cgt 141/cit 141 adobe flash cs3

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Portions of content credited to Dr. James Mohler and Prof. Ron Glotzbach

history of flash

- 1993 – SmartSketch by FutureWave Software
- 1995 – FutureSplash Animator
- 1996 – Macromedia bought
- Changed name to "Flash" by contracting "future" and "splash"
- 2005 – Macromedia acquired by Adobe

limitations

- What is the biggest technical limitation today?

- Bandwidth

3 methods for making the web faster

- **More Internet connection paths** – changing hardware infrastructure to allow more data traffic due to a greater number of networks through which the data can travel.

- **Improving the bandwidth of connections** (usually on the end-user side) – improving the throughput of existing technologies, or creating new technologies, the Internet can be faster.

- **Pushing less data through the Internet** – by improving technologies and by creating new, lighter weight file formats (or by using already existing technologies in a new way, such as vector in Flash) we can improve speed.

evolving internet

- As Bandwidth improves…
- we push more content…
- then loop again

vector graphics

- Provides a valid way to decrease the data requirements of web materials

- Pushes less data through the Internet

- mainly due to the extreme differences in data requirements of vector vs raster data

vector graphics

- Negative Aspects:
  - Aliasing
  - Creation time
  - Lack of photo realism (or the amount of time required to create photo realistic vector images)
- Advantages
  - #1 – small file size
  - Resolution independence
  - Variable color depth
    - (number of bits to represent the color of a single pixel)
  - Deal with shapes, not pixels (both a plus and a minus)

only flash?

- **Microsoft Silverlight**
  - Requires a browser plug-in, just like Flash Player
  - Web applications with
    - Animation
    - vector graphics
    - Audio
    - Video including HD Video
  - www.microsoft.com/silverlight

Microsoft®
Silverlight ™

major features of flash

- Small file sizes (assuming there are not large sounds or bitmaps)
- Automatic (configurable) antialiasing (both authoring and runtime)
- Scaleable (stretchable in browser), resolution independent (conforms to output device) with no file size change
- Animation, permits frame-by-frame, tweening, and morphing
- Sound, imports wide variety of formats
- Interactivity provides facilities to create a wide range of interactive user-interface elements

major features of flash

- Adobe Photoshop integration
- Adobe Illustrator integration
- Advanced QuickTime export
- Sophisticated video encoding

actionscript

- Current Version: ActionScript 3.0
    - AS 3.0 was released August 2007
    - More "Java" like
    - Based on ECMAScript
    - Object-oriented
    - Can be programmed in Notepad, Adobe Flash, Adobe Flex

integration

- ## CSS and dHTML
  - Partially competes with these
  - Not really direct integration
  - Flash will cohabitate with the CSS and dHTML without any significant problems

- ## JavaScript, VBScript, Jscript, ECMAScript
  - Flash can communicate with these client-side scripting languages using the Flash Player Methods

- ## ASP and PHP
  - Flash can be used with server-side technologies
  - Can receive name/value pairs

- ## XML
  - Flash works extremely well with XML

…and beyond

- **Adobe AIR**
  - Formerly code name "Apollo"
  - Officially released February 25th 2008
  - HTML / AJAX, Adobe Flash or Adobe Flex
  - Rich internet applications deployed on the desktop
  - "Designer's proficient with development, developers proficient with design"

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