

Reverse Engineering - Reverse Me

```
(kruphix@Zeqzoq)-[/mnt/c/Users/blast/OneDrive/Desktop/iboh]
└─$ strings ReverseMe
tnemmoc.
ssb.
atad.
tlp.tog.
cimanyd.
yarra_inif.
yarra_tini.
emarf_he.
rdh_emarf_he.
atador.
inif.
txet.
tog.tlp.
tini.
tlp.aler.
nyd.aler.
r_noisrev.ung.
noisrev.ung.
rtsnyd.
mysnyd.
hsah.ung.
gat-IBA.eton.
di-dliub.ung.eton.
ytreporp.ung.eton.
...
```

All of it is reverse, main become niam, etc. Make a script to reverse the strings in the original file and make new file

```
def reverse_file(input_file, output_file):
    # Open the original file in binary mode for reading
    with open(input_file, 'rb') as f:
        content = f.read()

    # Reverse the content
    reversed_content = content[::-1]

    # Write the reversed content to a new file
    with open(output_file, 'wb') as f:
        f.write(reversed_content)

    print(f"Reversed file written to: {output_file}")

if __name__ == "__main__":
    input_file = './ReverseMe'
    output_file = './ReversedReverseMe'

    # Call the reverse function
    reverse_file(input_file, output_file)
```

Then it can run. But I don't know what exactly is the output.

```
(kruphix@Zeqzoq)-[/mnt/c/Users/blast/OneDrive/Desktop/iboh]
$ ./ReversedReverseMe
33 39 42 32 87 81 19 11 12 43 0 58 31 81 55 5 58 16 56 24
```

Put in decompiler, The main function:

```
int __cdecl main(int argc, const char **argv, const char **envp)
{
    int v3; // ebx
    char v5[87]; // [rsp+9h] [rbp-C7h] BYREF
    char s[72]; // [rsp+60h] [rbp-70h] BYREF
    int v7; // [rsp+A8h] [rbp-28h]
    int j; // [rsp+ACH] [rbp-24h]
    int i; // [rsp+B0h] [rbp-20h]
    int v10; // [rsp+B4h] [rbp-1Ch]
    char *nptr; // [rsp+B8h] [rbp-18h]

    strcpy(s, "33 39 42 32 87 81 19 11 12 43 0 58 31 81 55 5 58 16 56 24");
    nptr = strtok(s, " ");
    v10 = 0;
    while ( nptr )
    {
        v3 = v10++;
        *(_DWORD *)&v5[4 * v3 + 7] = atoi(nptr);
        nptr = strtok(0LL, " ");
    }
    for ( i = 0; i < v10; ++i )
        printf("%d ", *(unsigned int *)&v5[4 * i + 7]);
    putchar(10);
    strcpy(v5, "heehee");
    v7 = 6;
    for ( j = 0; j < v10; ++j )
        *(_DWORD *)&v5[4 * j + 7] ^= v5[j % v7];
    return 0;
}
```

The main takes a string of space-separated numbers, s, converts them into integers, and then performs an XOR operation on them using the string "heehee". So make a script to xor it.

```
numbers = [33, 39, 42, 32, 87, 81, 19, 11, 12, 43, 0, 58, 31, 81, 55, 5, 58, 16, 56, 24]

# The XOR key "heehee" as its ASCII values
xor_key = [ord(c) for c in "heehee"]

# The length of the XOR key
key_len = len(xor_key)

# Decrypting the numbers
decrypted_numbers = []
```

```
for i in range(len(numbers)):
    decrypted_value = numbers[i] ^ xor_key[i % key_len] # XOR again to undo
    decrypted_numbers.append(decrypted_value)

print("Decrypted numbers:", decrypted_numbers)
```

Then convert ascii to text

ASCII	▼	To	Text	▼
73, 66, 79, 72, 50, 52, 123, 110, 105, 67, 101, 95, 119, 52, 82, 109, 95, 117, 80, 125			IBOH24{niCe_w4Rm_uP}	


IBOH24{niCe_w4Rm_uP}

AI - PwnAI Warmup

I just give a random bread png

12. Vegetable

Upload a photo to be classified



Label

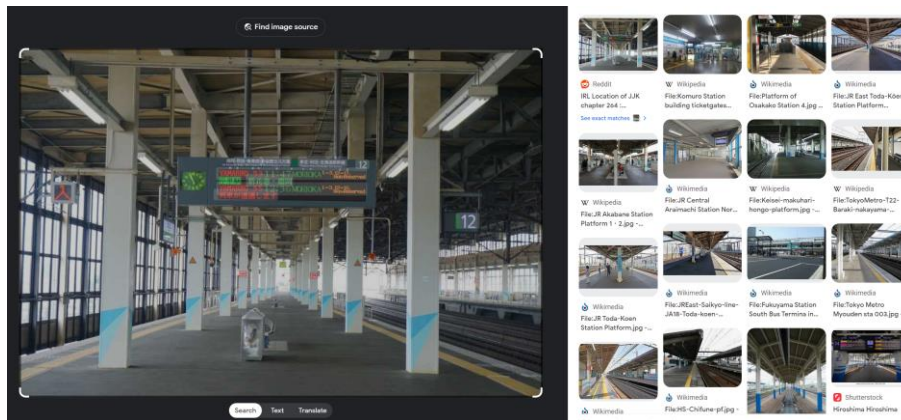
IBOH24{We1cOmE_tO_PwNai}

Submit

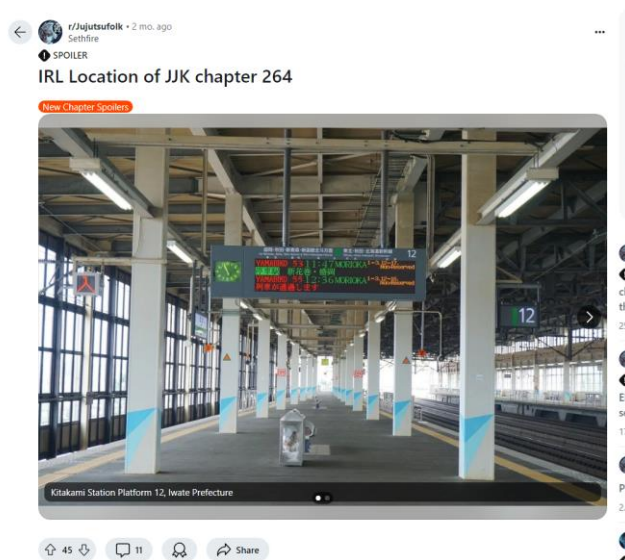
Examples

Osint – Ryoiki Tenkai

When reverse search the image found Jujutsu Kaisen reference because Ryoiki Tenkai is the anime trademark.



The reddit shows the Station name



After some exploring there is only Tohoku line in Kitakami Station. But Tohoku got two line, - Tohoku line and Tohoku shinkansen.

Iwate
⋮
 Kitakami Station

1 hr 13 2 hr 20 1 d = =

Leave 13:46 ~ [Options](#)

Public transport

18 → 宝来橋〔若手町〕(バス) **2 hr 20 min**

- > 白樺号〔盛岡〜久慈〕
- > 盛岡駅東口 (バス) > 5 → Morioka
- > **Tohoku Line**

13:58 - 16:18 ¥1,748

14:16 from 宝来橋〔若手町〕(バス)

18 → 宝来橋〔若手町〕(バス) **2 hr 28 min**

- > 白樺号〔盛岡〜久慈〕
- > 盛岡駅東口 (バス) > 5 → Morioka
- > **Tohoku Shinkansen**

13:58 - 16:26 ¥4,250

14:16 from 宝来橋〔若手町〕(バス)

21 → Iwatenumakunai **1 hr 22 min**

- > Iwate Ginga Tetsudo → Morioka
- > **Tohoku Shinkansen**

15:04 - 16:26 ¥4,310

15:25 from Iwatenumakunai Station

21 → Iwatenumakunai **1 hr 33 min**

- > **Tohoku Shinkansen** → Morioka
- > **Tohoku Line**

15:11 - 16:44 ¥3,740

IBOH24{KitakamiLine_TōhokuMainLine_TōhokuShinkansenLine}

Web – echo (cant remember the title)

Using all kind of different echo cat flag method from PatriotCTF2024 writeup and got the flag.
(Thanks RE:UNION members for solving PatriotCTF)

```
ca\t f\lag.txt echo
```

Submit Feedback

Processing your feedback: ca\t f\lag.txt echo
IB0H24{G3T_DaA8880948_F1aG}

Return status: 1

AI – PwnAI

Don't know why but making the dog less “dog” can fool the AI.

