

Scanning and Images

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1 Administrivia

Announcements

Assignment

Start your home pages.

From Last Time

Outline

1. Overview of using a scanner.
2. Properties of images.

Coming Up

Scanner and Paint Shop Pro labs.

2 Using the Scanner

Scanner usage notes:

1. Windows 98, the network password, and network drives.
2. Paint Shop Pro.
3. Image size, dpi, pixels, and screen resolution

Consider a 3 x 5 image scanned at 100 dpi. What is its size in pixels?

Common screen resolutions: 640 x 480, 800 x 600. Does a browser have all that “real estate” available?

You can use Paint Shop Pro to decrease the size of an image.

4. JPEG (compression) and GIF (transparency and interlacing) formats.
5. Logging off — *Log Off* don't *Shutdown*.

Some scanned examples:

1. A photograph:
 - (a) Size: 2.00 x 2.73 in.
 - (b) Different DPIs and effect on size.
 - (c) Different compression factors and effect on size and quality.
 - (d) GIF vs. JPEG — size.
2. Line art:
 - (a) Different compression factors.
 - (b) GIF vs. JPEG — size, quality.

Things to observe:

1. Quality.
2. The sizes of the files. Why do we care?

The connection between image size, image format, and file size.

3 Image Properties

1. Pixels.
2. Common resolutions:
 - (a) 640 x 480.
 - (b) 800 x 600.
 - (c) 1024 x 768.
3. Image size.
4. How much is visible to a viewer, without scrolling?
5. Formats:
 - (a) GIF — interlaced, non-interlaced. Limited to color depth of 256. Transparency. Lossless compression.
 - (b) JPEG — Joint Photographs Expert Group. Higher color depths. Compression factors. Lossy compression.
6. Color depth. Common values:
 - (a) 2 — black and white.
 - (b) 16 — simple artwork.

- (c) 256 — more complex artwork, photographs.
- (d) 32K and higher — photographs.
- 7. Which image format to use? Scanned items: JPEG. Items created in Paint Shop Pro: most likely interlaced GIF.
- 8. Size of the image file. Time to load.
- 9. In-line and external images.
- 10. Thumbnail images.
- 11. Acquiring images from web pages: Right-click, *Save as*.
- 12. Copyrights.