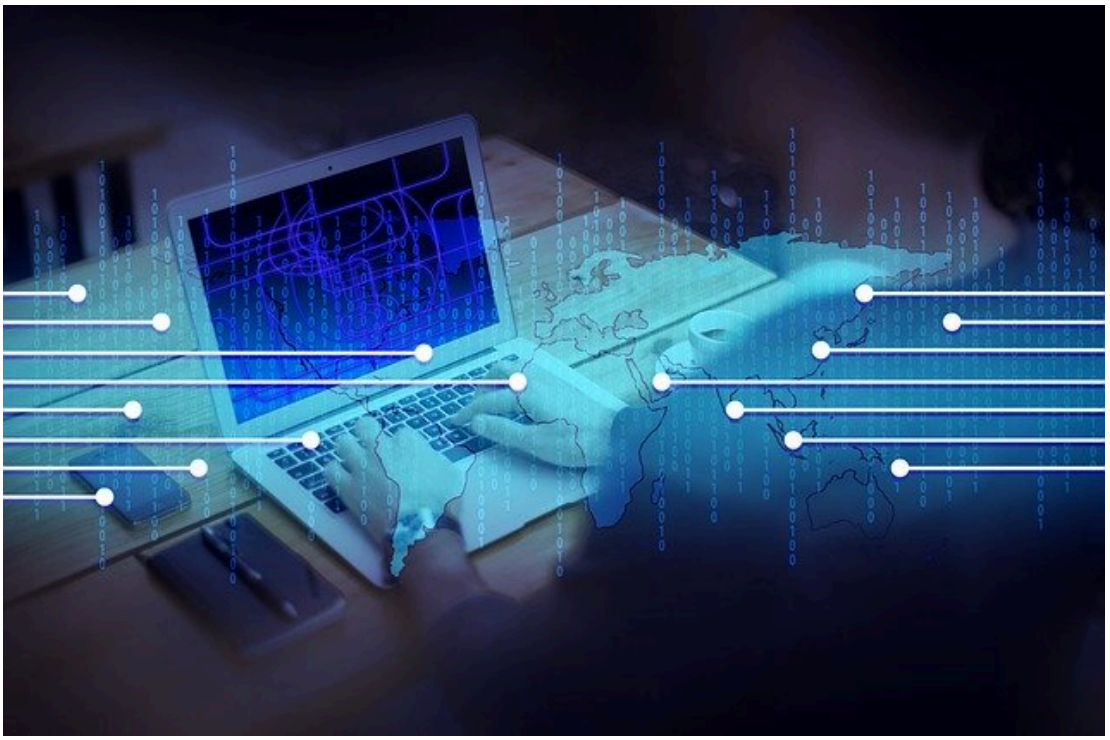
Tarea 2.1.2 Recopilación de evidencias Volátiles en Windows



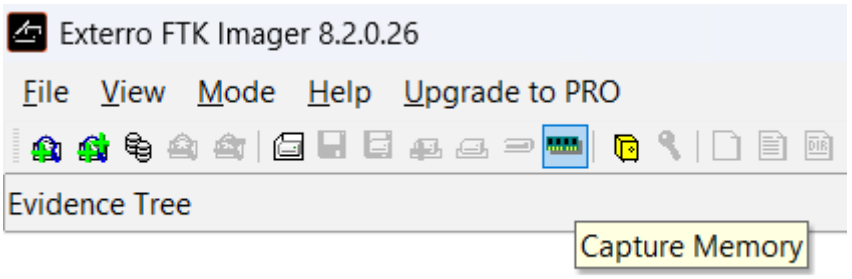
Trabajo realizado por:
Samuel Romero de los Reyes

Índice

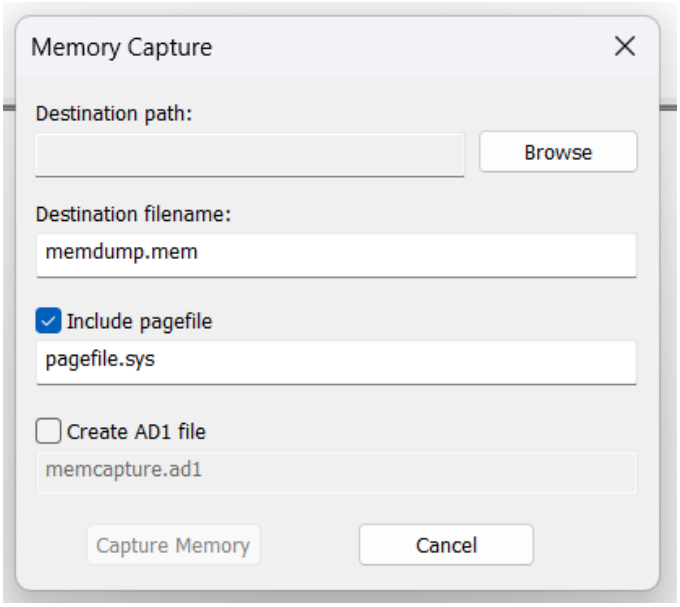
1.- Adquisición forense de memoria RAM (cuatro herramientas)

1a.- FTK Imager

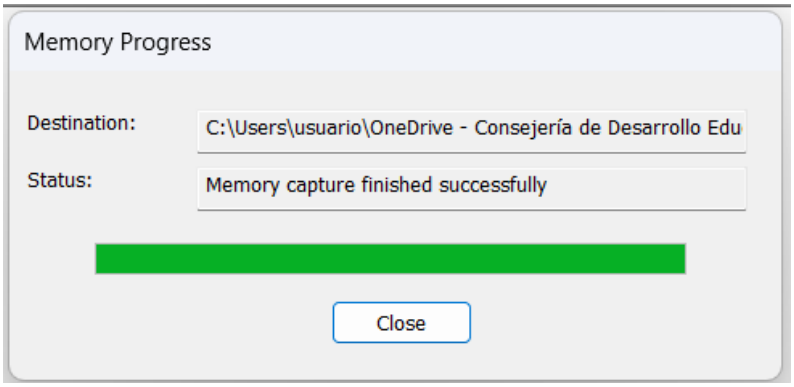
Le damos al dibujo de la RAM para capturar la memoria



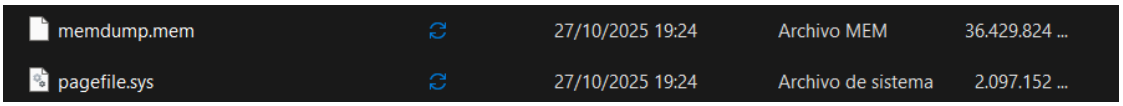
Incluimos include pagefile (para obtener una copia completa) y capturamos la memoria.



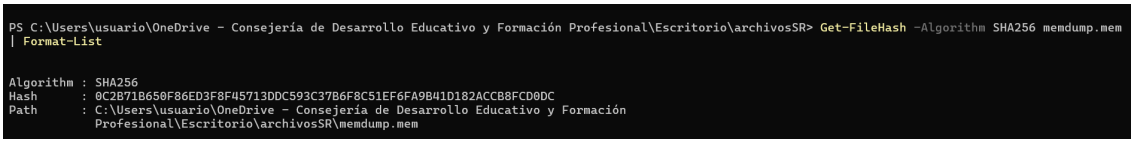
Esperamos a que termine de cargar.



Vemos que se ha copiado todo.

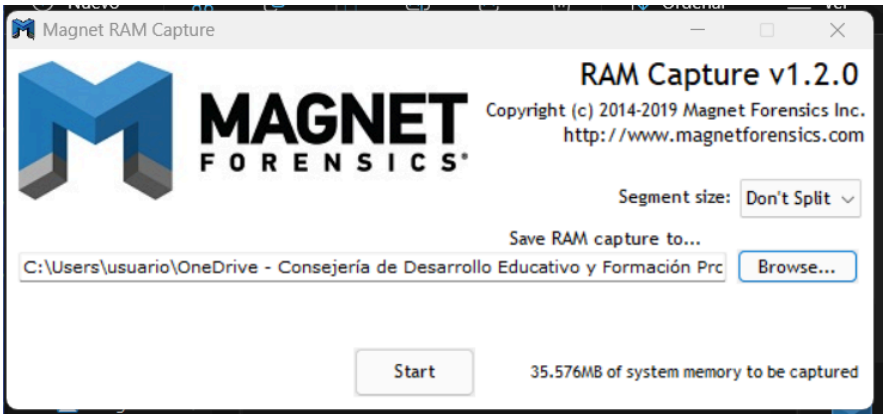


Sacamos el SHA-256 mediante PowerShell.

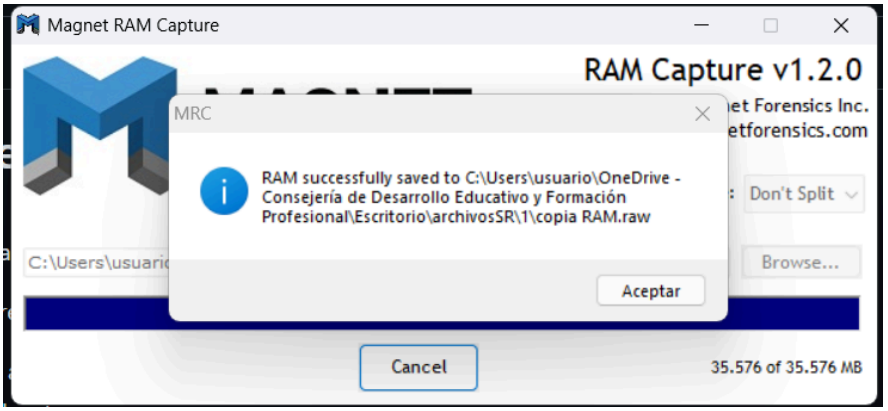


1b.- Magnet RAM Capture

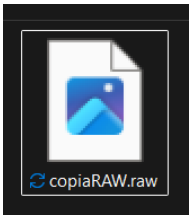
Iniciamos la copia estableciendo la ruta y el nombre.



Esperamos a que termine la copia.



Vemos si está la copia.



Calculamos SHA-256

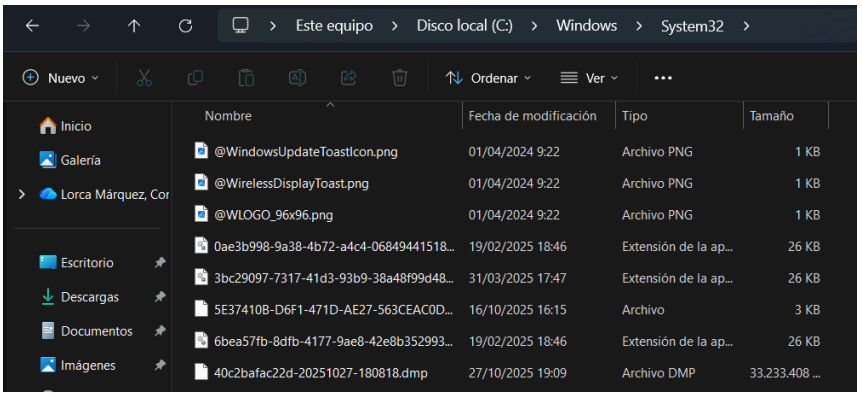
```
PS C:\Users\usuario\OneDrive - Consejería de Desarrollo Educativo y Formación Profesional\Escritorio\archivosSR\1> Get-F
ileHash -Algorithm SHA256 copiaRAW.raw | Format-List


Algorithm : SHA256
Hash      : A21C0199EAC26F3EF46FC45B216E41B357417C1B3B2B4400D5D92F09F61E9003
Path      : C:\Users\usuario\OneDrive - Consejería de Desarrollo Educativo y Formación
            Profesional\Escritorio\archivosSR\1\copiaRAW.raw
```

1c.- DumpIT

Ejecutamos el ".exe" y se iniciará a capturar la memoria.

```
All rights reserved.

Thanks for using DumpIt! Always use Microsoft crash dumps!

  Destination path:          \??\C:\WINDOWS\system32\40c2bafac22d-20251027-180818.dmp

  Computer name:             40c2bafac22d


  --> Proceed with the acquisition ? [y/n] y

  [+] Information:
  Dump Type:                  Microsoft Crash Dump


  [+] Machine Information:
  Windows version:            10.0.26100
  MachineId:                  DE231F07-751A-EF11-80F3-40C2BAFAC22D
  TimeStamp:                  134060621020400993
  Cr3:                        0x1ae000
  KdCopyDataBlock:            0xfffff805c6d69f34
  KdDebuggerData:             0xfffff805c7601040
  KdpDataBlockEncoded:        0xfffff805c7665c88

  Current date/time:          [2025-10-27 (YYYY-MM-DD) 18:08:22 (UTC)]
  + Processing... Done.

  Acquisition finished at:    [2025-10-27 (YYYY-MM-DD) 18:09:58 (UTC)]
  Time elapsed:               1:36 minutes:seconds (96 secs)

  Created file size:          34031009792 bytes (32454 Mb)
  Total physical memory size: 32348 Mb

  NtStatus (troubleshooting):   0x00000000
  Total of written pages:       8281189
  Total of inacessible pages:         0
  Total of accessible pages:    8281189

  SHA-256: 267106F70E21F7E5A722A21889ED49642AAB609BC1F97B6702F80AF40D2DF586

  JSON path:                  C:\WINDOWS\system32\40c2bafac22d-20251027-180818.json
```

Vemos que se ha realizado correctamente.



1d.- Winpmem

Ejecutamos desde PowerShell.

```
PS C:\Users\usuario\Downloads> .\winpmem_mini_x64_rc2.exe mem.raw
WinPmem64
Extracting driver to C:\Users\usuario\AppData\Local\Temp\pme2A21.tmp
Driver Unloaded.
Deleting C:\Users\usuario\AppData\Local\Temp\pme2A21.tmp
Driver Unloaded.
```

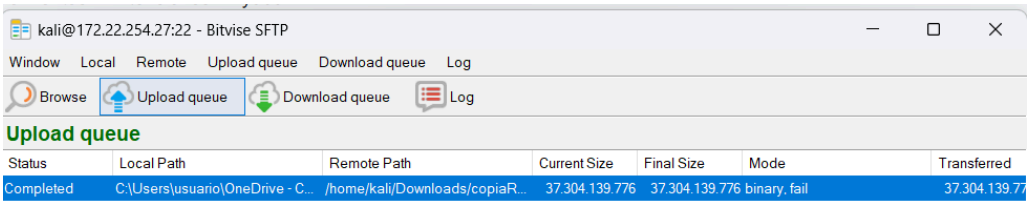
Y ahora obtenemos el SHA-256.

```
PS C:\Users\usuario\Downloads> Get-FileHash -Algorithm SHA256 mem.raw | Format-List


Algorithm : SHA256
Hash      : E3B0C44298FC1C149AFBF4C8996FB92427AE41E4649B934CA495991B7852B855
Path      : C:\Users\usuario\Downloads\mem.raw
```

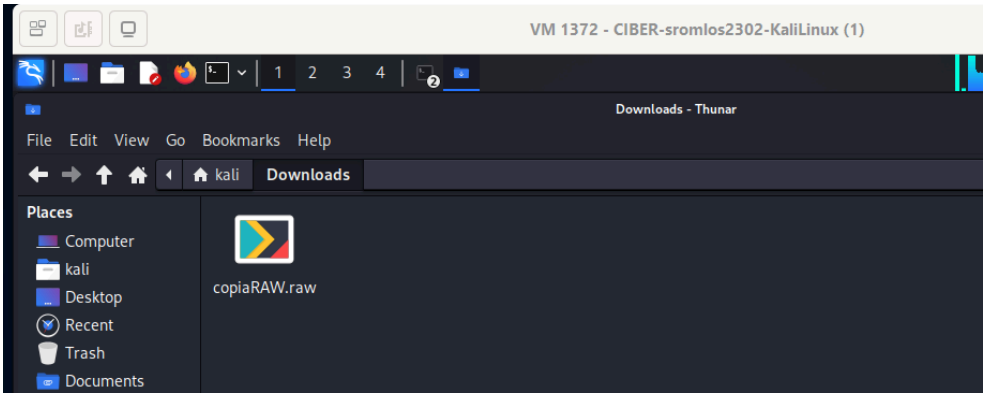
2.- Extracción de cadenas y listado de correos electrónicos

2.1.- Extracción de cadena

Me lo pasó para que vaya más a Kali mediante SSH.



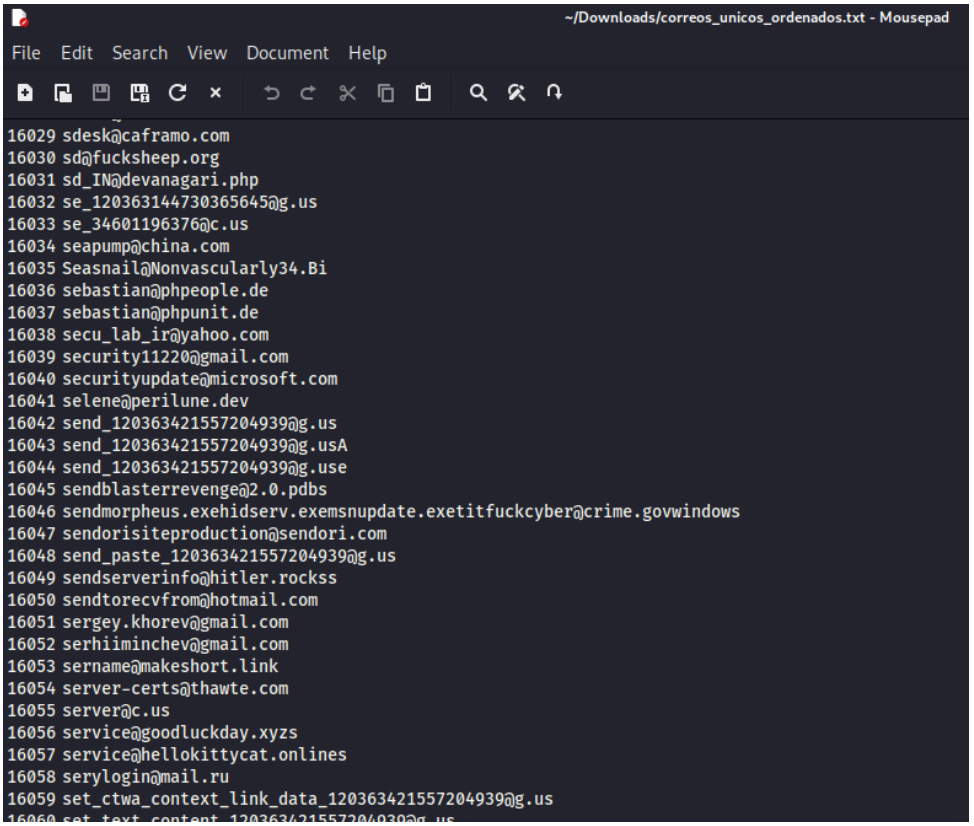
Vemos que lo tenemos en la carpeta de descarga.



2.2.- Filtrar correos electrónicos ordenados alfabéticamente

Para filtrar los correos electrónicos, abrimos PowerShell e introducimos el siguiente código:
grep -E -o '[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}' archivoRAM.txt | sort -u > correos_unicos_ordenados.txt

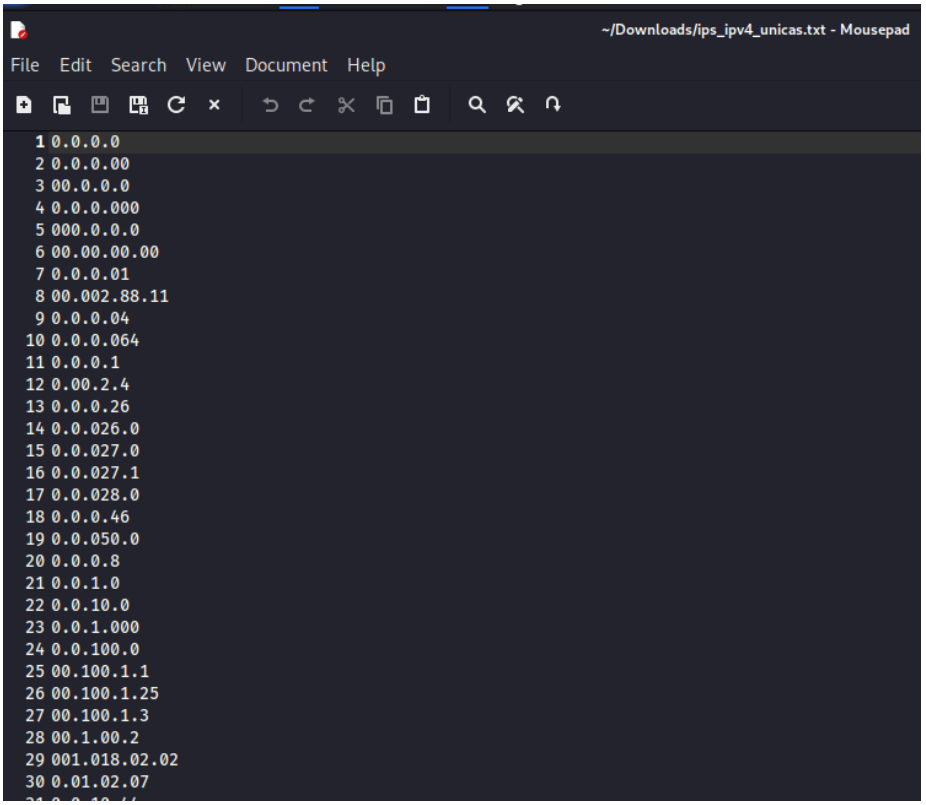
Vemos el ".txt".



2.3.- Filtrar IPs

Para filtrar las IPs, abrimos PowerShell e introducimos el siguiente código:
grep -oP '(?:(?:25[0-5]|2[0-4]\d|[01]?\d?\d)\.){3}(?:25[0-5]|2[0-4]\d|[01]?\d?\d)' archivoRAM.txt | sort -u > ips_ipv4_unicas.txt

Y ahora vemos el ".txt".


~/Downloads/ips_ipv4_unicas.txt - Mousepad
File Edit Search View Document Help
1 0.0.0.0
2 0.0.0.00
3 00.0.0.0
4 0.0.0.000
5 000.0.0.0
6 00.00.00.00
7 0.0.0.01
8 00.002.88.11
9 0.0.0.04
10 0.0.0.064
11 0.0.0.1
12 0.00.2.4
13 0.0.0.26
14 0.0.026.0
15 0.0.027.0
16 0.0.027.1
17 0.0.028.0
18 0.0.0.46
19 0.0.050.0
20 0.0.0.8
21 0.0.1.0
22 0.0.10.0
23 0.0.1.000
24 0.0.100.0
25 00.100.1.1
26 00.100.1.25
27 00.100.1.3
28 00.1.00.2
29 001.018.02.02
30 0.01.02.07