ALU

Integer Unit

Floating Point unit

Control Unit

Data

- Character → unsigned integer

ASCII

homework: 0-9

A-Z

a to z

Multimedia

- text
- audio
- video
- images.

UTF

Unicode

UTF-8

UTF-16 → 2/4 bytes per character

UTF-32 → 4 bytes per character.

10,000 Hz

20,000 × 8

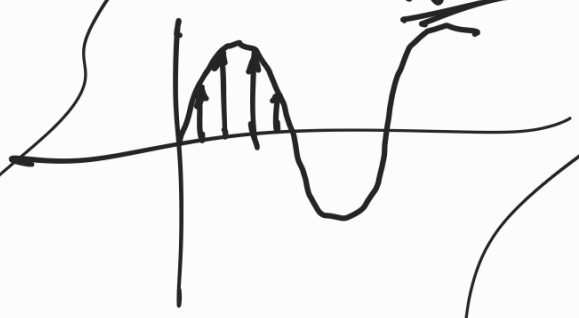
audio →

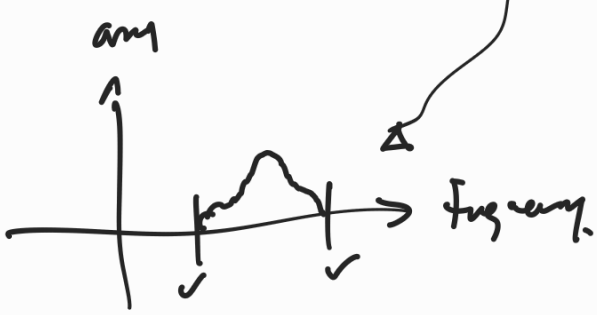
function space

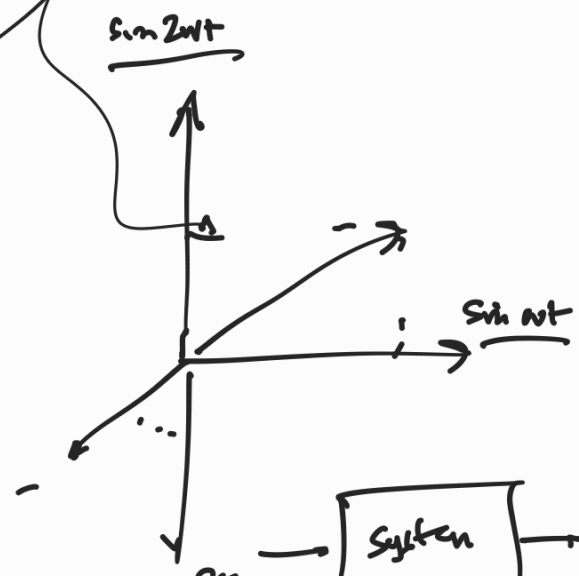
discretization

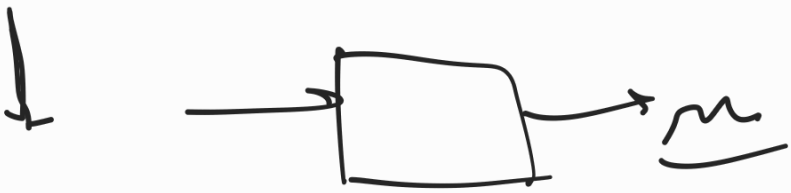
digitization

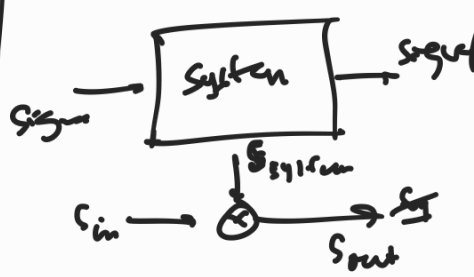
frequency domain representation

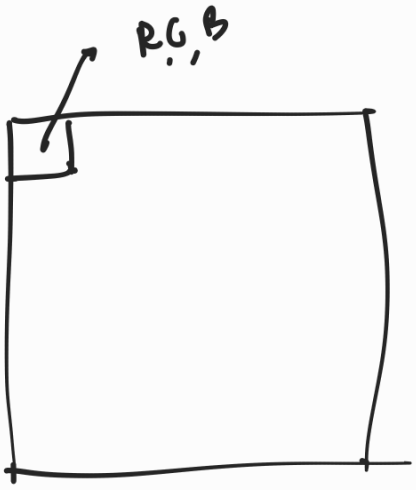












1024 x 1024

1M

8 bits/pixel
⇒ gray scale

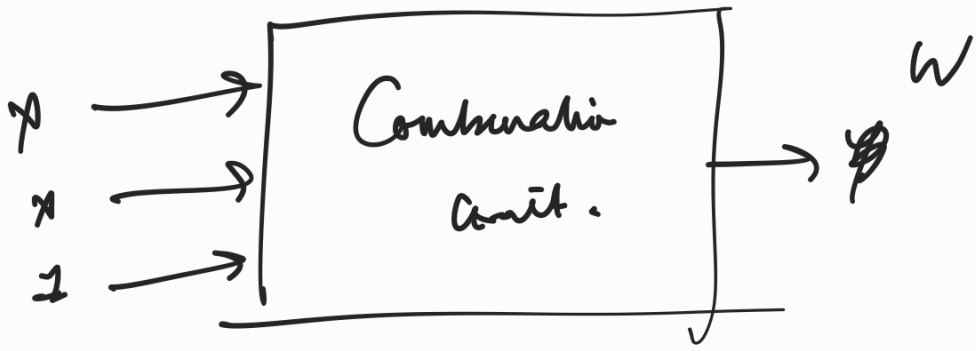
24 bits/pixel for colour.

24 x 1M

video. 25 frames/second.

25

MEMORY



$X_{t-1}, X_{t-2} \cdots$, $Y_{t-1}, Y_{t-2} \cdots$,

$Z_{t-1} \cdots$