HTML Overview

- Material developed by Richard Wiggins
- http://www.msu.edu/staff/rww/
- Presentation by Charles Severance
- http://www.msu.edu/~crs/

Personal Pages via the Web

- Photos, resumes, papers, voices delivered on demand

Definitions

- URL = text string that specifies a unique document
- “Home Page” = beginning of a particular Web document or collection of documents
- Web browser = a client program for navigating the Web, e.g.:
  - Netscape
  - Microsoft Internet Explorer
- HTML = the language used to compose documents for Web delivery
- HTTP = the protocol used by Web servers to deliver requested documents to Web browsers

HTTP versus HTML

- HTTP governs how files move over the Web
- HTML defines structure of Web documents

HTTP = Text plus “Markup”
Preparing HTML Documents

- Simple option: Edit documents by hand
  - Use a text editor to manually edit your text and markup and save/upload
  - Use Netscape (or other browser) to check your work as you go click "Reload"
- "Authoring Tools" becoming popular
  - Netscape
  - Microsoft Word/PowerPoint/FrontPage
  - Adobe PageMill
  - Many Others

HTML Layout: Some control, not total

- You “mark” the logical elements of a document
  - Paragraphs
  - Headings
  - Etc
- Your user controls exact presentation by specifying browser options
  - When the user resizes windows, text is re-wrapped
- How much control should be given to author?
  - The <CENTER> tag
  - Relative font tags
  - The <BLINK> tag

Template Tags

```html
<HTML>
<HEAD>
<TITLE>A Sample Document</TITLE>
</HEAD>
<BODY>
Document body
</BODY>
<HTML>
```

HTML Tags: Headings

- `<h1>` Level 1 Heading
- `<h2>` Level 2 Heading
- `<h3>` Level 3 Heading

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Heading Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document URL</td>
<td>file://C:/TESTA1.htm</td>
</tr>
<tr>
<td>Level 1 Heading</td>
<td></td>
</tr>
<tr>
<td>Level 2 Heading</td>
<td></td>
</tr>
<tr>
<td>Level 3 Heading</td>
<td></td>
</tr>
</tbody>
</table>

HTML Tags: Paragraphs

This is Jane.
<p>This is Spot.<p>
See Spot bite Jane <p>

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Paragraphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document URL</td>
<td>file:///c:/testx2.htm</td>
</tr>
<tr>
<td>This is Jane.</td>
<td></td>
</tr>
<tr>
<td>This is Spot.</td>
<td></td>
</tr>
<tr>
<td>See Spot bite Jane</td>
<td></td>
</tr>
</tbody>
</table>

HTML Tags: Lists (Unnumbered)

- `<ul>`
- `<li>` Riker
- `<li>` Troi
- `<li>` LaForge

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Unnumbered Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document URL</td>
<td>file:///c:/testx3.htm</td>
</tr>
<tr>
<td>Riker</td>
<td></td>
</tr>
<tr>
<td>Troi</td>
<td></td>
</tr>
<tr>
<td>LaForge</td>
<td></td>
</tr>
</tbody>
</table>
HTML Tags: Lists (Numbered)
<ol>
<li>Riker</li>
<li>Troi</li>
<li>LaForge</li>
</ol>

HTML Tags: Lists (Nested)
<ol>
<li>Original Trek
<ul>
<li>Spock</li>
<li>Sulu</li>
</ul>
</li>
<li>Next Generation
<ul>
<li>Riker</li>
<li>Troi</li>
</ul>
</li>
</ol>

HTML Tags: Font Styles
This is <b>bold</b>
This is <i>italic</i>
This is <u>underlined</u>

HTML Tags: Inline Images
<IMG ALIGN=LEFT SRC="http://marketplace.com:80/tia/TIA.1x1.4bit.COLOR.gif"> NEW RELEASE!

HTML Tags: Links to Other Documents
• generally known as Anchors
<A HREF="http://marketplace.com:80/csd/development.html">MarketPlace.com</A> is the Internet Information Mall (tm) operated by Cyberspace Development, Inc.<b>Cyberspace Development, Inc.</b>
HTML Tags: Inline Images as Anchors

President Clinton's Address at MSU's Spring 1995 Convocation

Transcript of The President's address furnished by The White House Office of the Press Secretary:

```
<a href="clinton1.gif">
<img src="clinton1.gif">
</a>
```

HTML Tags: <HR>

Following this line is a horizontal rule.

```
<hr>
```

Preceding this line is a horizontal rule.

HTML Tags: <ADDRESS>

```
<ADDRESS>
Rich Wiggins <br>
wiggins@msu.edu
</ADDRESS>
```

Rich Wiggins
wiggins@msu.edu

HTML Tags: <mailto:>

```
Would you like to send some e-mail to <a href="mailto:wiggins@msu.edu">Rich Wiggins</a>? Do so now!
```

Would you like to send some e-mail to Rich Wiggins? Do so now!

HTML Tags: Comments

```
<!-- Sometimes you want to insert comments inside a document. -->
```

HTML Tags: Escape Characters

```
&lt; less than &lt;br&gt;
&gt; greater than &lt;br&gt;
&amp;ampersand &lt;br&gt;
&copy; copyright &lt;br&gt;
```

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Background Colors

```html
<body bgcolor="#E5E9EE">
Component colors specified as hexadecimal numbers, 2 digits for each color...
</body>
```

```html
<body bgcolor="#FFFFFF"> = white background
```

Background Images

```html
<body background="/images/paper.jpg" bgcolor="#FFFFFF" text="#000000">
Meaning:
White background with black text and with the image stored as "paper.jpg" as a repeating background element...
</body>
```

Beware of Hideous Backgrounds

```html
<HTML><HEAD>
<TITLE>The News from the Digital Printing Press</TITLE>
</HEAD><BODY>
<EM>Use Net Home Groups</EM>
<EM> calibrated</EM>
<EM> Multi-Commodity Exchange</EM>
<EM> Popular Mechanics</EM>
</BODY></HTML>
```

HTML Tags: <TABLE>

```html
<html><head><title>Dr. Chuck's Other Home Page</title>
<meta http-equiv="refresh" content="5;URL=http://www.egr.msu.edu/~crs/">
</head><body bgcolor="#FFFFFF">
<H1>Charles Severance's Other Home Page</h1>
Hello, you have arrived at one of my "other" home pages. My real home page is at http://www.egr.msu.edu/~crs/ and if things work well you will be sent there in five seconds 5... 4... 3... 2... 1...
</body></html>
```

Meta Tags - Redirect

```html
<HEAD> <TITLE>Dr. Chuck's Other Home Page</TITLE>
<META HTTP-EQUIV="refresh" CONTENT="5;URL=http://www.egr.msu.edu/~crs/">
</HEAD>
```

More Meta

- You can control how a page is indexed using META
  ```html
  <META name="description" content="We specialize in grooming pink poodles.">
  <META name="keywords" content="pet grooming, Palo Alto, dog">
  ```
Building an HTML Document

- Use all of these possible elements
- And others...
- To build your documents according to your style
- It’s much easier than it may appear at first

HTML Preparation Tips

- Tip: Find documents that are similar to the ones you want to put online
- ... then use View Source to save the other document as a template
- Tip: Edit your document in one window;
  - Use “Reload” option
- Be sure to view your document on multiple platforms:
  - Different video cards
  - Different Web browsers

HTML Tips (Cont’d)

- Consider low-bandwidth users
- Use thumbnail images that link to larger images
- Give file sizes on links to large documents
- Minimize number of separate inline images in a document
- Consider Lynx users:
  - Use the ALT construct:
  - <IMG SRC="flower.gif" ALT="[Yellow Rose]">  
  - Offer menus as an alternative to any image maps

Design Issues

- People expect high quality graphics
- ... but beware of glitz
- Don’t forget the user on older equipment...
- ... or slow modems
- Avoid designing for the machine on your desktop
- Beware of designing pages that only work with the latest version of Netscape
- Avoid excessive use of harsh color, complex backgrounds

Image Map Example

```
<map name="r1">
  <area shape="RECT" coords="367,90 432,134" href="route01A.html">
  <area shape="RECT" coords="327,113 366,175" href="route01B.html">
  <area shape="RECT" coords="273,96 305,146" href="route01C.html">
...
</map>
```

Content vs Glitzy Presentation

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The Courage to Avoid Glitz

Carry a Theme Through Your Pages

...Consistent Themes Help Provide Context

Style: To Link or Not To Link

Style: Label Links Naturally

Style: Don't Force HTML

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Style: No Dead Ends!
- Don't add a link if the document doesn't exist!
- The whole Web is under construction; why bother labeling your service as such?

Style: Keep Inline Logos Simple
- Consider very small logos
- Try to keep logos < 500 or so pixels wide
- Excellent examples:
  - Lycos
  - Yahoo
  - Netscape
  - UCLA

Style: Don't Design for Your Desktop
- Try viewing your pages with other browsers....
  - Older Netscapes
  - Mosaic
  - AOL, Prodigy
  - Lynx
  - Turn off Images
- ... At other screen capabilities:
  - 640 X 480 instead of 1024 X 768
  - 256 (or even 16) colors instead of 16-bit

Style: Be Modem Friendly
- Use small inline images
- Provide thumbnails that point to larger images
- Keep number of inline images on a page small
  - Consider image maps instead of multiple images
- Label your links that point to large files
  - E.g. Clinton Speech (1400K .wav file)