intro to steganography

[obligatory joke about how it sounds like stegosaurus]

by @balex

crypto - hiding information

steganography - hiding information AND hiding the fact that you hid information

usually done in audio and image files

least significant bits

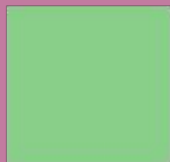one common tactic (with images) is to use least significant bit (or LSB)

embed the message in the least *x* significant bits of the image

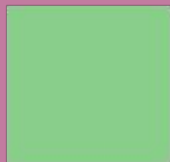the more bits you use, the more obvious it is that you are hiding a message

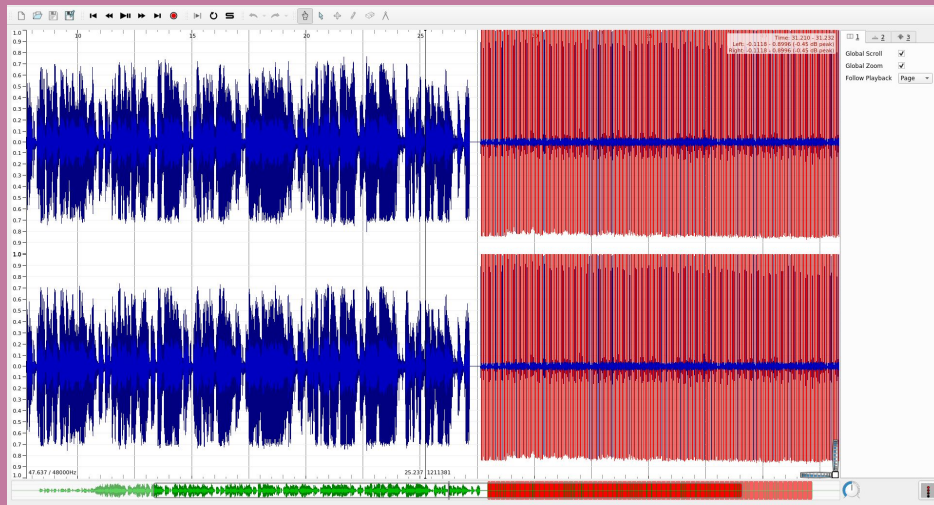|	red	green	blue
	1000100<u>1</u>	1100111<u>1</u>	1000100<u>1</u>
	1000100<u>0</u>	1100111<u>0</u>	1000100<u>0</u>
	1000100<u>0</u>	1100111<u>1</u>	1000101<u>0</u>

original

steg

spectrograms

used to hide text or images in audio files that can only be seen by looking at the spectrogram

you can use a tool like Sonic Visualizer or Audacity (both work on win, *nix, mac) to view the spectrogram

waveform (default)

pane > add spectrogram

spectrogram

other handy tools

strings <file> - shows all strings in that file

xxd <file> - shows a hexdump of that file

binwalk <file> - find embedded files and executable code in binaries