Intro to Web Design and Computer Principles

CSCI-UA 4 005
3:30 PM - 4:45 PM
Professor Sarah Dahnke

Background Images

background-repeat:

- repeat: The background image will be repeated both vertically and horizontally. This is default
- repeat-x: The background image will be repeated only horizontally
- repeat-y: The background image will be repeated only vertically
- no-repeat: The background-image will not be repeated

Intro to Image Editing

History of Photoshop

- Created by Thomas Knoll, then a PhD student at the University of Michigan
- Originally called “Display”
- For displaying grayscale images, scanned into a computer
- Acquired by Adobe in 1988
- Released as Photoshop 1.0 for Macintosh in 1990

File Edit Mode Image Select Window 3:25 PM
Adobe Photoshop™ 1.0
Adobe Photoshop™
Macintosh version 1.0.7
Thomas Knoll, John Knoll, Steve Guttman and Russell Brown
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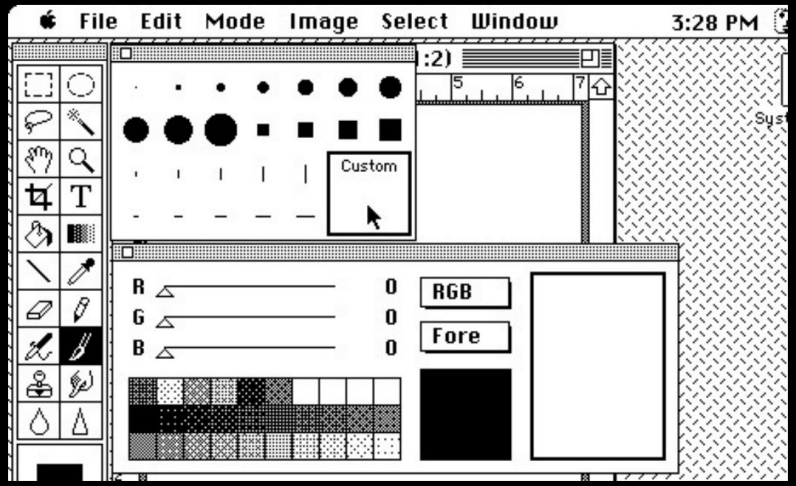
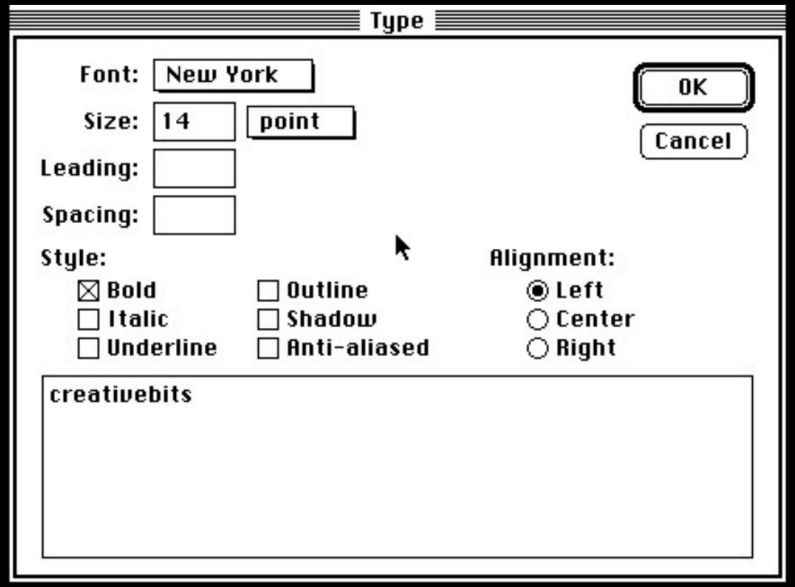
All rights reserved. Adobe Photoshop and th
Adobe Photoshop logo are trademarks of Ad
Systems Incorporated.
Select Window
All ⌘A
None ⌘D
Inverse
Grow ⌘G
Similar
Fringe...
Feather...
Defringe...
Hide Edges ⌘H
Selection->Alpha
Image Select Window
Map
Adjust
Filter
Last Filter ⌘F
Calculate
Flip
Rotate
Effects
Resize...
Resample...
Add Noise...
Blur
Blur More
Custom...
Despeckle
Diffuse...
Facet
Find Edges
Fragment
Gaussian Blur...
High Pass...
Maximum...
Median...
Minimum...
Mosaic...


File Edit Mode Image Select Window 3:28 PM
:2)
Custom
R 0
G 0
B 0
RGB
Fore


Type
Font: New York
Size: 14 point
Leading:
Spacing:
OK
Cancel
Style:
Bold
Italic
Underline
Outline
Shadow
Anti-aliased
Alignment:
Left
Center
Right
creativebits

Bitmap/raster graphics

- A grid of picture elements, “pixels,” each of which contain color and brightness information
- Pixels can be changed individually or as a group with program algorithms
- Contrast vector graphics which describe points and lines
- Layer support introduced in version 3 (c. 1993)

VECTOR

I HAVE SHARP EDGES

VS.

BITMAP

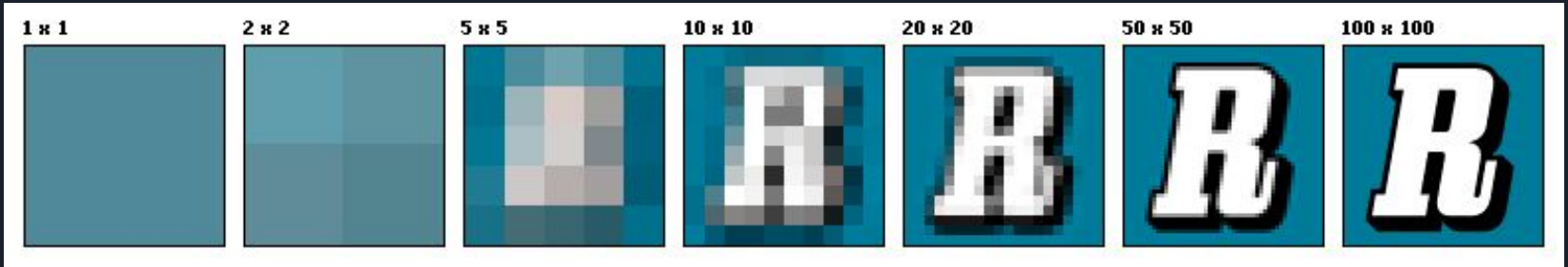
I AM FUZZY

Raster vs. Bitmap Explained

Image Resolution

Resolution refers to the amount of pixels in an image, or the amount of detail an image holds.

Often identified by the width and height of the image. Example: 1920 x 1080


1 x 1
2 x 2
5 x 5
10 x 10
20 x 20
50 x 50
100 x 100

Resolution and Monitors

Larger screens usually have larger resolution.

Enormous images may have too many pixels per inch to be viewable without scrolling.

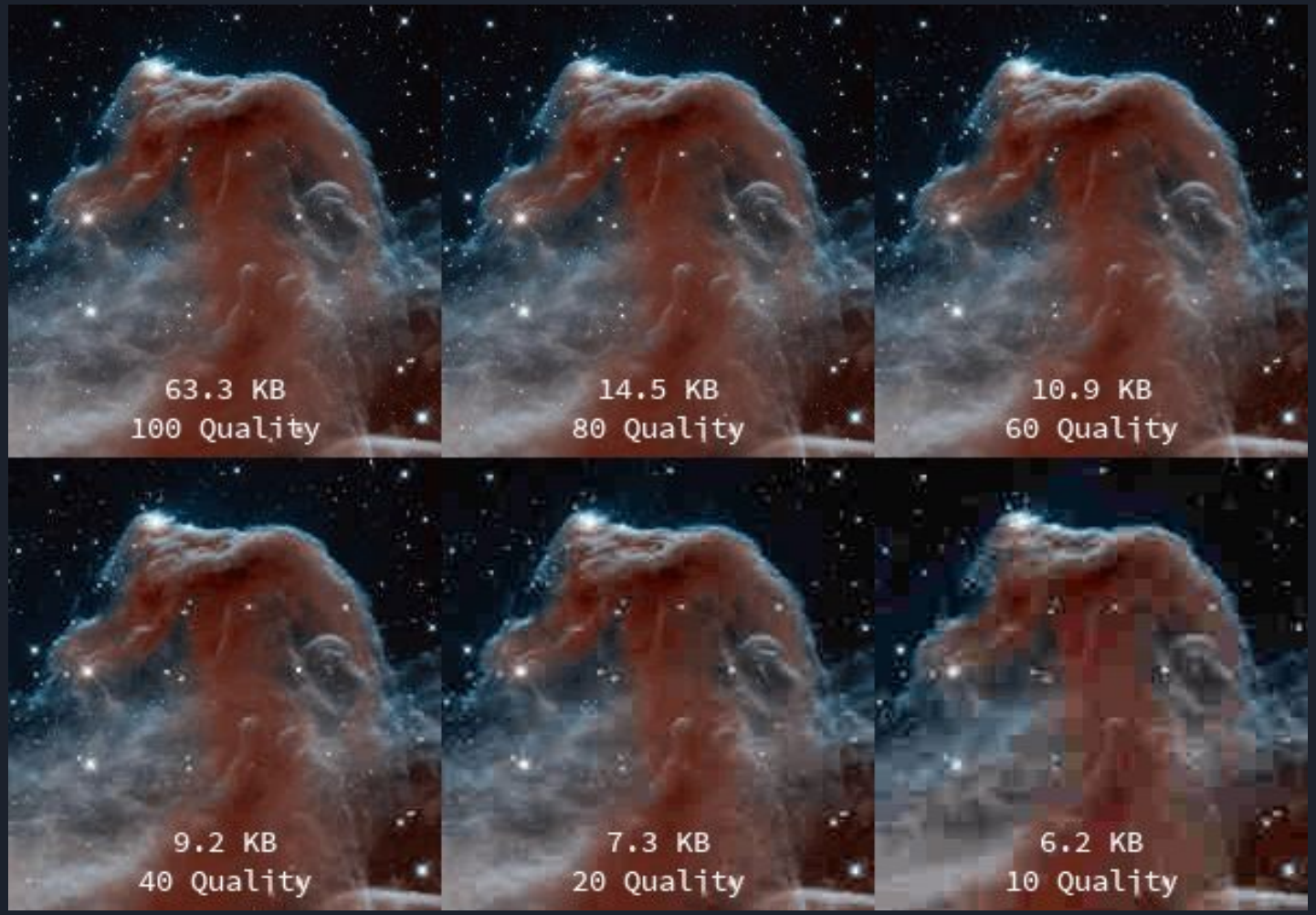
Image Compression

Uncompressed images contain all the pixels included in the original.

Uncompressed file formats: .bmp or .tiff

Image Compression, con't

- Compression allows the file size to shrink but also reduces the amount of detail.
- .Jpg or .jpeg is a compressed file format but can utilize low or high compression. High compression makes a drastically smaller file size but lower quality image (larger loss of detail).


63.3 KB
100 Quality
14.5 KB
80 Quality
10.9 KB
60 Quality
9.2 KB
40 Quality
7.3 KB
20 Quality
6.2 KB
10 Quality

Layer-based Image Editing

- Simply a picture that can be superimposed on another image
- Layers can have transparency or opacity

Intro to Photoshop

Allows to edit images, change size, collage

Creative Cloud:
http://www.adobe.com/creativecloud.html

Free Alternative to Photoshop

https://www.gimp.org/

Homework

Check out the Photoshop tutorials:
https://helpx.adobe.com/photoshop/tutorials.html

Lynda.com has Photoshop tutorials (free for NYU students):
https://www.nyu.edu/life/information-technology/help-and-service-status/training-and-workshops/lynda-com.html