Mission Name

Reassembling

Background

Ethan and Claire discuss their confusion and speculate reasons why Atali would want to investigate his own company / order the release of code snippets. Dr Pinche shows the evidence that Atali ordered Jailnor to be killed. This evidence needs to be decrypted to check it.

Technical High-Level Overview

An unknown file is provided to the player. This file is XORed. Once decrypted, player has to depyxel in order to get the Camera code shown in the PNG file.

Short Description

Your goal is to try to get the first 7 numbers of the camera code.

Mission Description

A camera fragment based on Jailnor murder is provided to you. Your goal is to try to get the first 7 numbers of the camera code.

Location

- RECON CAR - AIR

Tools

- https://github.com/beurtschipper/Depix
- CyberCheff

Questions

- Which program was used to put the camera code?
- Notepad

Hints

1. Bruteforce the file
2. Bruteforce to get a XOR key
3. Use any tool to show the image in the correct format.

Write Up

Upload the file provided to CyberChef:

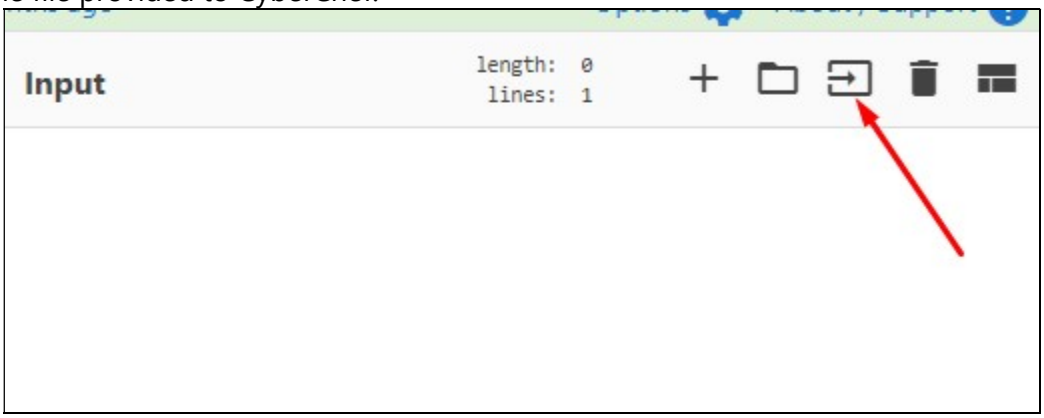


Figure 1

Use "XOR Brute Force" recipe:

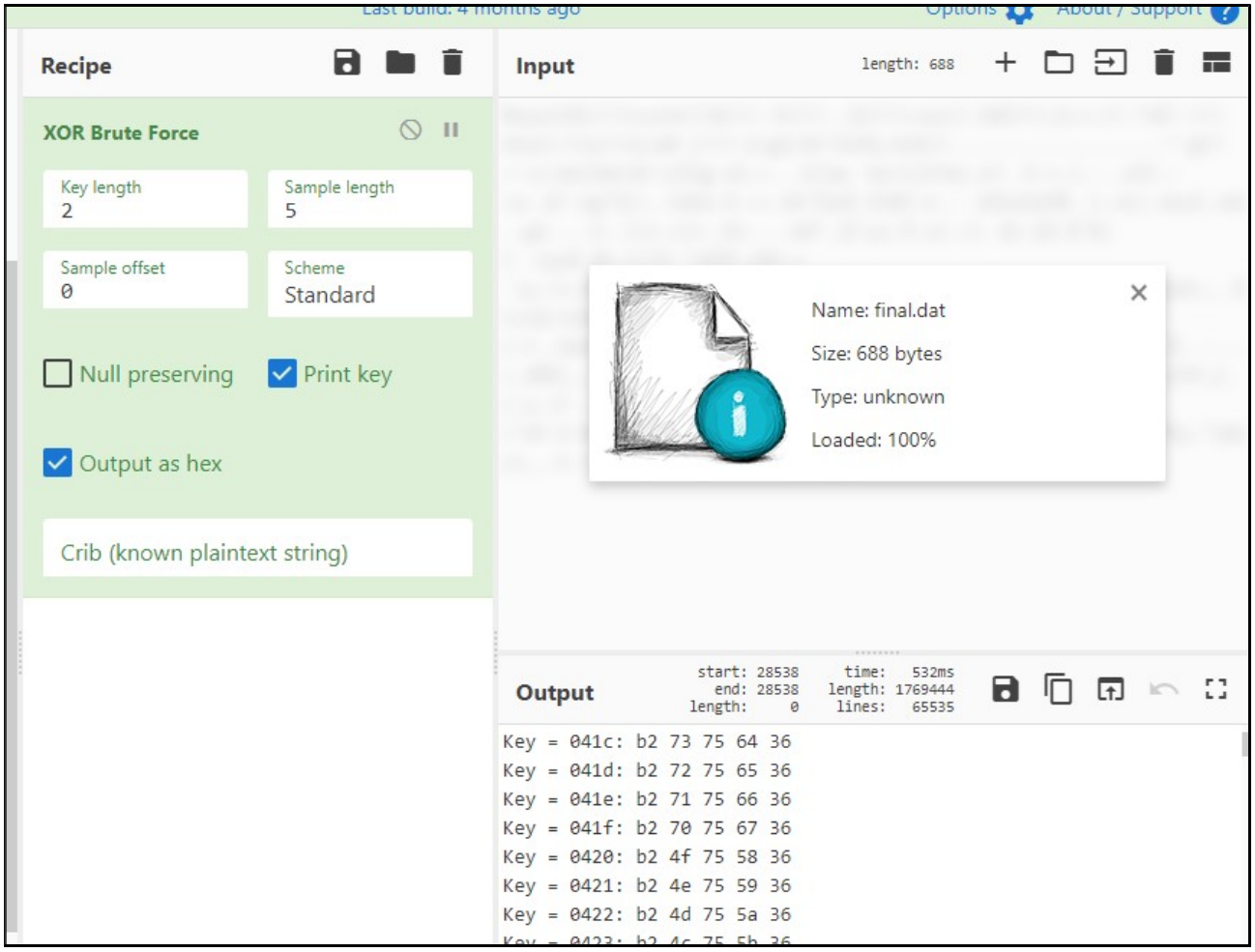


Figure 2

Player has to know, typical headers of image file, like PNG:

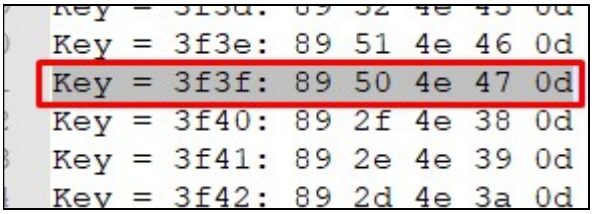


Figure 3

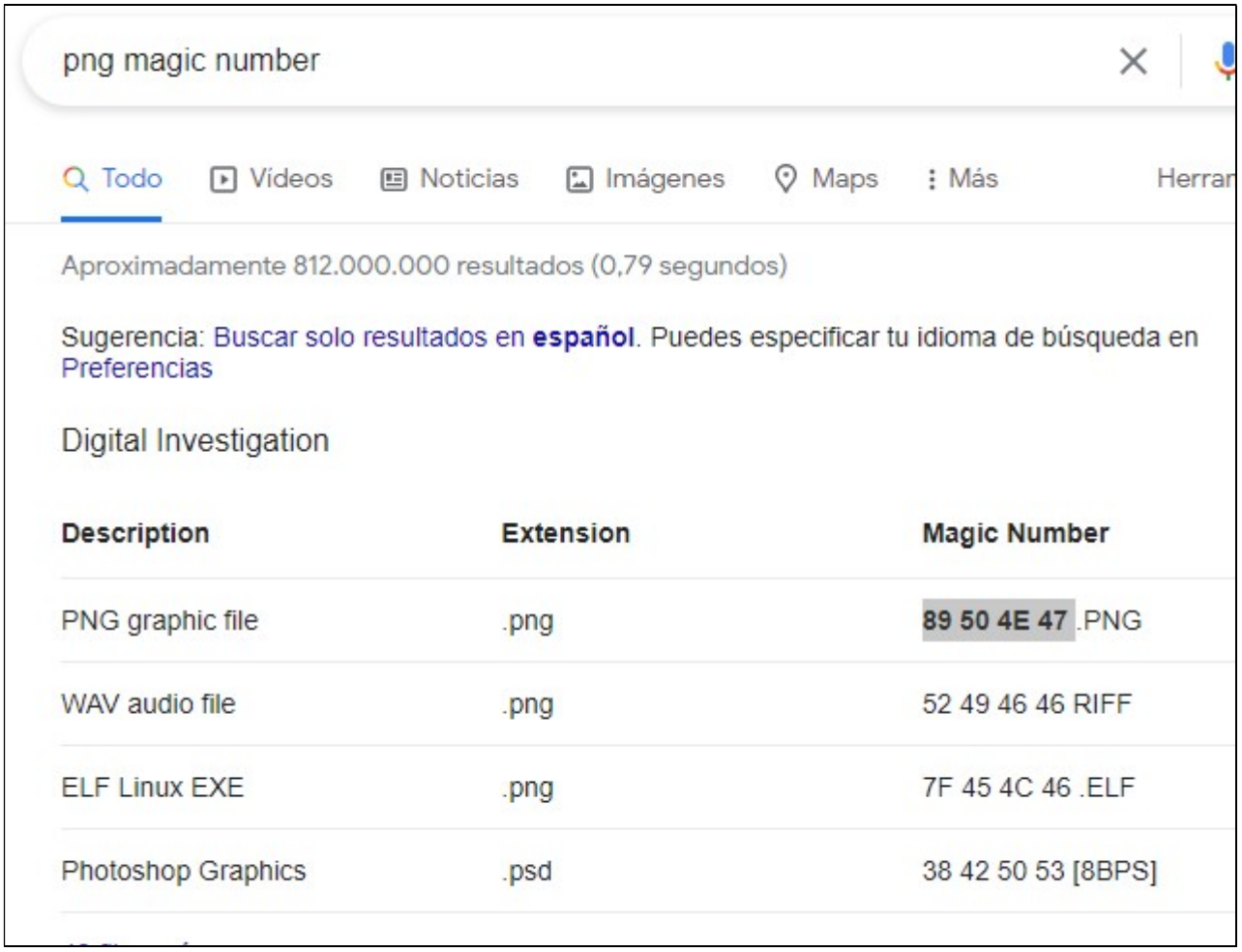


Figure 4

If player tries the key located, will see the PNG header:

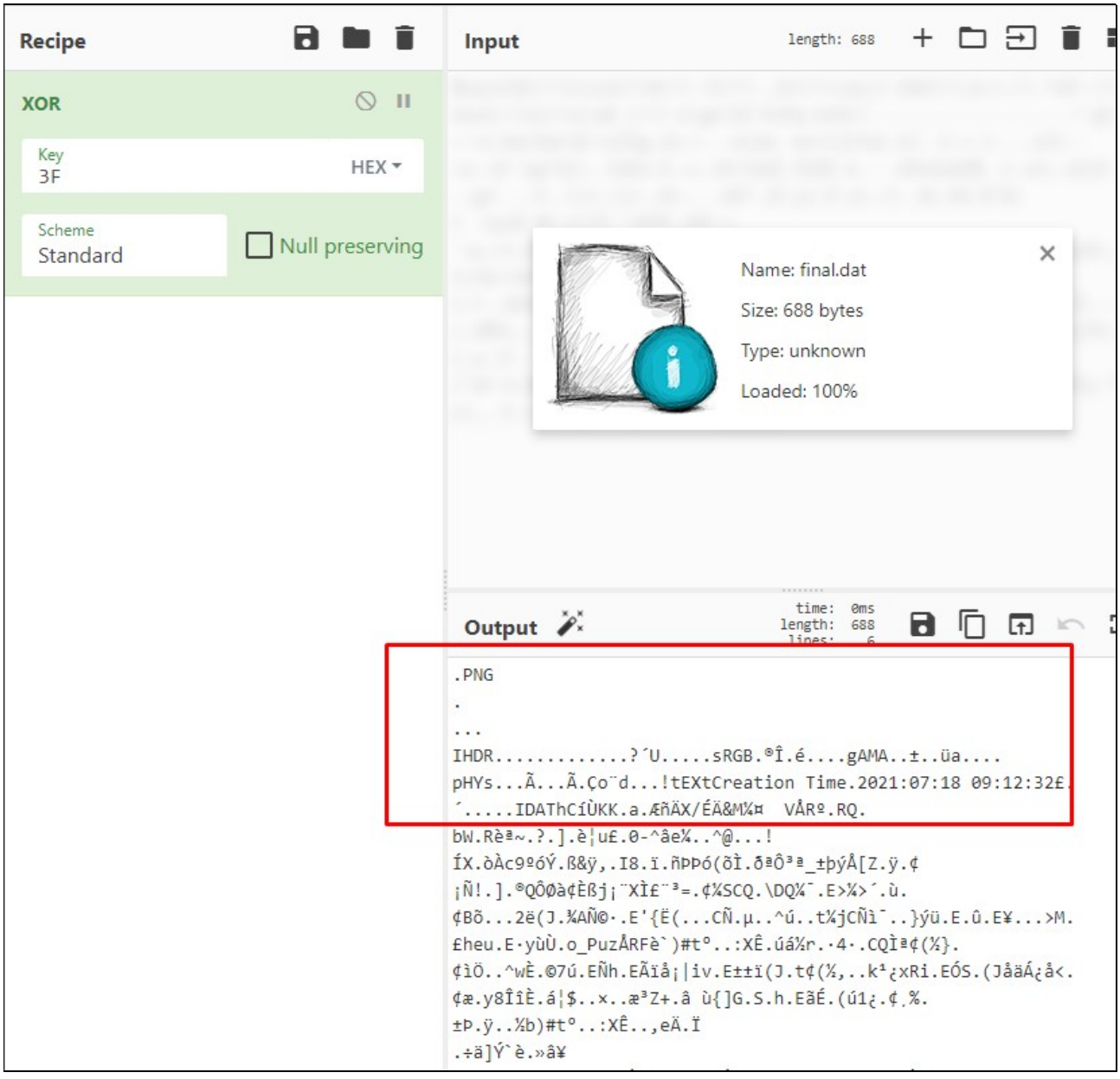


Figure 5

Once the image was deciphered, player will get the following image:

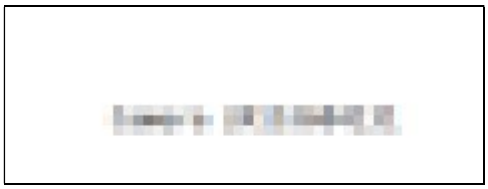


Figure 6

To depyxel it, player must install the following tool:

```
git clone https://github.com/beurtschipper/Depix
cd Depix
pip3 install -r requirements.txt
```

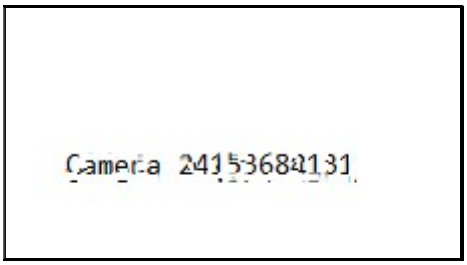
And the following command:

```
python3 depix.py -p image_from_CyberChef.png -s
images/searchimages/debruinseq_notepad_Windows10_closeAndSpaced.png –o path/final.png
```

```
┌──(kali㉿kali)-[~/Depix]
└─$ python3 depix.py -p /mnt/hgfs/Maquina/pre_image.png -s images/searchimages/debruinseq_notepad_Windows10_closeAndSpaced.png -o /mnt/hgfs/Maquina/salida.png
INFO:root:Loading pixelated image from /mnt/hgfs/Maquina/pre_image.png
INFO:root:Loading search image from images/searchimages/debruinseq_notepad_Windows10_closeAndSpaced.png
INFO:root:Finding color rectangles from pixelated space
INFO:root:Found 120 same color rectangles
INFO:root:84 rectangles left after moot filter
INFO:root:Found 2 different rectangle sizes
INFO:root:Finding matches in search image
INFO:root:Scanning 81 blocks with size (5, 5)
```

Figure 7

The image depyxeled:



Flag Information

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