Year</li> <li>• Name on Card</li> <li>• Status</li> <li>• Data Provenance</li> <li>• Expiration Month</li> <li>• Last 4</li> <li>• Issuer</li> <li>• Provenance</li> </ul>	
Chrome Shortcuts	<ul style="list-style-type: none"> <li>• Shortcut</li> <li>• Text</li> <li>• URL</li> <li>• Number Hits</li> <li>• Row ID</li> <li>• Fill In Edit</li> <li>• Last Access</li> </ul>	

Attribute	Associated Columns	
Chrome Tab History	<ul style="list-style-type: none"> <li>• ID</li> <li>• URL</li> <li>• Original Request URL</li> <li>• Transition Type</li> </ul>	<ul style="list-style-type: none"> <li>• Index Entry</li> <li>• Title</li> <li>• Referrer URL</li> <li>• </li> </ul>
Chrome Top Sites	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Title</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Builtin?</li> <li>• URL</li> <li>• Description</li> <li>• Data Provenance</li> </ul>
Chrome Web History	<ul style="list-style-type: none"> <li>• Visit ID</li> <li>• URL</li> <li>• Visit Count</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit</li> <li>• Title</li> <li>• Provenance</li> </ul>
Chrome Web Visits	<ul style="list-style-type: none"> <li>• Visit Date</li> <li>• URL</li> <li>• Referring URL</li> </ul>	<ul style="list-style-type: none"> <li>• Visit Count</li> <li>• Title</li> </ul>
Edge Chromium Bookmarks	<ul style="list-style-type: none"> <li>• Browser</li> <li>• URL</li> <li>• Description</li> <li>• Creation Time</li> <li>• Modified by Device</li> </ul>	<ul style="list-style-type: none"> <li>• Title Preview Text</li> <li>• Category</li> <li>• User Defined?</li> <li>• Modified</li> </ul>
Edge Chromium FavIcons	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Last Update</li> <li>• Data Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Page URL</li> <li>• Provenance</li> </ul>
Edge Chromium Logins	<ul style="list-style-type: none"> <li>• Login Row ID</li> <li>• Action URL</li> <li>• Username Value</li> </ul>	<ul style="list-style-type: none"> <li>• Origin URL</li> <li>• Username Element</li> <li>• Password Element</li> </ul>
Edge Chromium Web History	<ul style="list-style-type: none"> <li>• Visit ID</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit</li> </ul>

Attribute	Associated Columns	
	<ul style="list-style-type: none"> <li>• URL</li> <li>• Visit Count</li> </ul>	<ul style="list-style-type: none"> <li>• Title</li> <li>• Provenance</li> </ul>
iOS Safari Recent Search Terms	<ul style="list-style-type: none"> <li>• User Name</li> <li>• Search Term</li> <li>• Web Page Title</li> <li>• Search Engine</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Date/Time</li> <li>• URL</li> <li>• Browser</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Malware/Phishing URLs	<ul style="list-style-type: none"> <li>• Name</li> <li>• URL</li> <li>• Category</li> <li>• Description</li> <li>• Metadata</li> <li>• Category</li> <li>• Provenance</li> </ul>	<ul style="list-style-type: none"> <li>• Last Visit</li> <li>• URL Title</li> <li>• Sub Category</li> <li>• Activity</li> <li>• Path</li> <li>• Created</li> <li>• Data Provenance</li> </ul>
Safari Bookmarks	<ul style="list-style-type: none"> <li>• Browser</li> <li>• Preview Test URL</li> <li>• Description</li> <li>• Creation Time</li> <li>• Modified By Device</li> </ul>	<ul style="list-style-type: none"> <li>• Title</li> <li>• Category</li> <li>• User Defined?</li> <li>• Modified</li> <li>• Provenance</li> </ul>
Safari Downloads	<ul style="list-style-type: none"> <li>• User Name</li> <li>• URL</li> <li>• File Size</li> <li>• Path</li> <li>• Created</li> </ul>	<ul style="list-style-type: none"> <li>• File Path</li> <li>• Download Time</li> <li>• Browser</li> <li>• Category</li> </ul>
Safari History	<ul style="list-style-type: none"> <li>• Start Time</li> <li>• Title</li> </ul>	<ul style="list-style-type: none"> <li>• End Time</li> <li>• URL</li> </ul>

Attribute	Associated Columns
	<ul style="list-style-type: none"><li>• Bundle ID</li><li>• GMT Offset</li><li>• Generated UUID</li><li>• Day of Week</li><li>• Entry Creation</li><li>• Provenance</li></ul>
Safari iCloud Devices	<ul style="list-style-type: none"><li>• Browser</li><li>• Dev Name</li><li>• Modified</li><li>• Creation Time</li><li>• Device UUID</li><li>• Provenance</li></ul>

## 7 Decryption Support

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FTK can decrypt the following encryption types:

- Bitlocker
- iOS Backup
- Android Backup
- Safeguard (Sophos)
- McAfee Safeboot
- PGPDisk
- Guardian Edge
- AFF
- PointSec
- FileVault (Apple)
- Geli (Linux, BSD)
- TrueCrypt and compatible: VeraCrypt and DiskEncryptor
- WinMagic, aka SecureDoc
- Dell full disk encryption
- APFS
- McAfee MDE
- Vera Crypt
- Encrypted iOS File System Cellebrite

## 8 Cloud Exports

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### Fitbit

#### Applicable for the following Sub-Nodes:

- Activity Information
- Daily Heart rate information
- Device information
- Exercise
  - Exercise Session
  - Exercise Events
- Sleep Information
  - Sleep level
  - Sleep log
- User Profile

The following are the list of default column set:

- |                |                 |                 |
|----------------|-----------------|-----------------|
| • Name         | • Label         | • Item          |
| • Created Date | • Modified Date | • Category      |
| • Extension    | • Path          | • MD5           |
| • L-size       | • Object Name   | • Labels        |
| • Object ID    | • Created Date  | • Last Modified |
| • File Type    | • Physical Size | • Extension     |
| • Logical Size | • Path          | • MD5 Hash      |
| • SHA1 Hash    | • SHA256 Value  | •               |

## Google Files

The following are the list of default column set:

- Item
- File Size In Bytes
- Duration
- Root Path
- Mime Type Str
- Parent Folder Name
- Data Provenance
- Name
- Pixel Width
- Track Number
- Root Relative File Path
- Uri
- Is Hidden
- Modified Time
- Media Store Id
- Pixel Height:
- Iso Speed
- File Name
- Title
- Provenance

## Android Turbo (Device Health Services)

### Mobile Turbo Application Launch Event (Android)

The following are the list of default column set:

- Object Id
- Package Name
- Provenance
- Object Name
- Launch Time
- Data Provenance

### Mobile Turbo Battery Event (Android)

The following are the list of default column set:

- Object Id
- Battery Level Value
- Time Zone
- Data Provenance
- Object Name
- Charge Type
- Provenance
- Timestamp Time

## Google Cast

The following are the list of default column set:

- Name
- Object ID
- Device ID
- Model name
- Device Instance Name
- Capabilities
- Last Discovered time
- Data Provenance
- label
- Object Name
- Device Version
- Device service ID
- Supported Criteria
- RCN Enabled Status
- Last Discovered BLE time
- item
- Label
- Friendly name
- Receiver Metrics ID
- Cloud Device ID
- Last Published time
- Provenance

## Mobile Google Playstore Installed Application (Android)

The following are the list of default column set:

- Object Id
- Application Name
- Install Client ID
- Isauto Update Enabled
- Data Provenance
- First Download Time
- Object Name
- App Install Reason
- Title
- Desired Version
- Installed App Purchased Date
- Install App Install Timestamp
- Associate Account
- Download Bytes Total
- Last Notify Version
- Provenance
- Data Delivery Time

## Contact Exterro

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If you have any questions, please refer to this document, or any other related materials provided to you by Exterro. For usage questions, please check with your organization's internal application administrator. Alternatively, you may contact your Exterro Training Manager or other Exterro account contact directly.

For technical difficulties, support is available through [support@exterro.com](mailto:support@exterro.com).

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