

tun3l v1s10n:

A bmp file is downloaded from the picoCTF page.

tunn3l v1s10n 

 | 40 points 

Tags: picoCTF 2021 Forensics

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Description

We found this [file](#). Recover the flag.

Hints 

1

14,732 solves / 16,111 users attempted (91%)



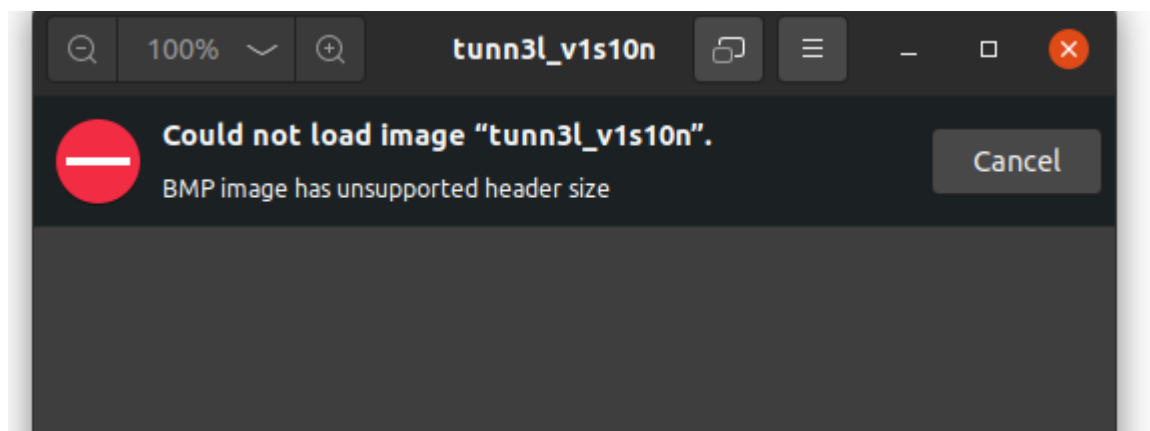
46%

Liked

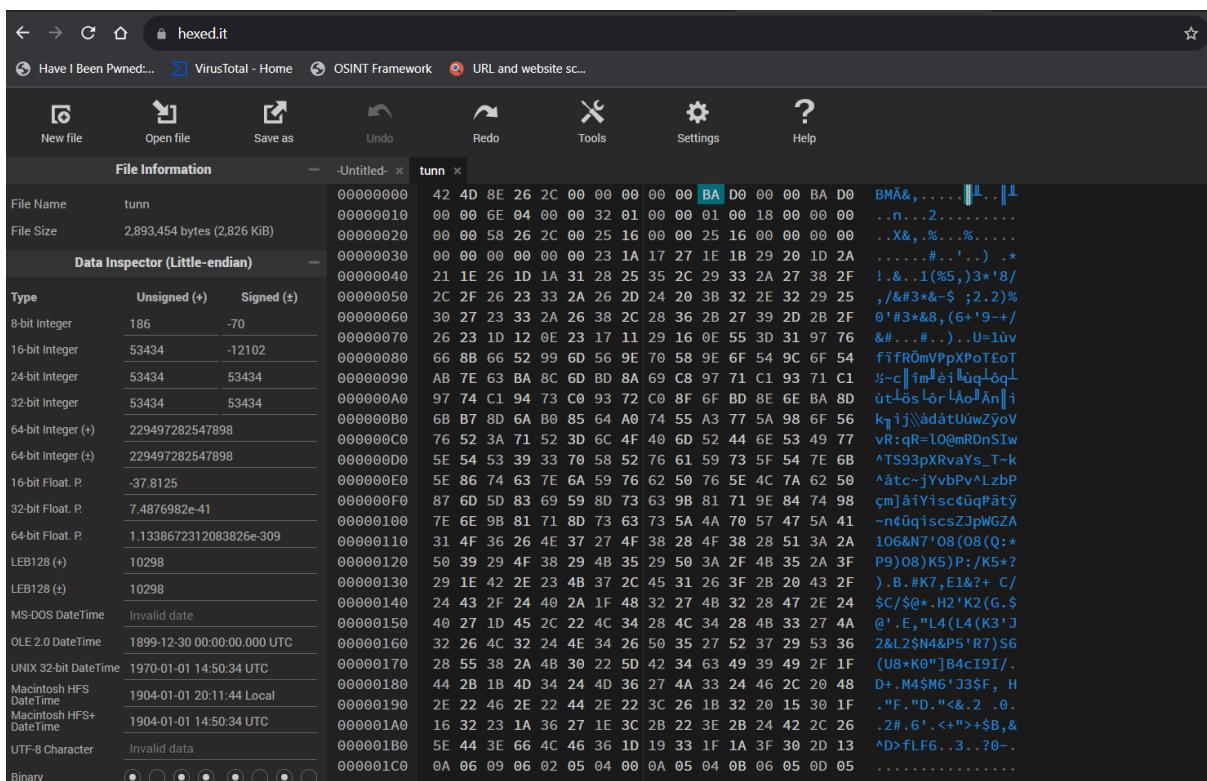


 picoCTF{FLAG}

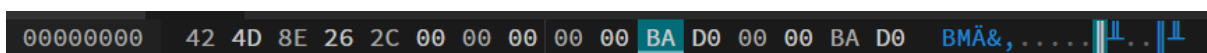
Submit  
Flag



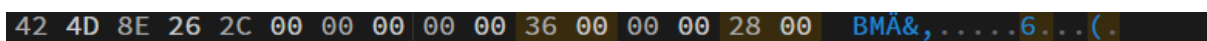
So we have to adjust the size of a bmp image. This can be done by altering the hexdump of said file.



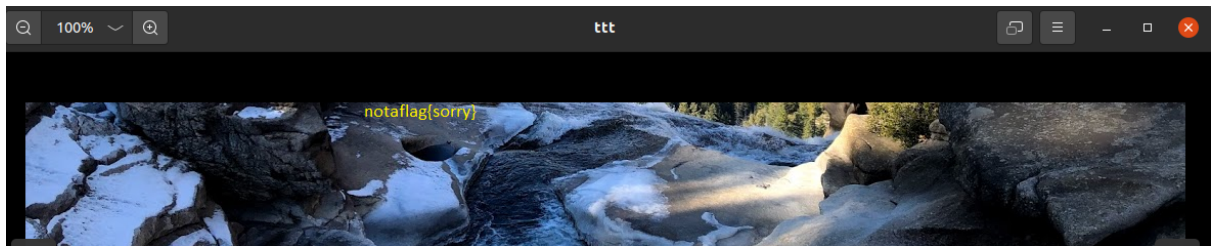
Upon comparing this to a standard bmp file, I found that



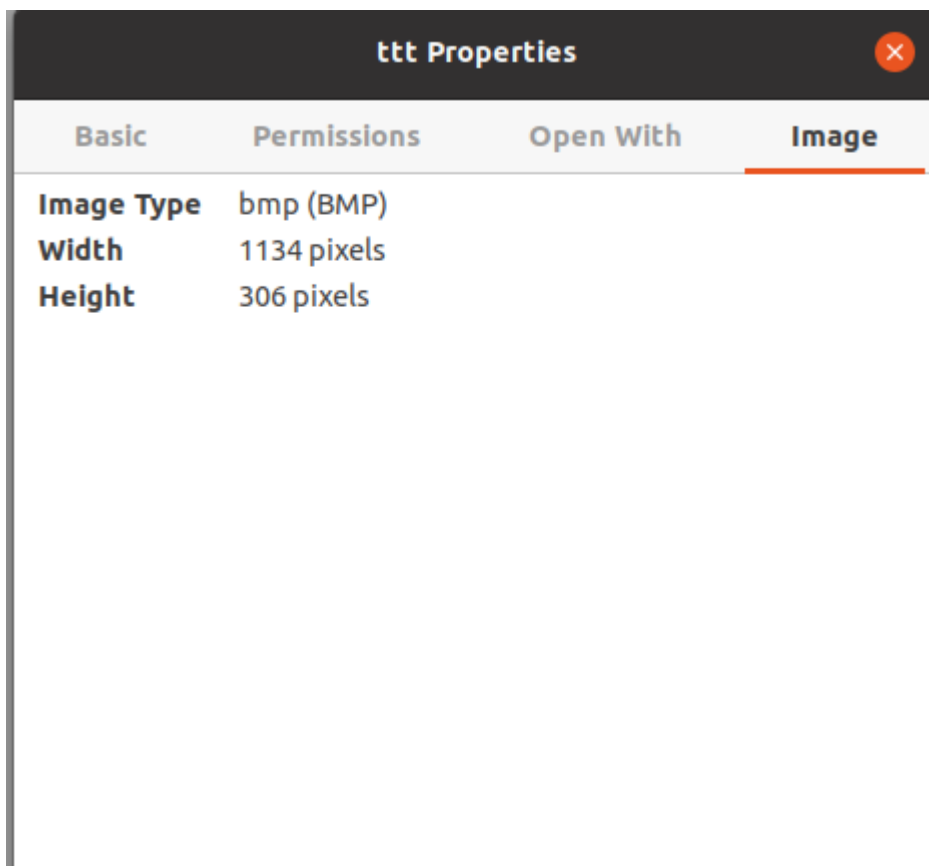
Are supposed to have static values (its also written BA D0 to indicate that this is where changes have to be made). So I changed them.



This is what I got:



So there is something more hidden in the image.

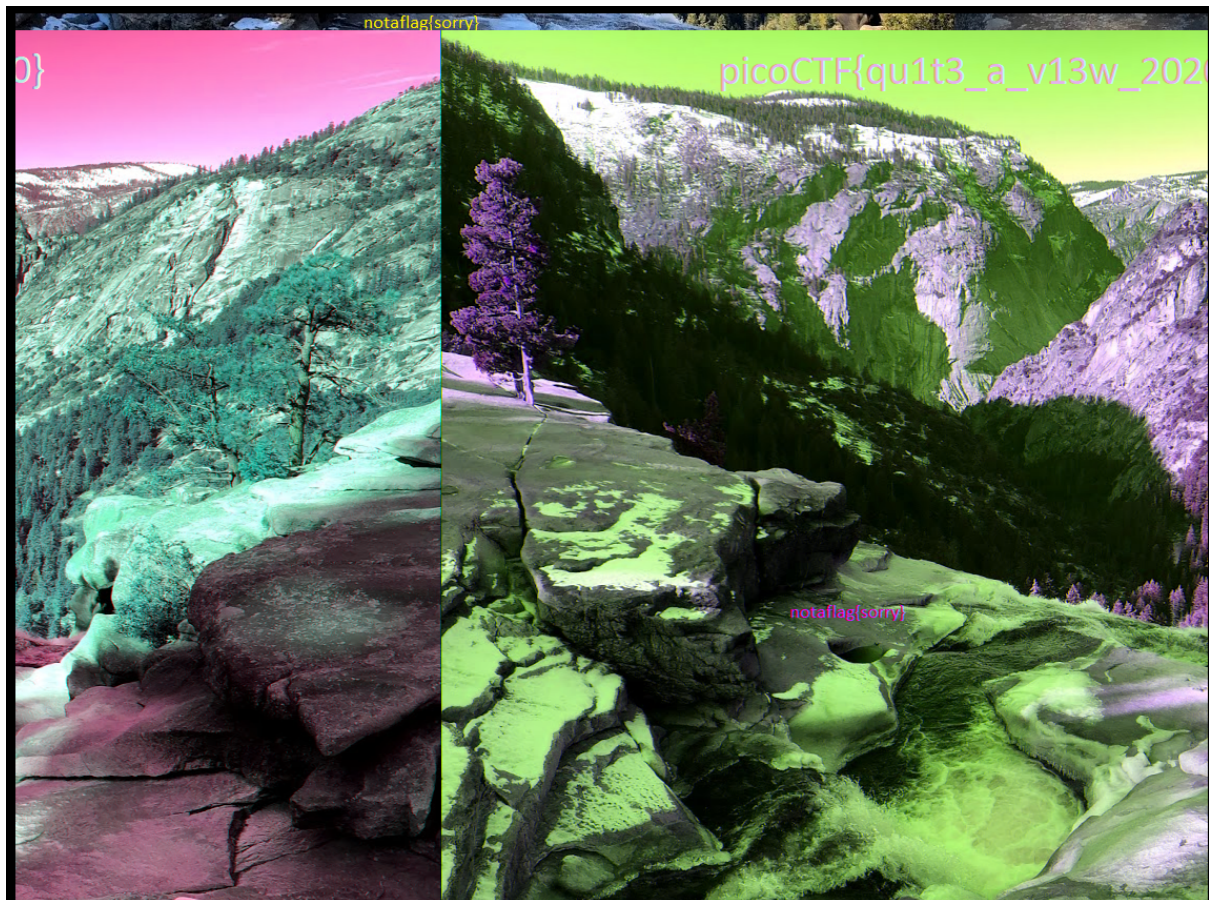


Let us try extending the height, as it is too less in comparison with the width and might contain some extra clues.

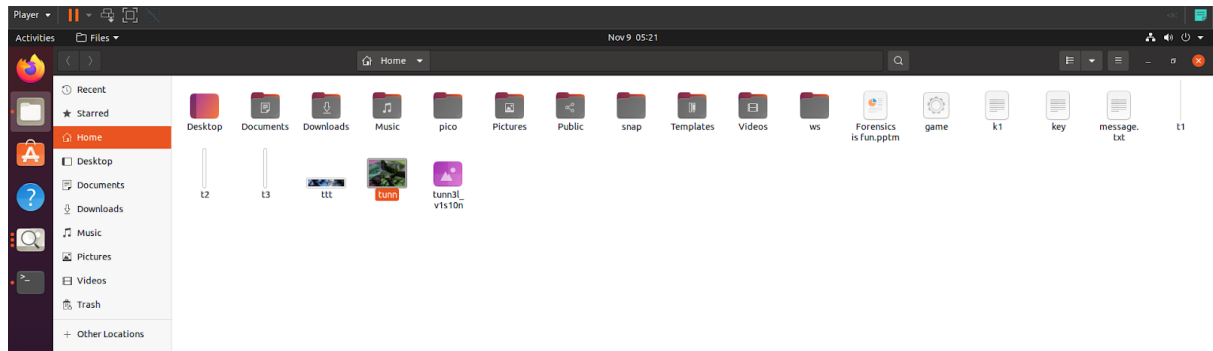
The maximum permissible height is 32K pixels for a bmp image . I tried 2000 pixels at first. This

made the image too big to view anything. Same with 1000 pixels. But when I tried it out with 850 pixels.

I did this by converting the pixel lengths into their equivalent hexadecimal values in a python script (same one I used in an earlier CTF) and replacing them in the hexdump by comparing with hexdump of a standard file.



We have our flag.



(t1,t2,t3 are the file with height 2000,1000,900 pixels respectively)

[Sources: StackOverflow, hexEd.it, SuperUser, Online BitMap Resizer]