

CREATING A HOME PAGE ON THE WWW FOR YOUR LOCAL USER GROUP AN UNLIMITED RESOURCE FOR LOCAL USER GROUP RECRUITMENT STRATEGIES

JoAnn Matthews, President, Pittsburgh SAS Users Group
Senior Research Associate, University of Pittsburgh Medical Center

ABSTRACT

At the present time, there are more than 200 local or special interest SAS® user groups in the U.S. alone, and this number continues to grow. There are, however, only a small number of user groups who have utilized the internet to reach their potential members via a home page. Given the popularity and unprecedented growth of the Internet, the World Wide Web offers an exciting way to publicize local user group activities and increase membership.

This paper will discuss step-by-step instructions on how to create a visually attractive and informative home page using some simple HTML (HyperText Markup Language) code. Instructions are also included as to how to link your home page to other regional user groups and SAS® Institute.

INTRODUCTION

THE INTERNET - WHAT IS IT? AND WHERE DID IT COME FROM?

The Internet simply put, is a vast network of computer networks that spans the globe. Vast seems to be an understatement when describing the Internet, in that there are estimated to be 20 to 30 million users around the world populating this electronic global village.¹ Estimates by the computer industry are that World Wide Web traffic is growing at an annual rate of 341,000% and is being used by 159 countries around the globe.²

HISTORY OF THE INTERNET

In the early 1960's a group of scientists at the US Department of Defense's Advanced Research Project Agency (ARPA) wanted to see if computers in different locations could be linked to develop an efficient way of sharing related data. Initially the goal was not the creation of today's international computer-linked global community, but rather began as a data network that could survive a nuclear attack.

ARPAnet, the earliest version of a network, was launched when it was discovered that networking could

link large research computers at major universities to each other. Use of ARPAnet grew and in 1969 CompuServe was launched as the 1st commercially available online service. In 1986 the National Science Foundation created NSFnet to connect supercomputers around the United States. Within two years this network replaced ARPAnet.

In 1991 Vice-President Al Gore proposed to offer access to students in kindergarten through grade 12. The Internet has continued in unparalleled growth. Over the years it has become the most widely used information retrieval system used, giving access to a global network of multimedia resources and what began as a governmental experiment is now largely a private commercial enterprise. The Internet provides the ability to tap into thousands of information databases and libraries worldwide, retrieve millions of documents, journals, books and computer codes.

ACCESSING THE INTERNET FROM YOUR OWN COMPUTER

In essence, the Internet is only a phone call away. In order to access the Internet you must have a software package referred to as a browser (such as Netscape, Netscape Navigator) and a direct connection to the Internet via phone line, a network connection or a commercially available on-line service, such as AmericaOnLine or Prodigy.

You must have a Macintosh or PC running Windows with at a 386 machine, with a minimum 14,400 baud modem. Modems act as a sort of translator between your computer and the phone system and are needed because the information passed between the two is in different forms. Phones process analog signals and computers process information "digitally" as a series of discrete numbers.

The speed of your modem is critical and will correlate with the response time when you are using your browser. Modem speed is judged in bits per second (bps). One bps means the modem can transfer roughly one bit per second. The greater the bps rate, the more quickly a modem can send and receive information. A 14,400 baud (bps) modem is usually considered to be too slow for today's web technology. Net experts can

now transport data at speeds of up to 2 billion bits per second - fast enough to send the entire Encyclopedia Britannica across the country in just one or two seconds.

There are four ways to access the internet; 1) a permanent Port-to-Point Protocol (PPP) attached to a network, 2) a commercially available on-line Service, such as AmericaOnLine, CompuServe, or Prodigy, to name a few, 3) a BITNET university connection to a network on the Internet or lastly, 4) a SLIP (Serial Line Internet Protocol) connection. which allows you to use a modem from a remote site to communicate between the server and the Internet.

THE UBIQUITOUS WWW HIT RATE

Network computing is everywhere, and a company that has not networked it's computers is the rare exception. IBM's CEO, Louis V. Gerstner, has described "Web sites" as "little places where you can get information about somebody's store." ³ Our "store", so to speak, is our local user group and users of the Internet can get information about our group by surfing the net and visiting our web site. Consider the Olympic games web site, which was set up and run by IBM. 40,000 tickets to the Olympic games were sold on the web site alone. It was estimated that by the time the games were being played 10 million hits a day were experienced on the web page. ⁴ While your local user group home page certainly will not get this much activity, it is a distinct step in the right direction to take advantage of the Internet to promote your local user group.

HTML LANGUAGE

HTML is the formatting language used by the World Wide Web. The acronym HTML stands for Hypertext Markup Language. Hypertext means that an HTML document can contain links or references to other documents, such as SAS Institute's home page, or your regional affiliated User Group. A linked document is usually underlined and printed in colored text, to distinguish it from the rest of the document. You can access this linked additional information by double-clicking on this underlined phrase (or word).

HTML is actually a subset of a language SGML, Standard Generalized Markup Language, which was designed as a typesetting language. The "Markup" part of the language comes from the days when editors used specialized markings to instruct typesetters how to format the text. HTML evolved from this language to be used specifically for WWW applications and for creating hyperlinks to other WWW documents, video,

sound or animation files. With HTML you use HTML commands to mark headings, normal paragraphs, lists, and URL addresses (hyperlinks).

While HTML is a variant of Standard Generalized Markup Language (SGML), it differs from other SGML variants in its simplicity. HTML is simple enough to type without using an HTML editor. All HTML files consist of text and HTML tags that describe how the text should be displayed. Extra whitespace within your document is ignored and text is displayed with a single space between each word. Text is always wrapped to fit within a browser's window in the reader's choice of fonts. Therefore a document that looks great using Netscape may look completely different on another browser, such as AmericaOnLine, or Prodigy. But by sticking with some simple HTML commands, you can be assured that your document will look as good as possible in just about any Web browser.

To convert an existing document into a Web document there are a few things that are essential. All HTML commands are enclosed in a left angle bracket "<" followed by some kind of directive then followed by a right angle bracket ">", i.e. <like this> which are called "tags". Most commands come in pairs that mark the beginning and the end of text. The end command or container tag is identical to the beginning tag except that it includes a forward slash "/" between the opening bracket and the command name. An example is the bold tag beginning with and ending with .

Every HTML document must declare itself to be an HTML document. In order to do this <html> must appear first in every document. The very last line should end with </html>, thus ending or closing the html text. And most importantly, the file that you create and save, must end with an html extension (filename.html). For example, the Pittsburgh SAS User Group Home page is called psug.html. If this is the only document on your directory, you can name this file index (index.html).

Most HTML documents will contain a header section beginning with the <head> tag and ends with a </head> container tag. In addition there should be a title surrounded by the <title> and </title> commands. The "body" of the document should be marked off with the <body> and </body> commands.

Most browsers recognize at least six heading levels, <h1> through <h6>. Each is given a distinct size and style. Heading commands need a corresponding </h1> container, unlike paragraph containers which do not require a closing </p> container.

Normal paragraphs are separated with the <p> command and while at this time the closing </p> is optional, the next version of HTML may require the </p> container. Therefore it is at present up to your discretion as to whether to use the closing </p> or not.

The following are the simple steps to convert a document to HTML.

1. Convert the document to plain text or ASCII format.
2. Begin the document with <html>.
3. Identify the heading with <head>.
4. Next type <title>. Type your title.
End with </title>
5. Any header begins with <h1> and ends with </h1>.
6. Subheadings begin with <h2> and end with </h2>
(or <h3> <h3> ... <hn> etc. and end with </hn>)
7. Paragraphs begin with <p>.
8. Name the file you have created and save with an html extension. filename.html.

A very simple HTML document would like this:

```
<html>
<head>
<title> ----- </title>
</head>
<body>
<h1> ---- </h1>
<p>
<p>
<h2> --- </h2>
<p>
<p>
</body>
</html>
```

By following these guidelines your document can be read by most browsers.

COMMON CONTAINER COMMANDS

The following are a listing of some of the most common HTML container commands.

| <u>command</u> | <u>end command</u> | <u>description of use</u> |
|----------------|--------------------|--|
| <html> | | begins an HTML document |
| <head> | </head> | begins a heading |
| <body> | </body> | body of text |
| <h1> | </h1> | level 1 heading |
| <h2 to h6> | </h2 to /h6> | level 2 to 6 heading |
| <ll> | </ll> | a bulleted list |
| | | underlined item |
| <p> | | paragraph |
| | | bolded text |
| <u> | </u> | underlined text |
| <i> | </i> | italicized text |
| | | emphasized text (italicized,underlined, bold or displayed in color depending on server) |
| | </br> | inserts a line break |
| <nobr> | | keeps text from breaking |
| <blink> | </blink> | text will blink |
| <center> | </center> | text will be centered between right and left margin |
| | | changes the size of font 1 is smallest, 7 is largest (default is 3) |
| <basefont> | </basefont> | any size font from 1-7 to be used as basefont |
| <hr> | </hr> | horizontal rule across page |

LISTS

There are different kinds of lists in HTML: a simple list, numbered or ordered list, bullet or unordered list and definition lists. Ordered lists are numbered. Unordered lists use bullets to mark each item. Lastly definition lists are unique in that you can define the preceding text.

THE TYPE FEATURE

Netscape has added a feature called TYPE that can be included with unordered and ordered lists that allow you to specify the type of bullet or number that you use in a list.

ORDERED LISTS

Ordered lists begin with a tag and elements of the list are numbered using a numeric sequence --1,2,3, etc. An ordered list looks like this:

```
<ol>
<li> first item
<li> second item
</ol>
```

You can change the default by using the TYPE modified with the tag. This feature is used with numbered lists:

```
<ol TYPE = A | a | I | i | 1>
```

where TYPE can be assigned in any one of these values:

| | |
|---|---|
| A | Mark list items with capital letters |
| a | Mark list items with lowercase letters |
| I | Mark list items with large roman numerals |
| i | Mark list items with small roman numerals |
| 1 | Mark list items with numbers (default) |

You can get even more fancy: You can start numbering list items with a number other than 1. To do this, you use the START modifier as shown:

```
<ol START=starting number>
```

where starting number specifies the first number used.

You can combine the two features, START and TYPE

```
<ol TYPE=A START=4>
```

would start the numbered list with the roman numeral IV.

UNORDERED LISTS

Unordered lists use the tag and end the list with the container tag.

An unordered list would look like this:

```
<ul>
  <li> first item
  <li> second item
</ul>
```

You can use TYPE along with to override the default bullet. This takes the format:

```
<ul TYPE=Disc|circle|square>
```

For example, here's a list defined to use circles as the bullet symbol:

```
<ul TYPE=circle>
  <li> This is item 1
  <li> This is item 2
  <li> This is item 3
</ul>
```

DEFINITION LISTS

Definition lists are very useful when explanation is necessary. Each item in the definition list contains two parts, a term (indicated with the <dt> tag) and a definition (which uses the <dd> tag). The list begins with a <dl> command and ends with a </dl> command.

Here's a sample of a definition list:

```
<dl>
  <dt> first item
  <dd> first item definition

  <dt> second term (or title)
  <dd> definition
</dl>
```

This is what you would see in the browser:

```
First Term
  First term definition.
Second Term
  Second term definition
```

UNIVERSAL RESOURCE LINKS (URLs)

A Universal Resource Link is the address that allows servers to find your document. For example because the Pittsburgh SAS® User Group home page resides on my Unix account on the University of Pittsburgh Unix server, the address of PSUG's home page is rather lengthy: <http://www.pitt.edu/~jmatthew/psug.html>. However because the Pittsburgh SAS® User Group home page has been hyperlinked to the SAS® Institute home page, you can find our home page by accessing the SAS® Institute's home page <http://www.SAS.com> and then looking under "User Groups", then "Local User Groups", then "Pennsylvania", and then finally "Pittsburgh". While in key strokes this may not seem simpler, in actuality it is simpler than trying to remember where the "tilde" key is for some users.

LINKS IN HTML DOCUMENTS

Links are what make Web documents so exciting and linking your home page to affiliated groups is easy. For instance, the Pittsburgh SAS® User Group home page is linked to both the SUGI home page and the NESUG home page so that someone could access both the SUGI and NESUG home page without leaving the PSUG web site. A URL (Universal Resource Link) is the address of the document or resource we link to. It takes the form:

protocol://machine.name{:port}/directory/document.name

The protocol is the Internet protocol used to reach the document or resource. On the Web it is typically "http", but it can be any of a number of other things, such as ftp, gopher, telnet, etc. The machine.name is just what you think it is: the name of the host where the document resides (such as www.pitt.edu/~jmatthew/psug.html or www.sas.com). The port portion of the address is optional and only necessary when a resource is accessible through a non-standard TCP port number. The directory and document name are self explanatory, i.e. ~jmatthew/psug.html.

To link your home page to another site's home page you would type:

```
<a href="URL">whatever text of you want to type in this link</a>
```

Always put the URL in quotes following the "href=" and put the text of the link after the > and before the .

for example to link to the SAS® User Group International home page, type

```
<a href="http://www.sas.com/usergroups/sugi/intro.html">SUGI </a>
```

Four of the regional user groups have created home pages. To link to the **NorthEast SAS User Group (NESUG)** home page type the following HTML code:

```
<a href="http://www.pace.edu/nesug/index.html"> your desired text for NESUG here </a>
```

Note that the URL for the NorthEast SAS Users Group, i.e. http://www.pace.edu/nesug/index.html is enclosed in quotes within the tag and that the hyperlinked code must end with a container.

The URL for the other regional SAS users groups that maintain home pages are the following:

South Central SAS Users Group (SCSUG):

http://ourworld.compuserve.com/homepages/CJac/sesug.htm

Western Users of SAS Software (WUSS):

http://webworldinc.com/wuss/index.html

MidWest SAS Users Group (MWSUG):

http://www.biostat.wustl.edu/mwsug.html

Or, if you would like SAS Institute to link your document to their home page, you can complete the online form found via the Institute's Home Page. Go to www.sas.com and choose "Users Groups", then "Other SAS® Users Groups", then "request a link" to access the electronic form.

SOURCE CODE

Once you have accessed a home page that strikes your fancy, remember that you can access the source code from which the page was built. In Netscape, click on View and then Source to see the HTML code. In Mosaic, use the Document Source option in Mosaic's File menu to call up a window that will show you the HTML for the current document being viewed.

Any HTML document can be studied and clever HTML code can then be borrowed. Experiment with new tags and see what occurs. Even graphics and pictures can be downloaded by copying to the clipboard and then downloading into your documents.

BUILDING A USER GROUP HOME PAGE

Michael H. Smith, User Group Liaison for SAS Institute, Inc. has some suggestions about what to include in your web page. He suggests that you consider including a purpose statement about your user group, past and current newsletters; past meeting agendas, meeting dates, locations and agendas, a list of officers or steering committee members, and bylaws. He also advises making sure that you do not include copyrighted material such as SUGI papers, etc. Once you have determined the content of your web page you are ready to get started building a home page.

This paper will not attempt to describe the how-to's of obtaining server space, but rather assumes that users either have access to a server or can obtain server space. To create an HTML document that can be accessed by browsers, if you are using a Unix server, you will first need to create a public directory and within that directory an HTML subdirectory. Once you have established this directory then you can create your document in Notepad within Program Manager in Windows, or use an editor program (I used PICO within the Unix platform). And remember that while HTML code is NOT case sensitive, a Unix server is case sensitive, so it is safest to write your HTML code in lower case.

Your document should always begin with an HTML command.

```
<html>
```

Next we should include a heading.

```
<head> Welcome to the YOUR CITY home page
</head>
```

```
<body> <p> A brief description of your mission
```

```
<h1> type a heading in this space </h1>
```

```
<ol> an ordered list of officers and contact information
  <li> name and phone number
  <li> name and phone number
</ol> ending command for an ordered list
```

```
<p> type all the text that you would want to see in
the body of your home page---
```

```
<p> -- as many paragraphs as you wish --
```

```
<h2> BYLAWS </h2>
```

```
<ol type=I> list of bylaws with roman numerals
  <li> roman numeral I bylaw
  <li> roman numeral II bylaw
  <li> roman numeral III bylaw
</ol> to end the list
```

```
<p> paragraphs containing BYLAWS
```

```
<ul> -- a list of officers and contacts -- </ul>
```

```
<p> Let's link our home page to the SUGI 23 home
page.....
```

```
<a
href=="http://www.sas.com/usergroups/sugi/intro.html"
Click here to access information about the upcoming
SUGI 23 meeting </a>
```

```
<p> Let's link our home page to the MidWest Users of
SAS Software home page.....
```

```
<a
href="http://www.webworldinc.com/wuss/index.html">
See the WUSS homepage </a>
```

Finally end the document with

```
</body> the ending tag for the <body> command
```

```
</html> the ending tag for the HTML code
```

That is how easy it is to build a home page.

CONCLUSION

The World Wide Web is fast becoming the most popular communication vehicle, and building a home page for your local user group can be fun and very easy. By mastering a small number of simple HTML commands you can build an informative home page.

This paper is not meant to be a complete overview of HTML, but rather includes enough simple HTML code to build an impressive HTML document in a short amount of time. If you find a whole section of your document bolded or italicized, look for a missing ending tag. This is probably the most common error when creating HTML documents. Remember to use the KISS principle (keep it simple, silly), and steal ideas from other web pages, by accessing their source code. And lastly have fun creating your home page.

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AUTHOR

The author may be contacted via e-mail at jmatthews@v1.wpic.pitt.edu or at the address below:

JoAnn Matthews
University of Pittsburgh Medical Center
3811 O'Hara Street
Pittsburgh, PA 15213
Phone: 412-624-1451
Fax: 412-624-3429

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