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Title: Homepage Design and Implementation: Tools and Techniques

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A growing number of companies have come to realize that the Internet has become an increasingly powerful means of communicating information. Billboards, television commercials and magazine ads proudly display Internet addresses showcasing the accessibility of their company as well as their motion into the information age. In order to better serve their customers, businesses must have the ability to share their information with a wide variety of people at a relatively low cost. The World Wide Web is the solution.

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The World Wide Web (WWW) is officially described as a "wide-area hypermedia information retrieval initiative." It is an information system that links data from many different Internet services under one set of protocols (called the World Wide Web). Web clients (also called browsers or viewers) interpret Hypertext Markup Language (HTML) documents delivered from Web Servers.

These documents use hypertext links to connect different documents and information resources together; click a link and the client software retrieves the linked document or jumps to a specific position in the current document. These links can access Web pages, Gopher menus, File Transfer Protocol (FTP) file directories, Wide Area Information Service (WAIS) databases and more.

Web servers and Web browsers communicate to each other using a protocol called Hyper-Text Transmission Protocol (HTTP). HTTP associates certain characteristics about the documents being retrieved so that the client software can correctly interpret the data and display the page correctly. If this relationship between the function of the data and the protocol did not exist, a browser would not know to transfer the document from its ASCII text format into the intended HTML-coded format.

The World Wide Web offers information and links to other Internet resources via Web pages. Because many of these Web pages are a starting point from which to explore entire Web Sites, they are often referred to as Homepages. Homepages can incorporate formatted text, color graphics, animation, digital sound and digital video clips. WWW browsers will display the graphics and text, and external utility programs will view or handle data formats that the browser does not recognize. This allows more options when designing a homepage.

The structure of a homepage will be dependent on what kind of information is being offered and how the information is presented. A typical homepage consists of the name of the company or title of the page, what kind of information is offered throughout all the pages and some good, easy to follow links to reach the information. Too much literature on the first page is not a good idea. People do not want to spend their time reading information that they don't need. Allow the viewer to link to the information he needs and avoid the information he does not need. Another aspect of structure that is very important is having the right links in the right spot. Homepages should be easy to follow with clear paths to the information. Confusing homepages are those that link to everything from the first page and do not link back once you have linked out of it. Organized homepages are the ones that have topics to narrow down the search. Eventually, the viewer should get to the exact point at which the information he seeks is offered without having to read a lot of text that he is not interested in. No unnecessary reading and no secret paths are a key to a good Web site.

Along with structure, it is important to consider download time (the amount of time it will take for a browser to receive all of the data from the Web server). Download time is affected by graphics or inline images. The more images that need to be downloaded, the longer it is going to take. Creating a good looking Web page is, of course, what everyone wants. They want their page to catch the attention of the viewer and make them interested in the information offered; inline images are a good way to do this. On the other hand, if the viewer has to wait ten minutes to download the page, they might get annoyed and stop the process before having seen any of the information offered. There is a good compromise when it comes to inline images: use as many images as it takes to make the page look good, but not so much as to create an extremely long download time.

When designing a homepage, it is very important to consider all situations under which the page will be viewed. Although HTML is a world wide standard that is currently in its third stage of development, there are differences in all of the browsers that will be retrieving the page. Some browsers can view tables, some cannot; some browser will view pages under one resolution while others will view pages under another. Depending on the configuration of the computer on which the browser resides and the actual browser used, a homepage can look totally different from viewer to viewer.

For Example, some Web browsers can only view text, so a homepage which uses a lot of graphics as links to other pages should also include a text substitute which links to the same pages. In figure 1, the picture on the left shows a Web page with an image map (an inline image that links the viewer to other pages depending on where they click on the image). If the viewer's browser does not support graphics, this image will not be displayed and the links will not be visible. Fortunately, the author of this particular homepage placed text substitutes directly beneath the image to allow viewers without graphics capabilities have the same links available to them. This is displayed in the picture on the right. Notice that the image map is gone, but the links are still visible. This allows all viewers, regardless of their browser, to progress through the Web site without any problems.
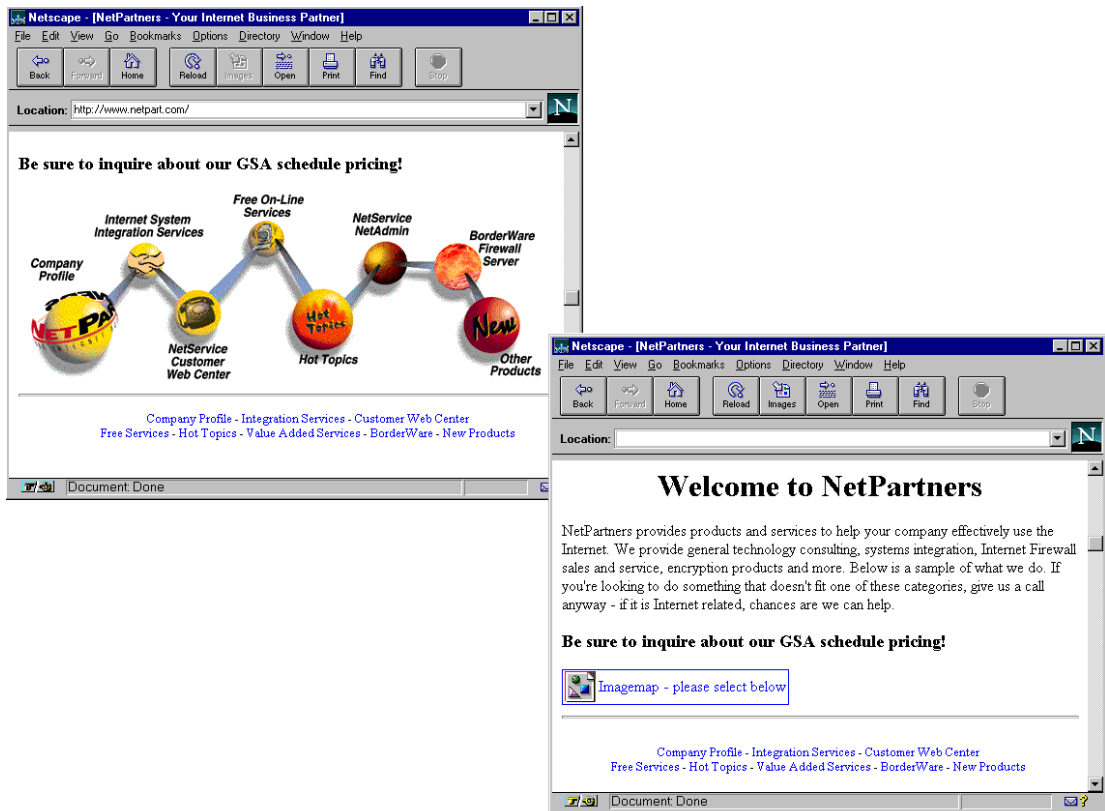

Figure 1

Another problem that arises when it comes to Web pages is backgrounds. To add more impact, many homepages include a background color or image. A background image is a tiled image that resides behind the text and the inline images. Depending on the color or texture of the background and the color and size of the text, the page might be difficult to read. Choosing the right colors for both text and backgrounds is very important to achieve a good looking Web page. In figure 2.1, there is a page with a background image that conflicts with the text making the entire document nearly impossible to read. Figure 2.2 is the same page but with a different background. Backgrounds will be displayed differently from computer to computer so even though a page looks fine on one computer, that does not necessarily mean that the same page will look good on a different computer. The same precaution must be made when dealing with just a background color. Use dark background colors with light color fonts or vice versa.
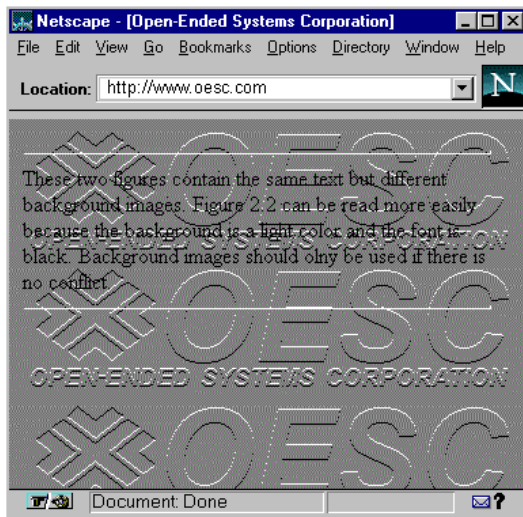
Figure 2.1	Figure 2.2

There are many key points to creating a good Web page. Structure, Download time, and Backgrounds are a just a few things that either make or break a good homepage. The point of a homepage is to transfer information from the homepage to whomever requires it and if the information on a page is not easily accessible, then it will not be transferred. To summarize:

- First, keep all Web pages simple. It is not necessary to jam a bunch of information on a single page when you can create a nice, organized site using a few more pages, but less reading on each page. Homepages should be easy to follow and self explanatory to the viewer.
- Second, be aware of the fact that not all viewers can handle all the aspects of HTML 3.0. Create a page that will work for all types of viewers, including text-only viewers.
- Third, do not overcrowd the page with a lot of inline images. Download time is a key factor in viewing Web pages and the longer it takes, the worse it is.
- Finally, use discretion where background images and colors are concerned. Make sure that the background does not conflict with the text. Also, remember that a background image has to be downloaded as well, so keep the size of the image to a minimum.

There are many different ways to create a homepage. One way is to start from scratch and learn HTML programming. There are a lot of books on the subject and, of course, some are very useful, while others are not so useful. Getting a book is a good idea even if you intend on using some of the following shortcuts to create a page. Shortcuts can only get you so far. For some people, that might be far enough, but for others, one step templates won't create the type of high impact Web site they desire.

Different tools are available to make life easier while creating a homepage. Many sites are dedicated to the fact that people want to make their lives easier and have all of the work done for them. Downloading a shareware (you can use it about 30 days and then are required to send a small registration fee to the creator) or freeware (just as the name describes) program is a very helpful way to deal with the HTML programming. The application will take care of all the programming aspects of the page, and all you deal with is the content. *Hot Dog Pro*, available at http://www.sausage.com, is such a tool. It allows the user to create web pages using toolbars and menu items. All of the programming is done by the application. Figure 3 is a screenshot of Hot Dog Pro.
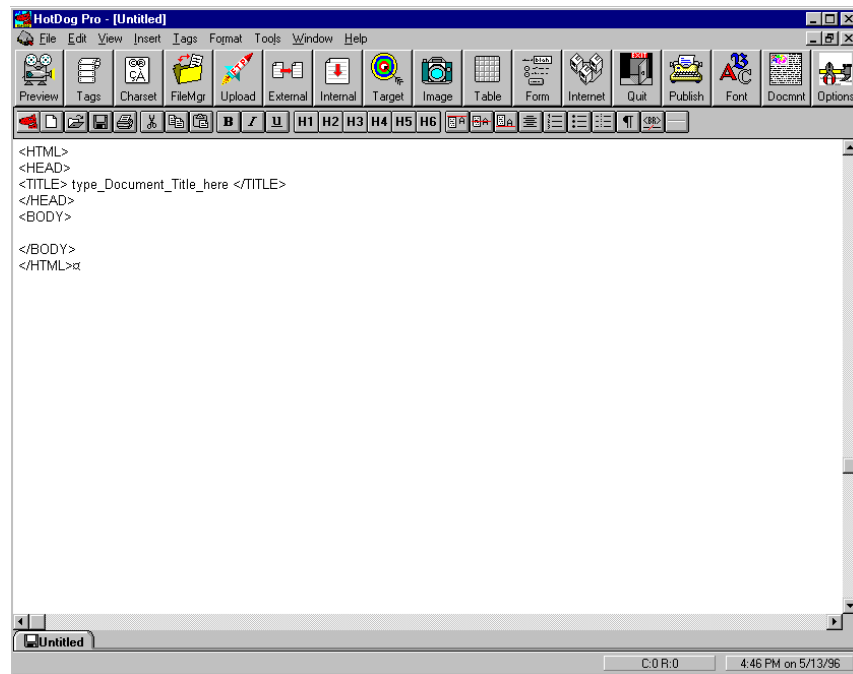
Figure 3

Although Hot Dog Pro takes care of the programming, it is a good idea to have a little knowledge on the subject of HTML programming. It is easier to understand what Hot Dog Pro is doing if you understand what the tags (HTML programming codes) mean. Hot Dog Pro also has a feature in which you can create a simple homepage using a template provided with the software. It will take care of font sizes, an image at the top of the page and all the text and links required to complete the page. It is the quickest and easiest way to create a homepage. The quality of the homepage that Hot Dog Pro creates is not the best, but it is better than some.

To make life even easier, Microsoft has released a group of tools called *Internet Assistant for Microsoft Office*. Microsoft released these add-ins to eliminate the programming aspect of HTML work. These add-ins automatically create a Web page from an existing Microsoft Office document. No HTML programming skills are required. Microsoft has made it possible to download the complete set of Internet Assistants free of charge from their Web site.

Internet Assistant for Microsoft Word

Internet Assistant for Microsoft Word is a free add-on that makes it easy to create and edit great-looking documents for the Internet from within Microsoft Word. This add-in creates a homepage for your existing Word documents. It converts all the graphics and font size and placement to HTML format. It does not preserve font types and tables.

Internet Assistant for Microsoft Excel

This no-charge add-in wizard will provide Microsoft Excel users with the ability to create and distribute Microsoft Excel documents on-line for viewing with any popular browser. By pressing a series of buttons, the Internet Assistant for Microsoft Excel for Windows will assist users in converting their spreadsheet data to HTML format either as a separate document or into an existing document.

With the increased demand for complex electronic document sharing via the Internet, it has become critical that the small business user be able to easily create, edit and convert files for these two important mediums. With this add-in, users will be able to leverage their existing Microsoft Excel spreadsheet data.

Internet Assistant for Microsoft PowerPoint

Use the Internet Assistant for Microsoft PowerPoint for Windows 95 to transform your PowerPoint slides into rich HTML pages for publishing to the Web. Your presentations can be seen by anyone using one of the popular Web browsers.

- Tell the world about yourself on the Web and do it visually! Instead of creating a Web site with text-only HTML pages, PowerPoint 95 and the PowerPoint Internet Assistant make it easy to also create a set of exciting text-and-graphics Web pages.

- While users tell us it's really easy to use PowerPoint to create presentations, it's even easier to turn your slides into Web pages -- simply select Export As HTML in PowerPoint 95. In addition to maintaining your designs, layouts, pictures when PowerPoint turns your slides into HTML pages, hyperlinks are automatically set up to jump from one slide to another or to a related Web page! Just use Interactive Settings when you create your slides in PowerPoint 95 to define the link. No coding is involved - the Internet Assistant automatically creates the image maps.

- Get better results using visual aids from your Web site. Ever wish you could more effectively communicate your message by showing something to your client or a potential client during your phone conversations? The Internet Assistant for PowerPoint 95 is the ideal way to show them what you mean - just ask your client to check out your Web site as you speak to them. Or, next time you visit a client who surfs the Internet, instead of showing up with overheads or a

computer, arrive at the meeting with nothing! Just ask if you can borrow their computer, as you connect to your Web site and deliver your presentation in the client's office.

Internet Assistant for Microsoft Access

Over 10 million users around the world have chosen Microsoft Access to manage their information. Using features like the graphical query designer, the drag and drop report writer and others, these users have been able to easily create visual displays of their information to place on the Internet and share with others. The Internet Assistant for Microsoft Access for Windows 95 is a no-charge add-in (for Microsoft Access for Windows 95) that will allow any user to create meaningful output from their structured data, and share it on the Internet. The Internet Assistant can work with data stored natively in an Access database, or with any other ODBC-compliant datasource. Using Microsoft Access for Windows 95 and Microsoft Access Internet Assistant, you don't need any prior Internet publishing experience to create great looking HTML documents that contain the most up-to-date information.

The Internet Assistants for Microsoft Word, Microsoft Excel, Microsoft PowerPoint, and Microsoft Access allow you to convert your documents into standard HTML pages for distribution on the Internet. Figure 4 is a table containing the Internet sites that have information reguarding the Internet Assistants and also have the add-ins available for download.

Microsoft Word Internet Assistant	http://www.microsoft.com/msword/internet/ia/
Microsoft Excel Internet Assistant	http://www.microsoft.com/msexcel/internet/ia/
Microsoft PowerPoint Internet Assistant	http://www.microsoft.com/mspowerpoint/internet/ia/
Microsoft Access Internet Assistant	http://www.microsoft.com/msaccess/internet/ia/

Figure 4

There are all kinds of Internet related utilities to make life easier while creating a homepage. There are applications to help create background images, image maps, animation, HTML templates and more. There is a shortcut for every aspect of HTML programming and it is just a matter of finding what works best for the current project you are working on. Figure 5, on the following page, is a list of HTML authoring tools and the Internet addresses where they can be downloaded.

Stroud's CWSApps List - HTML Editors
http://cwsapps.fibr.net/html.html

	Hot Dog Pro http://www.sausage.com
	Kenn Nesbitt's WebEdit 16-bit http://www.nesbitt.com
	HTML Writer http://lal.cs.byu.edu/people/nosack
	HTMLed Professional http://www.ist.ca/htmledpro
	NaviPress http://www.navisoft.com/register/preview
	GNNPress http://www.navisoft.com/press/press.html
	HTML Assistant Pro ftp://ftp.cs.dal.ca/htmlasst/htmlafaq.html
	WEB Wizard 16-bit http://www.halcyon.com/artamedia/webwizard
	HoTMetaL http://www.sq.com
	HTML NotePad http://www.u-net.com/virtua/code/htmlnote
	<Live Markup> PRO http://www.mediatec.com
	InContext Spider http://www.incontext.ca/demo/icspeval.html
	SuperPad http://www.pcmag.com/utils/spad.htm
	Internet Publisher (requires Word Perfect for Windows) http://wp.novell.com/elecpub/fawpip.htm
	The Ant http://mcia.com:80/ant
	Web Author http://arachnid.qdeck.com/qdeck/products/WebAuthr

Figure 5