Tutorial 4

1. (a) Able to capture sound accurately. Takes up more space

(b) Quantization doesn't remove data from our input, it actually adds in a noisy error signal.

(c)

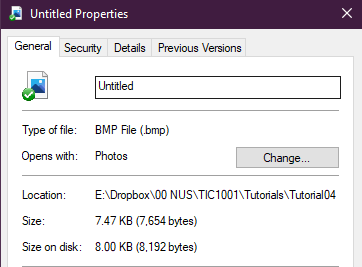
(d)

1. (a)

Calculation of 24-bit bmp file size in KB:

Calculated file size is 7.32KB (7500B)

A screenshot of a cell phone

Description automatically generated

Actual file size is 7.47KB (7654B)

(b)

R=38, G=190, B=217

R:

38/16 = 2 R 6

2 / 16 = 0 R 2

G:

190/16 = 11 R 14

11 / 16 = 0 R 11

B:

217 / 16 = 13 R 9

13 / 16 = 0 R 13

RGB -> HEX = 2-6-11-14-13-9 = 26BED9

(c)

1 character = 8b = 1B