Design Diagrams

Steno Input Formats

BMP
PNG
JPG
GIF

Steno Output Formats

PNG
BMP

Unsteno Input Formats

PNG
BMP

Data Formatting

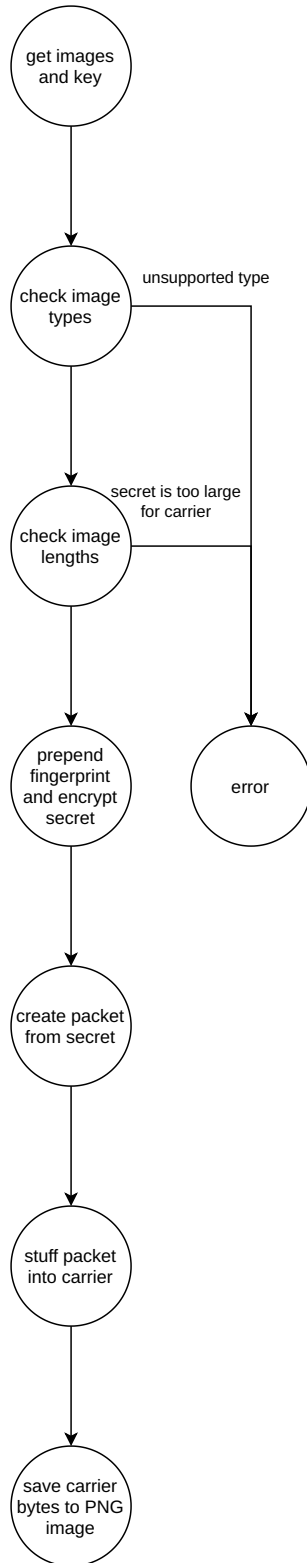Packet that is stuffed into carrier image

length as int (4B)	encrypted secret (length equal to length in header)

Data that is encrypted using AES

0xDEADBEEF	plaintext

0xDEADBEEF is a fingerprint that we check for to ensure that the image was created by out application

Steno Image

get images and key

check image types — unsupported type

check image lengths — secret is too large for carrier

prepend fingerprint and encrypt secret

error

create packet from secret

stuff packet into carrier

save carrier bytes to PNG image

Unsteno Image

get imate and key

ensure image is PNG — not PNG

unstuff the secret from the carrier

extract legnth to find data segment

decrypt data segment

check for fingerprint — Fingerprint not found

write plaintext to file

error