

Internet Multimedia

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Motivation

- ☛ Internet Multimedia effects us all!
The entrepreneur who uses multimedia will stay competitive.

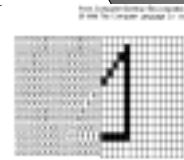
Outline

- Background concepts/ pros & cons.
- Multimedia software & web sites.
- Web designers contact info & rates.
- Real Player / streaming audio & video.
- Conclusions.

Web Graphics Concepts

PIXEL = PIX[Picture]+(EL)ement

- Smallest screen addressable unit
- Represented by one or more bits
- Each pixel is made up of one or more dots of color.



Bit Depth

The more bits in a pixel, the more colors are represented by a pixel.

Depth	Number of Colors
4	16
8	256
16	32,768
24	16,777,216 (true color)
32	16,777,216 + a channels

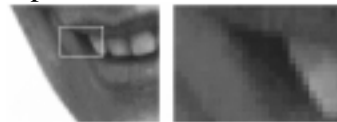


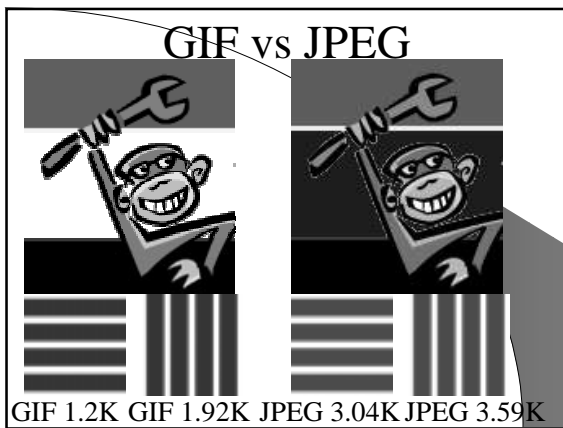
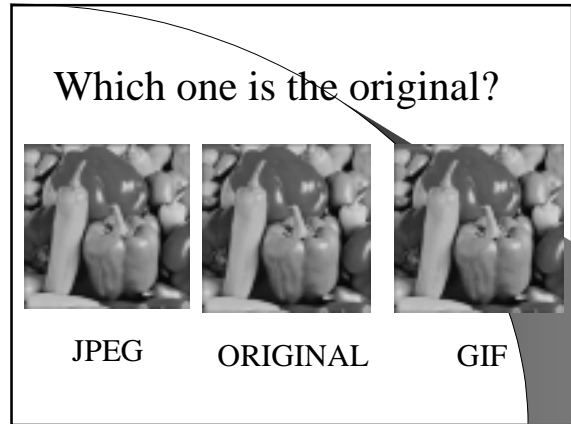
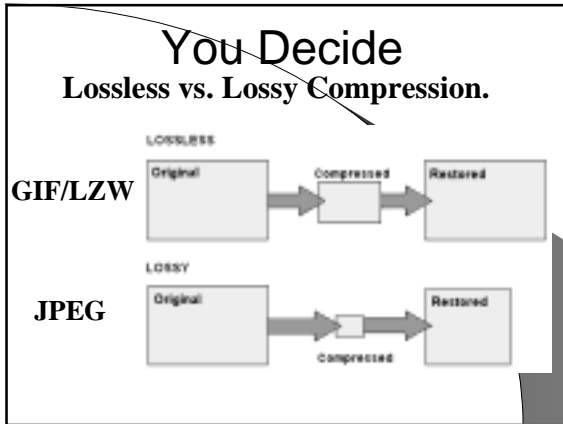
Entrepreneur Basics

Web Color: $256 - 40 = 216$ color
“browser safe” palette.

Dithering

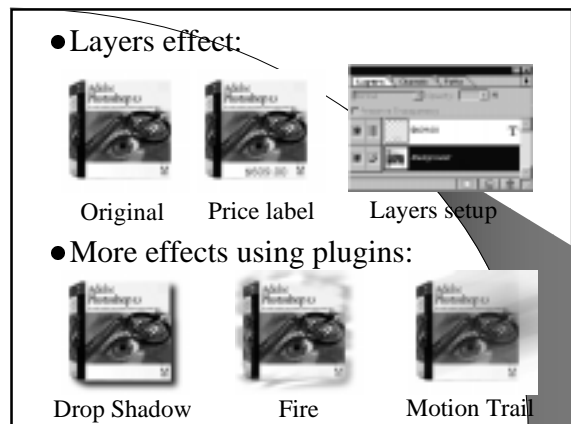
- Simulating more colors or shades in a palette.





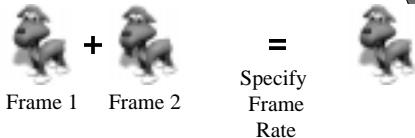
- ## Multimedia on the Web
- Pros:**
- Gets users' attention.
 - Requires concentration.
 - Promotes involvement.
- Cons:**
- Bandwidth limitations in compression.
 - Proprietary Media Players, Plug-Ins.
 - Additional hardware required to broadcast.

- ## Software for Static Graphics
- For beginners - Jasc's Paint Shop Pro
 - Image edit, built-in screen capture.
 - Cheap (\$45), easy to learn and use.
 - For experts – Adobe's Photoshop
 - Professional-quality artwork.
 - Advanced features: layers effect, filters.
 - Support third-party plugins for upgrade.
 - Demo: Layers effect, plug-ins.



Dynamic Graphic Software

- For beginners – GIF Animation.
 - Paint Shop Pro’s Animation Shop
 - Ulead’s GIF Animator (Powerful!)
 - Demo: Dog panting.



Dynamic Graphics Software

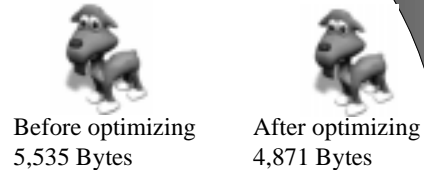
- Experts – Use Java Script/Applets
 - <http://www.wsabstract.com/> (Free JavaScripts and applets).
- Extra - Macromedia’s Flash
 - Demo: <http://www.kmgi.com/> (online advertising agency).
 - High-impact – “add life to web”, high efficiency.
 - Disadvantage: expensive, customer plug-in for playback.

Image Optimizing Software

- Why image optimizing?
 - Shrink image files, minimize download time, increase website’s performance.
- How? - Use graphics software.
 - Compression: save BMP as JPEG/GIF.
 - Decrease the quality of JPEG (Maximum, High, Medium, or Low).
 - Reduces the number of colors: convert 24 bit true color to 256 colors.

Image Optimizing Software

- Not enough? - Use special software.
 - Ulead’s SmartSaver (Easy)
 - Adobe’s ImageReady
 - Macromedia’s Fireworks (Powerful!)



Inexpensive Multimedia Resources

- Free On-line multimedia tools:
 - <http://www.mediabuilder.com>
 - <http://www.animfactory.com/>
- Download trial versions of software:
 - <http://www.ulead.com>
 - <http://www.macromedia.com>
 - <http://www.tucows.com>
 - <http://www.download.com>



Multimedia Developments

- Protect yourself from legal issues.
 - <http://www.batnet.com/oikoumene/index.html>
- News.
 - <http://www.ibslaw.com/melon/index.html>

Do's & Don'ts



- BizLand.com: Small Businesses Site
- Local contacts
 - Cybernet Services
<http://Hawaii50.com>
 - Cyber Com
<http://www.cyber-hawaii.com>
 - Hypermedia Corp.
<http://hypemedia.net>



Web Designer Shopping?

- Years of Experience.
- Look at sample clients.
- How complete their services are.

Prices



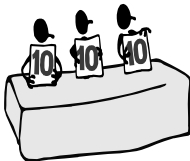
- Priced per project vs. Flat hourly fee.
- Prices vary; needs of clients are so diverse.
 - HTML vs. Flash/Shockwave.
 - \$95- \$200 per page.
 - \$2,025 - \$15,000 for a project.

Prices



- On line price quotes
 - <http://virtual-fx.net>
 - <http://www.thold.com>

Pointers for websites



- Content rich.
- Logically structured.
- Color mutations.
- Simplicity.

Real Player 7.0

- Radio Stations: Steaming Audio.
- TV Stations: Streaming Video.
- Personalization.
- Real Time.

Conclusions

- ☛ Some entrepreneurs see things as they are and say why, other entrepreneurs dream of things that never were and say why not?