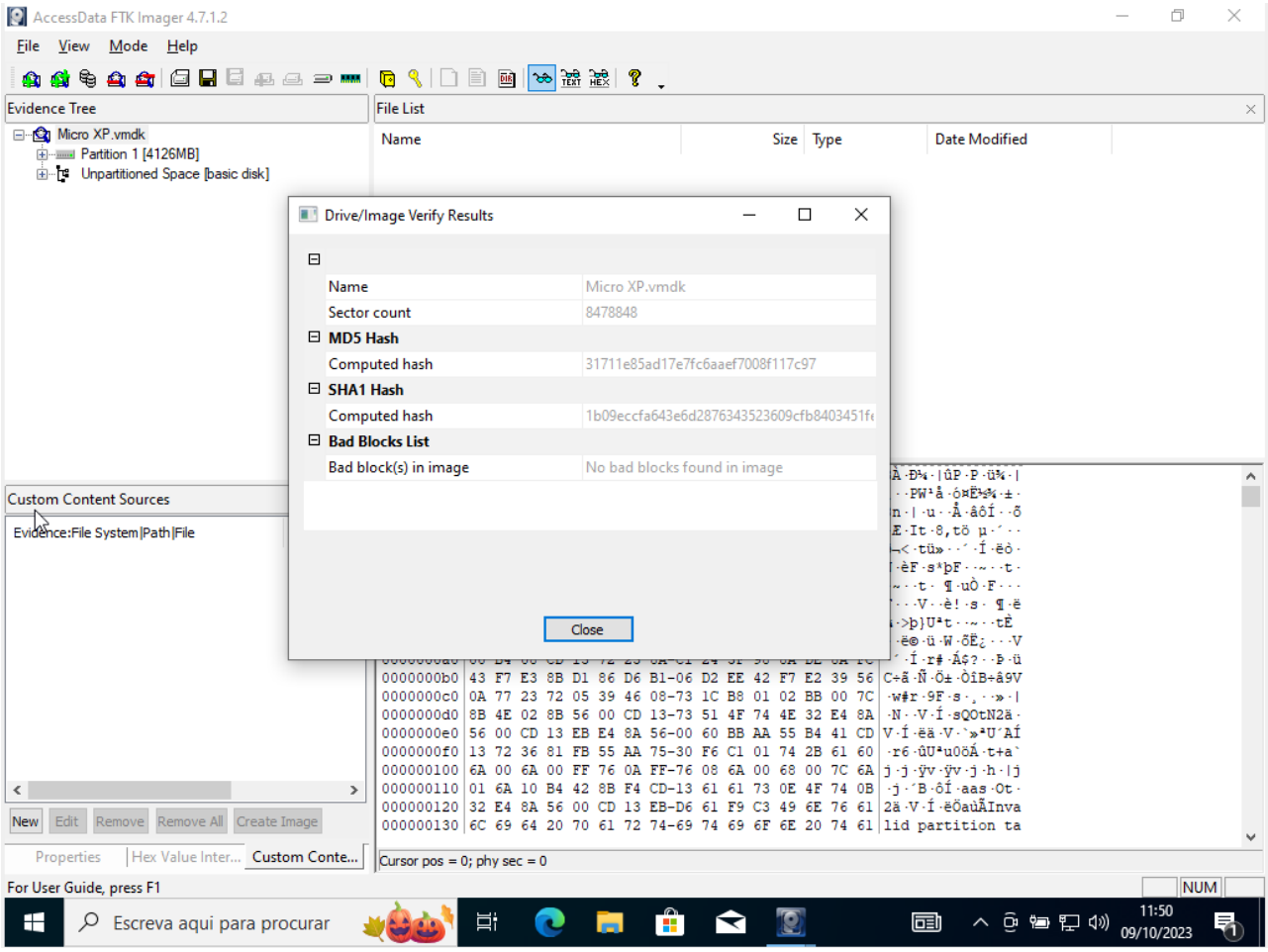
Lab02

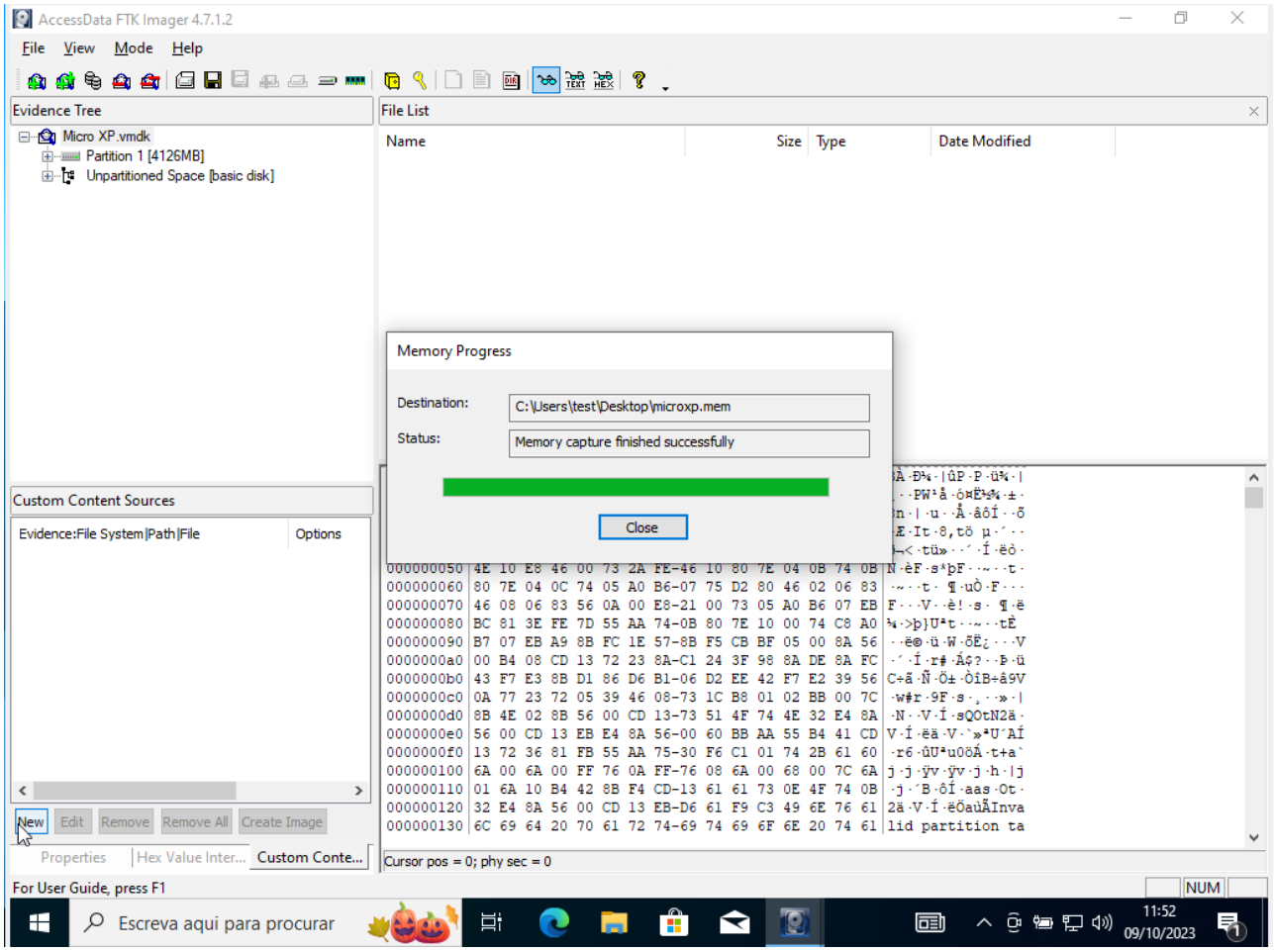
Imaging

Step to produce image

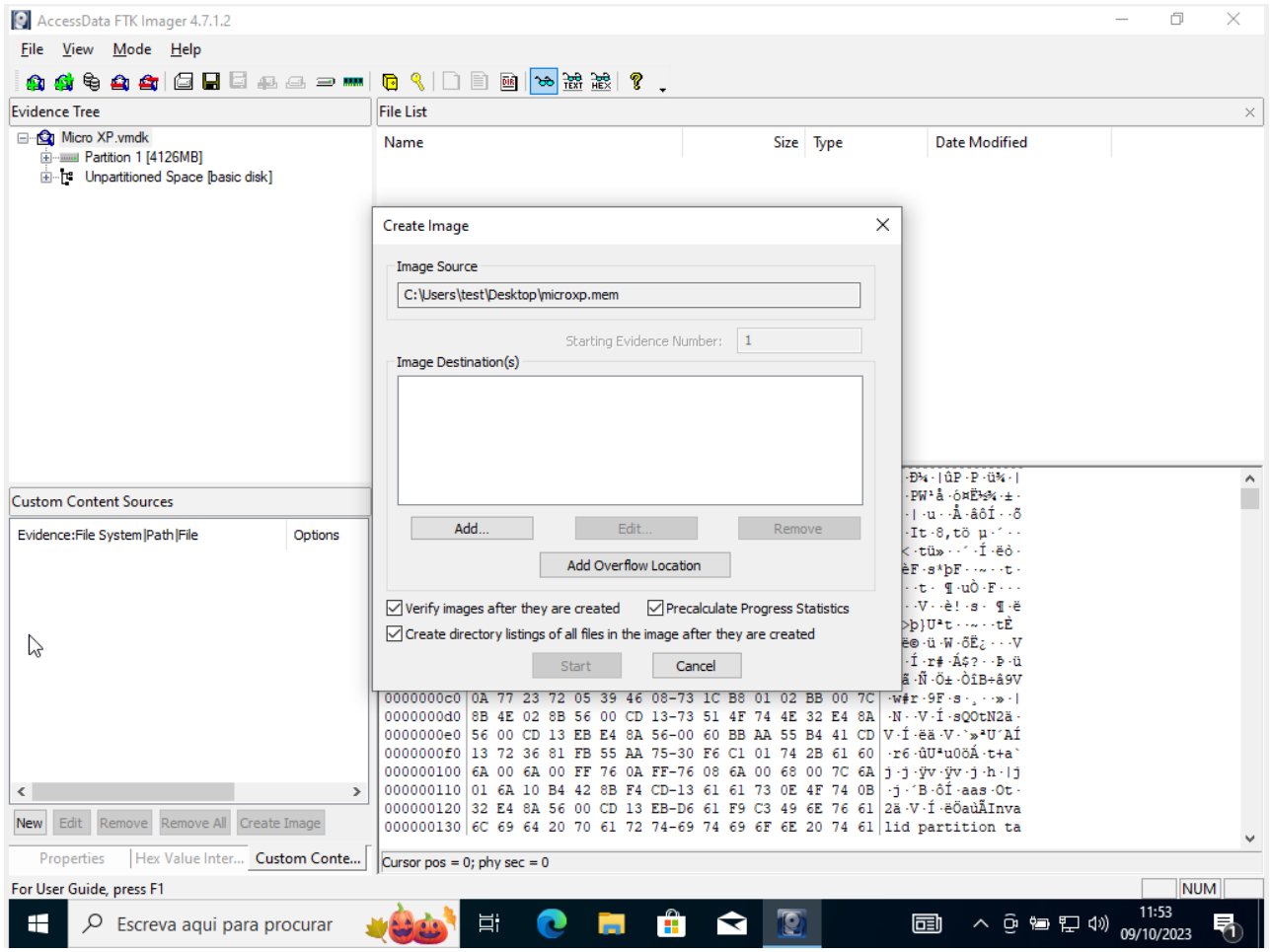
1. Verify image



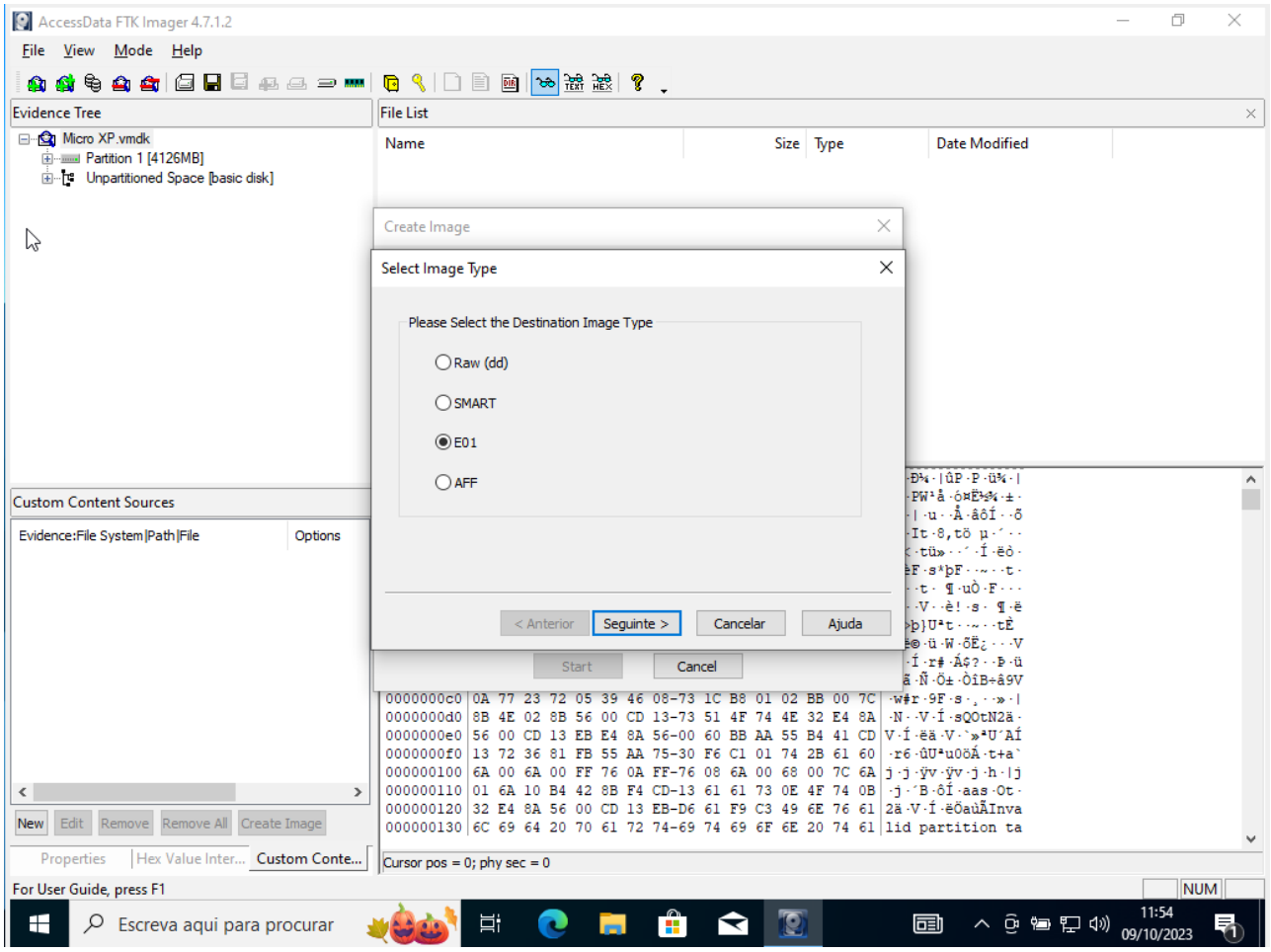
2. Dump memory from the vmdk file



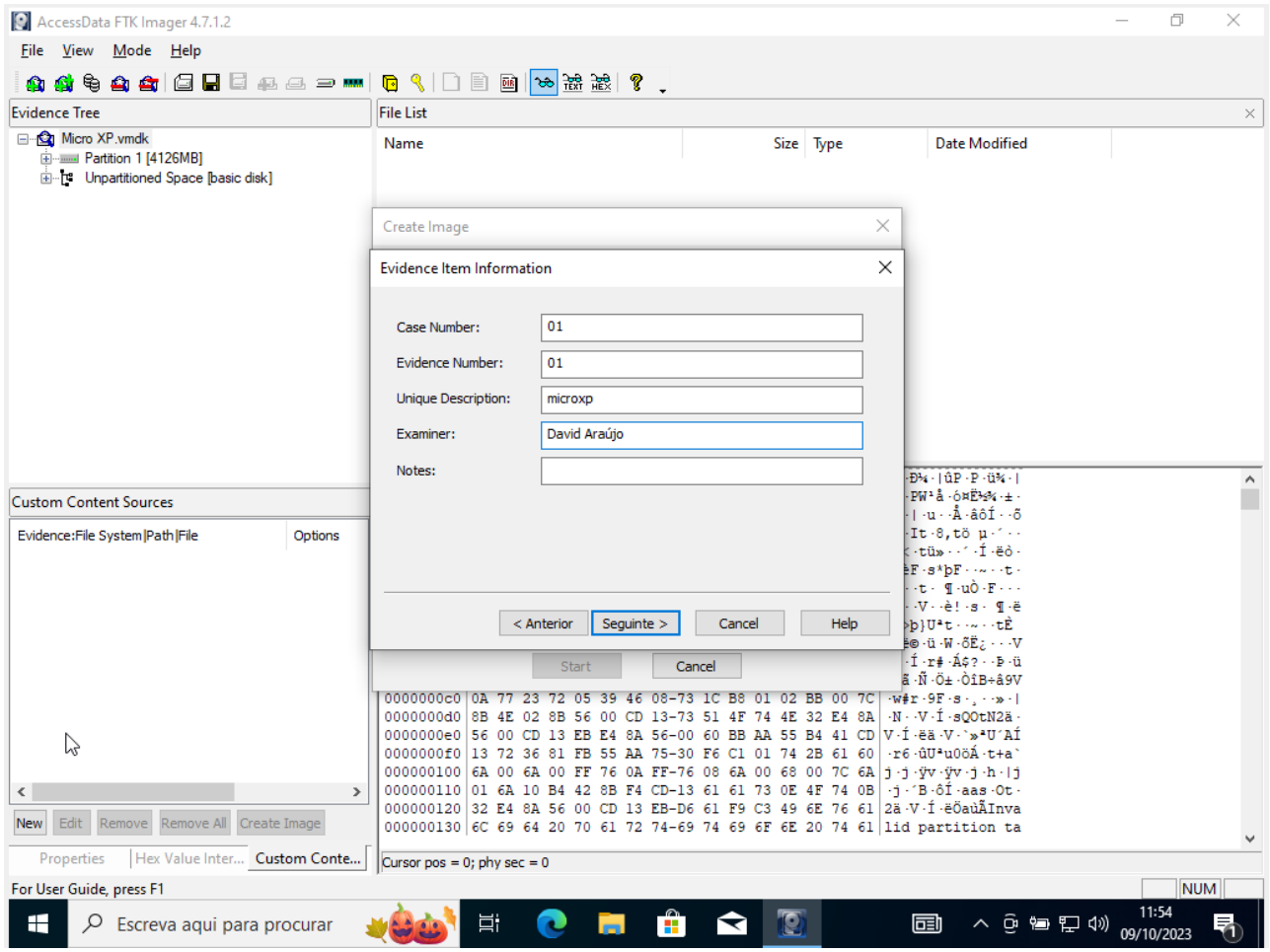
3. Create image options



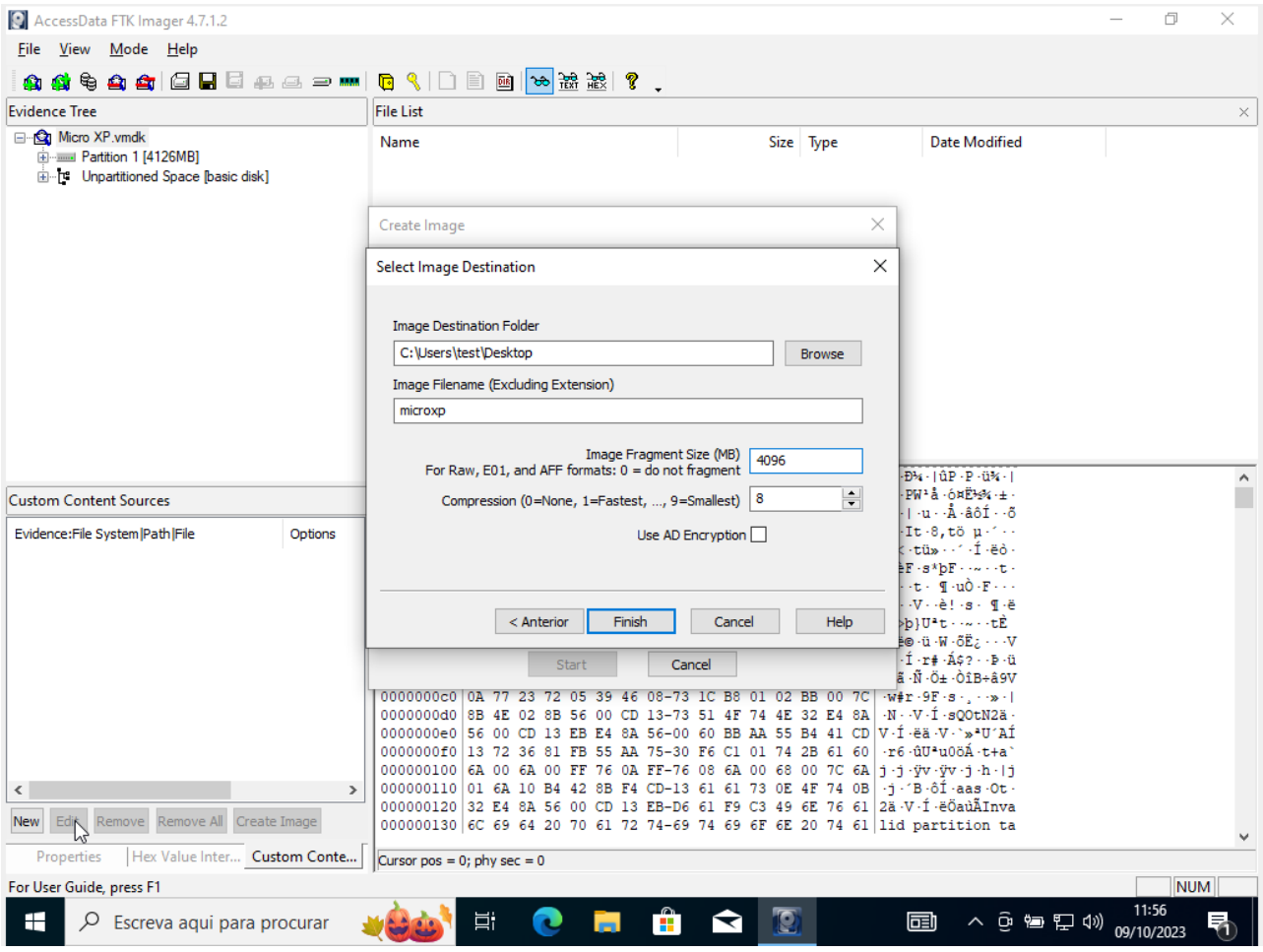
4. For sake of compatibility, use E01

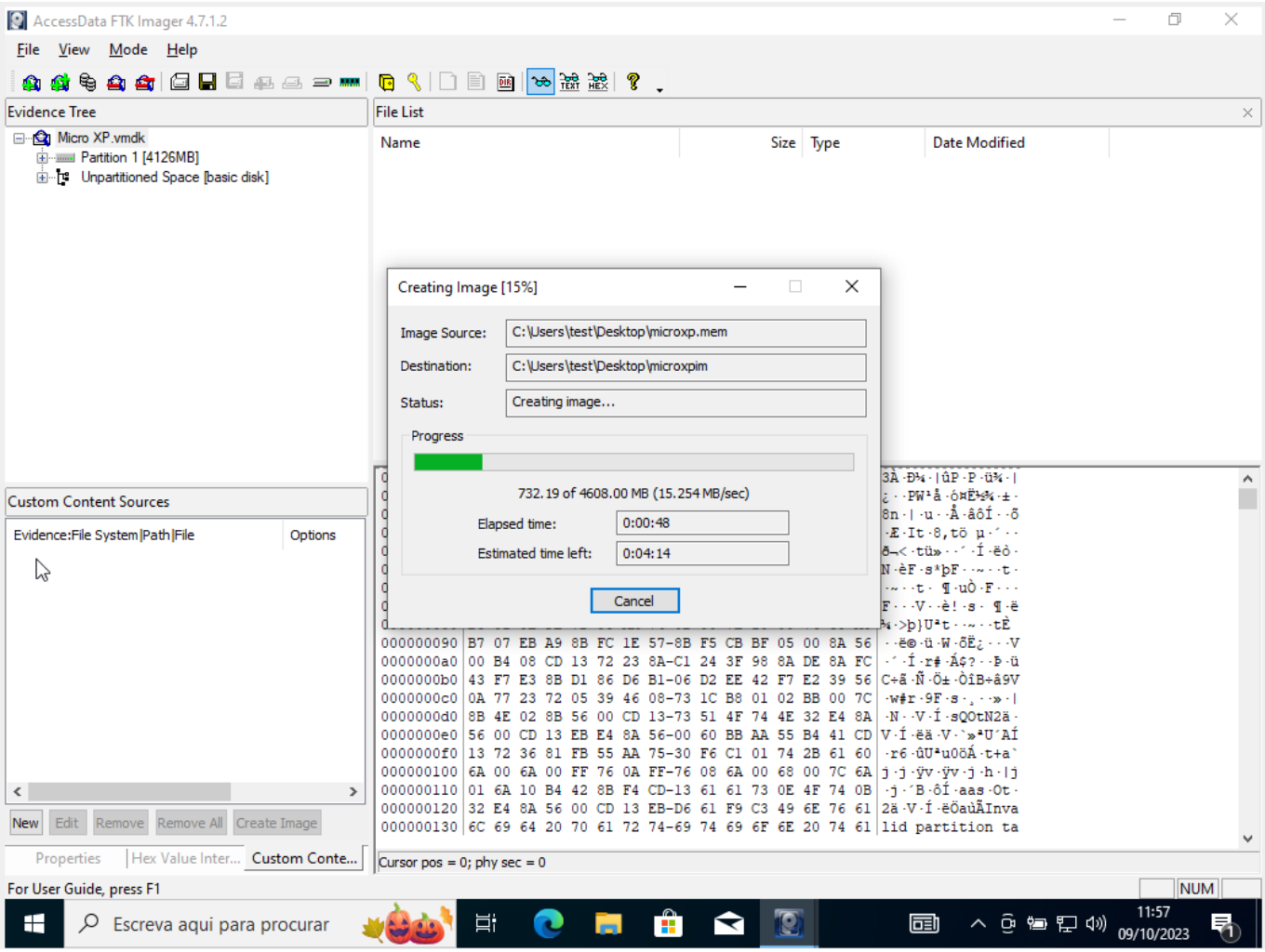


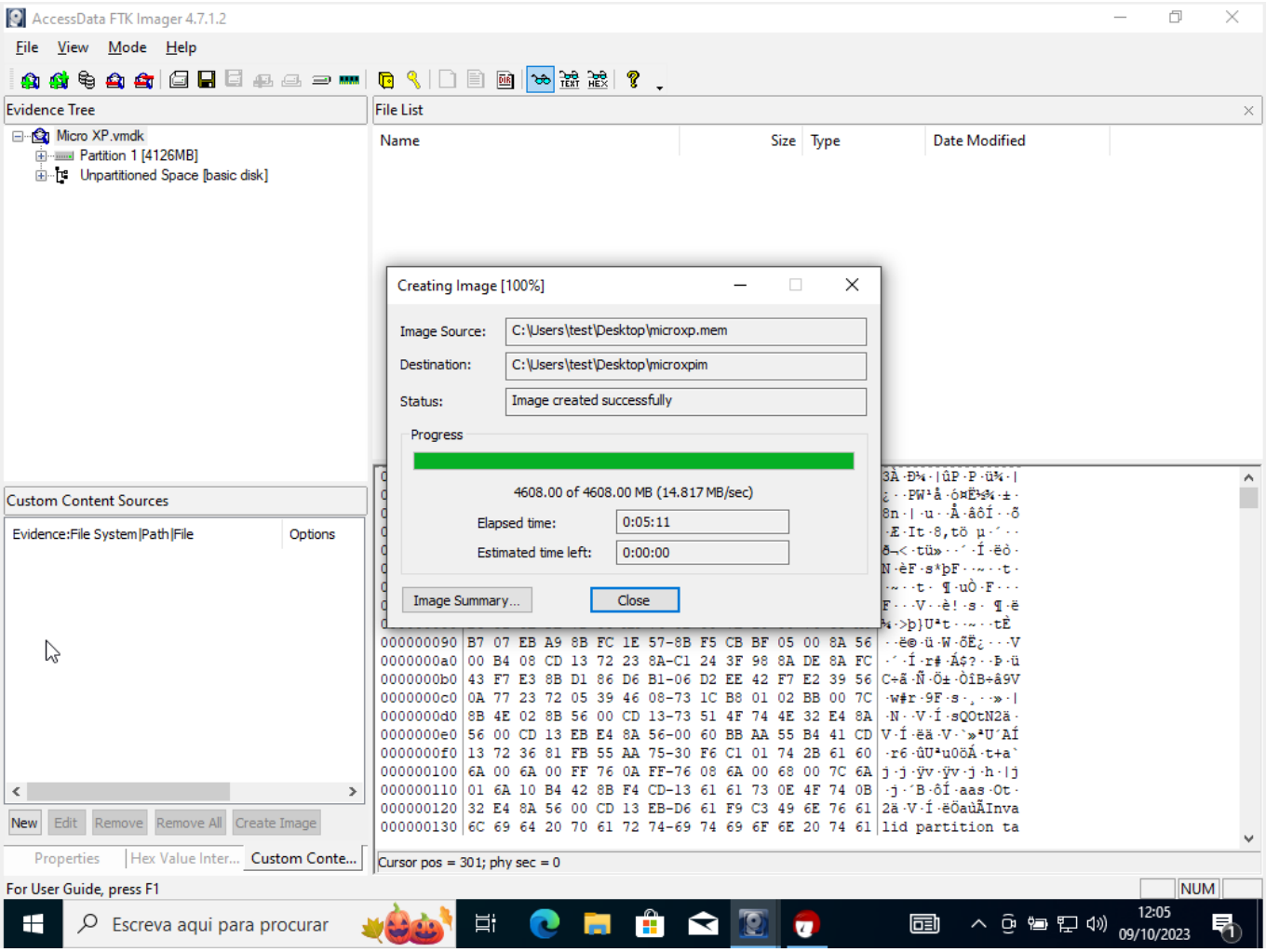
5. Identify the evidence and the Examiner



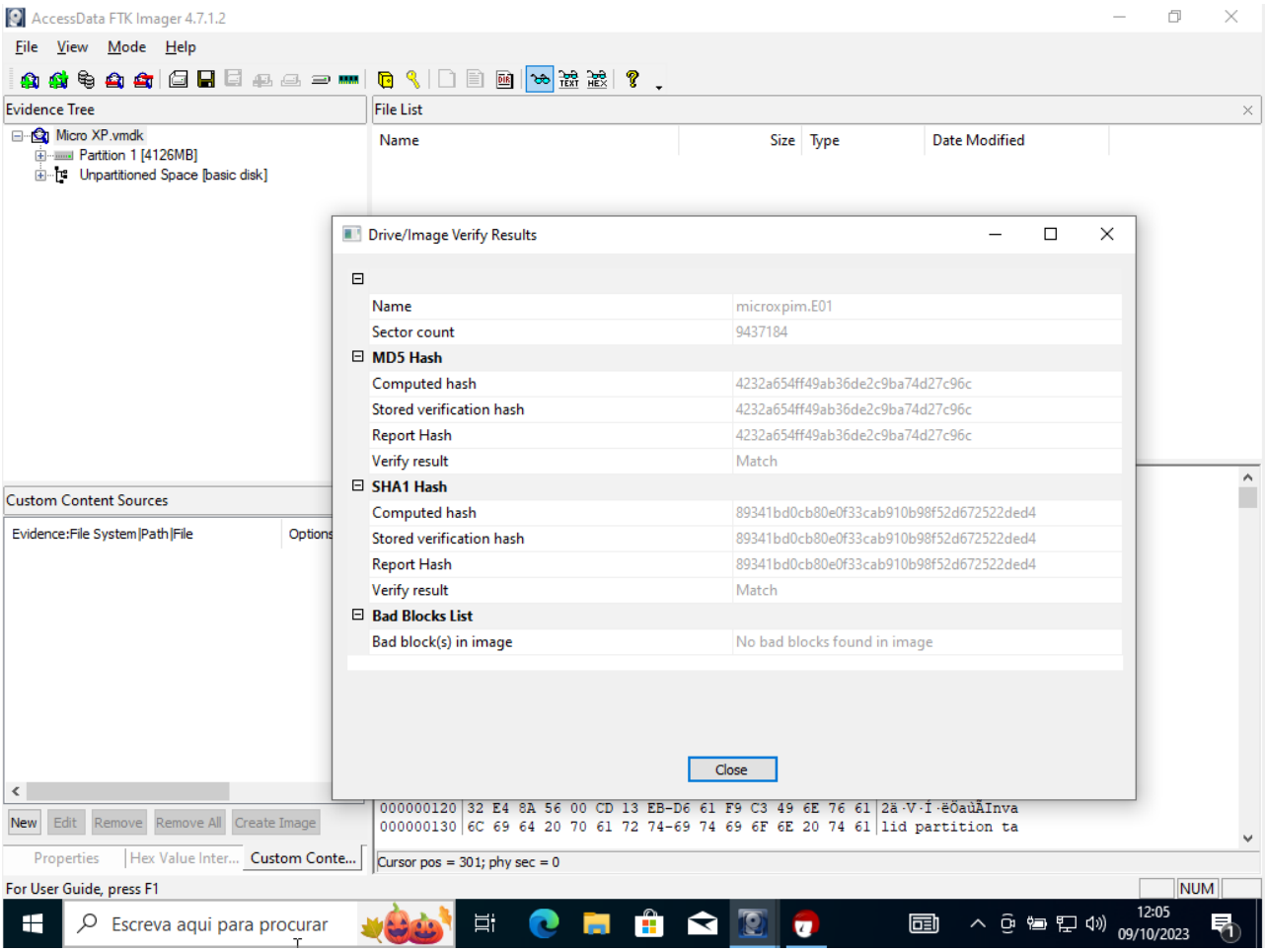
6. Partition the image in chunks of 4096MB with high compression




AccessData FTK Imager 4.7.1.2
File View Mode Help
Evidence Tree
Micro XP.vmdk
Partition 1 [4126MB]
Unpartitioned Space [basic disk]
File List
Name
Size
Type
Date Modified
Creating Image [15%]
Image Source: C:\Users\test\Desktop\microxp.mem
Destination: C:\Users\test\Desktop\microxpim
Status: Creating image...
Progress
732.19 of 4608.00 MB (15.254 MB/sec)
Elapsed time: 0:00:48
Estimated time left: 0:04:14
Cancel
Custom Content Sources
Evidence:File System|Path|File
Options
New Edit Remove Remove All Create Image
Properties Hex Value Inter... Custom Conte...
Cursor pos = 0; phy sec = 0
For User Guide, press F1
NUM
Escreva aqui para procurar
11:57
09/10/2023


AccessData FTK Imager 4.7.1.2
File View Mode Help
Evidence Tree
Micro XP.vmdk
Partition 1 [4126MB]
Unpartitioned Space [basic disk]
File List
Name
Size
Type
Date Modified
Creating Image [100%]
Image Source: C:\Users\test\Desktop\microxp.mem
Destination: C:\Users\test\Desktop\microxpim
Status: Image created successfully
Progress
4608.00 of 4608.00 MB (14.817 MB/sec)
Elapsed time: 0:05:11
Estimated time left: 0:00:00
Image Summary...
Close
Custom Content Sources
Evidence:File System|Path|File
Options
New
Edit
Remove
Remove All
Create Image
Properties
Hex Value Inter...
Custom Conte...
Cursor pos = 301; phy sec = 0
For User Guide, press F1
NUM
Escreva aqui para procurar
12:05
09/10/2023

7. Verify the checksums of the produced image



Sign the contents

Using GPG, we sign the `E01.txt` file that contains the description and checksums of the volumes.

Analysis

Analysis of checksum collision in different files.

Example 02

File name	Checksum	Hash Method
shattered-1.pdf	ee4aa52b139d925f8d8884402b0a750c	MD5
shattered-1.pdf	**38762cf7f55934b34d179ae6a4c80cadccbb7f0a**	SHA1
shattered-1.pdf	2bb787a73e37352f92383abe7e2902936d1059ad9f1ba6daaa9c1e58ee6970d0	SHA256
shattered-2.pdf	5bd9d8cabc46041579a311230539b8d1	MD5
shattered-2.pdf	**38762cf7f55934b34d179ae6a4c80cadccbb7f0a**	SHA1
shattered-2.pdf	d4488775d29bdef7993367d541064dbdda50d383f89f0aa13a6ff2e0894ba5ff	SHA256

Example 03

File name	Checksum	Hash Method
plane.jpg	**253dd04e87492e4fc3471de5e776bc3d**	MD5
plane.jpg	780973c1c165e76de3f10e1771db31cf9362d1f5	SHA1
plane.jpg	91e34644af1e6c36166e1a69d915d8ed5dbb43ffd62435e70059bc76a742daa6	SHA256
ship.jpg	**253dd04e87492e4fc3471de5e776bc3d**	MD5
ship.jpg	9639db1fbadfcfbd4025a9b95d10b7799f65fcfb	SHA1
ship.jpg	caf110e4aebe1fe7acef6da946a2bac9d51edcd47a987e311599c7c1c92e3abd	SHA256

Author

- David José Araújo Ferreira, 93444 - davidaraujo@ua.pt