



Mac OS X Forensic Artifact Locations

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Contents

Introduction	3
Background:	3
Purpose and Scope:.....	3
Research Questions:	3
Terminology:	3
Methodology and Methods	5
Equipment Used:.....	5
Data Collection:.....	5
Analysis	6
Results.....	6
New Locations:.....	6
Not Found/Obsolete Artifacts:.....	7
Missing Artifacts:.....	8
Conclusion.....	9
Further Work.....	9
Appendix	9
Appendix 1: OS X Yosemite Artifact Location Spreadsheet	9
Appendix 2: OS X El Capitan Artifact Location Spreadsheet.....	22
References	36

Introduction

OS X has been the default operating system for Mac computers since 2001, with El Capitan 10.11.2 and Yosemite 10.10.5 serving as Apple's two most recent releases. El Capitan was released on September 30, 2015. Yosemite premiered on October 16, 2014. Apple is known to be innovative with their products, which is reflected in their sales. As of 2015, Apple had a five year annual sales growth of 38%, ranking third in annual growth out of all Fortune 500 companies (Wieczner). As they continue to grow in popularity, it will become more common for investigators to encounter these operating systems. OS X operates differently from Windows operating systems and it is important to know how to perform an investigation on both machines. Mac computers use the HFS+ filesystem, which has slightly less storage space and functions differently from NTFS, the file system used in Windows computers. The goal of our research was to determine the default locations for artifacts in the newest releases of OS X, including new artifacts introduced with El Capitan. We were also tasked with comparing the two operating systems and creating a detailed list to be used as a resource for investigators.

Background:

Last year the LCDI analyzed and created a list of artifact locations within OS X Yosemite. In our research we referenced a similar existing document, [OS X Lion Artifacts](#), created by Sean Cavanaugh and published through the website [Apple Examiner](#). Both resources helped us determine which artifacts to create in data generation and where to start looking once our data generation was completed.

Purpose and Scope:

This report will support digital forensic law enforcement personnel, students, and investigators alike, serving as a guide to the default locations of forensic artifacts in both OS X Yosemite and El Capitan. This will be beneficial because it will outline where artifacts are located in the file system, allowing investigators to quickly locate them rather than conduct a lengthy search. This report will compare the default locations of artifacts between OS X Yosemite and OS X El Capitan. It will also detail the new locations that artifacts have been found in. This is valuable, as OS X works differently than Windows. OS X is, at its core, a custom version of Unix, while Windows is built on Windows NT. It will be a valid resource for those new to OS X, as well as those with experience.

Research Questions:

1. What new artifacts can we find that were unable to be located last time the LCDI conducted research with OS X Yosemite?
2. What are the default locations for artifacts in both OS X Yosemite and OS X El Capitan?
3. What artifacts have changed within OS X El Capitan
 - a. New or Missing Artifacts?
 - b. New locations for artifacts?
4. What new artifacts are available with the new features of OS X El Capitan?

Terminology:

Operating System – A suite of programs that controls signals to and from input devices (such as a mouse, keyboard, microphone), peripherals (hard disks, CD/DVD drives, printers, etc.), output devices (monitors, speakers, etc.) and performs the basic functions needed for a computer to operate. This entails input and output,

memory allocation, file management, task scheduling, etc. Having an OS is essential to operate a computer, as applications utilize the OS to function.

HFS+ – A file system that was developed by Apple. It is the primary file system for OS X operating systems. HFS+ is also one of the file formats used for apple's iPod devices. HFS+ uses a 32-bit length block address. The largest Volume size supported in OS X is 8 EB (8,000,000TB). The theoretical maximum file size supported is the same as the volume size at 8EB.

NTFS – New Technology File System more commonly known as NTFS is a file system that was developed by Microsoft. It is the default operating system for the Windows Operating System. The maximum size for an NTFS volume using a 4KB cluster is 16TB minus 4KB, the maximum theoretical size that can exist with Windows 8 is 256TB minus 64KB.

Acquisition – The process of copying data from a piece of evidence, to another location in a forensically sound manner so that the data may be analyzed at a later time. This is usually done by attaching some form of write blocking device to the storage media, and creating a copy of the data. The goal is to leave the original media intact while working on a copy of it. This allows for evidence to be verified at a later date. There are two different types of data acquisition methods: Physical and Logical.

Image – In digital forensics, an image often refers to a copy of a hard drive, or disk image, that is compressed into a series of files. Physical images include all information (zeroes and ones) on the hard drive whether the space is being used or not, and ends up being close to the same size as the actual hard drive itself. As opposed to a physical image, a logical image only acquires the parts of the hard drive that have active data and dismisses the rest of the drive. Compared to a physical image, the size can be extremely small or the same size as the drive depending on the amount of data stored.

Artifacts – Any data generated by user interaction that can be collected and examined. Any user data retrieved from the browser is considered an artifact, including cookies, caches, geolocation, search history, etc.

Disk Arbitrator – Disk Arbitrator is a publicly available software tool that prevents disks from auto mounting when connected to a Mac. When activated, the computer cannot write to the drive connected. From there, the user can look at the hard drive without tampering with the evidence.

Write Blocker – A Write Blocker is a tool used to disable write permissions on a hard drive to prevent data destruction, alteration, or contamination of data during the acquisition of a hard drive. There are both software and hardware based write blockers.

Mac OS X Forensics Imager – This program is available for Mac computers and is a forensic imaging utility that allows the user to create an image of a hard drive connected to the computer in an E01 format. The program does not include write blocking features so it is important to utilize a write blocker when using this program.

E01 – The file extension that EnCase uses when imaging a device.

EnCase – EnCase is a suite of digital forensics tools created by Guidance Software. The software allows users to examine images to locate artifacts.

Target Disk Mode – Target Disk Mode is a way to boot a Mac that allows the hard drive to operate like an external hard drive, allowing it to be accessed by another machine without physically taking it out of the system.

Virtual Machine (VM) – A virtual machine is a software-based computer that executes and runs programs like a physical machine. A virtual machine supports the execution of a complete operating system. VMs usually

emulate an existing architecture and are built with the purpose of either providing a platform to run programs where the real hardware is not available for use, or of having multiple instances of virtual machines. This leads to more efficient use of computing resources, both in terms of energy consumption and cost effectiveness (known as hardware virtualization the key to a cloud computing environment).

Methodology and Methods

For this project, we began by utilizing our previous research to create a data generation script that we could follow in order to create artifacts to be searched for during analysis. This script was identical for both El Capitan and Yosemite. Once we had our script in place, we used two iMacs: iMac1 (running El Capitan) and iMac2 (running Yosemite). We utilized physical machines to overcome some of the struggles that our teams previously encountered while using a Virtual Machine. Once we had our iMacs set up, we started to perform the actions detailed in our script on both machines. Afterwards, we took an image of both machines using the software tools Disk Arbitrator and Mac OS X Forensics Imager. We used EnCase to peruse the .E01 files containing each image.

Equipment Used:

Table 1: Equipment

Item	Identifier	Size/Specification
iMac 1	<i>El Capitan Mac</i>	<i>Late 2013 model, 21.5-inch, Intel i5 2.7GHz, 1TB HDD, OS X El Capitan v10.11</i>
iMac 2	<i>Yosemite Mac</i>	<i>Late 2013 model, 21.5-inch, Intel i5 2.7GHz, 1TB HDD, OS X Yosemite v10.10.5</i>
Disk Arbitrator		<i>Version 0.5</i>
Mac OS X Forensics Imager		<i>Beta</i>
EnCase		<i>v7.10</i>

Data Collection:

To generate data, the team split into two groups that conducted data generation using two separate accounts on both machines. Each team member had an account that they were simulating actions with. We created an account to recreate a browsing session on a personal computer and another account to simulate actions a student would perform. As we performed actions we made notes on our scripts and entered the times of each action.

Once we completed the actions detailed in our script, we followed the example set by [The Apple Examiner](#) and shut down the Macs to capture forensic images of them. We procured another Mac to perform the imaging process on. Next, we booted each iMac used for data generation into target disk mode. This allows the hard disk to function similarly to an external drive. We then enabled Disk Arbitrator (a software write blocker) on the imaging iMac and connected the two using a Thunderbolt cable. We then used Mac OS X Forensics Imager to create an .E01 file of the image. This process was repeated for both data generation Macs. We then put the .E01s for Yosemite and El Capitan on separate external hard drives.

Once our images were collected, we analyzed them with EnCase v7.10 and attempted to find the artifact locations that we were searching for. We began by examining the locations documented in the previous Yosemite artifact sheet. If we couldn't find the artifact in that location, we searched for it by using condition searches or examining the area around the previous location. We compiled a spreadsheet with all the artifact locations that we found and noted the ones that had changed. These spreadsheets can be located within [Appendix 1 and 2](#).

Analysis

Based on the minor changes between versions, the majority of the Yosemite locations have not changed since our past research. We also expected the locations of artifacts in El Capitan to be mostly similar with minor changes correlating to updates. We started to look for the artifacts by looking at the Yosemite location and seeing if it still exists. If the artifact remained unlocated, we then began to look in nearby directories and utilized EnCase searches. These were used to find new files and folders if browsing nearby directories did not work. We conducted raw searches, index searches, and simple folder navigations to locate as many missing artifacts as possible. In the end a majority of the artifacts were in the same or similar spots to where they were found in the past artifact research project. We then added all the artifacts into a spreadsheet with their full path.

Results

Updated Locations:

Enclosed tables show the updated artifact locations found in El Capitan. Apple Mail had an update from V2 to V3, therefore the folder where Mail artifacts are located changed from V2 to V3. Most other paths stayed the same for Apple's installed applications and preferences. If the path was found in Yosemite and the path was the same for El Capitan, we did not make a change to our artifacts list. The tables below detail the new location found in El Capitan and the old location found in Yosemite.

Table 2: Mail

Default Mac email application

Artifact	New Location (El Capitan)	Old Location (Yosemite)
Mail Cache	\Users\ <user>\library\containers\com.apple.mail\data\library\caches\com.apple.mail\cache.db< td=""> <td>\Users\<user>\library\caches\com.apple.mail\cache.db< td=""> </user>\library\caches\com.apple.mail\cache.db<></td></user>\library\containers\com.apple.mail\data\library\caches\com.apple.mail\cache.db<>	\Users\ <user>\library\caches\com.apple.mail\cache.db< td=""> </user>\library\caches\com.apple.mail\cache.db<>
Mail Mailbox Directory	\Users\ <user>\library\mail\v3\< td=""> <td>\Users\<user>\library\mail\v2\mailboxes\< td=""> </user>\library\mail\v2\mailboxes\<></td></user>\library\mail\v3\<>	\Users\ <user>\library\mail\v2\mailboxes\< td=""> </user>\library\mail\v2\mailboxes\<>
Mail IMAP Synched Mailboxes	\Users\ <user>\library\mail\v3\<guid>*</user>\library\mail\v3\<guid>	\Users\ <user>\library\mail\v2\imap-<name@address>< td=""> </user>\library\mail\v2\imap-<name@address><>
Mail BackupTOC	\Users\ <user>\library\mail\v3\maildata\backuptoc.plist< td=""> <td>\Users\<user>\library\mail\v2\maildata\backuptoc.plist< td=""> </user>\library\mail\v2\maildata\backuptoc.plist<></td></user>\library\mail\v3\maildata\backuptoc.plist<>	\Users\ <user>\library\mail\v2\maildata\backuptoc.plist< td=""> </user>\library\mail\v2\maildata\backuptoc.plist<>
Mail Envelope Index	\Users\ <user>\library\mail\v3\maildata\envelope index<="" td=""> <td>\Users\<user>\library\mail\v2\maildata\envelope index<="" td=""> </user>\library\mail\v2\maildata\envelope></td></user>\library\mail\v3\maildata\envelope>	\Users\ <user>\library\mail\v2\maildata\envelope index<="" td=""> </user>\library\mail\v2\maildata\envelope>

*The file that identifies users and contains the respective user data changed from IMAP-<name@address> to <GUID>

Table 3: Preferences

Files containing application preferences

Artifact	New Location (El Capitan)	Old Location (Yosemite)
iMovie Preferences	\Users\ <user>\library\containers\com.apple.imovieapp\data\library\preferences\com.apple.imovieapp.plist< td=""> <td>\Users\<user>\library\preferences\com.apple.imovie8.plist< td=""> </user>\library\preferences\com.apple.imovie8.plist<></td></user>\library\containers\com.apple.imovieapp\data\library\preferences\com.apple.imovieapp.plist<>	\Users\ <user>\library\preferences\com.apple.imovie8.plist< td=""> </user>\library\preferences\com.apple.imovie8.plist<>

Table 5: General

General use files

Artifact	New Location (El Capitan)	Old Location (Yosemite)
Trash	\.Trashes\	\Users\ <user>\.trash\< td=""> </user>\.trash\<>

Table 6: Gimp

Common free image manipulation application

Artifact	New Location (El Capitan)	Old Location (Yosemite)
Gimp Directory	\Users\ <user>\library\application support\gimp\<="" td=""> <td>\Users\<user>\library\application support\gimp\<version>\<="" td=""> </user>\library\application></td></user>\library\application>	\Users\ <user>\library\application support\gimp\<version>\<="" td=""> </user>\library\application>

Not Found/Obsolete Artifacts:

The following tables show artifacts that have not been found or have been classified as obsolete in the current operating system. This was determined by looking for the file in both Yosemite and El Capitan; if the file wasn't located in either version it was determined it was obsolete and therefore removed. The tables below reference the OS X Lion Artifact sheet.

Table 7: Mail

Default Mac email application

Artifact	New Location (Yosemite & El Capitan)	Old Location (OS X Lion)
Mail Opened Attachments	Not Found/Obsolete	\Users\ <user>\library\mail\v2\maildata\openedattachments.plist< td=""> </user>\library\mail\v2\maildata\openedattachments.plist<>
Mail Search History	Not Found/Obsolete	\Users\ <user>\library\mail\v2\maildata\searchhistory.plist< td=""> </user>\library\mail\v2\maildata\searchhistory.plist<>

Table 8: Recent Items

Recently taken screenshots, console commands, etc.

Artifact	New Location (Yosemite & El Capitan)	Old Location (OS X Lion)
Property List Editor	Not Found/Obsolete	\Users\ <user>\library\preferences\com.ap< td=""> </user>\library\preferences\com.ap<>

Recent Items		ple.PropertyListEditor.LSSharedFileList.plist
Grab Screen Shot Recent Items	Not Found/Obsolete	\Users\ <user>\Library\Preferences\com.apple.Grab.LSSharedFileList.plist</user>
Console Recent Items	Not Found/Obsolete	\Users\ <user>\Library\Preferences\com.apple.Console.LSSharedFileList.plist</user>

Table 9: Misc

Miscellaneous other files

Artifact	New Location (Yosemite & El Capitan)	Old Location (OS X Lion)
CD Information Database	Not Found/Obsolete	\Users\ <user>\Preferences\CD Info.cidb</user>

Table 10: Firefox

Firefox web browser

Artifact	New Location (Yosemite & El Capitan)	Old Location (OS X Lion)
Firefox Downloads	Not Found/Obsolete	\Users\ <user>\Library\Application Support\Firefox\Profiles\<profile>\Downloads.sqlite</profile></user>

Table 11: VirtualBox

Computer virtualization application

Artifact	New Location (Yosemite & El Capitan)	Old Location (OS X Lion)
VirtualBox Cache Directory	Not Found/Obsolete	\Users\ <user>\Library\Caches\org.virtualbox.app.VirtualBox\</user>

Missing Artifacts:

The following table shows artifacts that we were unable to be located in El Capitan even though we performed actions during data generation that should have created the artifact. We navigated to the Yosemite location and if the file was not found, a search was done. If the search revealed no conclusive results, the artifact was listed here. The tables below detail the old location.

Table 12: Recent Items

Recently taken screenshots, console commands, etc

Artifact	New Location (El Capitan)	Old Location (Yosemite)
Screen Sharing Recent Shares	Not Found	\Users\ <user>\Library\Preferences\com.apple.ScreenSharing.LSSharedFileList.plist</user>

Table 13: iChat (Messages)

Default Mac instant messaging application

Artifact	New Location (El Capitan)	Old Location (Yosemite)
Icon	Not Found	\Users\ <user>\Library\Caches\com.apple.Messages\Pictures</user>

Conclusion

Continuing research done last year, our team discovered forensic artifact locations have changed only minimally in the newest OS X, El Capitan. Through the use of an iMac instead of a virtual machine, we were able to perform the research with no hardware limitations. Through our analysis, we were able to locate a majority of the artifacts documented last semester. A couple of the artifacts were not found in the El Capitan update, while a small number of others were found in a different location. The biggest update between Yosemite and El Capitan is that the mail application was updated from V2 to V3. Besides that, very few artifact locations were changed, and the two versions of OS X are surprisingly similar.

Further Work

There are a handful of options for furthering work on this project. We were unable to locate a small number of artifacts that we were trying to document, and we were also unable to generate some artifacts because of the programs becoming obsolete or not having a license for use in El Capitan. More research could be conducted to find out where the missing artifacts are or we could look into additional applications in the future.

Another note about this type of research is that it has no definitive end. Every operating system is constantly updated and each new update brings potential changes to artifact locations and generates new or different artifacts. That said, it is important to stay up to date with the different versions of every operating system. Further work could be conducted on OS X El Capitan and Yosemite to find artifacts that we were unable to, and once the next version of OS X comes out, this project can be expanded to include all three.

Appendix

Appendix 1: OS X Yosemite Artifact Location Spreadsheet

	- Artifact Not Found
	- Artifact location is different
	- Artifact found

Table 13: Yosemite Artifact Location Spreadsheet

Artifact	Location	Description
User Directories		
Downloads Directory	\Users\ <user>\Downloads\</user>	User Specific Download Directory
Documents Directory	\Users\ <user>\Documents\</user>	User specific Documents Directory
Music Directory	\Users\ <user>\Music\</user>	User specific Music Directory
Desktop Directory	\Users\ <user>\Desktop\</user>	User Specific Desktop Directory
Library Directory	\Users\ <user>\Library\</user>	Hidden directory in Yosemite
Movies Directory	\Users\ <user>\Movies\</user>	User Specific Movies directory. Contains video files.
Pictures Directory	\Users\ <user>\Pictures\</user>	User Specific Picture Directory
Public Directory	\Users\ <user>\Public\</user>	Users public directory
Applications	\Users\ <user>\Applications\</user>	User Specific Application Directory containing applications
Applications	\Applications\	Not user-specific
Safari		
Safari Bookmarks	\Users\ <user>\Library\Safari\Bookmarks.plist</user>	Plist listing default and user-added Safari bookmarks
Safari Downloads	\Users\ <user>\Library\Safari\Downloads.plist</user>	Plist listing files downloaded using Safari Browser
Safari Installed Extensions	\Users\ <user>\Library\Preferences\com.apple.Safari.Extensions.plist</user>	Plist describing installed Safari Extensions
Safari Extensions	\Users\ <user>\Library\Safari\Extensions\</user>	Directory of Safari Extensions. Safari Extensions utilize .safariextz file extension. Also has a plist listing the extensions
Safari History	\Users\ <user>\Library\Safari\History.db</user>	Plist listing Safari web browsing history
Safari History Index	\Users\ <user>\Library\Safari\HistoryIndex.sk</user>	An index of Safari History allowing a user to perform keyword searches of visited webpages
Safari Last Session	\Users\ <user>\Library\Safari\LastSession.plist</user>	A plist describing the state of Safari when it was last closed
Safari Local Storage Directory	\Users\ <user>\Library\Safari\LocalStorage\</user>	A directory for webpage-specific storage. Each webpage stores data in a SQLite database with the file extension of .localstorage.
Safari Local Storage	\Users\ <user>\Library\Safari\LocalStorage\StorageT</user>	A database listing the webpage specific

Database	racker.db	databases
Safari Top Sites	\Users\ <user>\Library\Safari\TopSites.plist</user>	A Plist listing the webpages belonging to a Safari's Top Sites
Safari Webpage Icons Database	\Users\ <user>\Library\Safari\WebpageIcons.db</user>	A database containing saved web page icons for webpages visited
Safari Webpage Databases	\Users\ <user>\Library\Safari\Databases\</user>	A directory for webpage-specific database storage
Safari Webpage Databases Database	\Users\ <user>\Library\Safari\Databases\Databases.db</user>	A database that keeps track of stored webpage-specific databases
Safari Cache Directory	\Users\ <user>\Library\Caches\com.apple.Safari\</user>	A directory containing Safari-specific cache items
Safari Cache	\Users\ <user>\Library\Caches\com.apple.Safari\Cache.db</user>	A cache of data from visited webpages
Safari Extensions Cache	\Users\ <user>\Library\Caches\com.apple.Safari\Extensions\</user>	A directory containing cached items for Safari Extensions
Safari Webpage Previews	\Users\ <user>\Library\Caches\com.apple.Safari\fsCachedData\</user>	A directory containing images of viewed webpages in .png and .jpg formats. The file name is a hash of the webpage URL.
Safari Cookies	\Users\ <user>\Library\Cookies\HSTS.plist</user>	A Plist containing cookies from visited webpages
Safari Preferences	\Users\ <user>\Library\Preferences\com.apple.Safari.plist</user>	Contains recent safari search strings and downloads folder location in addition to preferences
Safari Saved Application State Directory	\Users\ <user>\Library\Saved Application State\com.apple.Safari.savedState\</user>	Application save state for Safari. Directory contains other application save states
Safari Bookmark Cache	\Users\ <user>\Library\Caches\Metadata\Safari\Bookmarks\</user>	Each bookmark entry in Bookmarks.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the bookmark entry from Spotlight and have Safari launch the corresponding webpage
Safari History Cache	\Users\ <user>\Library\Caches\Metadata\Safari\History\</user>	Each website entry in History.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the webpage entry from Spotlight and have Safari launch the corresponding webpage
Mail		
Mail Cache	\Users\ <user>\Library\Caches\com.apple.Mail\Cache.db</user>	Cached images from email messages

Mail Mailbox Directory	\Users\ <user>\Library\Mail\V2\Mailboxes\</user>	Apple Mail Mailboxes
Mail IMAP Synched Mailboxes	\Users\ <user>\Library\Mail\V2\IMAP- <name@address></user>	Synched IMAP Account(s)
Mail BackupTOC	\Users\ <user>\Library\Mail\V2\MailData\BackupT OC.plist</user>	Backup Plist that defines the mailbox structure
Mail Envelope Index	\Users\ <user>\Library\Mail\V2\MailData\Envelope Index</user>	Keeps track of the location of Mail messages - the content of some messages is present as well
Mail Opened Attachments	\Users\ <user>\Library\Mail\V2\MailData\OpenedAt tachments.plist</user>	List the opened attachments from emails
Mail Search History	\Users\ <user>\Library\Mail\V2\MailData\SearchHis tory.plist</user>	Plist listing search terms entered into Mail's search box
Mail Signatures by Account	\Users\ <user>\Library\Mail\V2\MailData\Signatures \<string>.mailsignature</user>	Plist containing Mail signatures
Mail Smart Mailbox Info	\Users\ <user>\Library\Mail\V2\MailData\SynchedSm artMailboxes.plist</user>	Smart Mailbox information
Mail Downloads Directory	\Users\ <user>\Library\Containers\com.apple.mail\D ata\Library\Mail Downloads\</user>	Directory Empty - All attachments now go to the downloads folder
Mail Preferences	/Users/<user>/Library/Preferences/com.apple.mail- shared.plist	Mail preferences
Mail Recent Contacts	\Users\ <user>\Library\Application Support\Address Book\MailRecents-v4.abcdmr</user>	SQLite database stored in Address Book's support directory containing recent Mail contacts
iChat(Messages)		
iChat Preferences	\Users\ <user>\Library\Preferences\com.apple.iChat. plist</user>	iChat preferences and user account information
Saved Chats	\Users\ <user>\Library\Messages\chat.db</user>	Database of logged chats
Icon	\Users\ <user>\Library\Caches\com.apple.Messages\ Pictures</user>	User iChat icon
Recent Pictures	\Users\ <user>\Library\Messages\Attachments</user>	Recent user iChat pictures
iChat Status Messages Plist	\Users\ <user>\Library\Preferences\com.apple.iChat. StatusMessages.plist</user>	Status message feature is no longer existent in Messages
iPhoto		
iPhoto Library	\Users\ <user>\Pictures\iPhoto Library.photolibrary</user>	Specialized folder that contains user's iPhoto pictures
Original Photos	\Users\ <user>\Pictures\iPhoto Library.photolibrary\Masters\</user>	Contains original versions of all photos

Modified Photos	\Users\ <user>\pictures\iphotolibrary.photolibrary\p reviews\<="" td=""> <td>Contains modified versions of photos</td> </user>\pictures\iphotolibrary.photolibrary\p>	Contains modified versions of photos
iPhoto Main Database	\Users\ <user>\pictures\iphoto library.photolibrary\projects.db<="" td=""> <td>Contains detailed information about iPhoto library</td> </user>\pictures\iphoto>	Contains detailed information about iPhoto library
Face Recognition Artifacts	\Users\ <user>\pictures\iphoto library.photolibrary\database\apdb\faces.db<="" td=""> <td>SQLite databases containing data about recognized faces</td> </user>\pictures\iphoto>	SQLite databases containing data about recognized faces
Album Data	\Users\ <user>\pictures\iphoto library.photolibrary\albumdata.xml<="" td=""> <td>Plist containing information about some iPhoto albums\events and path\photo ID info for each picture in the library</td> </user>\pictures\iphoto>	Plist containing information about some iPhoto albums\events and path\photo ID info for each picture in the library
Album Data 2	\Users\ <user>\pictures\iphoto library.photolibrary\ilifeshared\albumdata2.xml<="" td=""> <td>Plist containing information about some iPhoto albums\events and other iPhoto information</td> </user>\pictures\iphoto>	Plist containing information about some iPhoto albums\events and other iPhoto information
iPhoto Recent Items	\Users\ <user>\library\preferences\com.apple.iphoto.lssharedfilelist.plist< td=""> <td>iPhoto Recent Items - typically only contains iPhoto Library package</td> </user>\library\preferences\com.apple.iphoto.lssharedfilelist.plist<>	iPhoto Recent Items - typically only contains iPhoto Library package
iPhoto Preferences	\Users\ <user>\library\preferences\com.apple.iphoto.plist< td=""> <td>iPhoto preferences</td> </user>\library\preferences\com.apple.iphoto.plist<>	iPhoto preferences
iTunes		
iTunes Preferences	\Users\ <user>\library\preferences\com.apple.itunes.plist< td=""> <td>iTunes preferences</td> </user>\library\preferences\com.apple.itunes.plist<>	iTunes preferences
iTunes Library Directory	\Users\ <user>\music\itunes\< td=""> <td>iTunes library directory</td> </user>\music\itunes\<>	iTunes library directory
iTunes Media	\Users\ <user>\music\itunes\itunes media\<="" td=""> <td>Directory containing iTunes media files</td> </user>\music\itunes\itunes>	Directory containing iTunes media files
iTunes Library Structure	\Users\ <user>\music\itunes\itunes library.itl<="" td=""> <td>XML file defining the iTunes music library (Outdated as of iTunes 12.2)</td> </user>\music\itunes\itunes>	XML file defining the iTunes music library (Outdated as of iTunes 12.2)
Photo Booth		
Recent Pictures	\Users\ <user>\pictures\photo booth="" library\recents.plist<="" td=""> <td>A Plist listing the recent photos and videos taken using Photo Booth. Items deleted by the user will not be saved to this list.</td> </user>\pictures\photo>	A Plist listing the recent photos and videos taken using Photo Booth. Items deleted by the user will not be saved to this list.
Photo Booth Pictures Directory	\Users\ <user>\pictures\photo booth="" library\pictures\<="" td=""> <td>A directory containing the user's Photo Booth pictures</td> </user>\pictures\photo>	A directory containing the user's Photo Booth pictures
Cache	\Users\ <user>\library\containers\com.apple.photobooth\data\library\caches< td=""> <td>Photo Booth cache directory</td> </user>\library\containers\com.apple.photobooth\data\library\caches<>	Photo Booth cache directory
Photo Booth Preferences	\Users\ <user>\library\preferences\com.apple.photobooth.plist< td=""> <td>Photo Booth preferences</td> </user>\library\preferences\com.apple.photobooth.plist<>	Photo Booth preferences
Address Book		
Address Book Database	\Users\ <user>\library\application support\addressbook\addressbook-v22.abcd.db<="" td=""> <td>SQLite database containing contact information</td> </user>\library\application>	SQLite database containing contact information

Address Book Last Configuration Fetch	\Users\ <user>\library\application support\addressbook\configuration.plist<="" td=""> <td>plist for blank address book</td> </user>\library\application>	plist for blank address book
Address Book Preferences	\Users\ <user>\library\preferences\com.apple.addressbook.plist< td=""> <td>Address Book preferences</td> </user>\library\preferences\com.apple.addressbook.plist<>	Address Book preferences
Spotlight		
Spotlight Directory	\Macintosh HD\.Spotlight-V100\	Spotlight directory containing text indexes
Shutdown Time	\Macintosh HD\.Spotlight-V100\Store-V2\ <guid>\shutdown_time< td=""> <td>Last shutdown time stored as a Unix 32-bit hex value in Little Endian</td> </guid>\shutdown_time<>	Last shutdown time stored as a Unix 32-bit hex value in Little Endian
RSS		
RSS Feeds Database	\Users\ <user>\library\pubsub\database\database.sqlite3< td=""> <td>SQLite database containing RSS Feed information</td> </user>\library\pubsub\database\database.sqlite3<>	SQLite database containing RSS Feed information
RSS Feed Plist	\Users\ <user>\library\pubsub\clients.plist< td=""> <td>Plist containing RSS Feed information</td> </user>\library\pubsub\clients.plist<>	Plist containing RSS Feed information
Feeds Directory	\Users\ <user>\library\pubsub\feeds\< td=""> <td>Directory containing RSS feeds</td> </user>\library\pubsub\feeds\<>	Directory containing RSS feeds
Saved Application State		
Saved Application State Directory	\Users\ <user>\library\saved application="" state\<="" td=""> <td>Directory Containing the folders pertaining to the previous saved state of OS X applications</td> </user>\library\saved>	Directory Containing the folders pertaining to the previous saved state of OS X applications
Saved Application Window Plist	\Users\ <user>\library\saved application="" state\<application.savedstate>\windows.plist<="" td=""> <td>Property list describing the state of the windows during the applications last use</td> </user>\library\saved>	Property list describing the state of the windows during the applications last use
Preferences		
Preferences Directory	\Users\ <user>\library\preferences\< td=""> <td>Directory containing user preference settings for applications and utilities</td> </user>\library\preferences\<>	Directory containing user preference settings for applications and utilities
Global Preferences	\Users\ <user>\library\preferences\globalpreferences.plist< td=""> <td>Global Preferences Plist</td> </user>\library\preferences\globalpreferences.plist<>	Global Preferences Plist
Photo Booth Preferences	\Users\ <user>\library\preferences\com.apple.photo booth.plist<="" td=""> <td>Photo Booth preferences</td> </user>\library\preferences\com.apple.photo>	Photo Booth preferences
Microsoft Office Preferences and Recent Items	\Users\ <user>\library\preferences\com.microsoft.office.plist< td=""> <td>Did not purchase Microsoft Office</td> </user>\library\preferences\com.microsoft.office.plist<>	Did not purchase Microsoft Office
Calculator Preferences	\Users\ <user>\library\containers\com.apple.calculator\data\library\preferences\com.apple.calculator.plist< td=""> <td>Contains recent conversions</td> </user>\library\containers\com.apple.calculator\data\library\preferences\com.apple.calculator.plist<>	Contains recent conversions
Dashboard Preferences	\Users\ <user>\library\preferences\com.apple.dashboard.plist< td=""> <td>Dashboard preferences including installed widgets</td> </user>\library\preferences\com.apple.dashboard.plist<>	Dashboard preferences including installed widgets
Desktop Preferences	\Users\ <user>\library\preferences\com.apple.desktop< td=""> <td>Desktop preferences including current</td> </user>\library\preferences\com.apple.desktop<>	Desktop preferences including current

	op.plist	Desktop background picture
Disk Utility Preferences	\Users\ <user>\Library\Preferences\com.apple.DiskUtility.plist</user>	Disk Utility preferences including recent disk images
Dock Preferences	\Users\ <user>\Library\Preferences\com.apple.dock.plist</user>	Dock preferences including persistent apps and directories
Finder Preferences	\Users\ <user>\Library\Preferences\com.apple.Finder.plist</user>	Finder preferences including mounted volumes
iCal Preferences	\Users\ <user>\Library\Preferences\com.apple.iCal.plist</user>	iCal preferences
iChat Preferences	\Users\ <user>\Library\Preferences\com.iChat.plist</user>	iChat accounts, preferences, away messages, recent chats, etc.
iMovie Preferences	\Users\ <user>\Library\Containers\com.apple.iMovieApp\Data\Library\Preferences\com.apple.iMovieApp.plist</user>	iMovie plist containing preferences for iMovie
iPhoto Preferences	\Users\ <user>\Library\Preferences\com.apple.iPhoto.plist</user>	iPhoto plist containing preferences for iPhoto
iTunes Preferences	\Users\ <user>\Library\Preferences\com.apple.iTunes.plist</user>	iTunes preferences
iApps Database Preferences	\Users\ <user>\Library\Preferences\com.apple.iApps.plist</user>	Plist listing the paths of iApp (iTunes, iPhoto, etc.) databases
Sidebar Lists Preferences	\Users\ <user>\Preferences\com.apple.sidebarlists.plist</user>	Lists the names of volumes mounted on the desktop that have appeared in the sidebar list
Autorun Locations		
Login Window	\Users\ <user>\Library\Preferences\loginwindow.plist</user>	Plist containing applications that are launched when the user logs in
Login Items	\Users\ <user>\Library\Preferences\com.apple.loginitems.plist</user>	Plists listing applications that automatically start when the user is logged in
Library Launch Agents	\Library\LaunchAgents\	Library Launch Agents
Library Launch Daemons	\Library\LaunchDaemons\	Library Launch Daemons
Library Startup Items	\Library\StartupItems\	Library Startup Items
System Launch Daemons	\System\Library\LaunchDaemons\	System Launch Daemons
System Startup Items	\System\Library\StartupItems\	System Startup Items
Recent Items		
Preview Recent Items	\Users\ <user>\Library\Preferences\com.apple.PreviewRecentItems.LSSharedFileList.plist</user>	Preview recent items

Property List Editor Recent Items	\Users\ <user>\library\preferences\com.apple.propertylisteditor.lssharedfilelist.plist< td=""> <td>Property list Editor recent items</td> </user>\library\preferences\com.apple.propertylisteditor.lssharedfilelist.plist<>	Property list Editor recent items
QuickTime Recent Items	\Users\ <user>\library\preferences\com.apple.quicktimeplayerx.lssharedfilelist.plist< td=""> <td>QuickTime recent items</td> </user>\library\preferences\com.apple.quicktimeplayerx.lssharedfilelist.plist<>	QuickTime recent items
Recent Items	\Users\ <user>\library\preferences\com.apple.recentitems.plist< td=""> <td>Recently opened applications, files, and servers</td> </user>\library\preferences\com.apple.recentitems.plist<>	Recently opened applications, files, and servers
Screen Sharing Recent Shares	\Users\ <user>\library\preferences\com.apple.screensharing.lssharedfilelist.plist< td=""> <td>Recent screen shares</td> </user>\library\preferences\com.apple.screensharing.lssharedfilelist.plist<>	Recent screen shares
TextEdit Recent Items	\Users\ <user>\library\preferences\com.apple.textedit.lssharedfilelist.plist< td=""> <td>TextEdit recent items</td> </user>\library\preferences\com.apple.textedit.lssharedfilelist.plist<>	TextEdit recent items
VLC Video Player Recent Items	\Users\ <user>\library\preferences\org.videolan.vlc.lssharedfilelist.plist< td=""> <td>VLC recent items</td> </user>\library\preferences\org.videolan.vlc.lssharedfilelist.plist<>	VLC recent items
Grab Screen Shot Recent Items	\Users\ <user>\library\preferences\com.apple.grab.lssharedfilelist.plist< td=""> <td>Screenshots recently taken and saved with Grab</td> </user>\library\preferences\com.apple.grab.lssharedfilelist.plist<>	Screenshots recently taken and saved with Grab
Console Recent Items	\Users\ <user>\library\preferences\com.apple.console.lssharedfilelist.plist< td=""> <td>Recent logs viewed with Console</td> </user>\library\preferences\com.apple.console.lssharedfilelist.plist<>	Recent logs viewed with Console
Misc.		
Logs Directory	\Users\ <user>\library\logs\< td=""> <td>Directory containing numerous log files</td> </user>\library\logs\<>	Directory containing numerous log files
Misc. Logs	\private\var\log	Miscellaneous Logs
Misc. Logs	\Library\Logs\	Miscellaneous Logs
Dock database	\Users\ <user>\library\preferences\com.apple.dock.plist< td=""> <td>There is a Dock.plist but no Dock.db (screenshot in folder)</td> </user>\library\preferences\com.apple.dock.plist<>	There is a Dock.plist but no Dock.db (screenshot in folder)
Attached iDevices	\Users\ <user>\library\preferences\com.apple.ipod.plist< td=""> <td>Attached iDevices</td> </user>\library\preferences\com.apple.ipod.plist<>	Attached iDevices
Launch Service Quarantine Events	\Users\ <user>\library\preferences\com.apple.launchservices.quarantineeventsv2< td=""> <td>SQLite database that keeps track of files that have the quarantine extended attribute that is given to applications, scripts, and executables downloaded from potentially untrustworthy locations\people.</td> </user>\library\preferences\com.apple.launchservices.quarantineeventsv2<>	SQLite database that keeps track of files that have the quarantine extended attribute that is given to applications, scripts, and executables downloaded from potentially untrustworthy locations\people.
Terminal Commands History	\Users\ <user>\.bash_history< td=""> <td>Terminal commands history</td> </user>\.bash_history<>	Terminal commands history
Owner Information Plist	\Users\ <user>\library\preferences\com.apple.addressbook.plist< td=""> <td>Plist containing user information such as name, address, phone number, etc.</td> </user>\library\preferences\com.apple.addressbook.plist<>	Plist containing user information such as name, address, phone number, etc.
Application Support Directory	\Users\ <user>\library\application support\<="" td=""> <td>Contains application-specific folders used to support applications and utilities</td> </user>\library\application>	Contains application-specific folders used to support applications and utilities
Keychain Directory	\Users\ <user>\library\keychains\< td=""> <td>Directory containing user keychain files</td> </user>\library\keychains\<>	Directory containing user keychain files
Trash	\Users\ <user>\.trash\< td=""> <td>User Trash directory</td> </user>\.trash\<>	User Trash directory
OS Version Plist	\System\Library\CoreServices\SystemVersion.plist	Plist describing the installed Operating System

User Setup Plist	\private\var\db\.AppleSetupDone	Plist listing the information entered by the user at the time of the OS setup
Mobile Backups Directory	\Volumes\MobileBackups\	Local Time Machine backup directory stored on disk. Time Machine backups are created and stored here when Time Machine backup disk is not available.
Flash Shared Objects	\Users\ <user>\Library\Preferences\Macromedia\Flash Player\#SharedObjects\</user>	Contains Flash shared object artifacts that identify webpages visited
Flash Player Support	\Users\ <user>\Library\Preferences\Macromedia\Flash Player\macromedia.com\support\flash player\sys\</user>	Contains Flash player support artifacts that identify webpages visited
CD Information Database	\Users\ <user>\Preferences\CD Info.cidb</user>	A database file used to "remember" CD's (user-created & store bought). Also, the file gets updated if a user manually enters track names in iTunes.
Login Window Info	\Library\Preferences\com.apple.loginwindow.plist	Plist containing password hints and last user logged in
Bluetooth Preferences	\Library\Preferences\com.apple.Bluetooth.plist	Bluetooth preferences and paired devices
Software Update	\Library\Preferences\com.apple.SoftwareUpdate.plist	Plist describing last attempt and last successful attempt at updating OS X software
Time Machine Info	\Library\Preferences\com.apple.TimeMachine.plist	Time Machine backup info
Remembered Wireless Networks	\Library\Preferences\SystemConfiguration\com.apple.airport.preferences.plist	Remembered wireless networks
Document Revisions Directory	\.DocumentRevisions-V100\	Directory containing automatically saved versions of files
Sleep Image File	\private\var\vm\sleepimage	Contents of RAM are written to this file when the computer is put to sleep These files were not found in the initial report, but found using a Mac computer running Yosemite due to virtual machines not going to sleep
Swap Files	\private\var\vm\swapfile<#>	Numerous swap files may be found in this directory with the naming convention of swapfile# (swapfile0, swapfile1, swapfile2, etc.)These files were not found in the initial report, but found using a Mac computer running Yosemite due to virtual machines not going to sleep
User Log In Password Hash Plist	\Private\Var\db\dslocal\nodes\Default\Users\ <user>.plist< td=""> <td>Plist file made for every user account that has been made on the OS</td> </user>.plist<>	Plist file made for every user account that has been made on the OS
Firefox		
Firefox Directory	\Users\ <user>\Library\Application Support\Firefox\</user>	Directory containing user artifacts for

		Mozilla Firefox web browser
Firefox Profiles	\Users\ <user>\library\application support\firefox\profiles\<="" td=""> <td>Directory containing profiles for firefox</td> </user>\library\application>	Directory containing profiles for firefox
Firefox Cookies	\Users\ <user>\library\application support\firefox\profiles\<profile>\cookies.sqlite<="" td=""> <td>SQLite file containing cookies for firefox</td> </user>\library\application>	SQLite file containing cookies for firefox
Firefox Downloads	\Users\ <user>\library\application support\firefox\profiles\<profile>\downloads.sqlite<="" td=""> <td>SQLite file containing information about firefox downloads</td> </user>\library\application>	SQLite file containing information about firefox downloads
Firefox Form History	\Users\ <user>\library\application support\firefox\profiles\<profile>\formhistory.sqlite<="" td=""> <td>Text entered into forms including search terms, email addresses, and login information.</td> </user>\library\application>	Text entered into forms including search terms, email addresses, and login information.
Firefox History	\Users\ <user>\library\application support\firefox\profiles\<profile>\places.sqlite<="" td=""> <td>SQLite file containing information about firefox history</td> </user>\library\application>	SQLite file containing information about firefox history
Google Chrome		
Chrome Directory	\Users\ <user>\library\application support\google\chrome\<="" td=""> <td>Directory containing user artifacts for Google Chrome web browser</td> </user>\library\application>	Directory containing user artifacts for Google Chrome web browser
Chrome Cache	\Users\ <user>\library\caches\google\chrome\default\cache\< td=""> <td>Google Chrome cache directory</td> </user>\library\caches\google\chrome\default\cache\<>	Google Chrome cache directory
Preference Files	\Users\ <user>\library\preferences\com.google.chrome.plist< td=""> <td>Plist containing preferences for Google Chrome</td> </user>\library\preferences\com.google.chrome.plist<>	Plist containing preferences for Google Chrome
Chrome Update Plist	\Users\ <user>\library\preferences\com.google.keystone.agent.plist< td=""> <td>Plist containing update information for chrome</td> </user>\library\preferences\com.google.keystone.agent.plist<>	Plist containing update information for chrome
Tor		
Hidden Tor Directory	\Applications\TorBrowser.app\TorBrowser\Data\Tor\	Directory in Tor files that is hidden
State File	\Applications\TorBrowser.app\TorBrowser\Data\Tor\state	Text file describing the version of Tor used and the last time it was ran
VirtualBox		
VirtualBox Directory	\Users\ <user>\library\virtualbox\< td=""> <td>Directory for VirtualBox files</td> </user>\library\virtualbox\<>	Directory for VirtualBox files
VirtualBox Settings	\Users\ <user>\library\virtualbox\virtualbox.xml< td=""> <td>An XML file describing VirtualBox settings. Contains information about recently run virtual machines.</td> </user>\library\virtualbox\virtualbox.xml<>	An XML file describing VirtualBox settings. Contains information about recently run virtual machines.
VirtualBox Log File	\Users\ <user>\library\virtualbox\vboxsvc.log< td=""> <td>VirtualBox log file</td> </user>\library\virtualbox\vboxsvc.log<>	VirtualBox log file
VirtualBox Cache Directory	\Users\ <user>\library\caches\org.virtualbox.app.virtualbox\< td=""> <td>VirtualBox cache directory</td> </user>\library\caches\org.virtualbox.app.virtualbox\<>	VirtualBox cache directory
VirtualBox VM Directory	\Users\ <user>\virtualbox td="" vms\<=""> <td>Directory for VirtualBox virtual machines</td> </user>\virtualbox>	Directory for VirtualBox virtual machines

Drop Box		
Drop Box Directory	\Users\ <user>\Dropbox</user>	Directory for DropBox files
Drop Box Cache Folder	\Users\ <user>\Library\Caches\com.getdropbox.dropbox\</user>	Drop Box cache directory
Drop Box Config Folder	\Users\ <user>\.dropbox</user>	Hidden configuration folder for Drop Box
Drop Box Config Database	\Users\ <user>\.dropbox\instance1\config.db</user>	This has changed by adding "instance" folders under .dropbox
Drop Box File Cache	\Users\ <user>\.dropbox\instance1\filecache.dbx</user>	SQLite database containing information about files stored in Drop Box directory.
Skype		
Skype Directory	\Users\ <user>\Library\Application Support\Skype\</user>	Directory for Skype files
User profile	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\</skype></user>	Directory containing Skype user artifacts
Skype Preferences and Recent Searches	\Users\ <user>\Library\Preferences\com.skype.skype.plist</user>	Skype preferences and recent user searches
Main Skype database	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\Main.db</skype></user>	Database of contacts, SMS's, calls, conversations, videos, messages, etc.
Chat Sync Directory	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\chatsync\</skype></user>	Directory containing chat logs
Handbrake DVD Ripper		
Handbrake Directory	\Users\ <user>\Library\Application Support\Handbrake\</user>	Directory for Handbrake DVD ripper
Logs	\Users\ <user>\Library\Application Support\Handbrake\EncodeLogs\</user>	Log files for each rip
Activity Log	\Users\ <user>\Library\Application Support\Handbrake\HandBrake-activitylog.txt</user>	Activity log
Queue	\Users\ <user>\Library\Application Support\Handbrake\Queue\Queue.plist</user>	HandBrake queue
Previews Directory	\Users\ <user>\Library\Application Support\Handbrake\Previews\</user>	Contains previews of unfinished rips
Preferences & Last Launch	\Users\ <user>\Library\Preferences\fr.handbrake.HandBrake.plist</user>	Handbrake preferences & last launch time
Networking		

Hosts file	\private\etc\hosts	Redirects website to another specified website
Remembered Wireless Networks	\Library\Preferences\SystemConfiguration\com.apple.airport.preferences.plist	Remembered wireless networks
Open Office		
Open Office Directory	\Users\ <user>\Library\Application Support\OpenOffice</user>	Directory for Open Office files
Recent Items	\Users\ <user>\Library\Preferences\org.openoffice.scRIPT.LSSharedFileList.plist</user>	Plis of Open Office recent items
Preferences	\Users\ <user>\Library\Preferences\org.openoffice.scRIPT.plist</user>	Plis of Open Office preferences
HipChat		
Preferences	\Users\ <user>\Library\Preferences\com.hipchat.HipChat.plist</user>	Plis of HipChat preferences
Hipchat Cache	\Users\ <user>\Library\Caches\com.hipchat.HipChat\</user>	Folder for HipChat cache
Hipchat Directory	\Users\ <user>\Library\HipChat\</user>	Directory for HipChat files
Hipchat Directory	\Users\ <user>\Library\Application Support\HipChat\</user>	Application Support HipChat directory
Cache	\Users\ <user>\Library\Application Support\HipChat\cache.db</user>	Cache database for HipChat
Spotify		
Spotify Directory	\Users\ <user>\Library\Application Support\Spotify\</user>	Directory containing information on login, songs, etc.
User Accounts Directory	\Users\ <user>\Library\Application Support\Spotify\Users\<account name="">\</account></user>	List of whats in the database of the cache
Preferences	\Users\ <user>\Library\Preferences\com.spotify.client.plist</user>	Preferences set for spotify
Spotify Cache Directory	\Users\ <user>\Library\Caches\com.spotify.client\</user>	Cache for Spotify
Maps		
Map Preferences	\Users\ <user>\Library\Preferences\com.apple.Maps.plist</user>	Plis for Maps preferences
Cache directory	\Users\ <user>\Library\Containers\com.apple.maps\Data\Library\Caches\com.apple.Maps\</user>	Maps cache directory
Cache File	\Users\ <user>\Library\Containers\com.apple.maps\Data\Library\Caches\com.apple.Maps\Cache.db</user>	Maps cache database

Reminders		
Reminders Preferences	\Users\ <user>\library\containers\com.apple.reminders\data\library\preferences\com.apple.reminders.plist< td=""> <td>Plist for Reminders preferences</td> </user>\library\containers\com.apple.reminders\data\library\preferences\com.apple.reminders.plist<>	Plist for Reminders preferences
Cache directory	\Users\ <user>\library\containers\com.apple.reminders\data\library\caches\< td=""> <td>Reminders cache directory</td> </user>\library\containers\com.apple.reminders\data\library\caches\<>	Reminders cache directory
Gimp		
Gimp Directory	\Users\ <user>\library\application support\gimp\<version>\<="" td=""> <td>Directory containing gimp files</td> </user>\library\application>	Directory containing gimp files
Facetime		
Preferences	\Users\ <user>\library\preferences\com.apple.facetime.plist< td=""> <td>Plist for Facetime preferences</td> </user>\library\preferences\com.apple.facetime.plist<>	Plist for Facetime preferences
Cache Directory	\Users\ <user>\library\containers\com.apple.facetime\data\library\caches\< td=""> <td>Facetime cache directory</td> </user>\library\containers\com.apple.facetime\data\library\caches\<>	Facetime cache directory
Twitter		
Twitter Preferences	\Users\ <user>\library\containers\com.twitter.twitter-mac\data\library\preferences\com.twitter.twitter-mac.plist< td=""> <td>Twitter application folder</td> </user>\library\containers\com.twitter.twitter-mac\data\library\preferences\com.twitter.twitter-mac.plist<>	Twitter application folder
Application	\Applications\Twitter.app	Twitter cache directory
Twitter Cache Directory	\Users\ <user>\library\containers\com.twitter.twitter-mac\data\library\caches\com.twitter.twitter-mac\< td=""> <td>SQLite database file containing cached Twitter feed data</td> </user>\library\containers\com.twitter.twitter-mac\data\library\caches\com.twitter.twitter-mac\<>	SQLite database file containing cached Twitter feed data
Twitter cache file	\Users\ <user>\library\containers\com.twitter.twitter-mac\data\library\caches\com.twitter.twitter-mac\cache.db< td=""> <td>Twitter saved application state directory</td> </user>\library\containers\com.twitter.twitter-mac\data\library\caches\com.twitter.twitter-mac\cache.db<>	Twitter saved application state directory
Twitter Saved Application State	\Users\ <user>\library\containers\com.twitter-mac\data\library\saved application="" state\com.twitter.twitter-mac.savedstate<="" td=""> <td>Saved application state for the twitter application</td> </user>\library\containers\com.twitter-mac\data\library\saved>	Saved application state for the twitter application
iCloud		
iCloud Accounts	\Users\ <user>\library\application support\icloud\accounts\<="" td=""> <td>Directory containing accounts for iCloud</td> </user>\library\application>	Directory containing accounts for iCloud
CleanMyMac		
Preferences and Settings	\Users\ <user>\library\preferences\com.macpaw.cleanmymac3.plist< td=""> <td>Plist file containig preferences and settings for CleanMyMac</td> </user>\library\preferences\com.macpaw.cleanmymac3.plist<>	Plist file containig preferences and settings for CleanMyMac

Evernote		
Evernote Data\Profile Directory	\Users\ <user>\Library\Containers\com.evernote.Evernote\data\</user>	Contains user profiles and Evernote user data
Evernote Logs	\Users\ <user>\Library\Containers\com.evernote.Evernote\data\Library\Logs\</user>	Directory for Evernote logs
Evernote User Content	\Users\ <user>\Library\Containers\com.evernote.Evernote\Data\Library\Application Support\com.evernote.Evernote\accounts\www.evernote.com\<profile>\content\< td=""> <td>Contains the content of the user's Evernote data. Content stored as HTML, XML, graphics, and various other non-proprietary file types.</td> </profile>\content\<></user>	Contains the content of the user's Evernote data. Content stored as HTML, XML, graphics, and various other non-proprietary file types.
Network Time Protocol (NTP) Validation Logs		
Hosts config File	\private\etc\hosts	This file maps hostnames to IP addresses
NTP Config File	\private\etc\ntp.conf	This file is read on system start
NTP Drift File	\private\var\db\ntp.drift	This file records the offset between the system clock and the NTP clock
Sleep State Logs		
Directory Service Server Log Directory	\Library\Preferences\DirectoryService\	Directory for the DirectoryService daemon
Apple System Log	\private\var\log\asl\	System log files

Appendix 2: OS X El Capitan Artifact Location Spreadsheet

	- Artifact Not Found
	- Artifact location is different
	- Artifact found

Table 14: El Capitan Artifact Location Spreadsheet

Artifact	New Location	Old Location
User Directories		
Downloads Directory	\Users\ <user>\Downloads\</user>	User Specific Download Directory
Documents Directory	\Users\ <user>\Documents\</user>	User specific Documents Directory

Music Directory	\Users\ <user>\Music\</user>	User specific Music Directory
Desktop Directory	\Users\ <user>\Desktop\</user>	User Specific Desktop Directory
Library Directory	\Users\ <user>\Library\</user>	Hidden directory in Yosemite
Movies Directory	\Users\ <user>\Movies\</user>	User Specific Movies directory. Contains video files.
Pictures Directory	\Users\ <user>\Pictures\</user>	User Specific Picture Directory
Public Directory	\Users\ <user>\Public\</user>	Users public directory
Applications	\Users\ <user>\Applications\</user>	User Specific Application Directory containing applications
Applications	\Applications\	Not user-specific
Safari		
Safari Bookmarks	\Users\ <user>\Library\Safari\Bookmarks.plist</user>	Plist listing default and user-added Safari bookmarks
Safari Downloads	\Users\ <user>\Library\Safari\Downloads.plist</user>	Plist listing files downloaded using Safari Browser
Safari Installed Extensions	\Users\ <user>\Library\Preferences\com.apple.Safari.Extensions.plist</user>	Plist describing installed Safari Extensions
Safari Extensions	\Users\ <user>\Library\Safari\Extensions\</user>	Directory of Safari Extensions. Safari Extensions utilize .safariextz file extension. Also has a plist listing the extensions
Safari History	\Users\ <user>\Library\Safari\History.db</user>	Plist listing Safari web browsing history
Safari History Index	\Users\ <user>\Library\Safari\HistoryIndex.sk</user>	An index of Safari History allowing a user to perform keyword searches of visited webpages
Safari Last Session	\Users\ <user>\Library\Safari\LastSession.plist</user>	A plist describing the state of Safari when it was last closed
Safari Local Storage Directory	\Users\ <user>\Library\Safari\LocalStorage\</user>	A directory for webpage-specific storage. Each webpage stores data in a SQLite database with the file extension of .localstorage.
Safari Local Storage Database	\Users\ <user>\Library\Safari\LocalStorage\StorageTracker.db</user>	A database listing the webpage specific databases
Safari Top Sites	\Users\ <user>\Library\Safari\TopSites.plist</user>	A Plist listing the webpages belonging to a Safari's Top Sites
Safari Webpage Icons Database	\Users\ <user>\Library\Safari\WebpageIcons.db</user>	A database containing saved web page icons for webpages visited
Safari Webpage Databases	\Users\ <user>\Library\Safari\Databases\</user>	A directory for webpage-specific database storage

Safari Webpage Databases Database	\Users\ <user>\library\safari\databases\databases.db< td=""> <td>A database that keeps track of stored webpage-specific databases</td> </user>\library\safari\databases\databases.db<>	A database that keeps track of stored webpage-specific databases
Safari Cache Directory	\Users\ <user>\library\caches\com.apple.safari\< td=""> <td>A directory containing Safari-specific cache items</td> </user>\library\caches\com.apple.safari\<>	A directory containing Safari-specific cache items
Safari Cache	\Users\ <user>\library\caches\com.apple.safari\cache.db< td=""> <td>A cache of data from visited webpages</td> </user>\library\caches\com.apple.safari\cache.db<>	A cache of data from visited webpages
Safari Extensions Cache	\Users\ <user>\library\caches\com.apple.safari\extensions\< td=""> <td>A directory containing cached items for Safari Extensions</td> </user>\library\caches\com.apple.safari\extensions\<>	A directory containing cached items for Safari Extensions
Safari Webpage Previews	\Users\ <user>\library\caches\com.apple.safari\fscacheddata\< td=""> <td>A directory containing images of viewed webpages in .png and .jpg formats. The file name is a hash of the webpage URL.</td> </user>\library\caches\com.apple.safari\fscacheddata\<>	A directory containing images of viewed webpages in .png and .jpg formats. The file name is a hash of the webpage URL.
Safari Cookies	\Users\ <user>\library\cookies\hsts.plist< td=""> <td>A Plist containing cookies from visited webpages</td> </user>\library\cookies\hsts.plist<>	A Plist containing cookies from visited webpages
Safari Preferences	\Users\ <user>\library\preferences\com.apple.safari.plist< td=""> <td>Contains recent safari search strings and downloads folder location in addition to preferences</td> </user>\library\preferences\com.apple.safari.plist<>	Contains recent safari search strings and downloads folder location in addition to preferences
Safari Saved Application State Directory	\Users\ <user>\library\saved application="" state\com.apple.safari.savedstate\<="" td=""> <td>Application save state for Safari. Directory contains other application save states</td> </user>\library\saved>	Application save state for Safari. Directory contains other application save states
Safari Bookmark Cache	\Users\ <user>\library\caches\metadata\safari\bookmarks\< td=""> <td>Each bookmark entry in Bookmarks.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the bookmark entry from Spotlight and have Safari launch the corresponding webpage</td> </user>\library\caches\metadata\safari\bookmarks\<>	Each bookmark entry in Bookmarks.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the bookmark entry from Spotlight and have Safari launch the corresponding webpage
Safari History Cache	\Users\ <user>\library\caches\metadata\safari\history\< td=""> <td>Each website entry in History.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the webpage entry from Spotlight and have Safari launch the corresponding webpage</td> </user>\library\caches\metadata\safari\history\<>	Each website entry in History.plist is stored as an individual file in this directory for more efficient use with Spotlight and to allow the user to select the webpage entry from Spotlight and have Safari launch the corresponding webpage
Mail		
Mail Cache	\Users\ <user>\library\caches\com.apple.mail\cache.db< td=""> <td>Cached images from email messages</td> </user>\library\caches\com.apple.mail\cache.db<>	Cached images from email messages
Mail Mailbox Directory	\Users\ <user>\library\mail\v3\< td=""> <td>Apple Mail Mailboxes</td> </user>\library\mail\v3\<>	Apple Mail Mailboxes
Mail IMAP Synched Mailboxes	\Users\ <user>\library\mail\v3\<guid>< td=""> <td>Synched IMAP Account(s)</td> </user>\library\mail\v3\<guid><>	Synched IMAP Account(s)
Mail BackupTOC	\Users\ <user>\library\mail\v3\maildata\backuptoc.plist< td=""> <td>Backup Plist that defines the mailbox structure</td> </user>\library\mail\v3\maildata\backuptoc.plist<>	Backup Plist that defines the mailbox structure
Mail Envelope Index	\Users\ <user>\library\mail\v3\maildata\envelope< td=""> <td>Keeps track of the location of Mail</td> </user>\library\mail\v3\maildata\envelope<>	Keeps track of the location of Mail

	Index	messages - the content of some messages is present as well
Mail Opened Attachments	\Users\ <user>\Library\Mail\V2\MailData\OpenedAttachments.plist</user>	Although this file is usually empty, due to the use of VM we had trouble finding this file even though on multiple occasions, we downloaded attachments from emails
Mail Search History	\Users\ <user>\Library\Mail\V2\MailData\SearchHistory.plist</user>	Plist listing search terms entered into Mail's search box
Mail Signatures by Account	\Users\ <user>\Library\Mail\V3\MailData\Signatures\<string>.mailsignature</string></user>	Plist containing Mail signatures
Mail Smart Mailbox Info	\Users\ <user>\Library\Mail\V3\MailData\SyncedSmartMailboxes.plist</user>	Smart Mailbox information
Mail Downloads Directory	\Users\ <user>\Library\Containers\com.apple.mail\Data\Library\Mail Downloads\</user>	Directory Empty - All attachments now go to the downloads folder
Mail Preferences	\Users\ <user>\Library\Preferences\com.apple.mail-shared.plist</user>	Mail preferences
Mail Recent Contacts	\Users\ <user>\Library\Application Support\Address Book\MailRecents-v4.abcdmr</user>	SQLite database stored in Address Book's support directory containing recent Mail contacts
iChat(Messages)		
iChat Preferences	\Users\ <user>\Library\Preferences\com.apple.iChat.plist</user>	iChat preferences and user account information
Saved Chats	\Users\ <user>\Library\Messages\chat.db</user>	Database of logged chats
Icon	\Users\ <user>\Library\Caches\com.apple.iChat\Pictures</user>	User iChat icon
Recent Pictures	\Users\ <user>\Library\Messages\Attachments</user>	Recent user iChat pictures
iChat Status Messages Plist	\Users\ <user>\Library\Preferences\com.apple.iChat.StatusMessages.plist</user>	Status message feature is no longer existent in Messages
iPhoto		
iPhoto Library	\Users\ <user>\Pictures\iPhoto Library.photolibrary</user>	Specialized folder that contains user's iPhoto pictures
Original Photos	\Users\ <user>\Pictures\iPhoto Library.photolibrary\Masters\</user>	Contains original versions of all photos
Modified Photos	\Users\ <user>\Pictures\iPhotoLibrary.photolibrary\Previews\</user>	Contains modified versions of photos
iPhoto Main Database	\Users\ <user>\Pictures\iPhoto Library.photolibrary\Projects.db</user>	Contains detailed information about iPhoto library

Face Recognition Artifacts	\Users\ <user>\pictures\iphoto library.photolibrary\database\apdb\faces.db<="" td=""> <td>SQLite databases containing data about recognized faces</td> </user>\pictures\iphoto>	SQLite databases containing data about recognized faces
Album Data	\Users\ <user>\pictures\iphoto library.photolibrary\albumdata.xml<="" td=""> <td>Plist containing information about some iPhoto albums\events and path\photo ID info for each picture in the library</td> </user>\pictures\iphoto>	Plist containing information about some iPhoto albums\events and path\photo ID info for each picture in the library
Album Data 2	\Users\ <user>\pictures\iphoto library.photolibrary\ilifeshared\albumdata2.xml<="" td=""> <td>Plist containing information about some iPhoto albums\events and other iPhoto information</td> </user>\pictures\iphoto>	Plist containing information about some iPhoto albums\events and other iPhoto information
iPhoto Recent Items	\Users\ <user>\library\preferences\com.apple.iphoto.lssharedfilelist.plist< td=""> <td>iPhoto Recent Items - typically only contains iPhoto Library package</td> </user>\library\preferences\com.apple.iphoto.lssharedfilelist.plist<>	iPhoto Recent Items - typically only contains iPhoto Library package
iPhoto Preferences	\Users\ <user>\library\preferences\com.apple.iphoto.plist< td=""> <td>iPhoto preferences</td> </user>\library\preferences\com.apple.iphoto.plist<>	iPhoto preferences
iTunes		
iTunes Preferences	\Users\ <user>\library\preferences\com.apple.itunes.plist< td=""> <td>iTunes preferences</td> </user>\library\preferences\com.apple.itunes.plist<>	iTunes preferences
iTunes Library Directory	\Users\ <user>\music\itunes\< td=""> <td>iTunes library directory</td> </user>\music\itunes\<>	iTunes library directory
iTunes Media	\Users\ <user>\music\itunes\itunes media\<="" td=""> <td>Directory containing iTunes media files</td> </user>\music\itunes\itunes>	Directory containing iTunes media files
iTunes Library Structure	\Users\ <user>\music\itunes\itunes library.itl<="" td=""> <td>XML file defining the iTunes music library (Outdated as of iTunes 12.2)</td> </user>\music\itunes\itunes>	XML file defining the iTunes music library (Outdated as of iTunes 12.2)
Photo Booth		
Recent Pictures	\Users\ <user>\pictures\photo booth="" library\recents.plist<="" td=""> <td>A Plist listing the recent photos and videos taken using Photo Booth. Items deleted by the user will not be saved to this list.</td> </user>\pictures\photo>	A Plist listing the recent photos and videos taken using Photo Booth. Items deleted by the user will not be saved to this list.
Photo Booth Pictures Directory	\Users\ <user>\pictures\photo booth="" library\pictures\<="" td=""> <td>A directory containing the user's Photo Booth pictures</td> </user>\pictures\photo>	A directory containing the user's Photo Booth pictures
Cache	\Users\ <user>\library\containers\com.apple.photobooth\data\library\caches< td=""> <td>Photo Booth cache directory</td> </user>\library\containers\com.apple.photobooth\data\library\caches<>	Photo Booth cache directory
Photo Booth Preferences	\Users\ <user>\library\preferences\com.apple.photobooth.plist< td=""> <td>Photo Booth preferences</td> </user>\library\preferences\com.apple.photobooth.plist<>	Photo Booth preferences
Address Book		
Address Book Database	\Users\ <user>\library\application support\addressbook\addressbook-v22.abcd.db<="" td=""> <td>SQLite database containing contact information</td> </user>\library\application>	SQLite database containing contact information
Address Book Last Configuration Fetch	\Users\ <user>\library\application support\addressbook\configuration.plist<="" td=""> <td>plist for blank address book</td> </user>\library\application>	plist for blank address book
Address Book Preferences	\Users\ <user>\library\preferences\com.apple.addressbook.plist< td=""> <td>Address Book preferences</td> </user>\library\preferences\com.apple.addressbook.plist<>	Address Book preferences

Spotlight		
Spotlight Directory	\Macintosh HD\.Spotlight-V100\	Spotlight directory containing text indexes
Shutdown Time	\Macintosh HD\.Spotlight-V100\Store-V2\ <guid>\shutdown_time< td=""> <td>Last shutdown time stored as a Unix 32-bit hex value in Little Endian</td> </guid>\shutdown_time<>	Last shutdown time stored as a Unix 32-bit hex value in Little Endian
RSS		
RSS Feeds Database	\Users\ <user>\library\pubsub\database\database.sqlite3< td=""> <td>SQLite database containing RSS Feed information</td> </user>\library\pubsub\database\database.sqlite3<>	SQLite database containing RSS Feed information
RSS Feed Plist	\Users\ <user>\library\pubsub\clients.plist< td=""> <td>Plist containing RSS Feed information</td> </user>\library\pubsub\clients.plist<>	Plist containing RSS Feed information
Feeds Directory	\Users\ <user>\library\pubsub\feeds\< td=""> <td>Directory containing RSS feeds</td> </user>\library\pubsub\feeds\<>	Directory containing RSS feeds
Saved Application State		
Saved Application State Directory	\Users\ <user>\library\saved application="" state\<="" td=""> <td>Directory Containing the folders pertaining to the previous saved state of OS X applications</td> </user>\library\saved>	Directory Containing the folders pertaining to the previous saved state of OS X applications
Saved Application Window Plist	\Users\ <user>\library\saved application="" state\<application>.savedstate\windows.plist<="" td=""> <td>Property list describing the state of the windows during the applications last use</td> </user>\library\saved>	Property list describing the state of the windows during the applications last use
Preferences		
Preferences Directory	\Users\ <user>\library\preferences\< td=""> <td>Directory containing user preference settings for applications and utilities</td> </user>\library\preferences\<>	Directory containing user preference settings for applications and utilities
Global Preferences	\Users\ <user>\library\preferences\globalpreferences.plist< td=""> <td>Global Preferences Plist</td> </user>\library\preferences\globalpreferences.plist<>	Global Preferences Plist
Photo Booth Preferences	\Users\ <user>\library\preferences\com.apple.photo booth.plist<="" td=""> <td>Photo Booth preferences</td> </user>\library\preferences\com.apple.photo>	Photo Booth preferences
Microsoft Office Preferences and Recent Items	\Users\ <user>\library\preferences\com.microsoft.office.plist< td=""> <td>Did not purchase Microsoft Office</td> </user>\library\preferences\com.microsoft.office.plist<>	Did not purchase Microsoft Office
Calculator Preferences	\Users\ <user>\library\containers\com.apple.calculator\data\library\preferences\com.apple.calculator.plist< td=""> <td>Contains recent conversions</td> </user>\library\containers\com.apple.calculator\data\library\preferences\com.apple.calculator.plist<>	Contains recent conversions
Dashboard Preferences	\Users\ <user>\library\preferences\com.apple.dashboard.plist< td=""> <td>Dashboard preferences including installed widgets</td> </user>\library\preferences\com.apple.dashboard.plist<>	Dashboard preferences including installed widgets
Desktop Preferences	\Users\ <user>\library\preferences\com.apple.desktop.plist< td=""> <td>Desktop preferences including current Desktop background picture</td> </user>\library\preferences\com.apple.desktop.plist<>	Desktop preferences including current Desktop background picture
Disk Utility Preferences	\Users\ <user>\library\preferences\com.apple.disk-utility.plist< td=""> <td>Disk Utility preferences including recent disk images</td> </user>\library\preferences\com.apple.disk-utility.plist<>	Disk Utility preferences including recent disk images

Dock Preferences	\Users\ <user>\library\preferences\com.apple.dock.plist< td=""> <td>Dock preferences including persistent apps and directories</td> </user>\library\preferences\com.apple.dock.plist<>	Dock preferences including persistent apps and directories
Finder Preferences	\Users\ <user>\library\preferences\com.apple.finder.plist< td=""> <td>Finder preferences including mounted volumes</td> </user>\library\preferences\com.apple.finder.plist<>	Finder preferences including mounted volumes
iCal Preferences	\Users\ <user>\library\preferences\com.apple.ical.plist< td=""> <td>iCal preferences</td> </user>\library\preferences\com.apple.ical.plist<>	iCal preferences
iChat Preferences	\Users\ <user>\library\preferences\com.ichat.plist< td=""> <td>iChat accounts, preferences, away messages, recent chats, etc.</td> </user>\library\preferences\com.ichat.plist<>	iChat accounts, preferences, away messages, recent chats, etc.
iMovie Preferences	\Users\ <user>\library\containers\com.apple.imovieapp\data\library\preferences\com.apple.imovieapp.plist< td=""> <td>iMovie plist containing preferences for iMovie</td> </user>\library\containers\com.apple.imovieapp\data\library\preferences\com.apple.imovieapp.plist<>	iMovie plist containing preferences for iMovie
iPhoto Preferences	\Users\ <user>\library\preferences\com.apple.iphoto.plist< td=""> <td>iPhoto plist containing preferences for iPhoto</td> </user>\library\preferences\com.apple.iphoto.plist<>	iPhoto plist containing preferences for iPhoto
iTunes Preferences	\Users\ <user>\library\preferences\com.apple.itunes.plist< td=""> <td>iTunes preferences</td> </user>\library\preferences\com.apple.itunes.plist<>	iTunes preferences
iApps Database Preferences	\Users\ <user>\library\preferences\com.apple.iapps.plist< td=""> <td>Plist listing the paths of iApp (iTunes, iPhoto, etc.) databases</td> </user>\library\preferences\com.apple.iapps.plist<>	Plist listing the paths of iApp (iTunes, iPhoto, etc.) databases
Sidebar Lists Preferences	\Users\ <user>\preferences\com.apple.sidebarlists.plist< td=""> <td>Lists the names of volumes mounted on the desktop that have appeared in the sidebar list</td> </user>\preferences\com.apple.sidebarlists.plist<>	Lists the names of volumes mounted on the desktop that have appeared in the sidebar list
Autorun Locations		
Login Window	\Users\ <user>\library\preferences\loginwindow.plist< td=""> <td>Plist containing applications that are launched when the user logs in</td> </user>\library\preferences\loginwindow.plist<>	Plist containing applications that are launched when the user logs in
Login Items	\Users\ <user>\library\preferences\com.apple.loginitems.plist< td=""> <td>Plists listing applications that automatically start when the user is logged in</td> </user>\library\preferences\com.apple.loginitems.plist<>	Plists listing applications that automatically start when the user is logged in
Library Launch Agents	\Library\LaunchAgents\	Library Launch Agents
Library Launch Daemons	\Library\LaunchDaemons\	Library Launch Daemons
Library Startup Items	\Library\StartupItems\	Library Startup Items
System Launch Daemons	\System\Library\LaunchDaemons\	System Launch Daemons
System Startup Items	\System\Library\StartupItems\	System Startup Items
Recent Items		
Preview Recent Items	\Users\ <user>\library\preferences\com.apple.preview.lssharedfilelist.plist< td=""> <td>Preview recent items</td> </user>\library\preferences\com.apple.preview.lssharedfilelist.plist<>	Preview recent items
Property List Editor Recent Items	\Users\ <user>\library\preferences\com.apple.propertylisteditor.lssharedfilelist.plist< td=""> <td>Property list Editor recent items</td> </user>\library\preferences\com.apple.propertylisteditor.lssharedfilelist.plist<>	Property list Editor recent items
QuickTime Recent Items	\Users\ <user>\library\preferences\com.apple.quick< td=""> <td>QuickTime recent items</td> </user>\library\preferences\com.apple.quick<>	QuickTime recent items

	TimePlayerX.LSSharedFileList.plist	
Recent Items	\Users\ <user>\library\preferences\com.apple.recentitems.plist< td=""> <td>Recently opened applications, files, and servers</td> </user>\library\preferences\com.apple.recentitems.plist<>	Recently opened applications, files, and servers
Screen Sharing Recent Shares	\Users\ <user>\library\containers\com.apple.screensharing\data\library\preferences\com.apple.screensharing.lssharedfilelist.plist< td=""> <td>Recent screen shares</td> </user>\library\containers\com.apple.screensharing\data\library\preferences\com.apple.screensharing.lssharedfilelist.plist<>	Recent screen shares
TextEdit Recent Items	\Users\ <user>\library\preferences\com.apple.textedit.lssharedfilelist.plist< td=""> <td>TextEdit recent items</td> </user>\library\preferences\com.apple.textedit.lssharedfilelist.plist<>	TextEdit recent items
VLC Video Player Recent Items	\Users\ <user>\library\preferences\org.videolan.vlc.lssharedfilelist.plist< td=""> <td>VLC recent items</td> </user>\library\preferences\org.videolan.vlc.lssharedfilelist.plist<>	VLC recent items
Grab Screen Shot Recent Items	\Users\ <user>\library\preferences\com.apple.grab.lssharedfilelist.plist< td=""> <td>Screenshots recently taken and saved with Grab</td> </user>\library\preferences\com.apple.grab.lssharedfilelist.plist<>	Screenshots recently taken and saved with Grab
Console Recent Items	\Users\ <user>\library\preferences\com.apple.console.lssharedfilelist.plist< td=""> <td>Recent logs viewed with Console</td> </user>\library\preferences\com.apple.console.lssharedfilelist.plist<>	Recent logs viewed with Console
Misc.		
Logs Directory	\Users\ <user>\library\logs\< td=""> <td>Directory containing numerous log files</td> </user>\library\logs\<>	Directory containing numerous log files
Misc. Logs	\private\var\log	Miscellaneous Logs
Misc. Logs	\Library\Logs\	Miscellaneous Logs
Dock database	\Users\ <user>\library\preferences\com.apple.dock.plist< td=""> <td>There is a Dock.plist but no Dock.db (screenshot in folder)</td> </user>\library\preferences\com.apple.dock.plist<>	There is a Dock.plist but no Dock.db (screenshot in folder)
Attached iDevices	\Users\ <user>\library\preferences\com.apple.ipod.plist< td=""> <td>Attached iDevices</td> </user>\library\preferences\com.apple.ipod.plist<>	Attached iDevices
Launch Service Quarantine Events	\Users\ <user>\library\preferences\com.apple.launchservices.quarantineeventsv2< td=""> <td>SQLite database that keeps track of files that have the quarantine extended attribute that is given to applications, scripts, and executables downloaded from potentially untrustworthy locations/people.</td> </user>\library\preferences\com.apple.launchservices.quarantineeventsv2<>	SQLite database that keeps track of files that have the quarantine extended attribute that is given to applications, scripts, and executables downloaded from potentially untrustworthy locations/people.
Terminal Commands History	\Users\ <user>\.bash_history< td=""> <td>Terminal commands history</td> </user>\.bash_history<>	Terminal commands history
Owner Information Plist	\Users\ <user>\library\preferences\com.apple.addressbook.plist< td=""> <td>Plist containing user information such as name, address, phone number, etc.</td> </user>\library\preferences\com.apple.addressbook.plist<>	Plist containing user information such as name, address, phone number, etc.
Application Support Directory	\Users\ <user>\library\application support\<="" td=""> <td>Contains application-specific folders used to support applications and utilities</td> </user>\library\application>	Contains application-specific folders used to support applications and utilities
Keychain Directory	\Users\ <user>\library\keychains\< td=""> <td>Directory containing user keychain files</td> </user>\library\keychains\<>	Directory containing user keychain files
Trash	\.Trashes\	User Trash directory
OS Version Plist	\System\Library\CoreServices\SystemVersion.plist	Plist describing the installed Operating System
User Setup Plist	\private\var\db\.AppleSetupDone	Plist listing the information entered by

		the user at the time of the OS setup
Mobile Backups Directory	\Volumes\MobileBackups\	Local Time Machine backup directory stored on disk. Time Machine backups are created and stored here when Time Machine backup disk is not available.
Flash Shared Objects	\Users\ <user>\library\preferences\macromedia\flash player\#sharedobjects\<="" td=""> <td>Contains Flash shared object artifacts that identify webpages visited</td> </user>\library\preferences\macromedia\flash>	Contains Flash shared object artifacts that identify webpages visited
Flash Player Support	\Users\ <user>\preferences\macromedia\flash player\macromedia.com\support\flash="" player\sys\<="" td=""> <td>Contains Flash player support artifacts that identify webpages visited</td> </user>\preferences\macromedia\flash>	Contains Flash player support artifacts that identify webpages visited
CD Information Database	\Users\ <user>\preferences\cd info.cidb<="" td=""> <td>A database file used to "remember" CD's (user-created & store bought). Also, the file gets updated if a user manually enters track names in iTunes.</td> </user>\preferences\cd>	A database file used to "remember" CD's (user-created & store bought). Also, the file gets updated if a user manually enters track names in iTunes.
Login Window Info	\Library\Preferences\com.apple.loginwindow.plist	Plist containing password hints and last user logged in
Bluetooth Preferences	\Library\Preferences\com.apple.Bluetooth.plist	Bluetooth preferences and paired devices
Software Update	\Library\Preferences\com.apple.SoftwareUpdate.plist	Plist describing last attempt and last successful attempt at updating OS X software
Time Machine Info	\Library\Preferences\com.apple.TimeMachine.plist	Time Machine backup info
Remembered Wireless Networks	\Library\Preferences\SystemConfiguration\com.apple.airport.preferences.plist	Remembered wireless networks
Document Revisions Directory	.\DocumentRevisions-V100\	Directory containing automatically saved versions of files
Sleep Image File	\private\var\vm\sleepimage	Contents of RAM are written to this file when the computer is put to sleep These files were not found in the initial report, but found using a Mac computer running Yosemite due to virtual machines not going to sleep
Swap Files	\private\var\vm\swapfile<#>	Numerous swap files may be found in this directory with the naming convention of swapfile# (swapfile0, swapfile1, swapfile2, etc.)These files were not found in the initial report, but found using a Mac computer running Yosemite due to virtual machines not going to sleep
User Log In Password Hash Plist	\Private\Var\db\dslocal\nodes\Default\Users\ <user>.plist< td=""> <td>Plist file made for every user account that has been made on the OS</td> </user>.plist<>	Plist file made for every user account that has been made on the OS
Firefox		
Firefox Directory	\Users\ <user>\library\application support\firefox\<="" td=""> <td>Directory containing user artifacts for Mozilla Firefox web browser</td> </user>\library\application>	Directory containing user artifacts for Mozilla Firefox web browser

Firefox Profiles	\Users\ <user>\library\application support\firefox\profiles\<="" td=""> <td>Directory containing profiles for firefox</td> </user>\library\application>	Directory containing profiles for firefox
Firefox Cookies	\Users\ <user>\library\application support\firefox\profiles\<profile>\cookies.sqlite<="" td=""> <td>SQLite file containing cookies for firefox</td> </user>\library\application>	SQLite file containing cookies for firefox
Firefox Downloads	\Users\ <user>\library\application support\firefox\profiles\<profile>\downloads.sqlite<="" td=""> <td>SQLite file containing information about firefox downloads</td> </user>\library\application>	SQLite file containing information about firefox downloads
Firefox Form History	\Users\ <user>\library\application support\firefox\profiles\<profile>\formhistory.sqlite<="" td=""> <td>Text entered into forms including search terms, email addresses, and login information.</td> </user>\library\application>	Text entered into forms including search terms, email addresses, and login information.
Firefox History	\Users\ <user>\library\application support\firefox\profiles\<profile>\places.sqlite<="" td=""> <td>SQLite file containing information about firefox history</td> </user>\library\application>	SQLite file containing information about firefox history
Google Chrome		
Chrome Directory	\Users\ <user>\library\application support\google\chrome\<="" td=""> <td>Directory containing user artifacts for Google Chrome web browser</td> </user>\library\application>	Directory containing user artifacts for Google Chrome web browser
Chrome Cache	\Users\ <user>\library\caches\google\chrome\default\cache\< td=""> <td>Google Chrome cache directory</td> </user>\library\caches\google\chrome\default\cache\<>	Google Chrome cache directory
Preference Files	\Users\ <user>\library\preferences\com.google.chrome.plist< td=""> <td>Plist containing preferences for Google Chrome</td> </user>\library\preferences\com.google.chrome.plist<>	Plist containing preferences for Google Chrome
Chrome Update Plist	\Users\ <user>\library\preferences\com.google.chrome.agent.plist< td=""> <td>Plist containing update information for chrome</td> </user>\library\preferences\com.google.chrome.agent.plist<>	Plist containing update information for chrome
Tor		
Hidden Tor Directory	\Applications\TorBrowser.app\TorBrowser\Data\Tor\	Directory in Tor files that is hidden
State File	\Applications\TorBrowser.app\TorBrowser\Data\Tor\state	Text file describing the version of Tor used and the last time it was ran
VirtualBox		
VirtualBox Directory	\Users\ <user>\library\virtualbox\< td=""> <td>Directory for VirtualBox files</td> </user>\library\virtualbox\<>	Directory for VirtualBox files
VirtualBox Settings	\Users\ <user>\library\virtualbox\virtualbox.xml< td=""> <td>An XML file describing VirtualBox settings. Contains information about recently run virtual machines.</td> </user>\library\virtualbox\virtualbox.xml<>	An XML file describing VirtualBox settings. Contains information about recently run virtual machines.
VirtualBox Log File	\Users\ <user>\library\virtualbox\vbxsvc.log< td=""> <td>VirtualBox log file</td> </user>\library\virtualbox\vbxsvc.log<>	VirtualBox log file
VirtualBox Cache Directory	\Users\ <user>\library\caches\org.virtualbox.app.virtualbox\< td=""> <td>VirtualBox cache directory</td> </user>\library\caches\org.virtualbox.app.virtualbox\<>	VirtualBox cache directory
VirtualBox VM Directory	\Users\ <user>\virtualbox td="" vms\<=""> <td>Directory for VirtualBox virtual machines</td> </user>\virtualbox>	Directory for VirtualBox virtual machines

Drop Box		
Drop Box Directory	\Users\ <user>\Dropbox</user>	Directory for DropBox files
Drop Box Cache Folder	\Users\ <user>\Library\Caches\com.getdropbox.dropbox</user>	Drop Box cache directory
Drop Box Config Folder	\Users\ <user>\.dropbox</user>	Hidden configuration folder for Drop Box
Drop Box Config Database	\Users\ <user>\.dropbox\instance1\config.db</user>	This has changed by adding "instance" folders under .dropbox
Drop Box File Cache	\Users\ <user>\.dropbox\instance1\filecache.dbx</user>	SQLite database containing information about files stored in Drop Box directory.
Skype		
Skype Directory	\Users\ <user>\Library\Application Support\Skype\</user>	Directory for Skype files
User profile	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\</skype></user>	Directory containing Skype user artifacts
Skype Preferences and Recent Searches	\Users\ <user>\Library\Preferences\com.skype.skype.plist</user>	Skype preferences and recent user searches
Main Skype database	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\Main.db</skype></user>	Database of contacts, SMS's, calls, conversations, videos, messages, etc.
Chat Sync Directory	\Users\ <user>\Library\Application Support\Skype\<skype name="" user="">\chatsync\</skype></user>	Directory containing chat logs
Handbrake DVD Ripper		
Handbrake Directory	\Users\ <user>\Library\Application Support\Handbrake\</user>	Directory for Handbrake DVD ripper
Logs	\Users\ <user>\Library\Application Support\Handbrake\EncodeLogs\</user>	Log files for each rip
Activity Log	\Users\ <user>\Library\Application Support\Handbrake\HandBrake-activitylog.txt</user>	Activity log
Queue	\Users\ <user>\Library\Application Support\Handbrake\Queue\Queue.plist</user>	HandBrake queue
Previews Directory	\Users\ <user>\Library\Application Support\Handbrake\Previews\</user>	Contains previews of unfinished rips
Preferences & Last Launch	\Users\ <user>\Library\Preferences\fr.handbrake.HandBrake.plist</user>	Handbrake preferences & last launch time
Networking		
Hosts file	\private\etc\hosts	Redirects website to another specified

		website
Remembered Wireless Networks	\Library\Preferences\SystemConfiguration\com.apple.airport.preferences.plist	Remembered wireless networks
Open Office		
Open Office Directory	\Users\ <user>\library\application support\openoffice<="" td=""> <td>Directory for Open Office files</td> </user>\library\application>	Directory for Open Office files
Recent Items	\Users\ <user>\library\preferences\org.openoffice.script.lssharedfilelist.plist< td=""> <td>Plist of Open Office recent items</td> </user>\library\preferences\org.openoffice.script.lssharedfilelist.plist<>	Plist of Open Office recent items
Preferences	\Users\ <user>\library\preferences\org.openoffice.script.plist< td=""> <td>Plis of Open Office preferences</td> </user>\library\preferences\org.openoffice.script.plist<>	Plis of Open Office preferences
HipChat		
Preferences	\Users\ <user>\library\preferences\com.hipchat.hipchat.plist< td=""> <td>Plist of HipChat preferences</td> </user>\library\preferences\com.hipchat.hipchat.plist<>	Plist of HipChat preferences
Hipchat Cache	\Users\ <user>\library\caches\com.hipchat.hipchat\< td=""> <td>Folder for HipChat cache</td> </user>\library\caches\com.hipchat.hipchat\<>	Folder for HipChat cache
Hipchat Directory	\Users\ <user>\library\hipchat\< td=""> <td>Directory for HipChat files</td> </user>\library\hipchat\<>	Directory for HipChat files
Hipchat Directory	\Users\ <user>\library\application support\hipchat\<="" td=""> <td>Application Support HipChat directory</td> </user>\library\application>	Application Support HipChat directory
Cache	\Users\ <user>\library\application support\hipchat\cache.db<="" td=""> <td>Cache database for HipChat</td> </user>\library\application>	Cache database for HipChat
Spotify		
Spotify Directory	\Users\ <user>\library\application support\spotify\<="" td=""> <td>Directory containing information on login, songs, etc.</td> </user>\library\application>	Directory containing information on login, songs, etc.
User Accounts Directory	\Users\ <user>\library\application name>\<="" support\spotify\users\<account="" td=""> <td>List of whats in the database of the cache</td> </user>\library\application>	List of whats in the database of the cache
Preferences	\Users\ <user>\library\preferences\com.spotify.client.plist< td=""> <td>Preferences set for spotify</td> </user>\library\preferences\com.spotify.client.plist<>	Preferences set for spotify
Spotify Cache Directory	\Users\ <user>\library\cache\com.spotify.client\< td=""> <td>Cache for Spotify</td> </user>\library\cache\com.spotify.client\<>	Cache for Spotify
Maps		
Map Preferences	\Users\ <user>\library\preferences\com.apple.maps.plist< td=""> <td>Plis for Maps preferences</td> </user>\library\preferences\com.apple.maps.plist<>	Plis for Maps preferences
Cache directory	\Users\ <user>\library\containers\com.apple.maps\data\library\caches\com.apple.maps\< td=""> <td>Maps cache directory</td> </user>\library\containers\com.apple.maps\data\library\caches\com.apple.maps\<>	Maps cache directory
Cache File	\Users\ <user>\library\containers\com.apple.maps\data\library\caches\com.apple.maps\cache.db< td=""> <td>Maps cache database</td> </user>\library\containers\com.apple.maps\data\library\caches\com.apple.maps\cache.db<>	Maps cache database

Reminders		
Reminders Preferences	\Users\ <user>\library\containers\com.apple.reminders\data\library\preferences\com.apple.reminders.plist< td=""> <td>Plist for Reminders preferences</td> </user>\library\containers\com.apple.reminders\data\library\preferences\com.apple.reminders.plist<>	Plist for Reminders preferences
Cache directory	\Users\ <user>\library\containers\com.apple.reminders\data\library\caches\com.apple.reminders\< td=""> <td>Reminders cache directory</td> </user>\library\containers\com.apple.reminders\data\library\caches\com.apple.reminders\<>	Reminders cache directory
Gimp		
Gimp Directory	\Users\ <user>\library\application support\gimp\<="" td=""> <td>Directory containing gimp files</td> </user>\library\application>	Directory containing gimp files
Facetime		
Preferences	\Users\ <user>\library\preferences\com.apple.facetime.plist< td=""> <td>Plist for Facetime preferences</td> </user>\library\preferences\com.apple.facetime.plist<>	Plist for Facetime preferences
Cache Directory	\Users\ <user>\library\containers\com.apple.facetime\data\library\caches\< td=""> <td>Facetime cache directory</td> </user>\library\containers\com.apple.facetime\data\library\caches\<>	Facetime cache directory
Twitter		
Twitter Preferences	\Users\ <user>\library\containers\com.twitter.twitter-mac\data\library\preferences\com.twitter.twitter-mac.plist< td=""> <td>Twitter application folder</td> </user>\library\containers\com.twitter.twitter-mac\data\library\preferences\com.twitter.twitter-mac.plist<>	Twitter application folder
Application	\Applications\Twitter.app	Twitter cache directory
Twitter Cache Directory	\Users\ <user>\library\containers\com.twitter-mac\data\library\caches\com.twitter.twitter-mac\< td=""> <td>SQLite database file containing cached Twitter feed data</td> </user>\library\containers\com.twitter-mac\data\library\caches\com.twitter.twitter-mac\<>	SQLite database file containing cached Twitter feed data
Twitter cache file	\Users\ <user>\library\containers\com.twitter-mac\data\library\caches\com.twitter.twitter-mac\cache.db< td=""> <td>Twitter saved application state directory</td> </user>\library\containers\com.twitter-mac\data\library\caches\com.twitter.twitter-mac\cache.db<>	Twitter saved application state directory
Twitter Saved Application State	\Users\ <user>\library\containers\com.twitter-mac\data\library\saved application="" state\com.twitter.twitter-mac.savedstate<="" td=""> <td>Saved application state for the twitter application</td> </user>\library\containers\com.twitter-mac\data\library\saved>	Saved application state for the twitter application
iCloud		
iCloud Accounts	\Users\ <user>\library\application support\icloud\accounts\<="" td=""> <td>Directory containing accounts for iCloud</td> </user>\library\application>	Directory containing accounts for iCloud
CleanMyMac		
Preferences and Settings	\Users\ <user>\library\preferences\com.macpaw.cleanmymac3.plist< td=""> <td>Plist file containig preferences and settings for CleanMyMac</td> </user>\library\preferences\com.macpaw.cleanmymac3.plist<>	Plist file containig preferences and settings for CleanMyMac

Evernote		
Evernote Data\Profile Directory	\Users\ <user>\Library\Containers\com.evernote.Evernote\data\</user>	Contains user profiles and Evernote user data
Evernote Logs	\Users\ <user>\Library\Containers\com.evernote.Evernote\data\Library\Logs\</user>	Directory for Evernote logs
Evernote User Content	\Users\ <user>\Library\Containers\com.evernote.Evernote\Data\Library\Application Support\com.evernote.Evernote\accounts\www.evernote.com\accounts\<profile>\content\</profile></user>	Contains the content of the user's Evernote data. Content stored as HTML, XML, graphics, and various other non-proprietary file types.
Network Time Protocol (NTP) Validation Logs		
Hosts config File	\private\etc\hosts	This file maps hostnames to IP addresses
NTP Config File	\private\etc\ntp.conf	This file is read on system start
NTP Drift File	\private\var\db\ntp.drift	This file records the offset between the system clock and the NTP clock
Sleep State Logs		
Directory Service Server Log Directory	\Library\Preferences\DirectoryService\	Directory for the DirectoryService daemon
Apple System Log	\private\var\log\asl\	System log files

References

Cavanaugh, S. (2011). *OS X Lion Artifacts*. Apple Examiner.

Wieczner, Jen. "The Fortune 500's Fastest-growing Companies." *Fortune: The Fortune 500s Fastest Growing Companies Comments*. Fortune 500, 11 June 2015. Web. 02 Dec. 2015.