

Computer Science E-1

Understanding Computers and the Internet

Lecture 7: Multimedia

Thursday, 3 November 2005

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Agenda

- Graphics
 - File Formats
 - BMP
 - GIF
 - JPEG
 - PICT
 - PNG
 - TIFF
 - Bitmaps v. Vectors
 - Compression
 - Hardware Acceleration
- Audio
 - File Formats
 - CD-DA
 - MIDI
 - MP3
 - RealAudio
 - WAV
 - Compression
- Video (with Audio)
 - File Formats
 - AVI
 - DivX
 - MPEG
 - QuickTime
 - RealVideo
 - Shockwave
 - Windows Media Technologies
 - Compression
- Streaming
- P2P File Sharing

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Graphics

File Formats



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Graphics

Bitmaps v. Vectors

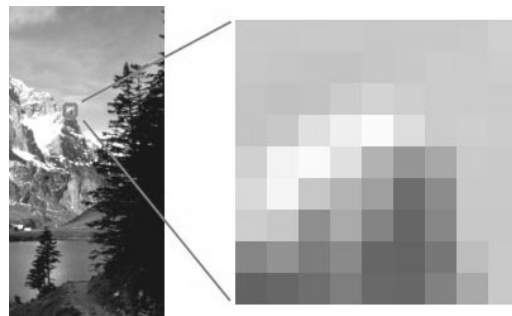


Image from <http://www.prepressure.com/image/bitmapvector.htm>, copyright © L. Leurs.

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Graphics

Bitmaps v. Vectors

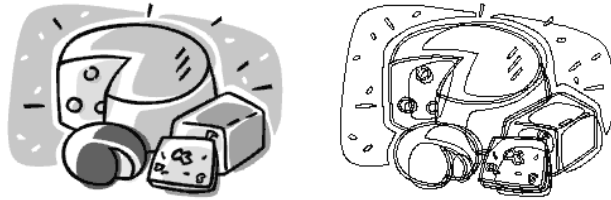


Image from <http://www.prepressure.com/image/bitmapvector2.htm>, copyright © L. Leurs.

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Graphics

Bitmaps v. Vectors

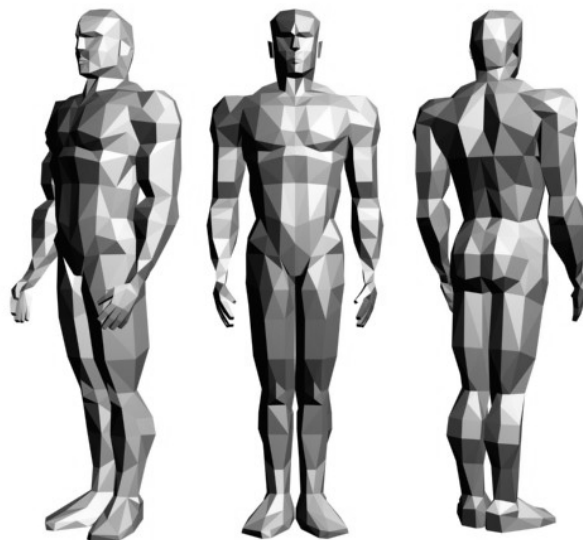
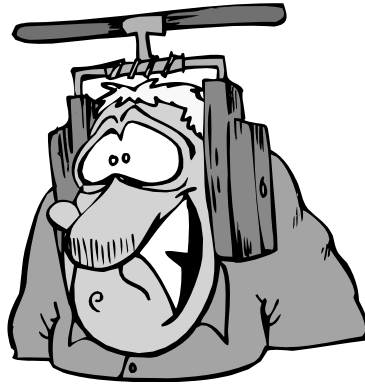


Image from <http://merlin.zsnes.com/models2.html>.

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Graphics

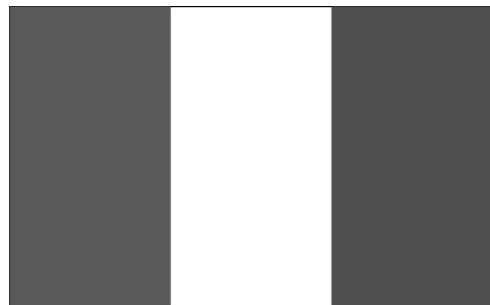
Compression



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Graphics

Compression

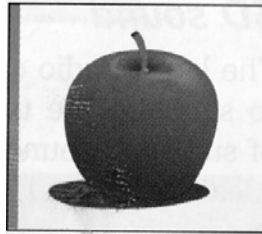
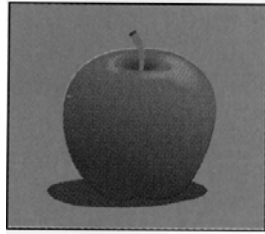


Images from <http://www.worldatlas.com/webimage/flags/flagcnty.htm>, copyright © Graphic Maps.
See <http://entries.the5k.org/87/1.htm> for discussion of GIF compression.

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Graphics

Compression



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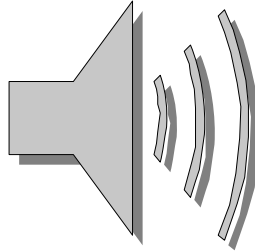
Graphics

Hardware Acceleration



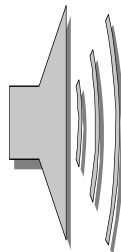
Audio

File Formats



Audio

Compression



Video (with Audio)

File Formats



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Video (with Audio)

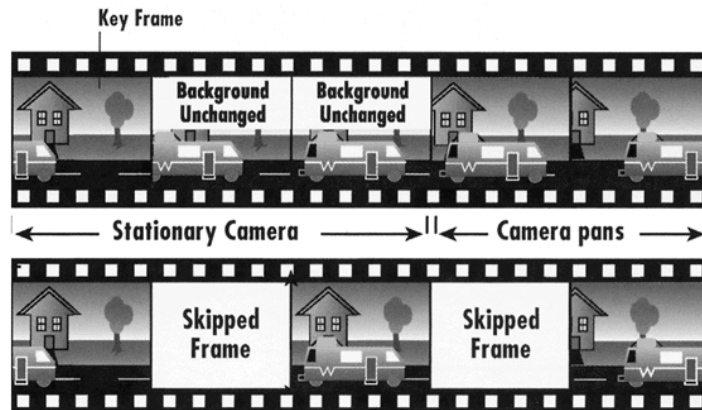
Compression



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Video (with Audio)

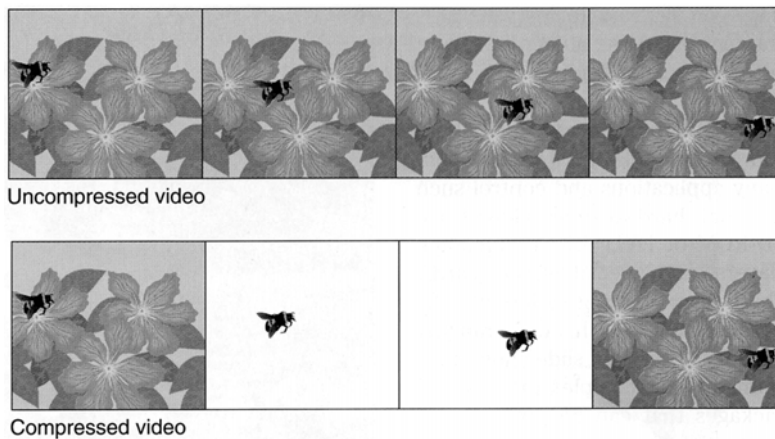
Compression



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Video (with Audio)

Compression



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Streaming



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P2P File Sharing



Shawn Fanning, creator of Napster

Napster.com

Image from <http://www.djbob.com/mp3.htm>.

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