

CREATING A WORLD WIDE WEB HOME PAGE FOR AN AQUATIC SCIENCE LIBRARY

Peter Brueggeman
Scripps Institution of Oceanography Library
University of California San Diego
9500 Gilman Dr Dept 0175C
San Diego CA 92093-0175
Phone 619/534-1230
Fax 619/534-5269
email pbrueggeman@ucsd.edu

ABSTRACT: The World Wide Web (Web) is a fast-growing tool for accessing information resources on the Internet. A client software (e.g., Mosaic) is used to access local or Internet resources specified in a Uniform Resource Locator (URL) format. These resources can include Web pages written in a simple hypertext markup language (HTML). A Web HTML page offers aquatic science libraries the means to provide local information and integrate access to local and Internet-accessible bibliographic and non-bibliographic information resources. A model HTML home page oriented to a marine science library will be presented in order to illustrate how to write HTML pages.

The World Wide Web, henceforth Web, is a growing mechanism for information dissemination over the Internet. A wide variety of local and Internet-accessible information resources can be pointed through a library-constructed Web system. Web server computers use hypertext transport protocol to govern communication with Web client or browser software on your personal computer. The most common Web browser is Mosaic and its variants. Your Web browser receives an ASCII file from a Web server that is written in the Hypertext Markup Language (HTML); your Web browser may also receive graphic files incorporated onscreen. Your Web browser translates everything into an onscreen display called a page; stylistic control of typography, font sizes, colors, and images is left to the user's Web browser software. Written within the HTML files are linkages to Web server computers, gopher server computers, telnet-accessible host computers, FTP server computers, Usenet newsgroups, and local ASCII, HTML, image, sound, and other files.

To set up a Web system for your library, you need an account and disk space on a Web server computer. Most aquatic science institutions on the Internet already have these; contact the appropriate computer person to get an account. Then you create the HTML file(s) for your library by editing in ASCII format using a word-processing software or a HTML editing software. After the HTML file(s) are finished and before you get them placed on the Web server computer, you can test them with your Web browser software by "loading a local file". Finally your HTML and accompanying files need to be placed on the Web server either by yourself via FTP or by handing them over on a floppy disk to your computer person.

HTML is a simplified tag system not unlike typesetting codes. HTML tags describe headings, paragraphs, line breaks, font size and style, embedded images, Internet linkages, etc. For many features, there is a “start” tag and a corresponding “end” tag; they are the same with the addition of a forward slash “/” to the end tag. This paper presents a sample HTML file to show how the file produces an onscreen Web page as seen in Figure One. HTML tags in this sample HTML file in Figure Two are numbered to correlate them to their corresponding onscreen features in Figure Three.

The HTML file opens with a start tag for the HTML file. Following that are start and end tags surrounding the heading section of the HTML file. The heading section contains the title of the HTML, itself surrounded by start and end tags. The title should be carefully selected because several Web indexing systems capture these HTML titles for their indexing of resources on the Web.

```
<HTML>
<HEAD>
<TITLE>International Association of Aquatic and Marine Science
Libraries and Information Centers: IAMSLIC</TITLE>
</HEAD>
```

Next is a start tag for the body of the HTML file. The body is the Web page that will display onscreen.

```
<BODY>
```

Images accessed through the Web page can be “in-lined” or “external”. In-lined images are displayed onscreen; external images are not displayed onscreen and are retrieved over the Internet by selection of the hypertext link to the images. This sample Web page shows several HTML codes structured around the display of the IAMSLIC logo. The image tag “img” is followed by the source tag “src” indicating the location of the in-lined IAMSLIC image; in this case, the IAMSLIC logo is a GIF image file. The align tag “align” indicates that the following text “20th ANNUAL CONFERENCE” will start its display at the bottom of the IAMSLIC image. The ALT tag indicates within its quotes (in this case, nothing) what should be displayed onscreen if the Web browser does not display in-lined images.

```
<img src = “iamslic.gif” ALIGN=bottom ALT=“”>
20th ANNUAL CONFERENCE
```

Next are start and end heading tags surrounding an onscreen title that will be prominently displayed in the H1 font. The Web browser software assigns specific fonts to heading tags. H1 defaults to the largest font, H2 the next largest, and so on through H6. Following the H1 title heading is the HR tag for drawing a horizontal rule or divider line across the screen. The HR tag is useful for making a visual separation between sections.

```
<H1>BUILDING GLOBAL CONNECTIONS</H1>
<HR>
```

After the horizontal rule is a heading in the smaller H5 font enclosed within start and end tags. Then a paragraph of text follows without specification of a heading font; the paragraph concludes with the BR line break tag so that the next line displays on a new line.

```
<H5>Connecting to Internet Resources via the Web</H5>  
Creating a World Wide Web home page for an aquatic science library  
involves creating ....., in this case an MPEG image file.<BR>
```

Another horizontal rule is specified followed by the start tag for an unordered or unnumbered list "UL". List items are indented and unnumbered; the LI tag puts a round bullet in front of each list item.

```
<HR>  
<UL>  
<LI>
```

The first list item embodies a hypertext link to the UnCover database on the Internet. This link consists of three parts: the start and end anchor tags, the network address of UnCover, and the onscreen text indicating the hypertext linkage to UnCover. The start anchor tag <A> includes within it the Internet address for UnCover. After the start anchor tag, text (in this case, UNCOVER) is specified that will be the hypertext link; it will display onscreen in a different color and usually underlined. After the hypertext link is the end anchor tag .

The Internet address for UnCover or other resources is specified in a standard format called a Uniform Resource Locator or URL. The URL starts with "HREF=" meaning "hypertext reference" and is followed by the type of Internet resource and the Internet address. In this case, one telnets to UnCover so "telnet" is the type of resource specified. Punctuation as specified (eg quote marks, colons and slashes) is required in URLs.

```
<A HREF="telnet://database.carl.org">UNCOVER</A>
```

Following the anchor tag for UnCover is instructional text for UnCover that will appear onscreen. The instructional text is closed with the line break tag.

```
, a Colorado-based multidisciplinary open-access journal article  
database. Offers title keyword searching, author searching and table-  
of-contents browsing.<BR>
```

The next four list items are examples of URLs for other resources. In order, they are an FTP resource, a gopher resource, a Web server (http) resource, and a local image file (spinning.mpg). The Web server computer is specified with "http" meaning "hypertext transport protocol". Finally the list is closed with the end tag for unordered lists followed by a horizontal rule tag. Note that the local files specified within anchor tags present an opportunity to display library-related information to users. These files can be created in ASCII format or in HTML format for better onscreen appearance.

```
<LI><A HREF="ftp://cdiac.esd.ornl.gov/pub">Carbon Dioxide Information
```

Analysis Center archives and distributes data on atmospheric CO2 and other radiative active trace gases.

```
<LI><A HREF="gopher://gopher.who.edu:70/11/WHOI-
databases/internatl.profiles">International Profiles on Marine
Scientific Research</A>, WHOI's 2nd edition.<BR>
```

```
<LI><A
HREF="http://www.nwo.ac.uk/iosdl/Central/library/marine.directory.html"
>International Directory of Marine Scientists</A>, UNESCO's 1983
edition.<BR>
```

```
<LI><A HREF="spinning.mpg">Spinning Earth image sequence</A>
showing global relief, from NGDC [MPEG format, 540K size].
</UL>
<HR>
```

Next is a more advanced example of using an onscreen arrow button image as a hypertext connection. You may wish to do this if your library is listed within an institution's Web page; it is handy to have the library's Web page point back to the institution's Web page. The hypertext connection can be accomplished with onscreen text as shown above and/or with images as shown below. In this case, an arrow button and also text link to the CYAMUS Web page specified as a URL. The arrow button is an image file called connect.gif and the image itself links to the CYAMUS URL. Following the image, the text "CYAMUS Web page" is also a link to the CYAMUS URL. Therefore selecting either the image or the text will link the user to the CYAMUS Web page. The HTML coding to accomplish this is familiar as described above.

```
<A HREF="http://scilibx.ucsc.edu/iamslic/cyamus.html"><img src =
"connect.gif" ALIGN=MIDDLE ALT=""></A>
<A HREF="http://scilibx.ucsc.edu/iamslic/cyamus.html">CYAMUS Web
page</A><BR>
```

Finally a contact address is displayed onscreen between start and end address tags. It usually appears in italics onscreen. After that the end tag for the body of the HTML document appears and the end tag for the entire HTML document.

```
<address>For further information, contact Peter Brueggeman,
pbrueggeman@ucsd.edu</address>
</BODY>
</HTML>
```

More extensive information on HTML coding is available over the Internet from many places with Barry's article (Barry, 1994) being very useful.

REFERENCES

Barry, Jeff. 1994. HyperText Markup Language (HTML) and the World-Wide Web: Raising ASCII text to a new level of usability. *Public-Access Computer Systems Review* 5(5):5-62. Obtain this publication via email. Send email to "listserv@uhupvm1.uh.edu" with the email message being "get barry prv5n5 f=mail".