Persistence Analysis Appendix

Extra Exercise:

Checking auto-start locations on an infected disk C

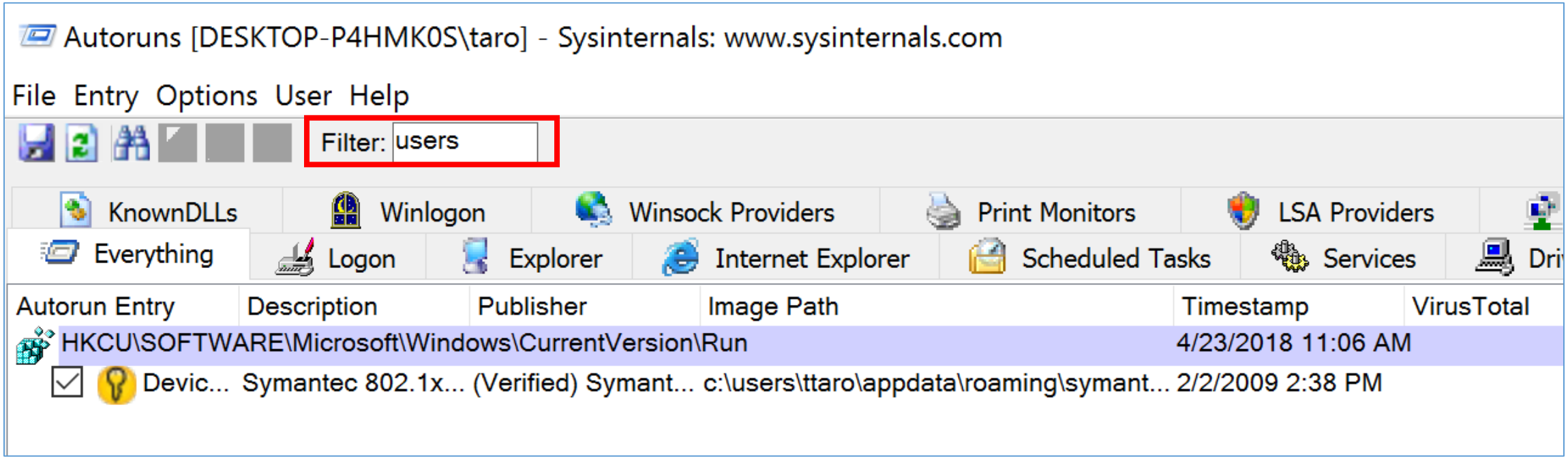
Extra Exercise:
Checking auto-start locations on an infected disk C (1)

- Conditions:
  - We are investigating a compromised client's disk image, which is saved as the file below.
    - "E:\Artifacts\other_E01\infected_drive_c.E01
  - The client seemed to be infected with malware.
  - The account name of the client's main user is "ttaro".
- Goal:
  - To find out the persistence of malware in the image.

Extra Exercise:

Checking auto-start locations on an infected disk C (2)

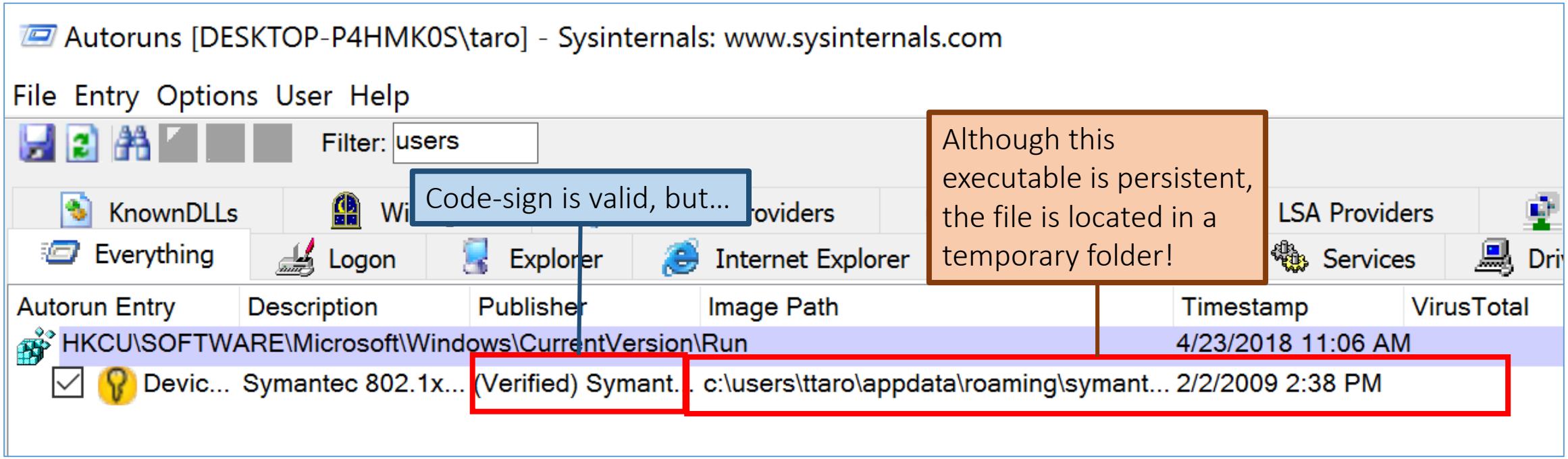
- Mount the disk image "infected_drive_c.E01" with Arsenal Image Mounter and view the auto-start locations with Autoruns. In this case, since we are focusing on the user "ttaro", we should use ttaro's home folder as "User Profile".
- Then, apply the filter with a part of the path like exercises we have done.



Extra Exercise:

Checking auto-start locations on an infected disk C (3)

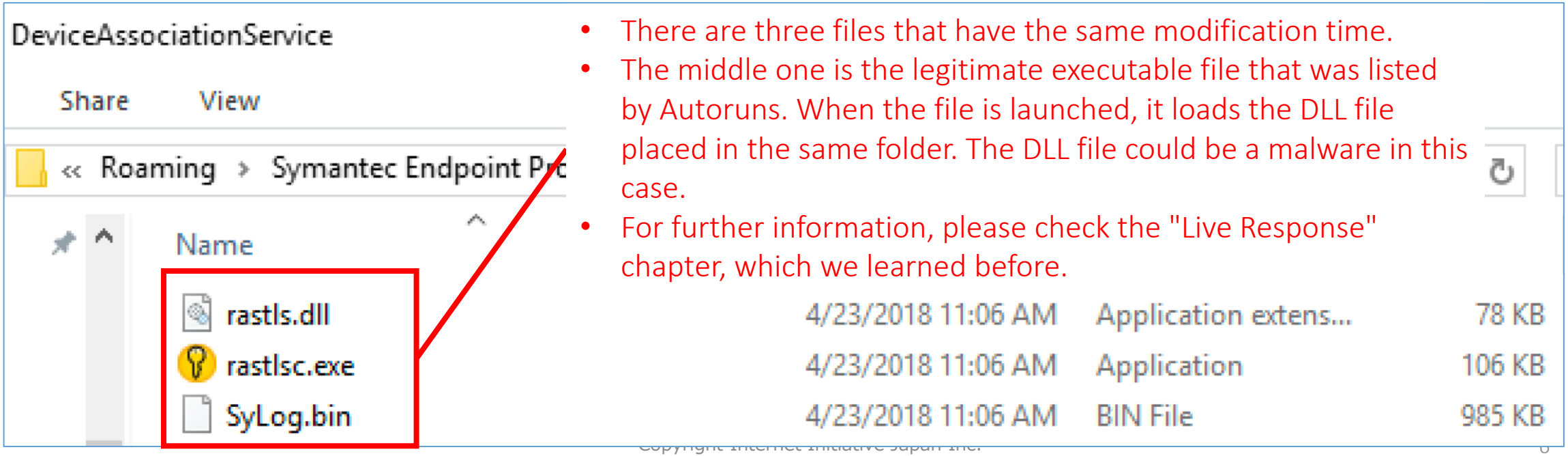
- Check the entry.
  - At the first glance, the file seems to be legitimate because it has a valid code-sign, but the file is located in a temporary folder. It looks so strange because those entries listed by Autoruns are related to persistence.



Extra Exercise:

Checking auto-start locations on an infected disk C (4)

- It seems that this is one of the anti-Autoruns techniques such as DLL side loading that we learned in "Live Response" chapter.
- Let's open the folder that contains the executable file.



- There are three files that have the same modification time.
- The middle one is the legitimate executable file that was listed by Autoruns. When the file is launched, it loads the DLL file placed in the same folder. The DLL file could be a malware in this case.
- For further information, please check the "Live Response" chapter, which we learned before.

Extra Exercise:

Checking auto-start locations on an infected disk C (5)

- In a real case, you should get all files in the temporary folder (at least rastlsc.exe, rastls.dll and SyLog.bin), and execute it on your dynamic analysis environment.