WWW, Web Design, Multimedia

Image Types

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Images

- *Three graphic file types are supported by today's browsers, although there r far more image format than those 3.*
  - ***GIF** (AKA Compuserve GIF) - Graphic Interchange Format*
  - ***JPEG** - Joint Photographic Experts Group*
  - ***PNG** - Portable Network Graphics*
    - *http://www.libpng.org/pub/png/*

GIF (Graphics Interchange Format)

- *GIF files are best used for images that have broad areas of flat color and are highly defined*
- *Supports transparency and animation*
- *logos, icons, clip art images, etc.*
- *Supports a maximum of 256 colors*
- *Guidelines to keep GIF files small:*
  - *Reduce the number of colors*
  - *Crop out extra space if possible*

GIF's three tricks

- *Interlacing*
  - *Top-to-bottom rendering vs. materializing the image (pulling down a window shade vs. closing the blinds)*
- *Transparency*
  - *A portion of the image is transparent*
  - *Logos, icons, and dingbats*
- *Animation*
  - *A series of seq images contained in one GIF*

GIF

http://www.gifanimations.com/
http://www.gif.com/
http://www.gifworks.com/
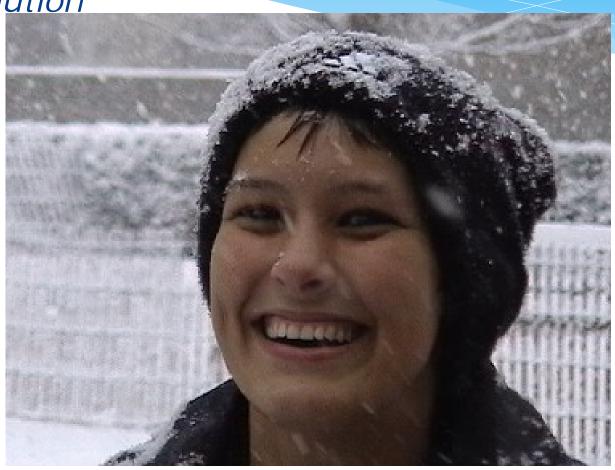http://www.animationfactory.com/animations/nature

GIF

* *Problem?*

JPEG

* *Solution*

JPEG

* *JPEG files are best used for images that require many colors such as photographs*
* *JPEG has a higher compression ratio but it is a "lossy" compression*
* *"Lossy" refers to data compression techniques in which some amount of data is lost. Lossy compression technologies try to eliminate redundant or unnecessary information*

JPEG (Joint Photographic Experts Group)

- *Platform-independent*
- *Adjustable degree of compression*
- *Reduce the image size at the cost of quality*
- *Use 16.7 M colors: photographs, high-quality images.*
- *Browser has to decompress the JPEG images when rendering them*
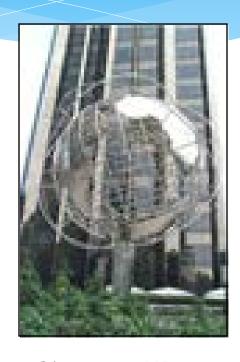
Adjustable degree of compression (0-12)

* *File size vs. quality*

Size: 56 KB
Quality: high

Size: 26 KB
Quality: Medium

Size: 19 KB
Quality: low

PNG

- *PNG was developed as an alternative to GIF*
- *Does not yet have broad-based browser or image editor support*
- *Has a lot of the same features as GIF*
- *PNG also automatically adjusts graphics for gamma correction to compensate for cross-platform differences in brightness and contrast*
- *Does not support animation, but images are lossless*

Image processing

- *Adjusting image: level/contrast*
- *Color correction*
- *Recrop, resize images*
- *Image filters.*
- *Create depth of field*
- *Anti-alias*