Colors

Ppn format of an image:

P3

256 256 # size of the image

255 # the maximum number; white

Colors (from darkest to brightest)

Black – 0 0 0

255 0 255 – purple violet magenta

Perfect gray (according to theory, everybody has his or her own perspective)

0 255 255 – teal torques cyan

255 255 0 – yellow

255 255 255 white

White – 255 255 255

Video resolution:

1920x1080

High definition = HD

RGB\_to\_HSB (or RGB\_to\_HSV)

HDR

HRD = high dynamic range

Dynamic range – in audio loudest /quietest range; in graphics – brightest/dimmest range.

HDR Compression

Forms of compression:

🡪 Lossy – throw away information. Looks the same, but when you try to edit it, it does not behave in the way you expected it.

🡪Lossless (raw format) – keeps all information.

Primary colors

Fundamentally, you just need three colors to make all other colors.

🡪 Subtractive system - painter’s and engineer’s primary colors – red, yellow, blue.

🡪 Additive system – computer graphics primary colors - red, green, blue.

Leonardo da Vinci’s fundamental colors – black, white, yellow, green, blue, red.

Helmholt – made series of experiments – humans fundamentally experience colors as three numbers (three fundamental colors).

Hering – made opponent (unmixable, opposite) color pairs (black – white, green – red, blue – yellow).