

CREATING AND USING INDICATORS OF COMPROMISE

1.Creating an Indicator of Compromise

Created a folder on my windows virtual machine and named it lab11 as shown in the figure below.

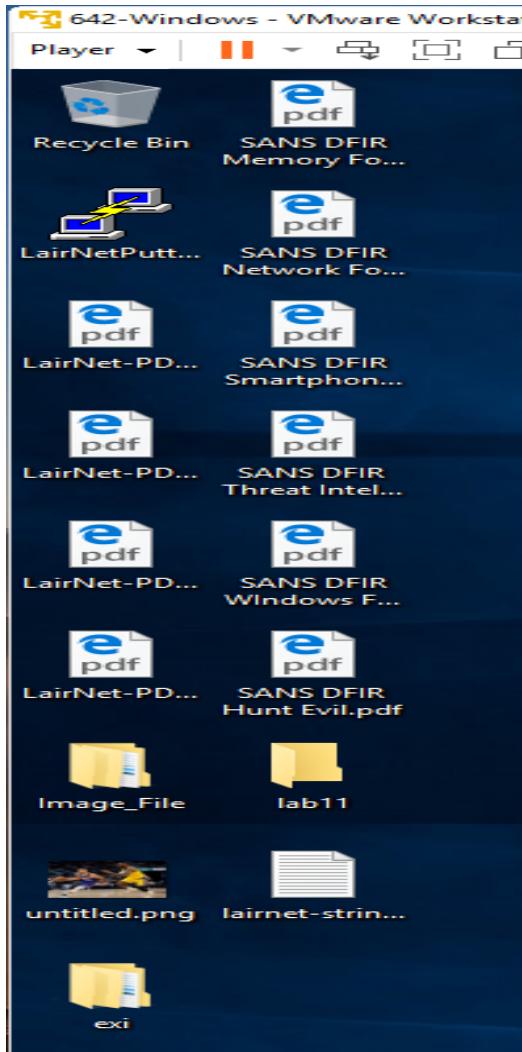


Figure 1/Folder

We launched Mandiant's IOC editor which we used to create a new indicator. After launching the application, we clicked file -> New -> indicator and we prompted with the screen below.

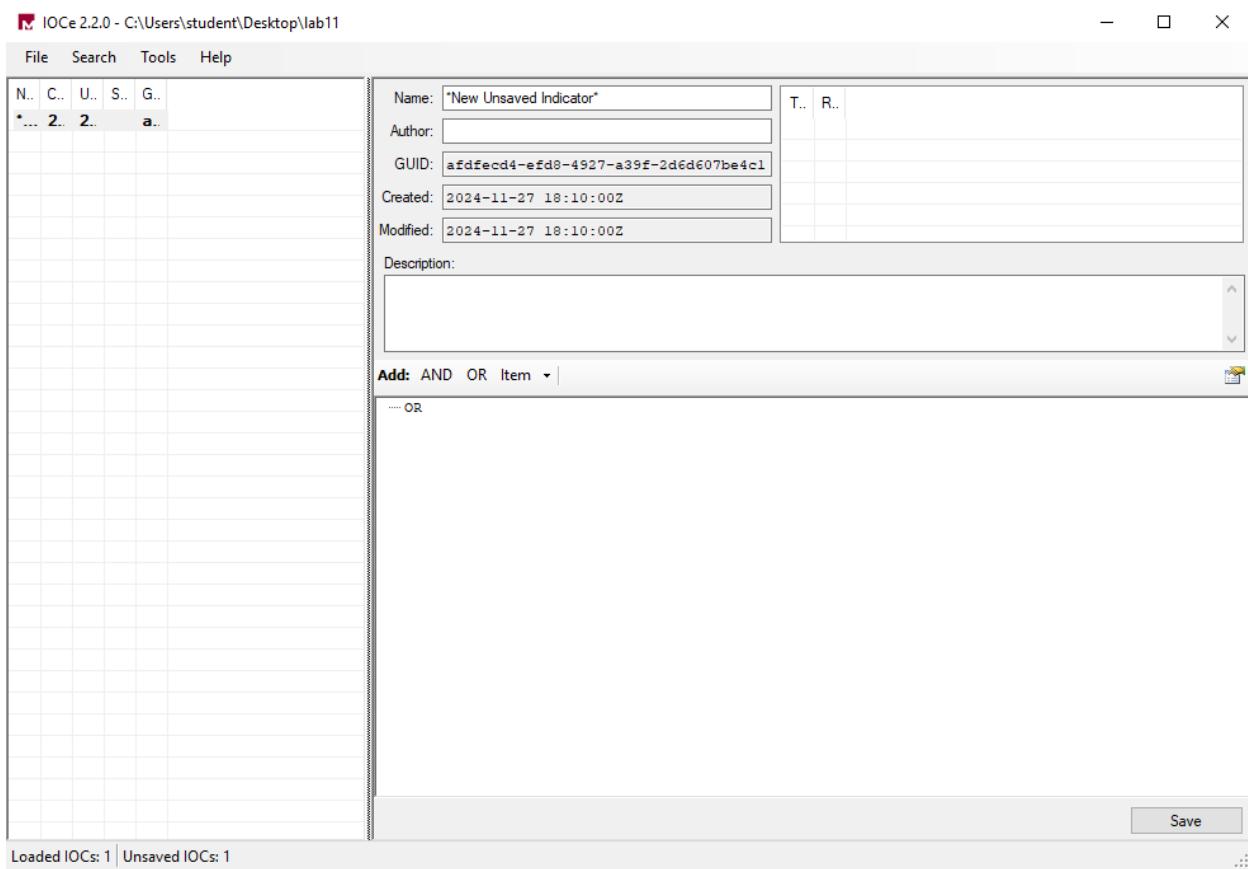


Figure 2/new file

We created a new indicator of compromise using the filename of the file under investigation.

Indicators of compromise are evidence that an intrusion has happened in an organization's network or endpoint. They are used to identifying when an attack has already compromised a system (Sentinelone, 2023). Then added the author's name as shown in the figure below.

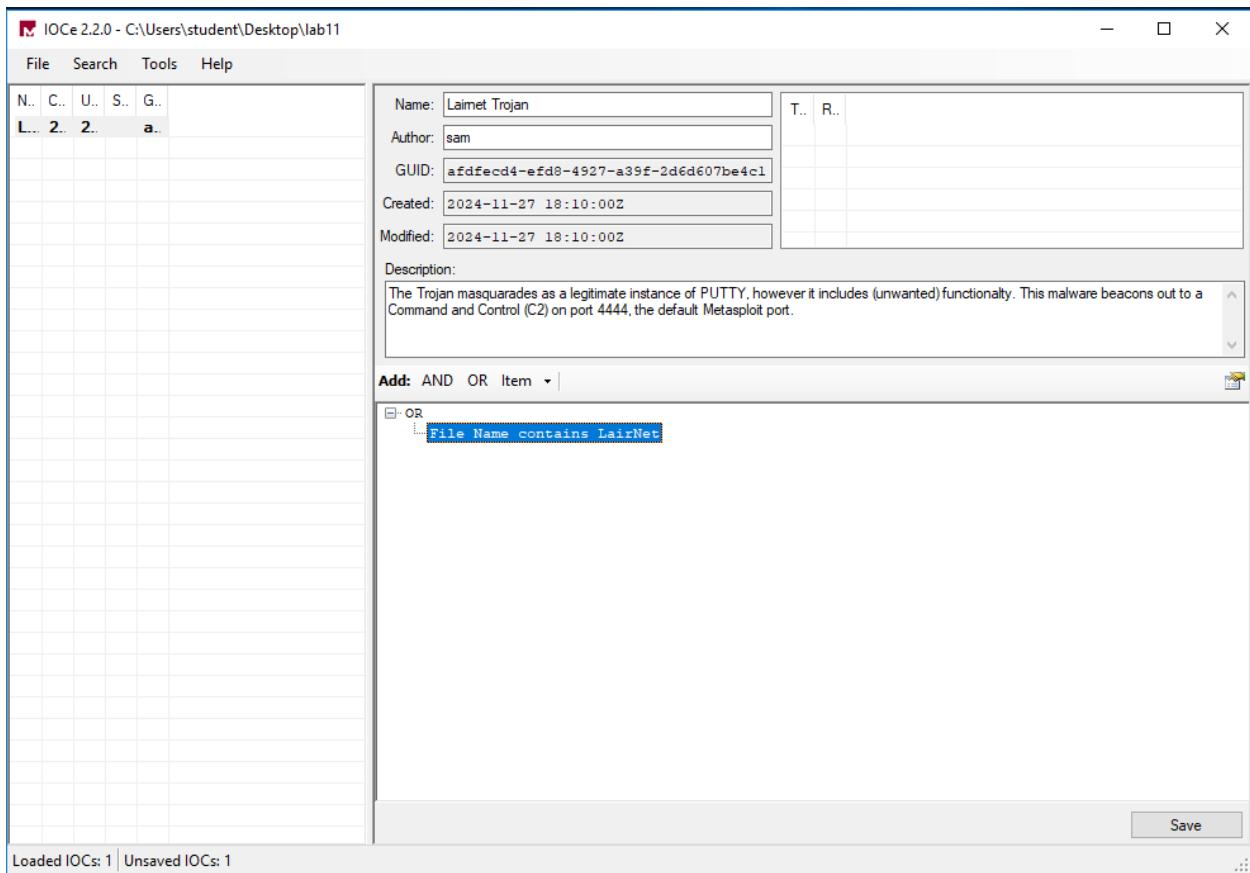


Figure 3/filename

Then we saved the file into our folder that we had created earlier.

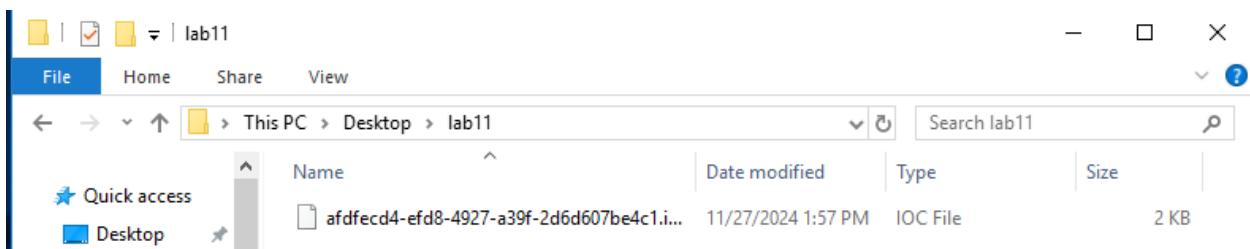


Figure 4/saved

2. Using an Indicator of Compromise

We used Mandiant's Redline application to create a new Indicator of Compromise search collector, then pointed it to the directory we had saved our IOC from our prior steps above. The figure below shows that we imported the IOC file using the Redline application.

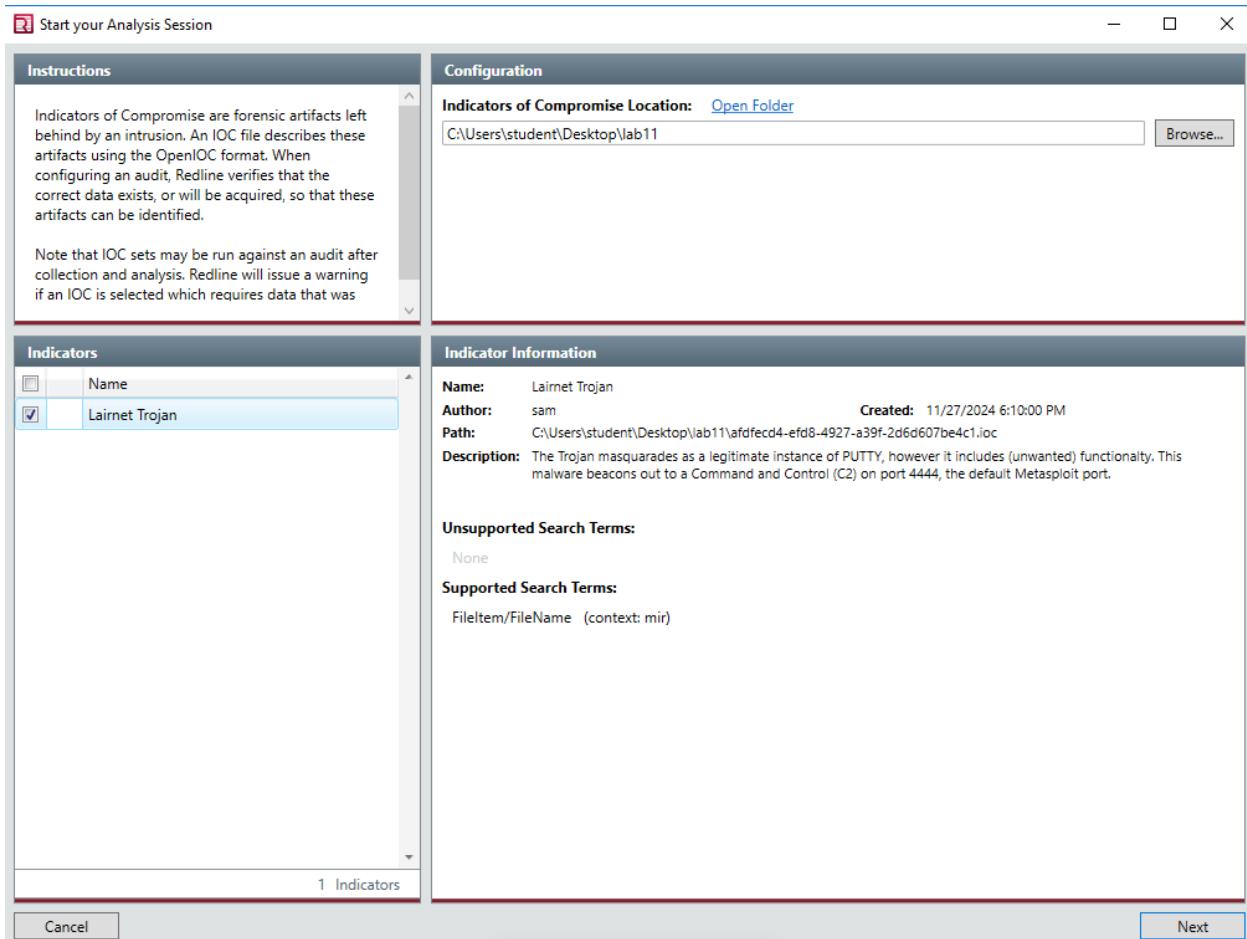


Figure 5/Redline application

We then clicked on edit script to take note of what the application has decided to capture based on the IOC's we had created on the file, and we made sure it did match our prior creation. This was made possible by referring to the file enumeration section that is used to list all the files and the directories in file system (Microsoft, 2021).

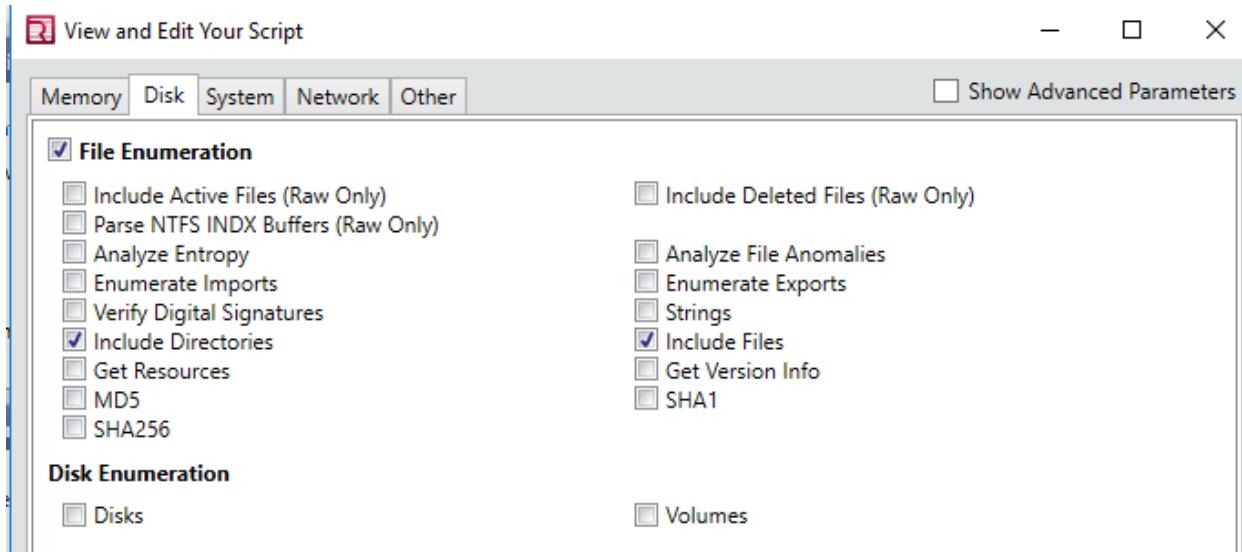


Figure 6/edit

We then saved our collector script to a new directory under the work folder that we had created earlier.

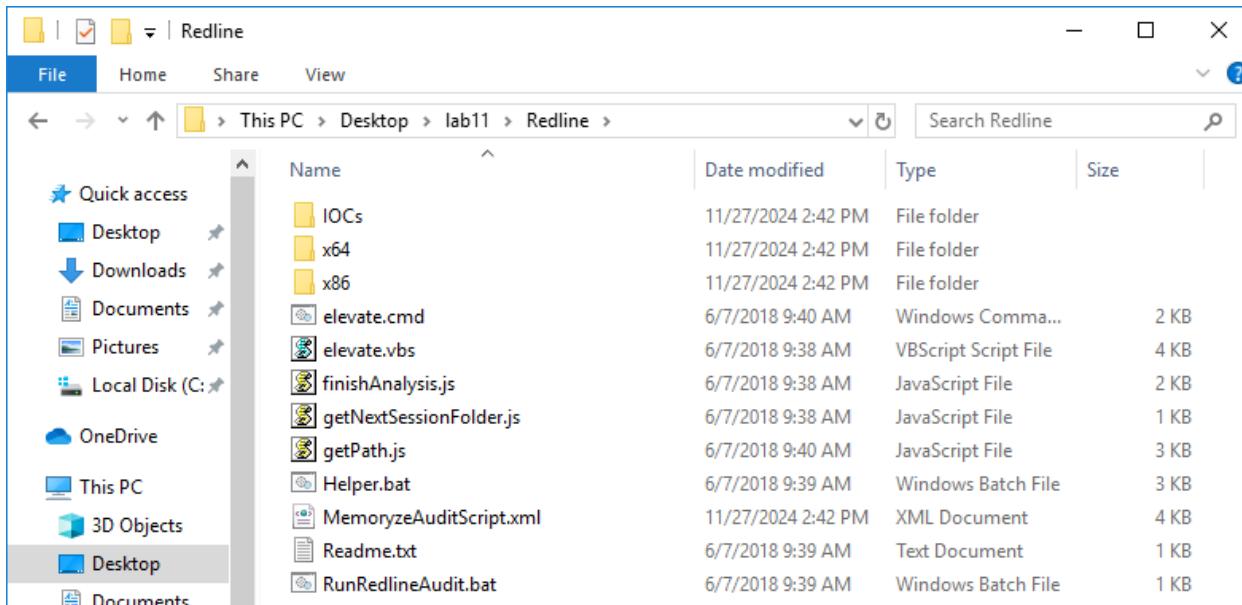
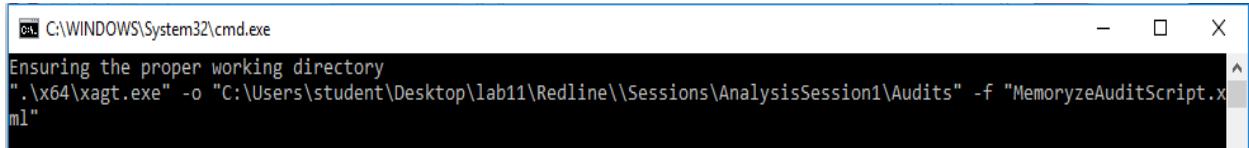


Figure 7/Script

We located and executed the “RunRedlineAudit.bat” file as shown in the figure below



```
C:\WINDOWS\System32\cmd.exe
Ensuring the proper working directory
".\x64\xagt.exe" -o "C:\Users\student\Desktop\lab11\Redline\\Sessions\AnalysisSession1\Audits" -f "MemoryzeAuditScript.xml"
```

Figure 8/Bash script

After the script running there was a session folder created named “AnalyzeSession1.mans” that we double clicked to open. The Redline application saves the file analysis in a mans format, which can be open either from the Redline Home page or the Redline Launch Page (Ninja, 2016).

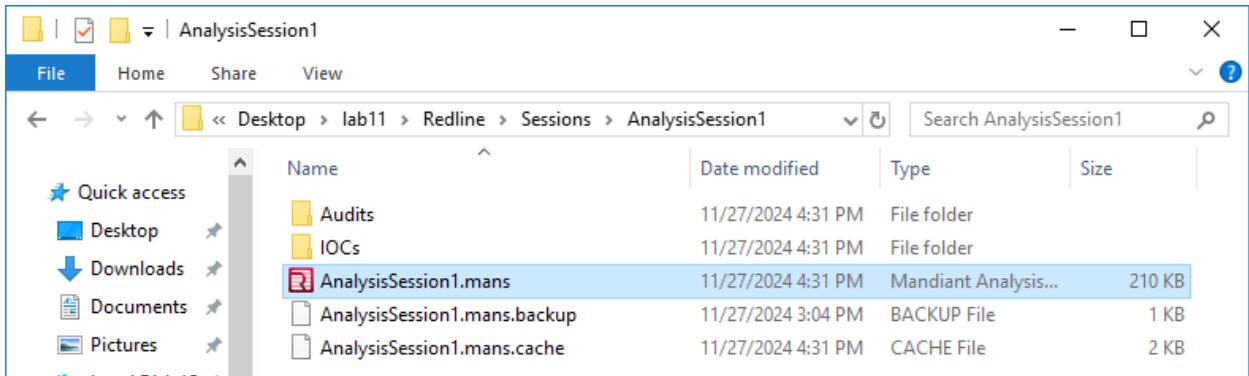


Figure 9/mans

With opening the file, which was ran on the Redline application, an IOC Report tab was created which had the results generated of the search against the IOC file created.

The screenshot shows the Redline® software interface for a file system analysis session. The title bar indicates the session path: C:\Users\student\Desktop\lab11\Redline\Sessions\AnalysisSession1\AnalysisSession1.mans. The main window has a navigation bar with Home, Host, and File System. On the left, there's an Analysis Data sidebar with File System selected, and a Filters sidebar showing CA, Users, and Windows. The central area displays a table of file results:

Full Path	File Name	Size
C:\Users\student\Desktop\LairNet-PDF-1.pdf	LairNet-PDF-1.pdf	6.561 Kilobytes
C:\Users\student\Desktop\LairNet-PDF-2.pdf	LairNet-PDF-2.pdf	289.421 Kilobytes
C:\Users\student\Desktop\LairNet-PDF-3.pdf	LairNet-PDF-3.pdf	59.167 Kilobytes
C:\Users\student\Desktop\LairNet-PDF-4.pdf	LairNet-PDF-4.pdf	5.984 Kilobytes
C:\Users\student\Desktop\lairnet-strings.txt	lairnet-strings.txt	120.567 Kilobytes
C:\Users\student\Desktop\LairNetPutty.exe	LairNetPutty.exe	504 Kilobytes
C:\Windows\Prefetch\LAIRNETPUTTY.EXE-50C043B3.pf	LAIRNETPUTTY.EXE-50C...	7.518 Kilobytes

Figure 10/Windows

References

- Microsoft. (2021, September 15). *How to : Enumerate directories and files*. Retrieved from Microsoft learn challenge: <https://learn.microsoft.com/en-us/dotnet/standard/io/how-to-enumerate-directories-and-files>
- Ninja, s. (2016, May 17). *Memory analysis using redline*. Retrieved from Infosec: <https://www.infosecinstitute.com/resources/malware-analysis/memory-analysis-using-redline/>
- Sentinelone. (2023, March 11). *What are the indicators of compromise*. Retrieved from Sentinelone: <https://www.sentinelone.com/cybersecurity-101/threat-intelligence/what-are-indicators-of-compromise-iocs-a-comprehensive-guide/>