

# Introduction to multimedia

6 April 1999

## Administrivia

- 4 handouts in back (including this one)
- Assignment 7 due this week; 8 due next week
- Hourly Exam #1 statistics

## Topics

- What is multimedia?
- Where have we seen it already?
  - PowerPoint, WinAmp, Movie Player, Web browsers
- Graphics
  - File formats
    - BMP (wallpaper)
    - PICT (wallpaper)
    - TIFF (scanning)
    - GIF and JPEG (Web)
  - Bitmap versus vector graphics
  - Compression
  - Programs: Adobe Photoshop, Web browsers, Mac OS and Windows, *etc.*
  - Issues: color depth, resolution
- Non-streaming audio
  - File formats
    - CDs
    - MIDI (musical instruments)
    - MP3 (free music, independent artists, warez)
      - <http://www.mp3.com>, <http://www.winamp.com>
    - WAV (beeps, sound bites)
      - <http://www.wavcentral.com>
  - Programs: CD Player, MacAmp, QuickTime, WinAmp, Windows Media Player, *etc.*
  - Browser plug-ins: Beatnik, Crescendo, QuickTime
  - Issues: sound card, wavetable synthesis
- Non-streaming video
  - File formats
    - AVI
    - MPEG
    - QuickTime (<http://www.apple.com/quicktime>)
  - Programs: Movie Player, Windows Media Player
  - Browser plug-ins: QuickTime
  - Intra- and inter-frame compression
  - Issues: CPU speed, RAM, sound card
- Streaming technologies
  - ASF (<http://www.microsoft.com/asf>)
  - RealAudio, RealVideo (<http://www.real.com>)
  - Vivo (<http://www.vivo.com>)
  - Shockwave (<http://www.macromedia.com/shockwave>)
  - Browser plug-ins: RealAudio, RealVideo, Shockwave, VivoActive
  - Programs: Flash Player, RealPlayer, VivoActive Player, Windows Media Player
  - Issues: CPU-speed, Internet-connection speed, RAM

