

Contract Link-

https://hacktoria.com/contracts/rogue-agent/

Contract Brief -

Greetings Special Agent K. We have a request on our hands from our friends over at the CIA. In September of 2021, one of their operatives went missing in action. Upon further investigation, it was discovered this operative went rogue and started a smuggling business for the Russians. Mostly dealing in complex electronics, which have become difficult to come by for Russians after sanctions began.

The agent we're looking for is named Valentino Maggi. Born in Brooklyn New York on 18.05.1987. Valentino is one of five sons of the Maggi family, who moved to the United States during World War II. Having grown up a middle class lifestyle, his father a car salesman and mother working as an elementary school teacher. Valentino was recruited into the CIA during his time as a student at Columbia University.

Most of his 10 years in active service were spent as an analyst working out of Langley. Recently though, in August of 2020, Valentino moved to oversees work. Being stationed in Italy as a liaison officer for the Italian foreign intelligence agency "Agenzia Informazioni e Sicurezza Esterna".

Doing stellar work, right up until the point he went missing. Prompting an extensive investigation into his whereabouts. Documents were eventually found on his computer, recovered using forensics tools to recover deleted files. These indicate a heavy involvement with the Russian underground. Acquiring much needed microelectronics for the Russian government.

And that is where your task begins, Special Agent K. One of the files recovered from Valentino's computer, is an image with a text file. We believe this to be the current location of Valentino Maggi. Locate the safehouse, so local authorities can raid the premises.

As always, Special Agent K. The contract is yours, if you choose to accept.

Link to Linkfile - https://hacktoria.com/wp-content/contracts/items/linkfile-rogue-agent.zip

<u>Link to image File</u> - https://hacktoria.com/wp-content/contracts/items/safehouse-aerial-rogue-agent.jpg

How I solved it -

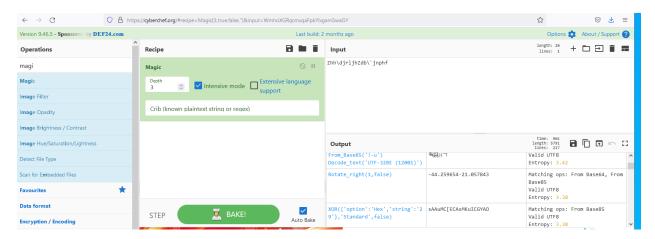
- 1. Reading the brief for clues about the probably location, really could not find any link.
- 2. Reverse analyze the image in Google lens and yandex didn't really help solve. However, it looked like an image taken from satellite pro.
- 3. Started to follow this blog post https://infosecwriteups.com/beginners-ctf-guide-finding-hidden-data-in-images-e3be9e34ae0d
- 4. Ran basic exif, stegsolve to find some clue, but all failed.
- 5. However when I ran xxd and strings filename. I saw a bunch of characters at the end which were clubbed together. Rest all seemed to be separated by '.'.

```
0003b860: 429a 64cc 7fb4 1393 59da b4d2 7dae 51bd
                                                     B.d.....Y ... }.Q.
0003b870: b191 c67d abb9 c572 dc8a 9149 119d 36de
                                                     ... } ... r ... I .. 6.
0003b880: 2ba6 641b 8f63 d6b2 2e3c 3b2d c6a1 f78a
                                                     +.d..c...<;-....
0003b890: 231e dc57 4da7 a8f2 3381 9ad4 dabb 01da
                                                     #.. WM ... 3.....
0003b8a0: 338f 4a93 cf96 e729 6ba4 c9a5 de88 5d77
                                                     3.J....)k.....]w
0003b8b0: c646 77d6 dc36 32b3 12a3 e53c 5685 d286
                                                     .Fw .. 62 . . . . < V . . .
0003b8c0: b304 804e 7ae2 af58 7fc7 b1fa 5613 6292
                                                     ... Nz .. X....V.b.
0003b8d0: 306d fc3d 0dad c34b 2306 73c8 15a7 a6da
                                                     0m.= ... K#.s....
0003b8e0: cb70 73f7 5633 d3d6 a9de 31fe d04e 4d6b
                                                     .ps.V3....1..NMk
                                                     .d....7...$....fW.
0003b8f0: e964 fef3 9ed5 37ba 2e24 b713 9866 57c7
0003b900: c83a d452 6a6a d26e 8802 08e7 14eb ff00
                                                     .:.Rjj.n.....
0003b910: f906 487b e0d6 168e 4fd9 c7d4 d118 8dee
                                                     .. H{ . . . . 0 . . . . . .
                                                     k ... +C' .>V .. R.TLG
0003b920: 6bc3 a82b 4327 9e3e 56e8 0d52 9154 4c47
0003b930: f01e 945e ff00 a91f 5a96 7007 d9f0 3b50
                                                     ... ^....Z.p ... ;P
0003b940: f412 3335 a9db 4db6 329f f563 a8c5 6569
                                                     ..35 .. M.2 .. c .. ei
0003b950: de20 4d46 6894 2148 c9e7 23ad 6cf8 ac6e
                                                     . MFh.!H..#.l..n
0003b960: b788 1191 e86b 0e64 58e2 8762 85ff 0074
                                                     ....k.dX..b...t
0003b970: 62ba a947 98da 2753 73a9 25ac d1c5 100a
                                                     b..G..'Ss.%.....
0003b980: ac39 e6a2 bab8 86c9 be46 0735 c8de 4afe
                                                     .9.....F.5..J.
0003b990: 6afc edf9 d685 d313 6d09 2493 5bb8 a343
                                                     j......m.$.[..C
0003b9a0: ffd9 202d 2d20 e6ca e4c4 d2c2 5ae4 c2d6
                                                     .. -- .....Z ...
                                                    ....Zhh\djrljhZd
0003b9b0: d2dc c2c6 5a68 685c 646a 726c 6a68 5a64
0003b9c0: 625c 606a 6e70 6866
                                                     b\`inphf
  -(kali⊗kali)-[~/Desktop]
 —$ xxd safehouse-aerial-rogue-agent.jpg
```

```
R.gI
TF0b
o\Wu
d7id
j;Yn
r]a$q
!gonkc
1UPs
wSbi
2;ejX
Ckug
093
}Qyw
        hp2
QNM*
\)jTR
.<;-
MFh
Zhh\djrljhZdb\`jnphf
  -(kali⊗kali)-[~/Desktop]
strings safehouse-aerial-rogue-agent.jpg
```

6. Next step was to try to see if this string carry some meaning. So I ran magic on cyberchef. And Volla!! Found the coordinates in rotate right.

-44.259654-21.057843



- 7. This location goes to Rakinac, Serbia. So password should be serbia-rakinac-44.259654-21.057843
- 8. And Fin.



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ROGUE AGENT

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CONTRACT CARD

