Welcome, this is an digital emulator of the Enigma M3.

This version is used extensively by German Army (Heer) during World War II, where approximately 800 units were built.

This emulator contains THREE available Steckerbrett cables and all EIGHT wheels.

Five of the wheels are the same as the one used in Enigma I, which is used by German army and airforce.

Of all the Umkehrwalze (reflectors) used, only type B and C are available in this emulator

The info you need to enter is listed below:

Ringstellung (relative position of alphabet ring to rotor disk)

Grundstellung (initial position of the rotors)

Walzenlage (order of THREE rotors you wish to use in Roman numerals)

ONE in TWO reflectors you wish to use

The settings of wheels and Umkehrwalze are historically correct, which you can access by typing "set".

To use the "daily keys" to encrypt your initial positions, type in the keys when the value of the Grundstellung is requested.

You need to type "reset" in order to reset the position of the wheels

Enter "s" to start, "credits", "author" or "wiring" for more information, "q" to quit: s

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

initiating basic configuration procedure...

First wheel you wish to use (from right to left) in Roman numeral: v

Second wheel you wish to use in Roman numeral: vi

Second wheel you wish to use in Roman numeral: vii

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Reflecor:(B or C)b

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

First cable:

1st letter in the cable: a

2nd letter in the cable: s

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Second cable:

1st letter in the cable: w

2nd letter in the cable: e

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Third cable:

1st letter in the cable: r

2nd letter in the cable: t

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Starting position of the wheel (it is a letter):s

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Starting position of the wheel (it is a letter):d

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Ring settings: 1

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Ring settings: 2

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Ring settings: 3

Basic configuration finished.

Letter, enter "reset" to reset rotor position: a

s

p

q

a

y

j

g

o

Output: o

Letter count: ['o']

Letter, enter "reset" to reset rotor position: b

b

j

v

e

q

x

z

k

Output: k

Letter count: ['o', 'k']

Letter, enter "reset" to reset rotor position: c

c

f

w

k

n

y

o

c

Output: c

Letter count: ['o', 'k', 'c']

Letter, enter "reset" to reset rotor position: d

d

v

r

i

p

u

l

s

Output: a

Letter count: ['o', 'k', 'c', 'a']

Letter, enter "reset" to reset rotor position: reset

Letter, enter "reset" to reset rotor position: o

o

d

c

j

x

h

t

k

Output: k

Letter count: ['k']

Letter, enter "reset" to reset rotor position: k

k

u

z

z

t

Traceback (most recent call last):

File "C:\Users\Alexanderliao\Google Drive\My Projects\Enigma\Enigma M3 12.27.16.py", line 1018, in <module>

main()

File "C:\Users\Alexanderliao\Google Drive\My Projects\Enigma\Enigma M3 12.27.16.py", line 972, in main

in\_access2=conversion(con\_input=in\_output3)

File "C:\Users\Alexanderliao\Google Drive\My Projects\Enigma\Enigma M3 12.27.16.py", line 442, in conversion

return result

UnboundLocalError: local variable 'result' referenced before assignment

>>>

Welcome, this is an digital emulator of the Enigma M3.

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Enter "s" to start, "credits", "author" or "wiring" for more information, "q" to quit: s

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

initiating basic configuration procedure...

First wheel you wish to use (from right to left) in Roman numeral: i

Second wheel you wish to use in Roman numeral: ii

Second wheel you wish to use in Roman numeral: iii

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Reflecor:(B or C)b

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

First cable:

1st letter in the cable: a

2nd letter in the cable: a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Second cable:

1st letter in the cable: w

2nd letter in the cable: w

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Third cable:

1st letter in the cable: e

2nd letter in the cable: e

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Ring settings: 1

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Ring settings: 1

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Ring settings: 1

Basic configuration finished.

Letter, enter "reset" to reset rotor position: a

a

a

a

a

y

v

x

w

Output: w

Letter count: ['w']

Letter, enter "reset" to reset rotor position: b

b

i

x

i

p

o

y

u

Output: u

Letter count: ['w', 'u']

Letter, enter "reset" to reset rotor position: c

c

b

j

f

s

e

z

p

Output: p

Letter count: ['w', 'u', 'p']

Letter, enter "reset" to reset rotor position: d

d

r

g

o

m

c

p

z

Output: z

Letter count: ['w', 'u', 'p', 'z']

Letter, enter "reset" to reset rotor position: reset

Letter, enter "reset" to reset rotor position: w

w

x

v

y

a

a

a

a

Output: a

Letter count: ['a']

Letter, enter "reset" to reset rotor position: u

u

y

o

p

i

x

i

b

Output: b

Letter count: ['a', 'b']

Letter, enter "reset" to reset rotor position: p

p

z

e

s

f

j

b

c

Output: c

Letter count: ['a', 'b', 'c']

Letter, enter "reset" to reset rotor position: z

z

p

c

m

o

g

r

c

Output: c

Letter count: ['a', 'b', 'c', 'c']

Letter, enter "reset" to reset rotor position:

initiating basic configuration procedure...

First wheel you wish to use (from right to left) in Roman numeral: i

Second wheel you wish to use in Roman numeral: ii

Second wheel you wish to use in Roman numeral: iii

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Reflecor:(B or C)b

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

First cable:

1st letter in the cable: a

2nd letter in the cable: a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Second cable:

1st letter in the cable: w

2nd letter in the cable: w

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Third cable:

1st letter in the cable: e

2nd letter in the cable: e

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Starting position of the wheel (it is a letter):a

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 1

Ring settings: 1

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 2

Ring settings: 1

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Wheel 3

Ring settings: 1

Basic configuration finished.

['null', 'a', 'i', 'b', 'r', 'c', 'j', 'e', 'k', 'm', 'f', 'l', 'g', 'd', 'q', 'v', 'z', 'n', 't', 'o', 'w', 'y', 'h', 'x', 'u', 's', 'p']

['null', 'a', 'j', 'd', 'k', 's', 'i', 'r', 'u', 'x', 'b', 'l', 'h', 'w', 't', 'm', 'c', 'q', 'g', 'z', 'n', 'p', 'y', 'f', 'v', 'o', 'e']

['null', 'a', 'k', 'm', 'u', 's', 'q', 'o', 'b', 'd', 'f', 'h', 'j', 'l', 'c', 'p', 'r', 't', 'x', 'v', 'z', 'n', 'y', 'e', 'i', 'w', 'g']

['null', 'a', 'i', 'b', 'r', 'c', 'j', 'e', 'k', 'm', 'f', 'l', 'g', 'd', 'q', 'v', 'z', 'n', 't', 'o', 'w', 'y', 'h', 'x', 'u', 's', 'p']

['null', 'a', 'j', 'd', 'k', 's', 'i', 'r', 'u', 'x', 'b', 'l', 'h', 'w', 't', 'm', 'c', 'q', 'g', 'z', 'n', 'p', 'y', 'f', 'v', 'o', 'e']

['null', 'a', 'k', 'm', 'u', 's', 'q', 'o', 'b', 'd', 'f', 'h', 'j', 'l', 'c', 'p', 'r', 't', 'x', 'v', 'z', 'n', 'y', 'e', 'i', 'w', 'g']

Letter, enter "reset" to reset rotor position: a

a

a

a

a

y

v

x

w

Output: w

Letter count: ['w']

Letter, enter "reset" to reset rotor position: b

b

i

x

i

p

o

y

u

Output: u

Letter count: ['w', 'u']

Letter, enter "reset" to reset rotor position: c

c

b

j

f

s

e

z

p

Output: p

Letter count: ['w', 'u', 'p']

Letter, enter "reset" to reset rotor position: d

d

r

g

o

m

c

p

z

Output: z

Letter count: ['w', 'u', 'p', 'z']

Letter, enter "reset" to reset rotor position: reset

Letter, enter "reset" to reset rotor position: w

w

x

v

y

a

a

a

a

Output: a

Letter count: ['a']

Letter, enter "reset" to reset rotor position: u

u

y

o

p

i

x

i

b

Output: b

Letter count: ['a', 'b']

Letter, enter "reset" to reset rotor position: p

p

z

e

s

f

j

b

c

Output: c

Letter count: ['a', 'b', 'c']

Letter, enter "reset" to reset rotor position: z

z

p

c

m

o

g

r

c

Output: c

Letter count: ['a', 'b', 'c', 'c']

Letter, enter "reset" to reset rotor position:

a

k

b

z

t

z

o

v