

Windows Third-Party Apps Forensics

REFERENCE GUIDE

This poster is a detailed exploration of artifacts from 46 third-party applications commonly found on devices running the Windows operating system.

DFPS_Windows-Apps-v1.5_0624

This poster was created by Mattia Epifani (@mattiaep) with support of the SANS DFIR Faculty. ©2024 Mattia Epifani. All Rights Reserved.

COMMUNICATION



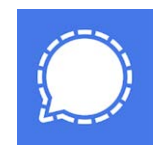
Discord

<https://discord.com/download>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\discord\cache\	*	Various
C:\Users\%user%\AppData\Roaming\discord\local storage\leveldb\	*	LevelDB

REFERENCES:

<https://abrignoni.blogspot.com/2018/03/finding-discord-app-chats-in-windows.html>
<https://abrignoni.blogspot.com/2020/08/update-on-discord-forensic-artifacts.html>
https://www.champlain.edu/Documents/LCDI/ApplicationAnalysis_ST7.pdf
<https://www.forensafe.com/blogs/discord.html>



Signal

<https://signal.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Signal\attachments.noindex\	*	Various
C:\Users\%user%\AppData\Roaming\Signal\Cache\	*	Various
C:\Users\%user%\AppData\Roaming\Signal\logs\	*	TXT
C:\Users\%user%\AppData\Roaming\Signal\sql\	db.sqlite	SQLite
C:\Users\%user%\AppData\Roaming\Signal\	config.json	JSON

REFERENCES:

<https://blog.elcomsoft.com/2020/04/forensic-guide-to-image-whatsapp-telegram-signal-and-skype-data-acquisition>
<https://www.bleepingcomputer.com/news/security/signal-desktop-leaves-message-decryption-key-in-plain-sight>
<https://www.linkedin.com/pulse/signal-desktop-digital-forensics-perspective-surya-teja-masanam>
<https://www.alexbitz.com/post/2021-06-07-forensic-artifacts-signal-desktop/>
<https://www.zetetic.net/sqlcipher/sqlcipher-api/#key>
<https://github.com/signalapp/Signal-Desktop/blob/master/ts/sql/Server.ts#L276>
<https://www.forensafe.com/blogs/signal.html>



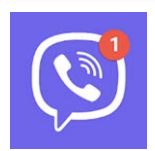
Skype

<https://www.skype.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Packages\Microsoft.SkypeApp_*\LocalState\main.db	*	SQLite
C:\Users\%user%\AppData\Local\Packages\Microsoft.SkypeApp_*\LocalState\skype.db	*	SQLite
C:\Users\%user%\AppData\Local\Packages\Microsoft.SkypeApp_*\LocalState\s4t*.db	*	SQLite
C:\Users\%user%\AppData\Roaming\Microsoft\Skype for Desktop\IndexedDB\leveldb\	*	LevelDB
C:\Users\%user%\AppData\Roaming\Microsoft\Skype for Desktop\Cache\	*	Various

REFERENCES:

<https://bebinyan4n6.blogspot.com/2019/07/analysis-of-skype-windows-10-app.html>
<https://bebinyan4n6.blogspot.com/2019/07/skype-from-old-one-to-newest-one.html>
<https://blog.elcomsoft.com/2019/12/extracting-skype-histories-and-deleted-files-metadata-from-microsoft-account>
<https://bebinyan4n6.blogspot.com/2019/07/analysis-skype-app-for-windows-metro.html>
<https://www.trustwave.com/en-us/resources/blogs/spiderlabs-blog/microsoft-teams-and-skype-logging-privacy-issue>
<https://www.forensafe.com/blogs/skype.html>



Viber

<https://www.viber.com/en>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\ViberPC\	config.db	SQLite
C:\Users\%user%\AppData\Roaming\ViberPC\	viber.db	SQLite
C:\Users\%user%\AppData\Roaming\ViberPC\Avatars\	*	Various
C:\Users\%user%\AppData\Roaming\ViberPC\Backgrounds\	*	Various
C:\Users\%user%\AppData\Roaming\ViberPC\Thumbnails\	*	Various

REFERENCES:

<https://www.digitalforensics.com/blog/articles/forensic-analysis-instant-messengers-desktop-applications>
<https://www.alexbitz.com/post/2021-01-29-forensic-artifacts-viber-desktop>
<https://www.forensafe.com/blogs/viber.html>



Telegram

<https://telegram.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Telegram Desktop\	*	Various
C:\Users\%user%\Downloads\Telegram Desktop\	*	Various

REFERENCES:

<https://www.digitalforensics.com/blog/articles/forensic-analysis-instant-messengers-desktop-applications>



Thunderbird

<https://www.thunderbird.net>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Thunderbird\Crash Reports\	installTime*	TXT
C:\Users\%user%\AppData\Roaming\Thunderbird\profiles.ini	profiles.ini	TXT
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\pref.js	pref.js	TXT
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\global-messages-db.sqlite	global-messages-db.sqlite	SQLite
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\logins.json	logins.json	JSON
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\places.sqlite	places.sqlite	SQLite
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\ImapMail*	*	Various
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\Mail*	*	Various
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\calendar-data\	local.sqlite	SQLite
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\Attachments\	*	Various
C:\Users\%user%\AppData\Roaming\Thunderbird\Profiles*\abook.sqlite	abook.sqlite	SQLite

REFERENCES:

<https://www.mailxaminer.com/blog/mozilla-thunderbird-forensics>
<https://az4n6.blogspot.com/2014/04/whats-word-thunderbird-parser-that-is.html>
<https://www.forensafe.com/blogs/thunderbird.html>



WhatsApp

<https://www.whatsapp.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\WhatsApp\Cache\	*	Various
C:\Users\%user%\AppData\Roaming\WhatsApp\Local Storage\leveldb\	*	LevelDB
C:\Users\%user%\AppData\Local\Packages\WhatsAppDesktop_*\LocalCache\Roaming\WhatsApp\Cache\	*	Various
C:\Users\%user%\AppData\Local\Packages\WhatsAppDesktop_*\LocalCache\Roaming\WhatsApp\Local Storage\leveldb\	*	LevelDB
C:\Users\%user%\AppData\Local\Packages\WhatsAppDesktop_*\LocalState\profilePictures\	*	Various
C:\Users\%user%\AppData\Local\Packages\WhatsAppDesktop_*\LocalState\rotatedLogs\	*	TXT
C:\Users\%user%\AppData\Local\Packages\WhatsAppDesktop_*\LocalState\shared\transfers\	*	Various

REFERENCES:

https://belkasoft.com/whatsapp_forensics_on_computers
https://belkasoft.com/forms/whatsapp_webinar
<https://security.stackexchange.com/questions/215483/forensics-methods-for-obtaining-whatsapp-data-from-windows-desktop-pcs>
<https://www.digitalforensics.com/blog/articles/forensic-analysis-instant-messengers-desktop-applications>
https://www.researchgate.net/publication/33247702_WhatsApp_Forensics_Locating_Artifacts_in_Web_and_Desktop_Clients
<https://www.group-ib.com/blog/whatsapp-forensic-artifacts>
<https://www.forensafe.com/blogs/whatsapp.html>



Zoom

<https://zoom.us>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Zoom\logs\	*	TXT
C:\Users\%user%\AppData\Roaming\Zoom\data\	*	Various
C:\Users\%user%\Documents\Zoom\	*	Various

REFERENCES:

<https://www.sciencedirect.com/science/article/pii/S2666281721000019>
<https://support.zoom.us/hc/en-us/articles/201512326-Troubleshooting-log-for-Windows>
<https://www.forensafe.com/blogs/zoom.html>



BitTorrent

<https://www.bittorrent.com>

BitTorrent

<https://www.bittorrent.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\BitTorrent\	*.dat	TXT

REFERENCES:

https://www.researchgate.net/publication/288858418_Investigation_of_Artifacts_Left_by_BitTorrent_Client_on_the_Local_Computer_Operating_under_Windows_81
<https://www.sans.org/reading-room/whitepapers/legal/bittorrent-digital-contraband-36887>
<https://www.sciencedirect.com/science/article/abs/pii/S1742287610000770>
<https://www.sciencedirect.com/science/article/pii/S1742287610000152>
https://www.forensafe.com/blogs/windows_bittorrent.html



FrostWire

<https://www.frostwire.com>

Path	File Name/Mask	File Type
C:\Users\%user%\Documents\FrostWireTorrent Data\	*	Various
C:\Users\%user%\FrostWire\	frostwire.props	TXT
C:\Users\%user%\FrostWire\	itunes.props	TXT

REFERENCES:

<https://www.cyberagentsinc.com/2017/08/10/frostwire-artifacts>



qBittorrent

<https://www.qbittorrent.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\qBittorrent\	*.ini	TXT
C:\Users\%user%\AppData\Local\qBittorrent\logs\	*	TXT
C:\Users\%user%\AppData\Local\qBittorrent\GeoDB\	*	Various
C:\Users\%user%\AppData\Local\qBittorrent\BT_backup\	*	Various

REFERENCES:

<https://tro4n6.blogspot.com/2019/02/text-based-treasure-qbittorrent-log-file.html>



uTorrent

<https://www.utorrent.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\utorrent\	*.dat	TXT

REFERENCES:

<https://robertpearsonblog.wordpress.com/2016/11/11/utorrent-and-windows-10-forensic-nuggets-of-info>
<https://www.forensfocus.com/articles/forensic-analysis-of-the-%CE%B5utorrent-peer-to-peer-client-in-windows>
https://www.forensafe.com/blogs/android_utorrent.html

The world runs on Microsoft Windows largely because of the diversity of available third-party applications. Artifacts left behind by these applications are as diverse as the applications themselves, spanning the file system. Here you will find some of the most important artifacts available from popular Windows applications including browsers, productivity and communication applications, and cloud storage. Please note that applications change over time and older or newer applications will inevitably store data in different locations. While a comprehensive view is impractical, these locations make excellent places to begin an investigation.



AUDIO & VIDEO



iTunes

<https://www.apple.com/itunes>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Apple Computer\iTunes	iPodDevices.xml	XML
C:\Users\%user%\AppData\Roaming\Apple Computer\ MobileSync\Backup	*	Various
C:\Users\%user%\AppData\Roaming\Apple Computer\Logs\CrashReporter\MobileDevice	*	Various
C:\Users\%user%\Apple\MobileSync\Backup\	*	Various
C:\ProgramData\Apple\Lockdown	*.plist	Plist
C:\ProgramData\Apple Computer\iTunes\	iPodDevices.xml	XML

REFERENCES:

<https://rb.gy/17s4pw>
<https://rb.gy/x3tyg8>
<https://www.digitalforensics.com/blog/articles/itunes-backup-forensic-analysis>
<https://forensafe.com/blogs/itunes.html>



VLC Media Player

<https://www.videolan.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\vlc\	vlc-qt-interface.ini	TXT

REFERENCES:

<https://www.forensfocus.com/forums/general/vlc-recent-files>
<https://supersuser.com/questions/287137/does-vlc-media-player-store-the-files-or-its-history-in-a-hidden-location/120641>
<https://www.forensafe.com/blogs/vlc.html>



BROWSER



Brave Browser

<https://brave.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*	*	Various
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Network	Bookmarks*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Network	Cookies*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\History	History*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Login Data*	Login Data*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Media History*	Media History*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Network Action Predictor*	Network Action Predictor*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Network Persistent State	Network Persistent State	JSON
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Preferences	Preferences	JSON
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Reporting & NEL*	Reporting & NEL*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\SecurePreferences	SecurePreferences	JSON
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Shotsuts*	Shotsuts*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Top Sites*	Top Sites*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Trust Sitem*	Trust Sitem*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Web Data*	Web Data*	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\SyncData.sqlite3	SyncData.sqlite3	SQLite
C:\Users\%user%\AppData\Local\BraveSoftware\Brave-Browser\User Data*\Sessions\	*	SNSS

REFERENCES:

<https://www.forensafe.com/blogs/brave.html>



Google Chrome

https://www.google.com/intl/en_us/chrome

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*	*	Various
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Bookmarks*	Bookmarks*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\DownloadMetadata	DownloadMetadata	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Extension Cookies*	Extension Cookies*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Favicons*	Favicons*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\History*	History*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Login Data*	Login Data*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Media History*	Media History*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Network Action Predictor*	Network Action Predictor*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Network Persistent State	Network Persistent State	JSON
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Preferences	Preferences	JSON
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\SecurePreferences	SecurePreferences	JSON
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Shotsuts*	Shotsuts*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Top Sites*	Top Sites*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Visited Links	Visited Links	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Web Data*	Web Data*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\SyncData.LevelDB\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Sessions\	*	SNSS
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Extensions\	*	Various
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\File System\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\IndexedDB\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Local Storage\leveldb\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Session Storage\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Web Storage\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\WebStorage\	QuotaManager*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Platform Notifications\	*	LevelDB
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Network\	Cookies*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Reporting & NEL*	Reporting & NEL*	SQLite
C:\Users\%user%\AppData\Local\Google\Chrome\User Data*\Cache\	*	Various

REFERENCES:

<https://nashbench.medium.com/web-browsers-forensics-7e9940c579a>
<https://www.digitalforensics.com/blog/articles/an-overview-of-web-browser-forensics>
<https://rb.gy/43khbu>
<https://rb.gy/bbvobz>
<https://dfir.blog/chrome-values-lookup-tables>
<https://dfir.blog/chrome-evolution>



Microsoft Internet Explorer

<https://www.microsoft.com/it-it/download/internet-explorer.aspx>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Microsoft\Internet Explorer\	*	Various
C:\Users\%user%\AppData\Roaming\Microsoft\Internet Explorer\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\History\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\Cookies\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\IEDownloadHistory\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\WebCache\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\NetCookies\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\Temporary Internet Files\	*	Various
C:\Users\%user%\AppData\Local\Microsoft\Windows\NetCache\	*	Various

REFERENCES:

<https://www.digitalforensics.com/blog/articles/an-overview-of-web-browser-forensics>
[https://www.dataforensics.org/internet](https://www.dataforensics.org/internet-explorer-forensics)



PRODUCTIVITY



1Password

<https://1password.com/downloads/windows>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\1password\data	1Password10.sqlite	SQLite
C:\Users\%user%\AppData\Local\1password\backups	1Password10.sqlite	SQLite
C:\Users\%user%\AppData\Local\1password\logs	*.log	TXT
REFERENCES: https://blog.elcomsoft.com/2017/08/attacking-the-1password-master-password-follow-up https://forensafe.com/blogs/windows_1password.html		



Acronis True Image

<https://www.acronis.com/en-us/products/true-image>

Path	File Name/Mask	File Type
C:\ProgramData\Acronis\TrueImageHome\Logs\1ti_demon\	*	Various
C:\ProgramData\Acronis\TrueImageHome\Database	*	Various
C:\ProgramData\Acronis\TrueImageHome\Scripts	archives.db	SQLite
REFERENCES: https://can.acronis.com/s/article/49484-Acronis-True-Image-Finding-and-Analyzing-Logs?language=en_US&kattempt=1		



AnyDesk

<https://anydesk.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\AnyDesk\	*.trace	TXT
C:\Users\%user%\AppData\Roaming\AnyDesk\	*.conf	TXT
C:\Users\%user%\AppData\Roaming\AnyDesk\	connection_trace.txt	TXT
C:\Users\%user%\AppData\Roaming\AnyDesk\chat\	*	TXT
C:\ProgramData\AnyDesk\	*.trace	TXT
C:\ProgramData\AnyDesk\	*.conf	TXT
C:\ProgramData\AnyDesk\	connection_trace.txt	TXT
C:\Windows\SysWow64\config\systemprofile\AppData\Roaming\AnyDesk\	*	Various

REFERENCES:
https://support.anydesk.com/Trace_Files
<https://www.inverserco.com/2021/02/forensic-analysis-of-anydesk-logs.html>
<https://medium.com/mii-cybersec/digital-forensic-artifact-of-anydesk-application-c9b8cb23ab5>
<https://medium.com/@inginformatico/forensic-analysis-to-anydesk-forensic-artifacts-and-log-analysis-eng-3897da98324d>
<https://www.forensafe.com/blogs/anydesk.html>
<https://www.ibm.us.team/incident-response-1/anydesk-remote-access>
https://www.linkedin.com/posts/mohamed-adil-re_github-mohamed-adil-cyberanydesk-velociraptor-log-collector-activity-703913200994287616-ig-e
https://j.sac.jp/cert.or.jp/archive/2023/pdf/JSA2023_1_1_yamashige-nakatani-tanaka_en.pdf
<https://www.synacktiv.com/en/publications/legitimate-rats-a-comprehensive-forensic-analysis-of-the-usual-suspects>
<https://hatsoffsecurity.com/2022/02/28/anydesk-forensic-analysis-and-artefacts>
<https://docs.velociraptor.app/exchange/artifacts/pages/windows.applications.anydesk>
<https://support.anydesk.com/knowledge/anydesk-id-and-alias>
<https://vikas-singh.notion.site/vikas-singh/Remote-Access-Software-Forensics-3638d9a6ca0414ca9c82ad67f471b>



Evernote

<https://evernote.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Evernote\Evernote\ Databases\	*.accounts	TXT
C:\Users\%user%\AppData\Local\Evernote\Evernote\ Databases\	*.exb	SQLite
C:\Users\%user%\AppData\Local\Evernote\Evernote\ Databases\	*.exb.snippets	Various

REFERENCES:
<https://arxiv.org/pdf/1709.10395>
<https://www.forensicsfocus.com/articles/evernote-introduction>
<https://rh.gy/nuwobq>
<https://www.forensafe.com/blogs/evernote.html>



Filezilla

<https://filezilla-project.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\FileZilla\	*.xml*	XML
C:\Users\%user%\AppData\Roaming\FileZilla\	*.sqlite*	SQLite

REFERENCES:
<https://www.sans.org/reading-room/whitepapers/forensics/evidence-data-exfiltration-containerised-applications-virtual-private-servers-38555>
<https://wiki.filezilla-project.org/Logs>
<https://www.hackblog.com/2013/09/daily-log-93-filezilla-artifacts.html>
<https://forensafe.com/blogs/filezilla.html>



LogMeIn

<https://www.logmein.com>

Path	File Name/Mask	File Type
C:\ProgramData\LogMeIn\Logs\	*	Various
C:\Users\%user%\AppData\Local\Temp\LogMeInLogs\	*	Various

REFERENCES:
<https://support.logmeininc.com/pro/help/how-to-view-logmein-event-log-files-logmein-t-host-preferences-log>
https://www.researchgate.net/publication/313796589_An_exploration_of_artefacts_of_remote_desktop_applications_on_Windows
<https://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1166&context=adf>
https://j.sac.jp/cert.or.jp/archive/2023/pdf/JSA2023_1_1_yamashige-nakatani-tanaka_en.pdf



Microsoft OneNote

<https://www.onenote.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Local\Packages\Microsoft.Office.OneNote_*	*	Various
8wekyb3d8bwe\LocalState\AppData\Local\OneNote*\FullTextSearchIndex		
C:\Users\%user%\AppData\Local\Packages\Microsoft.Office.OneNote_*	*	Various
8wekyb3d8bwe\LocalState\AppData\Local\OneNote\Notifications		
C:\Users\%user%\AppData\Local\Packages\Microsoft.Office.OneNote_*	*	Various
8wekyb3d8bwe\LocalState\AppData\Local\OneNote\16.0\AccessibilityCheckerIndex		
C:\Users\%user%\AppData\Local\Packages\Microsoft.Office.OneNote_*	*Liveid.db	SQLite
8wekyb3d8bwe\LocalState\AppData\Local\OneNote\16.0\WriteTags		
C:\Users\%user%\AppData\Local\Packages\Microsoft.Office.OneNote_*	RecentSearches.db	SQLite
8wekyb3d8bwe\LocalState\AppData\Local\OneNote\16.0\RecentSearches		

REFERENCES:
<https://www.microsoft.com/en-us/microsoft-365/onenote/digital-note-taking-app>



IrfanView

<https://www.irfanview.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\IrfanView\	i_view32.ini	TXT



Microsoft Teams

<https://www.microsoft.com/en-us/microsoft-teams/group-chat-software>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Microsoft\Teams\IndexedDB\	*	LevelDB
C:\Users\%user%\AppData\Roaming\Microsoft\Teams\Local Storage\	*	LevelDB
C:\Users\%user%\AppData\Roaming\Microsoft\Teams\Cache\	*	Various
C:\Users\%user%\AppData\Roaming\Microsoft\Teams\	desktop-config.json	JSON
C:\Users\%user%\AppData\Local\Packages\Microsoft.Teams_*	*	Various
8wekyb3d8bwe\LocalCache\Microsoft\Teams\Logs\		

REFERENCES:
<https://rh.gy/tbkt1t>
<https://www.trustwave.com/en-us/resources/blogs/spiderlabs-blog/microsoft-teams-and-skype-logging-privacy-issue>
<https://netsecinja.github.io/analysis/2021/02/11/ms-teams-logs-activity.html>
<https://rh.gy/tb9y9>
<https://www.alexbitz.com/post/2021-09-09-forensic-artifacts-microsoft-teams>
<https://bakersreeforensics.com/2021/05/10/collecting-from-microsoft-teams-using-powershell>
<https://github.com/xn0dr1b/forensicsim>



Notepad++

<https://notepad-plus-plus.org>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Notepad++\backup\	*	Various
C:\Users\%user%\AppData\Roaming\Notepad++\	config.xml	XML
C:\Users\%user%\AppData\Roaming\Notepad++\	session.xml	XML

REFERENCES:
https://forensafe.com/blogs/windows_notepad++.html



Slack

<https://slack.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\Slack\Cache\	*	Various
C:\Users\%user%\AppData\Roaming\Slack\IndexedDB\	*	LevelDB
C:\Users\%user%\AppData\Roaming\Slack\Local Storage\leveldb\	*	LevelDB
C:\Users\%user%\AppData\Roaming\Slack\logs\	*	TXT
C:\Users\%user%\AppData\Roaming\Slack\storage\	*	TXT
C:\Users\%user%\AppData\Roaming\Slack\storage\	root-state.json	JSON



TeamViewer

<https://www.teamviewer.com>

Path	File Name/Mask	File Type
C:\Program Files\TeamViewer\	connections*.txt	TXT
C:\Program Files\TeamViewer\	TeamViewer_*_logfile*	TXT
C:\Users\%user%\AppData\Roaming\TeamViewer\MRU\RemoteSupport\	*	TXT

REFERENCES:
<https://rh.gy/qbhfug>
<https://svchost.medium.com/writeup-magnet-user-summit-dfir-ctf-2019-activity-79cf0c04d7>
<https://www.systoolsgroup.com/forensics/teamviewer>
<https://athenaforensics.co.uk/teamviewer-forensics>
<https://medium.com/mii-cybersec/digital-forensic-artifact-of-teamviewer-application-dfd6290dc0a7>
<https://www.forensafe.com/blogs/teamviewer.html>
<https://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1166&context=adf>
<https://vikas-singh.notion.site/vikas-singh/Remote-Access-Software-Forensics-3638d9a6ca0414ca9c82ad67f471b>
https://www.researchgate.net/publication/359220574_Remote_Desktop_Software_as_a_forensic_resource
https://j.sac.jp/cert.or.jp/archive/2023/pdf/JSA2023_1_1_yamashige-nakatani-tanaka_en.pdf
<https://www.synacktiv.com/en/publications/legitimate-rats-a-comprehensive-forensic-analysis-of-the-usual-suspects.html>



TeraCopy

<https://www.codesector.com/teracopy>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\TeraCopy\	*	Various

REFERENCES:
<https://www.kraftkennedy.com/teracopy-forensics-finding-elusive-copy-log>
<https://www.stark4n6.com/2018/11/teracopy-forensic-analysis-part-1.html>
<https://www.stark4n6.com/2018/11/teracopy-forensic-analysis-part-2.html>



VMWare

<https://www.vmware.com>

Path	File Name/Mask	File Type
C:\Users\%user%\AppData\Roaming\VMware\	*	Various

REFERENCES:
<https://crucialsecurity.wordpress.com/2011/05/23/virtual-machine-files-essential-to-forensic-investigations>
<https://blog.salvationdata.com/2018/06/01/case-study-how-to-forensically-extract-evidence-data-from-a-virtual-machine>



WinSCP

<https://winscp.net>

Path	File Name/Mask	File Type
C:*	WinSCP.ini	TXT

REFERENCES:
<https://zak4n6.blogspot.com/2020/02/detecting-lateral-movement-with-winscp.html>



ANTIVIRUS



Avast

<https://www.avast.com>

Path	File Name/Mask	File Type
C:\ProgramData\Avast Software\Avast\Log\	*	Various
C:\ProgramData\Avast Software\Avast\Log\	aswAr*.log	TXT
C:\ProgramData\Avast Software\Avast\Log\	AvastSvc.log	TXT
C:\ProgramData\Avast Software\Avast\Chest\	index.xml	XML
C:\ProgramData\Avast Software\Icarus\Logs\	*	Various
C:\ProgramData\Avast Software\Persistent Data\Avast\Logs\	*	Various
C:\Users\%user%\Avast Software\Avast\Log\	*	Various

REFERENCES:
https://businesshelp.avast.com/Content/Products/General_Help/LogLocations/BaseAntivirusLogs.htm
https://forensafe.com/blogs/windows_avast.html



AVG

<https://www.avg.com>

Path	File Name/Mask	File Type
C:\ProgramData\AVG\Antivirus\log\	*	Various
C:\ProgramData\AVG\Antivirus\report\	*	Various
C:\ProgramData\AVG\Persistent Data\Antivirus\Logs\	*	Various
C:\ProgramData\AVG\Antivirus\	Fileinfo2.db	SQLite
C:\ProgramData\AVG\Antivirus\	lsdb2.json	JSON

REFERENCES:
https://businesshelp.avast.com/Content/Products/General_Help/LogLocations/BaseAntivirusLogs.htm
https://forensafe.com/blogs/windows_avg.html



Avira

<https://www.avira.com>

Path	File Name/Mask	File Type
C:\ProgramData\Avira\Antivirus\LOGFILES\	*	Various
C:\ProgramData\Avira\Security\Logs\	*	Various
C:\ProgramData\Avira\VPW\	*	Various

REFERENCES:
<https://support.avira.com/hc/en-us/community/posts/360013822317-Where-are-the-logs-for-Avira-Security-Smart-Scan->
https://forensafe.com/blogs/windows_avira.html



ESET

<https://www.eset.com>

Path	File Name/Mask	File Type
C:\ProgramData\ESET\ESET NOD32 Antivirus\Logs\	*	Various
C:\ProgramData\ESET\ESET Security\Logs\	*	Various
C:\ProgramData\ESET\RemoteAdministrator\Agent\	*	Various
EraAgentApplicationData\Logs\	*	Various
C:\Users\%user%\AppData\Local\ESET\ESET Security\Quarantine\	*	Various
C:\Windows\System32\config\systemprofile\AppData\	*	Various
Local\ESET\ESET Security\Quarantine\		

REFERENCES:
<https://www.eset.com/int/support/log-collector>
<https://github.com/lacikEsetLogParser>
https://help.eset.com/protect_admin/80/en-US/fs_agent_connection_troubleshooting.html



F-Secure

<https://www.f-secure.com>

Path	File Name/Mask	File Type
C:\ProgramData\F-Secure\Log\	*	Various
C:\Users\%user%\AppData\Local\F-Secure\Log\	*	Various
C:\ProgramData\F-Secure\Antivirus\ScheduledScanReports\	*	Various

REFERENCES:
<https://community.f-secure.com/en/discussion/122488/removing-f-secure-log-files-from-internet-security>
<ftp://ftp.f-secure.com/support/tools/debugtools>
https://forensafe.com/blogs/windows_f-secure.html



McAfee

<https://www.mcafee.com>

Path	File Name/Mask	File Type
C:\ProgramData\McAfee\DesktopProtection\	*	Various
C:\ProgramData\McAfee\Endpoint Security\Logs\	*	Various
C:\ProgramData\McAfee\Endpoint Security\Logs_Old\	*	Various
C:\ProgramData\McAfee\VirusScan\	*	Various

REFERENCES:
<https://techadminblog.com/mcafee-log-file-locations-cheat-sheet-windows>



Malwarebytes

<https://www.malwarebytes.com>

Path	File Name/Mask	File Type
C:\ProgramData\Malwarebytes\Malwarebytes Anti-Malware\Logs\	mbam-log-*.xml	XML
C:\ProgramData\Malwarebytes\MBAMService\Logs\	mbamservice.log*	TXT
C:\Users\%user%\AppData\Roaming\Malwarebytes\	*	Various
Malwarebytes Anti-Malware\Logs\		
C:\ProgramData\Malwarebytes\MBAMService\ScanResults\	*	Various

REFERENCES:
<https://for500.com/malwarebytes>
https://forensafe.com/blogs/windows_malwarebytes.html



Microsoft Defender

<https://www.microsoft.com/en-us/microsoft-365/microsoft-defender-for-individuals>

Path	File Name/Mask	File Type
C:\ProgramData\Microsoft\Microsoft AntiMalware\Support\	*	Various
C:\ProgramData\Microsoft\Windows Defender\Scans\History\Service\	*	Various
DetectionHistory*		
C:\ProgramData\Microsoft\Windows Defender\Support\	*	Various
C:\ProgramData\Microsoft\Windows Defender\Quarantine\	*	Various
C:\Windows\Temp\	MpCmdRun.log	TXT
C:\Windows.old\Temp\	MpCmdRun.log	TXT
C:\Windows\System32\winevt\Logs\	Microsoft-Windows-Defender*.evtx	EVTX

REFERENCES:
<https://knez.github.io/posts/how-to-extract-quarantine-files-from-windows-defender>
[https://www.crowdstrike.com/blog/how-to-use-microsoft-protection-logging-for-](https://www.crowdstrike.com/blog/how-to-use-microsoft-protection-logging-for-forensic-investigations)