part 1

Design your own Web page

In the first part of a step-by-step guide to creating your own home page on the World Wide Web, Jane Dorner looks at the basics and then takes you through a dress rehearsal for the real thing

This is a home page with one of its link pages. Call it self-advertising if you like, but this is exactly what the World Wide Web is for: it is the new medium for your visiting card, brochure or newsletter. In short, creating Web pages is a form of publication. It relies on other people having an Internet connection – but with 40 million people out there using it, the chances are that some of your friends, leisure or business contacts will have access.

We will be providing you with a step-by-step guide to creating your own home page on the Web using software supplied on this month's cover CD. You don't need a modem or an Internet account. You don't even need a telephone because this month we will be producing only dummy pages. Next month, we'll talk about the mechanics of getting on line for real.

But first, why bother creating a home page? The simple answer is because it is cheap, easy and efficient. Now that such diverse interests as bakeries, string quartets, roller-coaster clubs and government departments are all successgully usmng the Web to do business, it would be retrogressive to ignore its potential. And what do you need to know? Like any acwivity, vhere is#a speciclist language devoted to the Internet, but we'll explain this as we go along, and you really don't need any technical knowledge about computers or hardware.

***Below and left:** Jane Dorner's home page and biography page.*

Competition

To encourage you to get to grips with this computer class and the second part next month, we've got some great prizes to give away, courtesy of Microsoft.

For the winner, there's a copy of Microsoft Office for Windows 95 and for four runners-up we have copies of Microsoft Word for Windows 95. All the prizes will be accompanied by Microsoft's Internet Assistant software, which ties in specifically with Microsoft's software to make Web page creation a breeze.

All you have to do is send us a copy of a home page (or pages) created with Hotmetal.

We will judge entries by using the I-view browser. There are only two rules:
1 Your home page (or pages) should not exceed 250Kb in size (including all graphics).
2 At least one mention should be made of a Microsoft product on your page(s).

Entries (on a single floppy disk) should be addressed to Computer Class Competition, *What PC?*, 32-34 Broadwick Street, London, W1A 2HG, to arrive before 31 July 1996.

Prizes will be awarded to the most interesting and creative pages, not to the most technically complex. Content and style are more important than sophistication.

Browsers

You use the World Wide Web with a program known as a browser. This is an easy-to-use program that hides what is actually quite a complicated system of coded documents and commands needed to navigate through the world of cyberspace. Not so long ago you could do this only if you were prepared to learn a large number of manoeuvres and some very unfriendly languages (notably Unix), but browsers now pack away the instruction language behind a friendly face. The most popular browser is called Netscape. This has about 70 percent of the market and is highly recommended. However, there are lots of rivals, and the I-view browser on our cover CD is very good for off-line testing.

HTML (Hypertext Mark-up Language)

Browsers depend on the existence of Hypertext Mark-up Language. This is a way of describing what a page looks like so any computer equipped with an Internet browser can make sense of it. It doesn't matter what sort of computer you've got or what sort of browser software: they all understand the same HTML commands.

HTML describes the look of a page by not only giving the text that's on a page, but also using a hierarchical structure to define the title, headings, subheadings, emphasis, paragraph breaks and so on. Pages designed in HTML don't look exactly the same on every browser because font size and style, line spacing and page breaks all vary, being dependent on each computer's browser software and screen display.

This system makes it fundamentally different from the world of printed books in which separate editions have to be made for hardback, paperback and partially-sighted readers. Now the viewer can decide how the page should look by selecting fonts and display preferences at will. This makes good HTML design quite difficult because you cannot anticipate exactly how it will look on different screens: compare these two different versions of a page (below), which use the same HTML code.

So bear in mind that the home page we are about to construct may look slightly different on your setup.

The same page viewed using Netscape (left) and I-view.

What is a home page?

A home page is really a cover design combined with a contents list (to use the analogy of a book) which leads on to all the other pages in the collection – known collectively as a Web site. The home page is labelled index.htm to indicate that it is the root document on the site.

You can have any number of pages linked to the home page but, unlike a book, they are not numbered and can be viewed in any order. The front page can be any length, but because it can take a minute or two to load each page when you are connected to the Internet, many people prefer the opening material to fit on one screen so they can skip to the section that interests them without having to scroll up and down or wait for a long page to load.

When you create a page on a PC using HTML, you save it onto your hard disk and its name will end in HTM: for example, MYPAGE.HTM. However, pages created on the Macintosh or on Unix machines always include the final L, and if you tour the Internet you will find sites whose names include both HTM and HTML.

Hypertext

At the heart of HTML is the concept of hypertext, which is a method of arranging information in discrete chunks.

Chunks are connected by links that allow you to jump from one piece of information to another, and because each chunk can be connected to one or several other information chunks, it is possible to read through a series of chunks in an almost infinite variety of ways.

The tutorial will show how this works by connecting a home page to a secondary page. It is illustrated in the screenshots at the beginning of this article which show a biographical overview page that appears when the user clicks on the portrait photo on the first page.

That's enough of the jargon. A mini-glossary of some of the more essential terms will be in next month's article; for now, it's time to get creative. ▶

The Internet

The Internet is not a single service or organisation. It's a superstructure connecting several thousand networks and millions of users of standalone computers in 73 countries. The four most popular features of the Internet are:
- e-mail (for sending messages from one person to another);
- newsgroups (for exchanging information with groups of other users);
- file transfer (for making programs, data and pictures available for downloading);
- the World Wide Web.

Each of these is independent of the others, although there can be cross-links between them. The area of the Internet most open to commercialism, and the one which most people use, is the World Wide Web, otherwise known as the Web or WWW.

Cover disc software

You will need these programs from the CD:
- Hotmetal, a hypertext editing program which allows you to create coded Web pages. You may, if you wish, use Internet Assistant with Word or the Wordperfect HTML editor, but you will find it easier to follow the tutorial using the proprietary software.

- I-view is a shareware Web browser which will enable you to view the page you have created in the form in which it would appear if it was loaded onto the Internet. If you have Netscape, Microsoft Internet Explorer (or any other browser) on your hard disk you may prefer to use that.
- Paint Shop Pro (optional) is a shareware version of a graphical editing package which allows you to view the .GIF files supplied. From here you can change colours and alter pictures.
- A number of .GIF files (the graphics format common to all Internet browsers) have been included to help you create attractive pages.

The icons supplied are all public domain, but remember that the artists who created the pictures on Web pages may have copyright on them and they may not be used without permission and certainly cannot be manipulated in a paint program.

When you have installed the computer class programs onto your hard disk you will find you have a new directory on your hard disk called C:\HOMEPAGE. The subdirectory called C:\HOMEPAGE\IMAGES contains the GIF image files mentioned above and the subdirectory called C:\HOMEPAGE\IVIEW contains the I-view browser program. The Hotmetal software and Paint Shop Pro will be in whichever directories you chose during installation.

Creating a basic home page

In this tutorial we will be making a simple home page and a further information page linking to it. When you have followed these steps, you will be able to delete the tutorial text and write copy relevant to yourself or your business.

Step 1 – exploring the HTML editor

- Start Hotmetal and I-view. You can start Hotmetal by clicking on its icon. I-view can be started by clicking on C:\HOMEPAGE\IVIEW\IVIEW.EXE in Windows Explorer or File Manager.
- Switch to Hotmetal.
- Click on File/New.

A template will appear (see below) showing the basic HTML tags. Before starting work, look at the document screen and familiarise yourself with the rows of icons. We have labelled the ones we will be using in this tutorial.

On screen are the basic elements, or tags, that you must have in any Web page. In Hotmetal, these tags appear as grey labels. In print they are often shown in between angle brackets as below:

<HTML> at the top tells the browser that the page contains HTML coding;
<HEAD> starts the heading area;
<TITLE> is the identifying name of the page and appears in the top band of the browser;
<BODY> defines the main text area. ▶

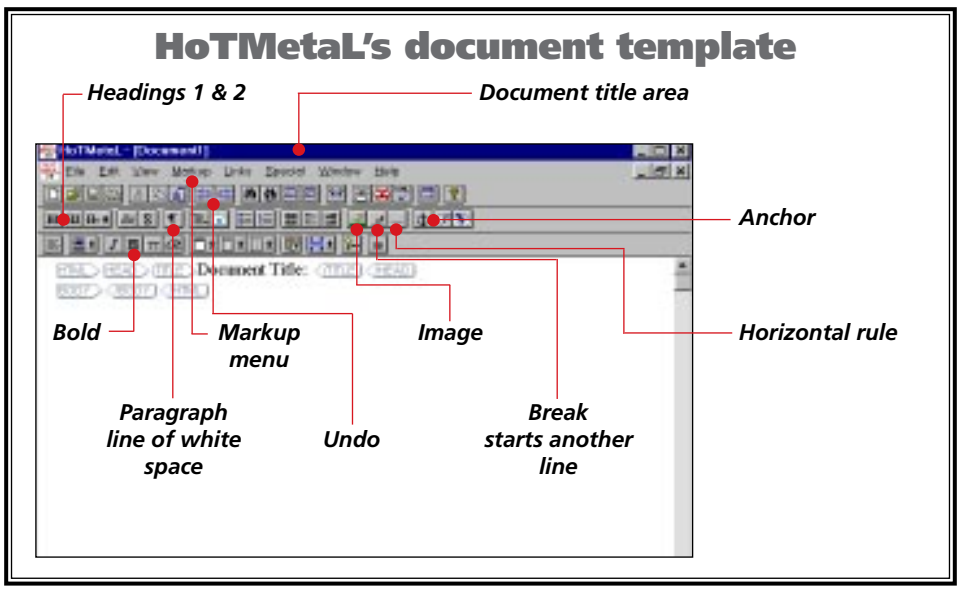
The World Wide Web

The Web brings together all the vast resources of the Internet and is a giant network of interconnected information. It works by displaying colourful screens of information, which can include pictures and sounds. Embedded in these electronic documents are hot spots. If you click on a hot spot it takes you off to another screen (page) of information.

These hot spots are really links that jump from one page to another. The page you link to could be on a computer anywhere in the world, or it could be another page on the same computer. It really doesn't matter because the user doesn't need to know: just by clicking on a hot spot link (usually an underlined phrase appearing on screen in a different colour) the necessary instructions for another page to be loaded will be sent across the Internet.

Conceptually, something very simple happens when you click on a hot link. Your computer sends a message across the Internet requesting information from another location (known as a server) somewhere else in the world. The server sends back a message containing the information. It happens thanks to international telephony treaties which already connect millions of households to millions of others.

HoTMetaL's document template



As you will see, most of these tags appear on screen in pairs: so <HTML> starts the coding and </HTML> ends it.

Step 2 – the basic layout of heading and body text

● Move the cursor so it is positioned after the phrase 'Document Title:' and type

```
Mona Lisa's Home Page
```

All this does is name your home page – it doesn't actually display anything.

● Now move the cursor back to between <BODY> and </BODY>.
● Move up to the menu bar and click on 'Markup/Insert Element'.
● Highlight 'Center' (third down on the menu bar)
● Click on 'Insert Element' at the bottom of the box. This puts all the text in the centre of the page and is increasingly becoming a standard for home pages.
● Now click on the toolbar button labelled 'H1'. H1 stands for Heading 1 (the main heading of your page) and will appear on screen in larger print.
● Type

```
Mona Lisa's Home Page
```

(between the tags <H1> and </H1>)
● Position the cursor after the </H1> tag and type:

```
Mona Lisa is a lady with a famous smile. The portrait by Leonard da Vinci was painted in 1503-6. It now hangs in the Louvre in Paris where it is protected by bullet-proof glass because of its fabulous value.
```

Your screen looks like this:

● Save the file as c:\homepage\index.htm

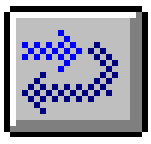
Step 3 – testing the layout

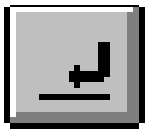
● Now switch to I-view.
● Click on 'File' and 'Open'.
● In the dialog box select the file index.htm from the C:\homepage directory.
● Click on 'OK'.

The browser will show the page.

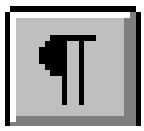
Step 4 – layout: spacing, emphasis and rules

This looks dull, so let's add some line breaks and a separator. Remember that if you make a mistake you can cancel it with the Undo icon. Before you start, locate these small icons on the icon bars:

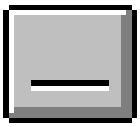




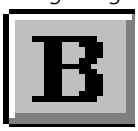
Break (the Hotmetal code is
). This starts a new line. HTML coding requires you to specify exactly where you want to break your text into sections. It is the equivalent of a hard carriage return in a word processor and is particularly important in lists or where images appear.



Paragraph (the Hotmetal code is <P>). This leaves a line of space and is the equivalent of two hard carriage returns.



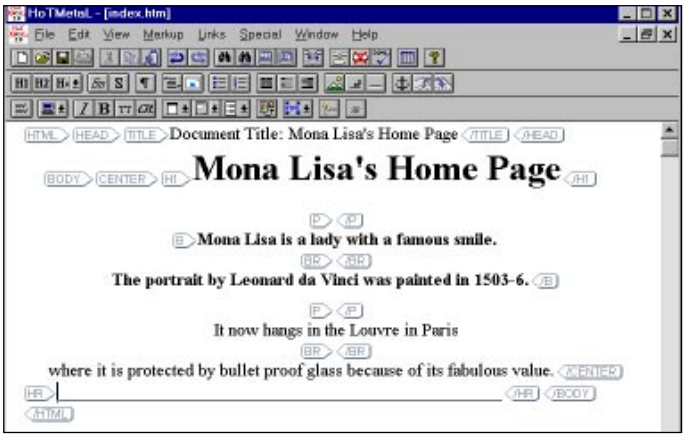
Horizontal Rule (the Hotmetal code is <HR>). This inserts a separating straight line (rule) between two paragraphs.



Bold (Hotmetal code is <B>). This emboldens the words highlighted.

● Place the cursor just past the </H1> tag and click on the Paragraph icon.
● Highlight the first two sentences (ending in '1503-6') and click on the Bold icon.
● Position the cursor after the </B> tag and click on Paragraph again.
● Add two more breaks: one after the full stop following 'smile' and one immediately after the word 'Paris'.
● Place the cursor after 'value.' and click on horizontal rule.

The Hotmetal screen should look like this:



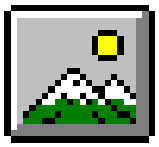
● Save the file.
● Switch to I-view.
● Click on the 'Reload' button.

The display version of your home page (in I-view) should now look like this:

Step 5 – adding graphics

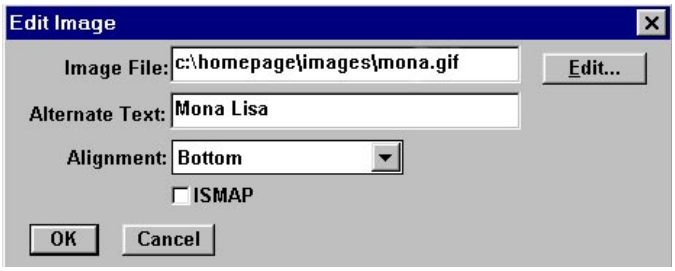
Before going on with the design of our test page, it is useful to take a look at the graphics files (all in .GIF format) which were copied from our cover CD into the directory called c:\homepage\images. One way of doing this is by using the browser in Paint Shop Pro, a graphics program supplied on this month's CD. This step is not essential but it will help you follow what we plan to do in the next part of the tutorial.

● Start Paint Shop Pro, if you have not already done so.
● Click on 'File', then 'Browse'.
● Select the directory C:\homepage\images from the dialog box and click 'OK'. The Paint Shop Pro browser will display small thumbnail images of all the available .GIF files. For this page we will use mona.gif.
● Return to Hotmetal.
● Place the cursor after the </H1> tag.
● Click on the Image button on the middle toolbar (the one ▶



with a decorative mountain icon on it).
● The Edit Image dialog box appears. Type into the appropriate boxes:
(Image File)`c:\homepage\images\mona.gif`
(Alternative Text) `Mona Lisa`

The alternative text is important because many people turn off the images in their browsers as downloading images from the Internet is so slow. The text alternative lets the viewer knows what the picture would be, if it were displayed.



● Click 'OK'.
● Save the file and test it by clicking on the 'Reload 'button in I-view. (Remember, you must save each time you test.)

Your page now looks like this (right):

Step 6 – creating a second page

The home page we've just designed is a like the cover of a book – it just tells you what the main subject is. Now let's design an inside page which has greater detail.
● Switch to Hotmetal.
● Open a new document template as before.
● Position the cursor after the words 'Document Title': and type:
`More about the artist`
● Now move the cursor back to between <BODY> and </BODY>.
● Move up to the Menu Bar and click on 'Markup/Insert Element'.
● Highlight 'Center' and click on 'Insert Element'.
● You should now click on the H2 button to specify a second-level heading.

Type:
`More about the artist`
between the tags <H2> and </H2>.
● Move the cursor past the </H2> tag and click the 'Paragraph' icon.
● Move the cursor past the </CENTER> tag and click on 'Image' to bring up the Edit Image dialog box.
● Type into the box:
(Image File) `C:\homepage\images\educat.gif`
(Alternative Text) `education`
● Move the cursor past the </IMG> tag and click on the 'Paragraph' icon.

Hotmetal's screen should look like this:

● With the cursor between the second pair of Paragraph markers, type the following, putting a Break after each of the first three lines and a Paragraph marker after the last one:

```
Name: Leonardo da Vinci
Date of Birth: 15 April 1452
Location: near the town of Vinci, outside
Florence
Parentage: Illegitimate son of Piero da Vinci
and Caterina
```

● Save the file as c:\homepage\artist.htm
● Test by switching to I-view and clicking on 'File/Open' as before and open artist.htm.
● Now, following a similar procedure to the one that was used for Leonardo's education, move the cursor past the final </P> tag and click on 'Image' to bring up the Edit Image dialog box.
● Type into the box:
(Image File) `C:\homepage\images\experience.gif`
(Alternative Text) `experience`
● Move the cursor to the right of the </IMG> tag and click on the Paragraph icon. Type the following, putting a Break after the first line and a Paragraph after the second one:

```
Apprenticed to Andrea Verrocchio,1469
Mapmaker and military engineer to Cesare Borgia
```

● Repeat the procedure above using ref.gif as your image (References) and the following as your text:

```
Duke Lodovico Sforza,
Milan
Francis I, king of
France
```

● Save and test in I-view as before.

I-view will display it as shown here (right):

Having created this brief biographical page about the artist, Leonardo da Vinci, you should be starting to see how exactly the same techniques could be used to produce something more immediately useful, such as your own CV.

Links and addresses

Every computer on the Internet has an address. Some of these addresses are for computers belonging to government organisations, such as the Library of Congress in the US, while others are provided by commercial and educational institutions.

The address is actually just an identifier for a particular computer, just as your home address identifies your particular house. Technically, an address is called a URL, or Uniform Resource Locator.

If you want to design a Web page that links to another on the World Wide Web, it follows that you will need to know the URL for the page to which you want to link. The procedure is to insert an anchor on your own page and to associate that anchored spot with another address.

Actually, an anchor can mark the position of a graphical image, another part of the same page, another page on the same site – or a page on any other computer on the Web. When you insert an anchor using Hotmetal, you'll see a pair of tags, <A> </A>, to indicate the existence of an anchor. Between the two tags you insert the address you want to jump to, or the name of a file on your disk while you're working through this computer class.

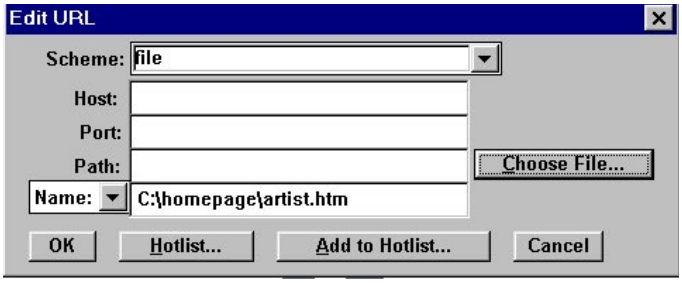
Step 7 – adding Hypertext links

Before carrying out these instructions, read the box headed 'Links and addresses' (above). We're about to link the artist.htm page to the index.htm page so users can move from one to the other simply by clicking on a hot spot. ▶

● In Hotmetal, click on 'File/Open' to reopen index.htm.
● Position the cursor after the </HR> tag.
● Click on the 'Anchor' button. This brings up an 'Edit URL' box.
● Click on the down arrow adjacent to the Scheme bar and double-click on 'file'.
● Click on the button labelled 'Choose File'.
●Then browse through the various directories and select C:\homepage\artist.htm.
● Click on 'OK' and type:

```
More about the Artist
```

at the cursor point. This will appear in blue.



● Save index.htm and return to I-view.
● Open index.htm (or reload it if it's already loaded)

You will see the words 'More about the artist' in blue in the bottom left-hand corner of the screen. Click on those words. The browser will take you straight to the second page.

Step 8 – linking back to the home page

What we really need now is a link on the artist.htm page that will take the user back to the index.htm page.
● To do this, switch to Hotmetal and the artist.htm screen.
● In a similar process to that used in step 7, place the cursor between the <P> and </P> tags at the bottom of the document.
● This time the filename is index.htm and the text is 'Back to the home page'.

If you feel adventurous, you could add home.gif from the C:\homepage\images directory. Position your cursor just after the <A> tag to do this and click on the image file insert button.
● Save the page.

The body text in Hotmetal looks like that top, right:

You now have two pages with hypertext links.

Basic HTML tags explained

<HTML></HTML>	identifies document as HTML
<HEAD></HEAD>	header information
<TITLE> </TITLE>	Web page title
<!——>	non-printing comment
<BODY></BODY>	body text
<H1></H1>	heading
<H2></H2>	subhead
<P>	paragraph break
 	line break
<HR>	horizontal rule
<LI>	list item
<UL></UL>	bulleted list
<OL></OL>	numbered list
<STRONG></STRONG>	bold
<EM></EM>	signature block at end of page
<CENTER></CENTER>	centre
<B></B>	bold
<I></I>	italic
<U></U>	underline
<BLOCKQUOTE> </BLOCKQUOTE>	indent
<A HREF="file or URL">name</A>	link to a file or page
<IMG SRC="file">	source of image to insert

Most of the codes work in pairs: the second code begins with a slash mark (/) and is used to turn off the first code.

Try it yourself

To create a more personal home page, go back over the steps above, replacing all the Leonardo text with something about yourself. Choose different names for your saved pages, of course; don't use index.htm and artist.htm again or your new files will overwrite the old ones. There are some .GIF images in the C:\homepage\images directory you might like to include.

You should also experiment with some of the other icon buttons in the toolbars. The 'Help' button will take you through some of the processes. Trial and error will get you there in the end – but save your work often in case you get hopelessly lost, then you can always go back to the last working version. Start by making short pages – a screen at a time – with links to other pages. Ideally, each page should have a link back to the home page.

Next month's article explores more complex linking, using colour, equipment for going online, Internet providers, putting your page on the Web and setting up an e-mail link. The author's own home page is on:
http://dialspace.dial.pipex.com/jane.dorner/ ●