

## HTML Overview

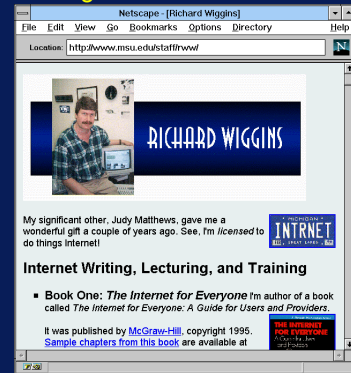
- MICHIGAN STATE UNIVERSITY
  - <http://www.msu.edu/staff/rww/>

### WEB Resources

<http://f1tutorials.com/Tutorials/HTML/HTML.html>

## Personal Pages via the Web

- Photos, resumes, papers, voices delivered on demand

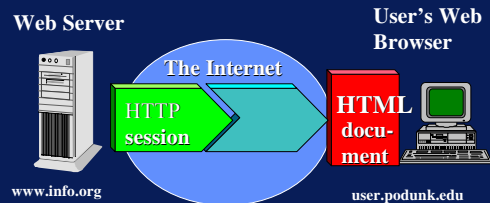


## Definitions

- 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

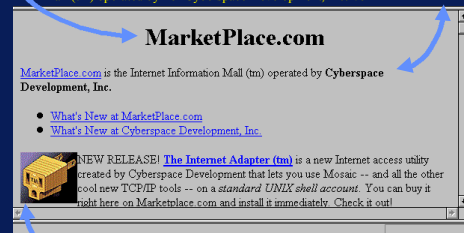


## HTML = Text plus "Markup"

```
<TD vAlign=top align=left width="49%">
<p style="margin-top: 2">
Department of Mathematics and Computer Science
<FONT size=3><BR><a href="http://www.mf.ukim.edu.mk/">
Faculty of Mechanical Engineering</a><BR>
<A href="http://www.ukim.edu.mk/">"St. Cyril and Methodius" University
</A><BR><FONT face="Times New Roman">Karpos 2 b.b.&nbsp;nbsp;
(PO Box 464) </FONT><BR>1000
<a href="http://www.macedonia.org/">Republic of Macedonia</a>
</FONT></TD>
```

```
<H1><center>MarketPlace.com</center></H1>
```

```
<A HREF="http://marketplace.com/80/csd/development.html">
MarketPlace.com</A> is the Internet Information
Mall (tm) operated by <b>Cyberspace Development, Inc.</b>
```



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

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

## HTML Tags: Headings

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

Document Title:	Heading Examples
Document URL:	file:///C:/TEST/X1.HTM
Level 1 Heading	
Level 2 Heading	
Level 3 Heading	

## HTML Tags: Paragraphs

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

*Correct* (arrow pointing to the closing tag of the second paragraph)

Document Title:	Paragraphs
Document URL:	file:///c:/test/x2.htm
This is Jane.	
This is Spot.	
See Spot bite Jane	

## HTML Tags: Lists (Unnumbered)

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

Document Title:	Unnumbered Lists
Document URL:	file:///c:/test/x3.htm
• Riker	
• Troi	
• LaForge	

### HTML Tags: Lists (Numbered)

```
<ol>
<li>Riker
<li>Troi
<li>LaForge
</ol>
```

Document Title:	Numbered Lists
Document URL:	file:///c:/test/x4.htm
1 Riker 2 Troi 3 LaForge	

### HTML Tags: Lists (Nested)

```
<ul>
<li> Original Trek
<ul> <li> Spock
<li> Sulu
</ul>
<li> Next Generation
<ul> <li> Riker
<li> Troi
</ul>
</ul>
```

Document Title:	Nested Lists
Document URL:	file:///c:/tes
● Original Trek ● Spock ● Sulu ● Next Generation ● Riker ● Troi	

### HTML Tags: Font Styles

```
This is <b>bold</b> <p>
This is <i>italic</i> <p>
This is <u>underlined</u> <p>
```

Document Title:	Font Styles
Document URL:	file:///c:/test/x6.htm
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!
```



### Image Attributes

- HEIGHT=n, WIDTH=n
  - Allows browser to preallocate space for the image
  - Speeds downloading
  - Modem friendly
  - Use with caution
- ALT=txt
  - Useful for blind users with "talkers"
  - Also useful for slow modem users
- ALIGN= [TOP, BOTTOM, RIGHT, MIDDLE]

### 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
<b>Cyberspace Development, Inc.</b>
```

[MarketPlace.com](http://marketplace.com) is the Internet Information Mall (tm) operated by **Cyberspace Development, Inc.**

## HTML Tags: Inline Images as Anchors



## HTML Tags: <HR>

Following this line is a horizontal rule.  
<hr>  
Preceding this line is a horizontal rule.

Following this line is a horizontal rule.  
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](\"mailto:wiggins@msu.edu\")? Do so now!

## HTML Tags: Comments

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

## HTML Tags: Escape Characters

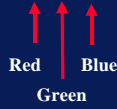
&lt; less than <br>  
&gt; greater than <br>  
&amp; ampersand <br>  
&copy; copyright <br>

< less than  
> greater than  
& ampersand  
© copyright

## Background Colors

```
<body bgcolor="#E5E9EE">
```

Component colors specified as hexadecimal numbers, 2 digits for each color...



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

## Background Images



```
<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...

## Beware of Hideous Backgrounds



## HTML Tags: <TABLE>

```
<html>
<body>
<table border=10 >
<caption><b>Growth in Internet Hosts</b></caption>
<tr>
<th> Date </th> <th> Hosts </th> </tr>
<tr align=right> <td> 08/81 </td> <td> 213 </td> </tr>
<tr align=right> <td> 05/82 </td> <td> 235 </td> </tr>
<tr align=right> <td> 08/83 </td> <td> 562 </td> </tr>
<tr align=right> <td> 10/84 </td> <td> 1,024 </td> </tr>
</table>
```

### Growth in Internet Hosts

Date	Hosts
08/81	213
05/82	235
08/83	562
10/84	1,024

## Meta Tags - Redirect

```
<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 <br> Other Home Page</h1>
Hello, you have arrived at one of my "other" home pages.
My real home page is at
<a href=http://www.egr.msu.edu/~crs/>
http://www.egr.msu.edu/~crs/</a>
and if things work well you will be sent there in
five seconds 5... 4... 3... 2... 1...
</body>
```

## More Meta

- You can control how a page is indexed using META
  - <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

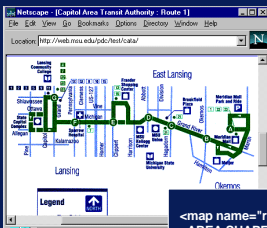


Image Map Example

```
<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>
```

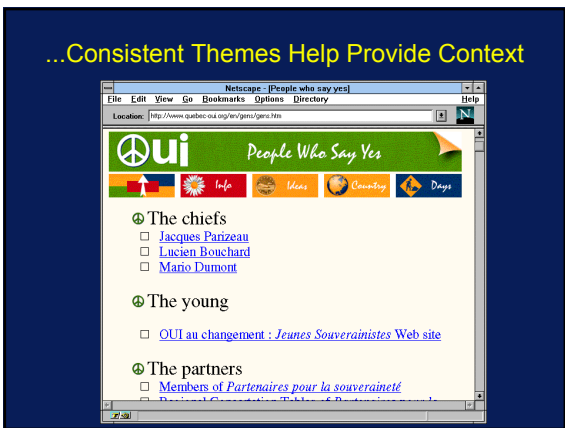
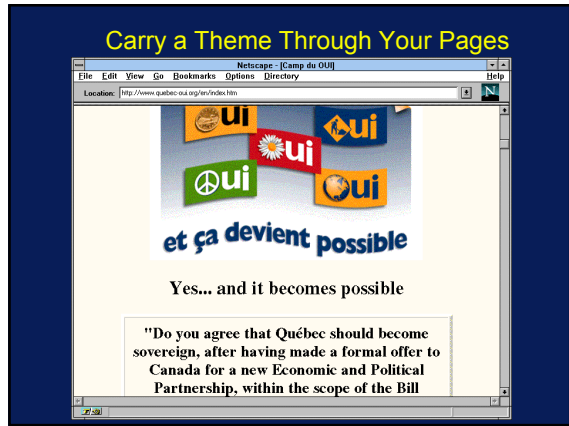
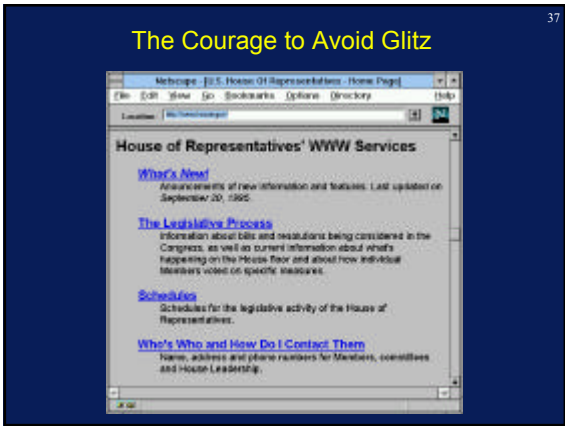
## Design Issues

- 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

## Content vs Glitzy Presentation



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- ### Style: To Link or Not To Link
- Don't add a link every time a common phrase appears
  - Your pages will look like Christmas trees...
  - ... and will be impossible to read
  - Consider a "Return to Home Page" link on every page
  - Avoid internal links within a single page
    - Very confusing to readers
    - Is it a link to a new page, or to part of this page? Hard to tell..

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- ### Style: Label Links Naturally
- Explore our [Online Photo Gallery](#)
  - Read about [today's ski conditions](#)
- ...not...**
- If you want to see today's ski conditions, click [here](#)

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- ### Style: Don't Force HTML
- Don't use the <BR> tag excessively
    - And don't use it to simulate word wrap!
    - Your video setup is not the same as your readers!
  - Go easy on the <HR> tag
  - Be judicious in use of Netscape font extensions
    - If at all
  - Don't <BLINK>

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### Style: No Dead Ends!



Location: <http://www.wtkr.com/rating.html>

**STORMCENTER 6**  
Interactive

Satellite Images

- Don't add a link if the document doesn't exist!
- The whole Web is under construction; why bother labeling your service as such?

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### Style: Keep Inline Logos Simple

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

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### 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

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### 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)