Images for the Web

Image File Formats

- Web Browser Friendly
  - JPG
  - GIF
  - PNG
  - BMP
  - ICO
  - ...a few more

- Some Support
  - PDF
  - SVG

- Other Formats (not web friendly)
  - TIFF
  - CGM
  - VML
  - HEIF
  - BAT
  - ...hundreds more

Rules for Media on the Web…

For any media: images; sound files; video; et cetera

- The Internet is slow(ish)

- Computers are slow(ish)

- File size is important
  - Small file sizes are fast
  - Large file sizes look better

- Trade off:
  - Speed, versus…
  - High resolution
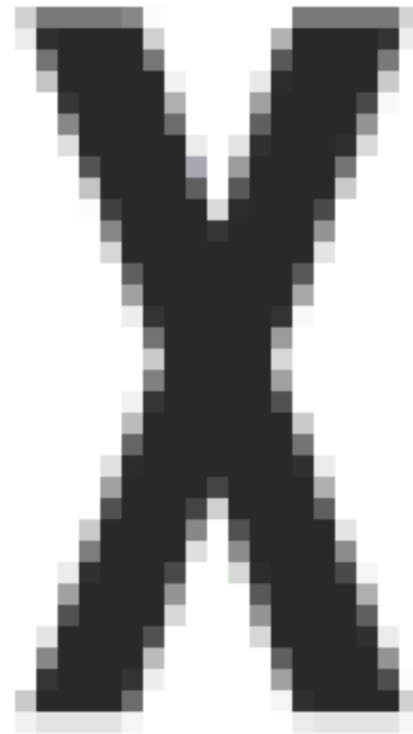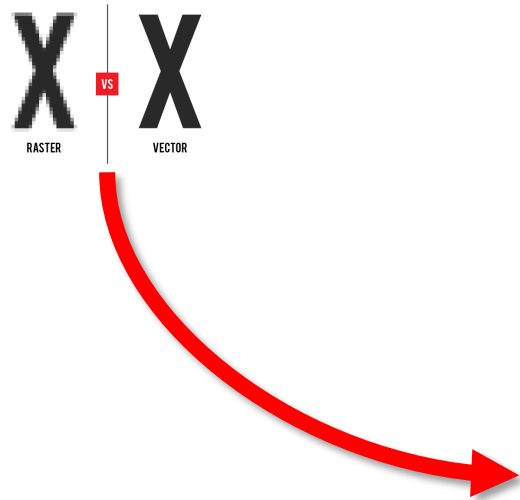
Digital Graphics Family Types

Raster (bitmaps)
- JPGs, GIFs, PNGs
- Pixels
- Detailed images
- Photographs
- Realistic
- Can be large file sizes
- Limited scalability
- Not inherently mobile-friendly

Vector (line drawings)
- SVGs
- Lines, curves, fills
- Line art
- Logos, drawings
- Simplistic
- Small file sizes
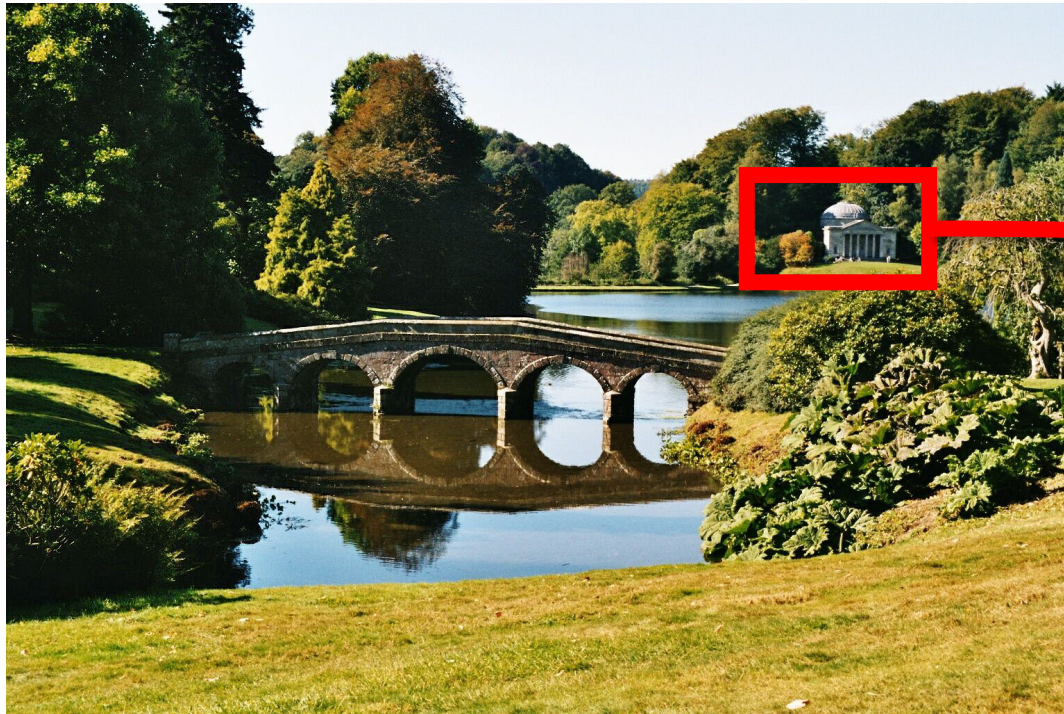- Scalable
- Mobile-friendly
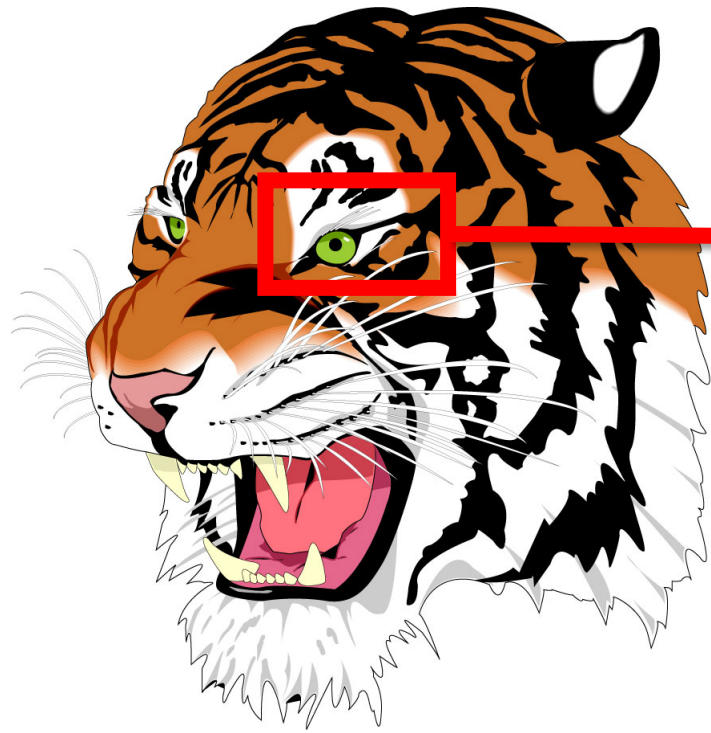
Raster vs. Vector

Pixilation

VS

Scalable

Raster (bitmap)

Pixilation

Vector

File types: the big three

JPG, GIF, PNG

JPEG (.jpg)

- Joint Photographic Experts Group
- Best used for photographs
- Up to 16.7 million colors
- Uses lossy compression
- Cannot be made transparent
- Cannot be animated

GIF (.gif)

- Graphics Interchange Format
- Best used for line art and logos
- Maximum of 256 colors
- Can use a transparent color (layer)
- Uses lossless compression
- Can be animated

Background color configured to be transparent

Background color – no transparency

PNG (.png)

- Portable Network Graphic
- Can be used for both photographs or line art and logos
- Up to 16.7 million colors
- Use lossless compression
- Can use a transparent color (layer)
- Can be animated (but not very well)
- Combines the best of GIF & JPEG
  - Doesn't compress as well as JPG (large file sizes!)

Images on Webpages

HTML vs. CSS

HTML vs. CSS

Images in HTML

- Images that are part of the content belong in the HTML
- Use the HTML:
  `<img …>` element

Images in CSS

- Images used for style, decoration (eye-candy) or otherwise "not content" belong in the CSS as background images
- Use the CSS property:
  `background-image: url("…");`

HTML Image Element

- Configures graphics on a web page

`<img src="dog.jpg" alt="doggie">`

- `src` Attribute
  - File name of the graphic
- `alt` Attribute
  - Configures alternate text description
- Do *not* use the `height=""` or `width=""` attributes

CSS background-image Property

- Configures a background-image

background-image: **url(**../images/clouds.jpg**);**

- Works with helper properties
  - background-repeat:
  - background-attachment:
  - background-position:

  …more