VISUAL TECHNOLOGY PRODUCTION
(MPT1483)

INTRODUCTION TO DIGITAL IMAGING

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DIGITAL GRAPHICS:
RECALL & REVIEW

GRAPHIC QUALITY: an overview

- Many factors affect image quality.

- Two factors that determine image quality are resolution and color depth.
  - Resolution is the number of pixels per inch.
  - Color depth refers to the number of distinct colors an image can contain.
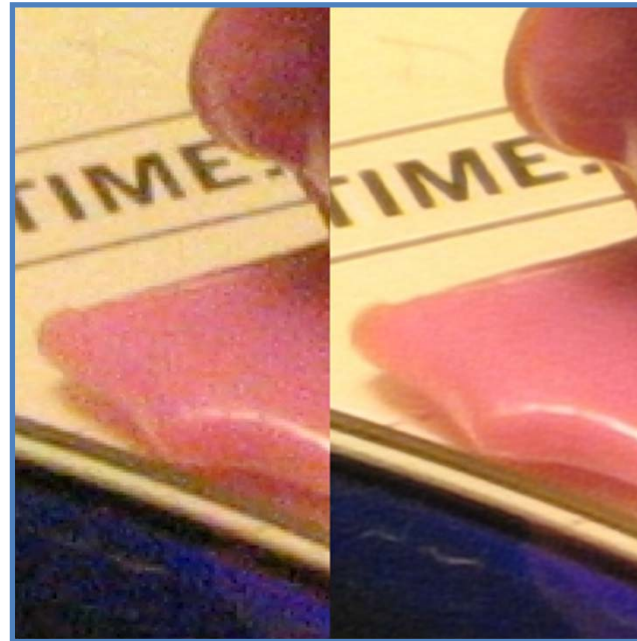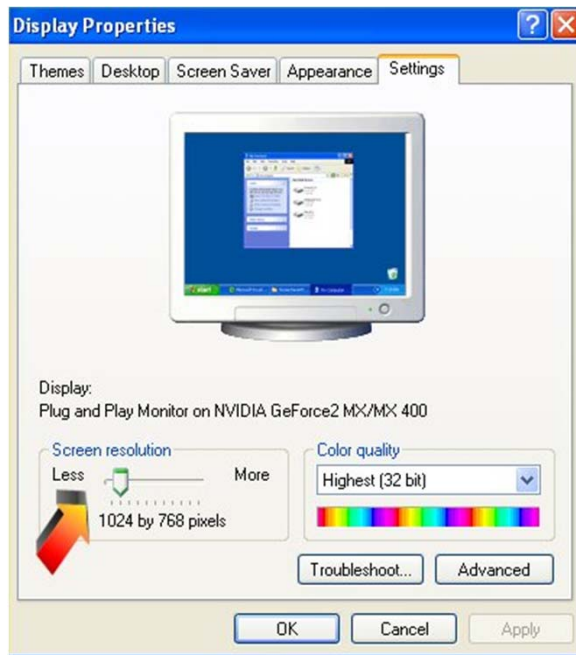
GRAPHIC QUALITY: an overview

Image quality also dependent upon the equipment on which they are produced (scanner, camera) or displayed (monitor, graphics card)

GRAPHIC QUALITY: an overview

- Resolution is measured in…?
- Resolution vs Quality vs File Size ?
- The higher the resolution, ……?
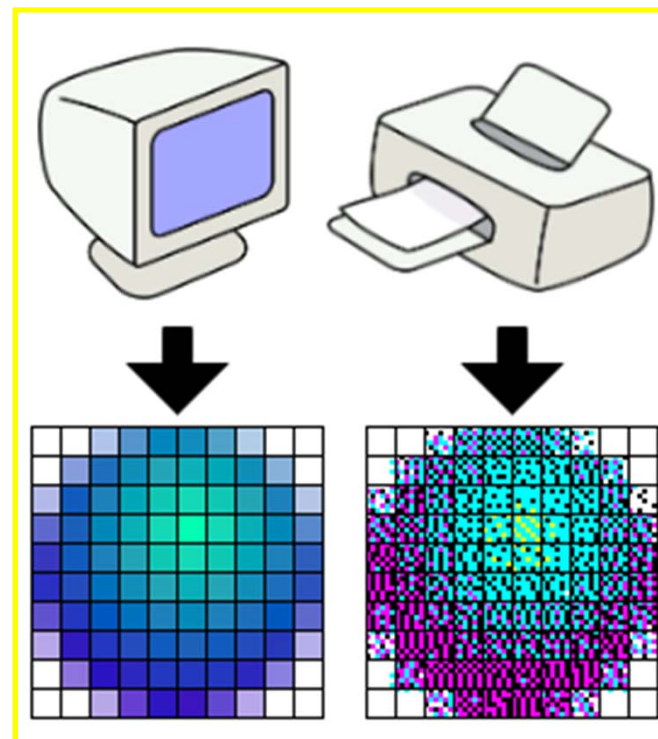- Printing vs Online Resolution…?

RESOLUTION

- affects the amount of discernible fine detail in an image.

- Computer images are made of dots.

- The more dots per inch (dpi), the higher the resolution.

RESOLUTION: DPI

- Used when printing - pixels are turned into dots per inch and counted by the spread over the paper.

DPI   Printer dots

GRAPHIC QUALITY: Resolution

- Printers range from 300 dpi to 2400 dpi (or more).

- On the computer screen, the dots are called pixels.

- Monitor resolution is usually around 72 – 96 dpi.

GRAPHIC QUALITY: Colour Depth

The color depth determined

"How much data in bits used to determined the number of colours in an image file".

Colour depth is measured in bits per pixel

GRAPHIC QUALITY: Colour Depth

- The greater the color depth, the more colors may be stored.

- Examples….???

GRAPHIC QUALITY: File Size

The higher the image resolution the _____ the file size.

The _____ color depth, the greater the file size.

GRAPHIC FILE FORMATS

- A computer can save and interpret graphic images in a variety of formats.

- Some of the most common are:
  - GIF (Graphics Interchange Format)
  - JPEG (Joint Photographic Experts Group)
  - TIFF (Tagged Information File Format)
  - PIC (PICTure)
  - BMP (bitmap)
  - TGA (Targa)
  - PNG (Portable Network Graphics)

GRAPHIC FILE FORMATS

- What are differences for each file format and how to select which format to use?

GRAPHIC FILE FORMATS

Which file format should be used?

- Small images, like icons and buttons: ??

- Line art, grayscale (black and white), cartoons: ??

- 24-bit color-depth lossless Image: ??

- Scanned images and photographs: ??

- Large images or images with a lot of detail: ??

- Animated icons : ??

- High Quality printing: ??

Thank You !