BAT--cipher

Sunday, March 9, 2025   1:50 PM

THE BATS, MASTERS OF THE NIGHT, FLEW SILENTLY THROUGH THE DARKNESS, THEIR WINGS WHISPERING SECRETS. LIKE STEGANOGRAPHY, THEY CONCEALED MESSAGES WITHIN THEIR FLIGHT, AND WITH THE PRECISION OF B-A-T CRYPTOGRAPHY, THEY ENCODED THE MYSTERIES OF THE TWILIGHT, HIDDEN FROM PRYING EYES.

SIGNATURE : BBB ATB TBT BBA BBB TBA
DATE : 1030-03-03

The image presents a cryptic puzzle involving bats and encoded messages. The narrative故事 mentions that these bats are "masters of the night," flying silently through the darkness while whispering窃窃私语 secrets. The reference to "steganography" and "B-A-T cryptography" suggests that hidden information is embedded in the image, which requires decryption.

Step 1: Extracting Hidden Data Using Steganography

The first clue is the mention of "steganography," a technique used to hide data within an image. To uncover any concealed files or messages within the image, the tool Steghide can be used. **Steghide** **allows us to extract hidden data if it exists within the image**. And this tool needs passphrase密码 and it cannot be cracked, or brute forced.

Step 2: Decoding the B-A-T Cryptography

The image mentions "B-A-T cryptography," which is a strong hint toward a custom encoding system. The letters B, A, and T can be translated into a ternary (base-3) system三元系统: B = 0, A = 1, T = 2

This conversion allows us to decode the sequence of letters found at the bottom of the image.

Sequence Given (Signature): BBB ATB TBT BBA BBB TBA

Base 3 coding table

Letter	Code
A	000
B	001
C	002
D	010
E	011
F	012
G	020
H	021
I	022
J	100
K	101
L	102
M	110
N	111
O	112
P	120
Q	121
R	122
S	200
T	201
U	202
V	210
W	211
X	212
Y	220
Z	221

1. BBB converts to 000 in base-3, which corresponds to the letter A .
2. ATB converts to 102 in base-3, which corresponds to the letter P.
3. TBT converts to 201 in base-3, which corresponds to the letter U.
4. BBA converts to 001 in base-3, which corresponds to the letter B.
5. BBB converts to 000 in base-3, which corresponds to the letter A.
6. TBA converts to 201 in base-3, which corresponds to the letter T.

Decoded Result: After decoding, the sequence translates to the string "APUBAT"

Step 3: Interpreting the Date as a Hint

The date displayed at the bottom of the image, 10**3**0/0**3**/0**3**, also serves as a crucial hint. The repeated presence of the number 3 may reinforce the idea of a **base-3 (ternary) system** being central to the decryption process. This could suggest the

importance of the B-A-T cipher or even provide additional context for interpreting the passphrase
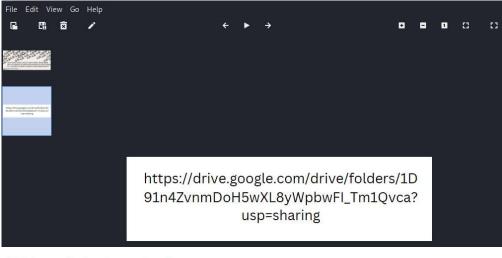
Step 4: Utilizing the Decoded Passphrase

With the passphrase "APUBAT" in hand, we can proceed to extract any hidden content from the image using Steghide. This password is derived from the B-A-T cryptographic sequence provided.

Common commands for the steghide tool

命令	作用
steghide info <文件>	查看文件是否隐藏数据
steghide embed -sf <载体> -ef <文件>	隐藏数据到图片/音频
steghide extract -sf <载体>	提取隐藏数据
steghide --help	查看帮助信息
steghide --version	查看 Steghide 版本

https://drive.google.com/drive/folders/1D91n4ZvnmDoH5wXL8yWpbwFl_Tm1Qvca?usp=sharing

My Drive > You found my weakness!! ▾

Type ▾   People ▾   Modified ▾

Files

Each file has a password that I gave to participants when I sent them the questions:
• Number 15-->B-A-T cipher -->number_15.zip --> "Gent1ngH1lls_2024!"
• Number 16-->B-A-T cipher -->number_16.zip --> "KualaLumpur@Bukit88"
• Number 17-->B-A-T cipher -->number_17.zip -->"PeninsularT1gress#90"
• Number 18-->B-A-T cipher -->number_18.zip --> "PeranakanSp1ce2023!"
• Number 19-->B-A-T cipher -->number_19.zip --> "Monsoon_Seas0n!45"
• Number 20-->B-A-T cipher -->number_20.zip --> "Rafflesia#Bl00m2024!"