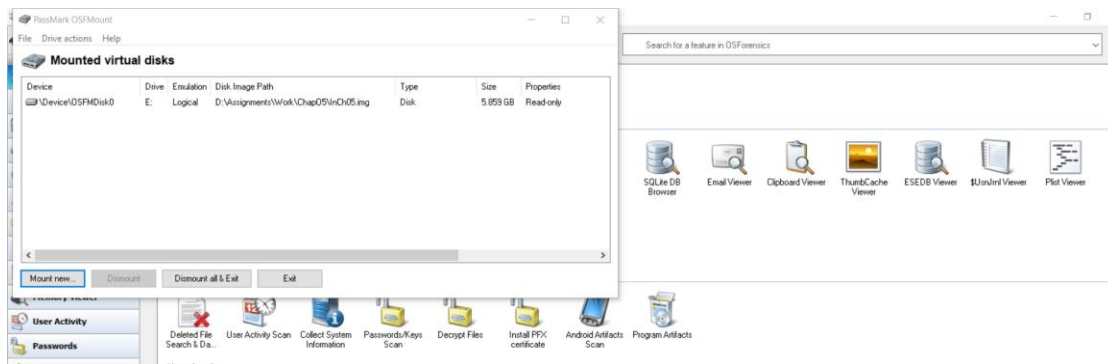


## Hands-On Project 13-1

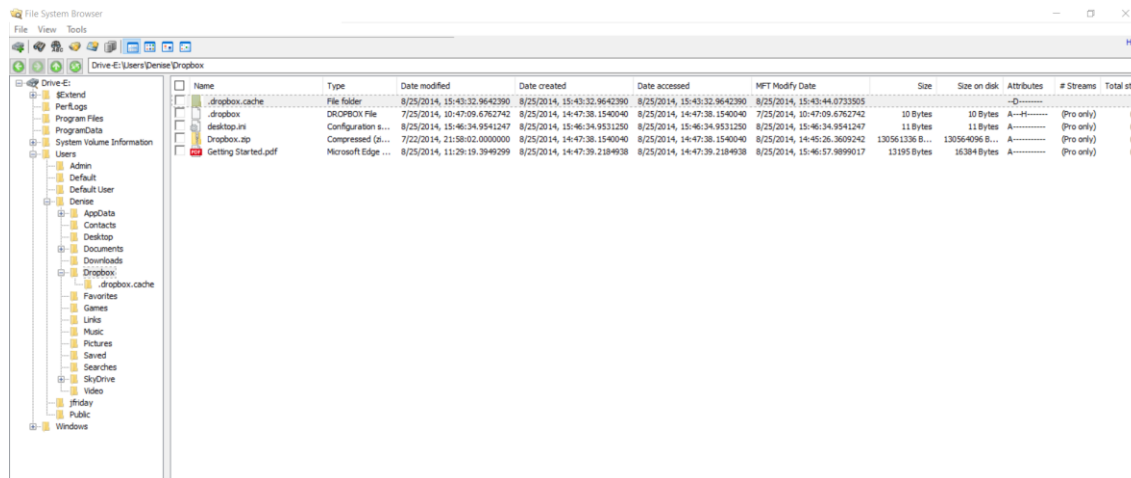
You have been asked to identify any files that might have been uploaded from Denise Robinson's computer to the Dropbox cloud service. To determine whether files were uploaded, you must find the Dropbox folder where files are synchronized to see what it contains. For this project, you examine the InCh05.img image file you used in the in-chapter activity. Follow these steps:

1. Start OSForensics with the Run as administrator option, and click Continue Using Trial Version. If you dismounted the InCh05.img image file after the in-chapter activity, mount it again.

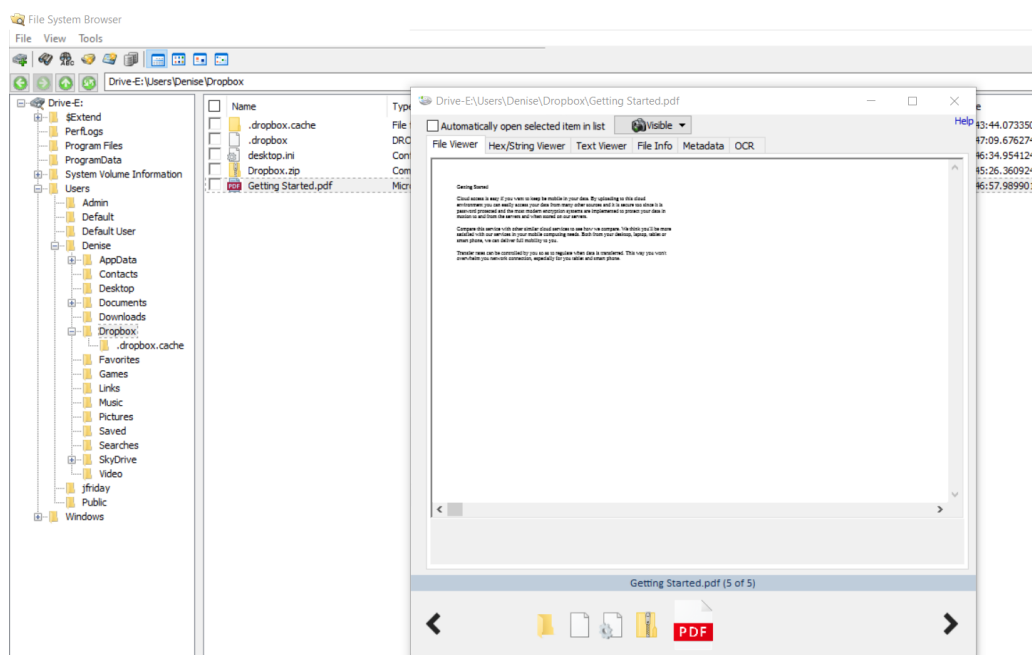


2. Click the Manage Case button, and verify that the InChap13 case has a green check mark next to it in the Select Case window. If not, right-click the case name and click Open. If the case isn't displayed, click Import Case, navigate to and click the case location folder, and then click OK.
3. You need to find Denise Robinson's account name listed in drive:\\Users\\username\\ Dropbox. To find this information, click File System Browser in the left pane. In the "Select device to add" dialog box, click the Drive Letter option button, if necessary. Click the Drive Letter list arrow (see Figure 13-3), click the drive letter assigned to the InCh05.img file, and then click OK.
4. In the File System Browser window, navigate to drive\\Users (substituting the correct drive letter for drive) and expand the file listings. Click to expand the Denise user account folder, and then click the Dropbox subfolder, as shown in Figure 13-4.

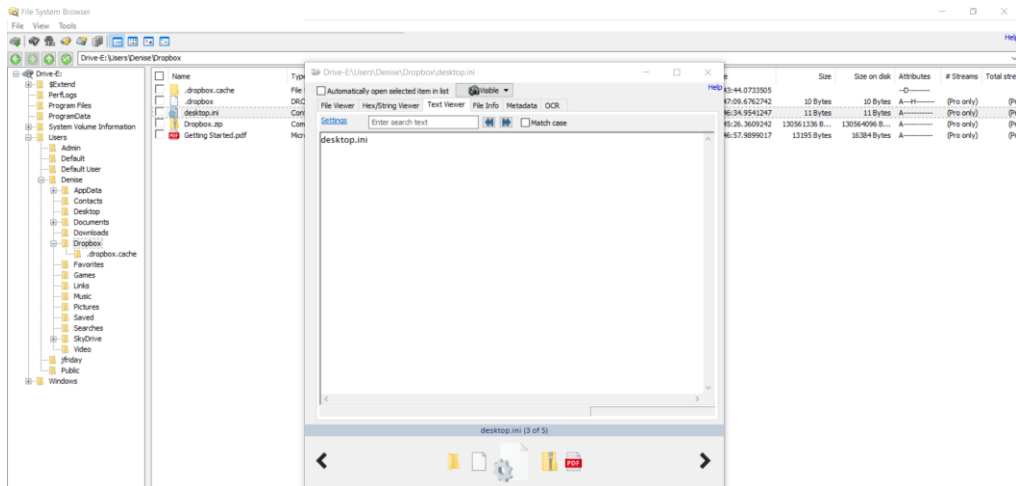
Violations of academic honesty represent a serious breach of discipline and may be considered grounds for disciplinary action, including dismissal from the University. The University requires that all assignments submitted to faculty members by students be the work of the individual student submitting the work. An exception would be group projects assigned by the instructor. (Source: SEMO website)



5. Right-click the Getting Started.pdf file in the right pane and click View with Internal Viewer to display its contents. In the viewer window, click the File Viewer tab (see Figure 13-5), if necessary, and scroll through the document, which is a welcome notice from Dropbox. Close this viewer window, and repeat this step for other files in this folder to determine their contents.



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6. In the File System Browser window, right-click the Dropbox.zip file and click Save to disk. In the “Save file as” dialog box, navigate to your work folder, click Save, and then click OK. Close the File System Browser window.

7. Open File Explorer, navigate to your work folder, and extract (unzip) Dropbox.zip. Examine the extracted data and write a memo to the attorney stating that you recovered the Dropbox.zip file and describing its contents.

## Report:

This project is about recovering files that may have been posted to the Dropbox cloud service from Denise Robinson's PC. I used the OSforensics tool to mount the given image file InCh05.img and discovered many files in the user directory. I was able to extract the Dropbox.zip file from the image file, and after decompressing it, I discovered 23 image files. Following more study, I discovered that the image files belong to the San Francisco de Asis Church. The image includes shots of many parts of the edifice, and it's possible that photos of artwork and adobe structures were uploaded from there.

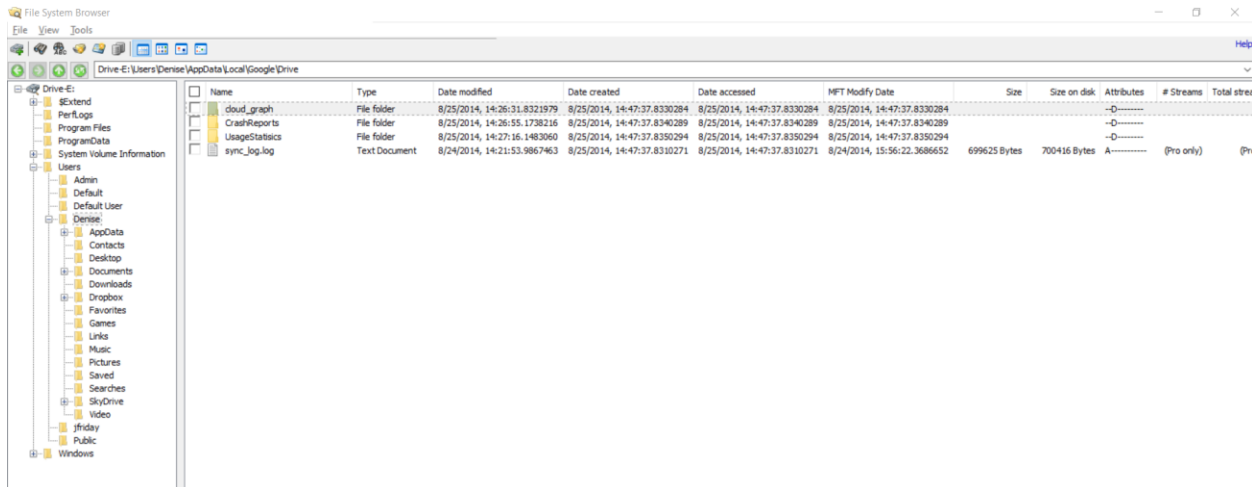
8. Leave the InChap13 case open and OSForensics running for the next project.

## Hands-On Project 13-2

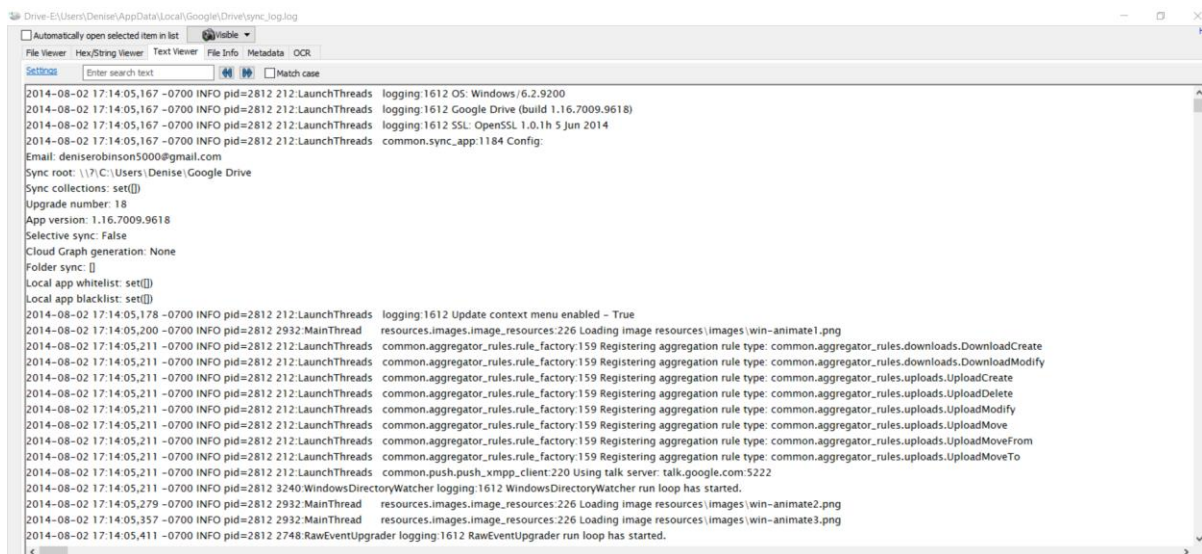
The attorney managing the case discovered that Denise Robinson's computer contains the IMG\_3646.png file that might have been uploaded to Google Drive. To determine whether it has, you need to examine the Google Drive file sync\_log.log. For this project, you need a text editor (Notepad, WordPad, or any word processor), OSForensics, a Web browser, and the image file InCh05.img you saved in Hands-On Project 13-1. Follow these steps:

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1. If you exited OSForensics, restart it, and open the InChap13 case and the InCh05.img file.
2. Click File System Browser in the left pane and navigate to C:\Users\Denise\AppData\Local\Google\Drive. Right-click sync\_log.log and click View with Internal Viewer.



3. In the viewer window, click the Text Viewer tab, if necessary. In the text box, type IMG\_3646, and then click the >> button. Finding the file confirms that it was uploaded to Google Drive.



4. Scroll to the right to view the modified=1406307808 and created=1406307808 values. Because both timestamp values are identical, you need to convert only one of them. Highlight the modified timestamp 1406307808, as shown in Figure 13-6, and then right-click it and click Copy.

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5. Start a Web browser, go to <http://unixtime-converter.com>, paste the numbers into the UNIX Timestamp text box, as shown in Figure 13-7, and click Convert. (Note: If you can't access this Web site, try [www.onlineconversion.com/unix\\_time.htm](http://www.onlineconversion.com/unix_time.htm).)

6. In the Result text box, highlight the converted date and time value, and then right-click it and click Copy.

Detected timestamp is: Fri Jul 25 2014 12:03:28 GMT-0500 (Central Daylight Time)

7. Start a text editor and type IMG\_3646.png in the first line. Press Enter to add a blank line, and then press Enter again. Create two columns by typing Last modified date, pressing Tab eight times, and typing Created date. Place the cursor under the “Last modified date” column, and then right-click and click Paste. Repeat to paste the same date and time value under the “Created date” column.



8. Save the file as Google Drive IMG\_3646 date stamps.txt. Exit the text editor, and turn this file in to your instructor. Leave OSForensics running for the next project.

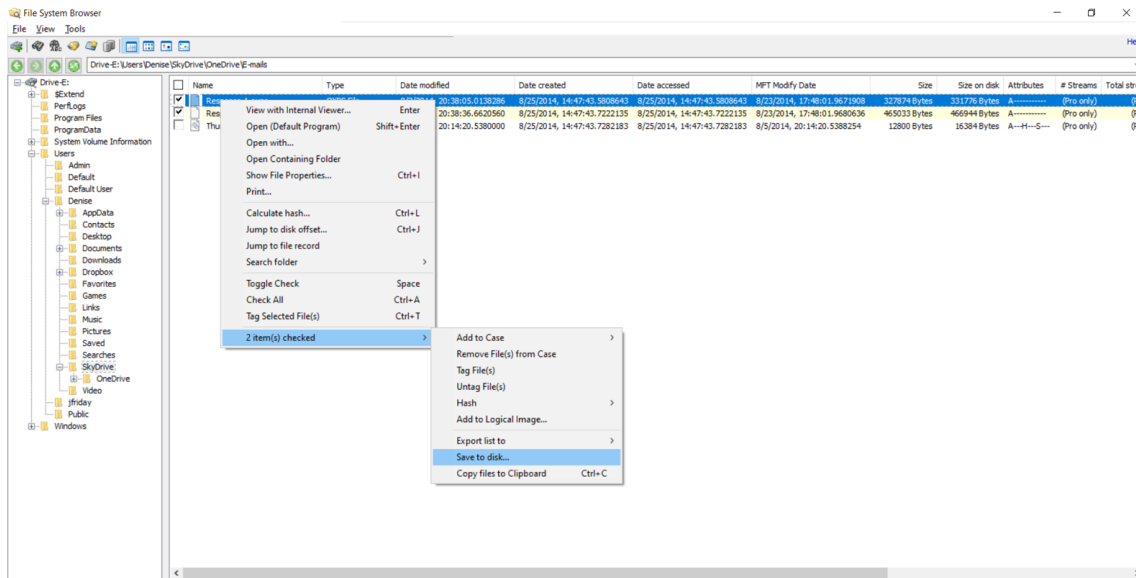
### Hands-On Project 13-3

The case attorney asked you to examine the OneDrive synchronization folder for Denise Robinson to look for any e-mail correspondence. Follow these steps:

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1. If you exited OSForensics, restart it, and open the InChap13 case and InCh05.img file. In the left pane, click File System Browser.

2. In the File System Browser window, navigate to drive:\Users\Denise\SkyDrive\OneDrive\E-mails. Extract all files with the extension. oxps by right-clicking each file and clicking Save to disk, and then clicking OK in the message box about saving the file successfully. Exit OSForensics.



3. Open File Explorer, navigate to your work folder, and open each file to view its contents. Write a one-page memo describing the contents of each file you recovered, and then close File Explorer. Turn the memo in to your instructor.

## Response 1 content

Sent: Friday, July 25, 2014 at 11:05 AM

From: "Denise Robinson"

To: No recipient address

Subject: EXCLUSIVE OFFER! Photos for sale!

Dear Colleague: We're running a bargain on digital images for your collection this month! Use these exclusive photographs as a desktop wallpaper, in any newsletters you send out to improve your company's image, or simply to collect. This month's theme is Southwest exterior artwork and adobe structures. A sneak peek at this month's photographs is attached. Each photograph normally sells for \$29.95. This month's special pricing is only \$19.95 each plus tax and handling, only for you. Please reply to this e-mail message

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with the photo file number to place a purchase. Get your images as soon as possible before they are claimed by someone else.

#### **Response 2 content**

	<p>This month we are offering a special on digital photographs for your collection!</p> <p>Use these exclusive photos for your desktop background, any newsletters you generate to enhance your business appearance, or just have to collect.</p> <p>This month's special is exterior artwork and adobe buildings from the Southwest.</p> <p>Attached is a preview of</p>
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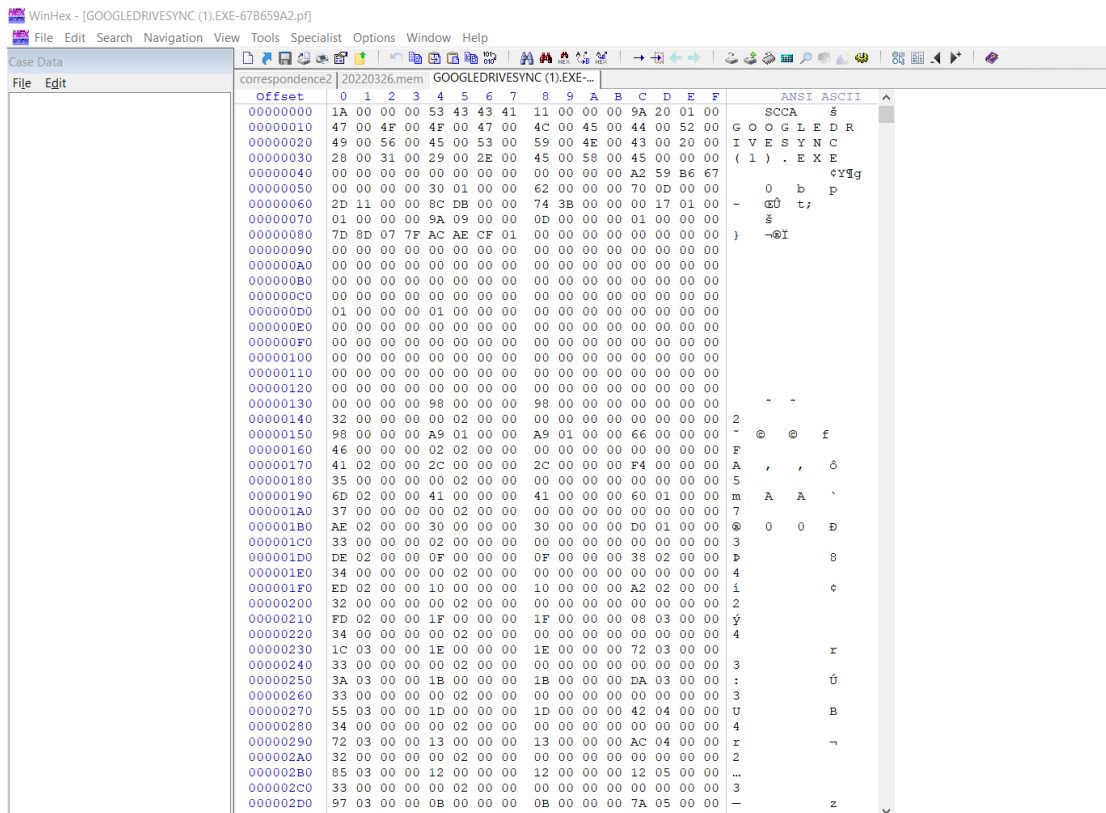
#### **Hands-On Project 13-4**

The case attorney wants to know the last time Denise Robinson accessed Google Drive. To find this information, use the following steps. If you need help, refer to the in-chapter activity.

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## 1. Start WinHex, and open the

drive:\Windows\Prefetch\GOOGLEDRIVESYNC(1).EXE67B59A2.pf file.



2. Find the Windows date and time at offset 0x80 and the number of times this file has been run since it was installed at offset 0xD4.

3. Write a memo stating the date, time, and number of times this program has been run. Turn the memo in to your instructor, and exit WinHex.

## Report:

The date and time on Windows at offset 0\*80 is 8/25/2014 17:20:54 PM, and the digit at 0\*D4 is 0\*01, thus the file has only been run once since it was installed at offset 0\*D4.

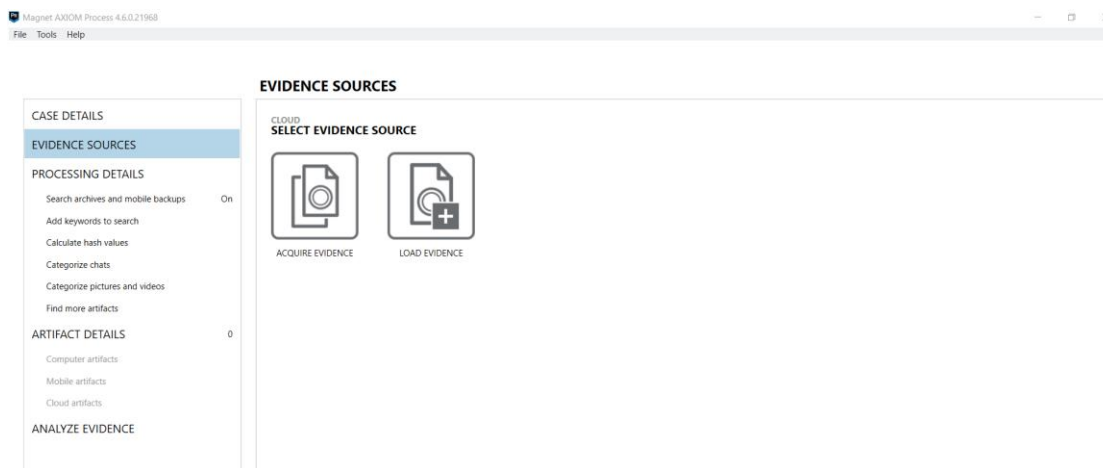
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## Hands-On Project 13-5

Jim Shu has been using his phone to access his Facebook and Google Drive information. In this project, you use Magnet AXIOM to examine evidence stored in the cloud. 1. Start Magnet AXIOM Process, and click the CREATE NEW CASE button. In the Case number text box, type today's date followed by a hyphen and the number of the case you're working on that day. In the LOCATION FOR CASE FILES section, type Hands-On Project 13-5 in the Folder name text box. Click the BROWSE button next to the File path text box, navigate to and click your work folder, and click Select Folder. In the LOCATION FOR ACQUIRED EVIDENCE section, the folder name and file path should update automatically to be the same. If they don't, type Hands-On Project 13-5 for the folder name and select the path as described previously.

2. Click the GO TO EVIDENCE SOURCES button. In the SELECT EVIDENCE SOURCE section, click the CLOUD icon, and then click NEXT. In the EVIDENCE SOURCES window, click the ACQUIRE EVIDENCE icon (see Figure 13-8), and then click NEXT.

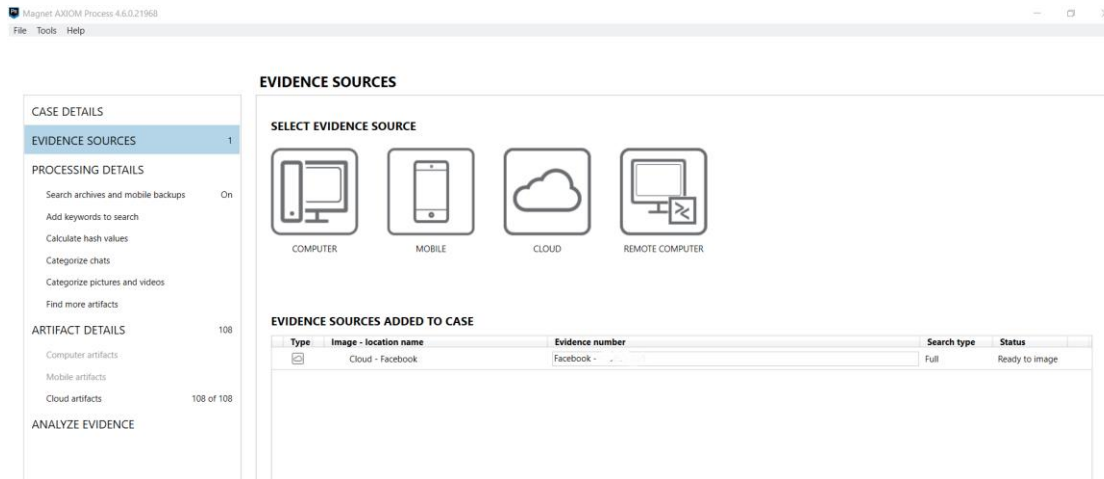


3. In the next window, click the I have proper search authorization to access the target's information stored in the cloud check box. The window shown in Figure 13-9 opens automatically, where you specify which platforms you want to access. (Note: For an actual case, you must sign in with victim or suspect's username and password.) Click the Facebook icon. In the SIGN IN TO FACEBOOK window, you select a sign-in method as well as your username and password. If you have a Facebook account, enter your login information and attempt to sign in. If you're successful, the SELECT DATE RANGE window opens.

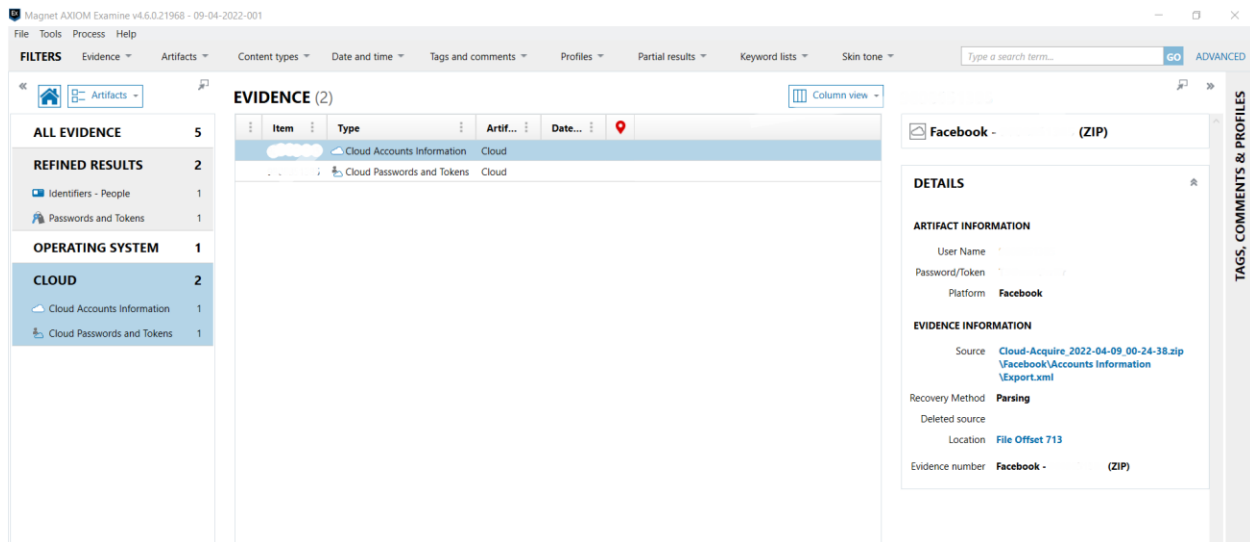
4. Notice that you can set a date range or leave the default option, which is all dates. Your choice might depend on the warrant you have. Under it is the SELECT SERVICES AND CONTENT section with check boxes for Facebook Profile Info, Facebook Messenger Messages, and Facebook Timeline. All are selected by default, so leave them selected for this project. Click NEXT to go to

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the PROCESSING DETAILS window, where you can add keywords or known hashes for media files, if needed. Click Cloud Artifacts on the left. Click GO TO ANALYZE EVIDENCE, and in the next window, click ANALYZE EVIDENCE.



5. When it's finished processing, start Magnet AXIOM Examine, if necessary. Review all the information on your Facebook account that's available, and take screenshots. In the center pane, click the Column view down arrow and click Timeline view. Write a one- to two-page paper explaining what information on a suspect or victim could be found. Include your screenshots, and submit them with the paper to your instructor. Exit Magnet AXIOM.



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