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The World Wide Web

Most, if not all, of the recent media hype surrounding the Internet can be explained by one thing: the World Wide Web. Also known simply as The Web, W3, or WWW (pronounced "wuh-wuh-wuh"), the World Wide Web has taken the Internet by storm and has brought a simple point-and-click interface to a complex technology that was once the realm of universities and research labs.

Anything you want to access on the Internet can be found on the Web. Used properly, it's an amazing resource. There is an incredibly diverse set of information available, and most of it now is in no way computer or technology oriented. Some recent personal examples:

- I was talking with a friend about Olympic and world records for the long jump and triple jump. We weren't too sure of the distances involved. A quick search on the Web yielded a site dedicated to athletic track and field world records. Record performances for the last 10-15 years were all available online, with information on the athletes in question.
- I had just finished watching a movie on TV and one of the actresses looked very familiar but I couldn't remember where I'd seen her before. Since the movie wasn't a big-name movie, by the time I sat down at my Amiga I wasn't even 100% sure of the film name let alone the name of the actress. By using the Internet movie database I quickly found the film, the actress, and then a complete list of all movies she had made to date.
- There was a documentary on DeLorean cars on TV. "What a cool car!" I thought. "I wonder how much they cost?" A search on the Internet turned up a list of WWW sites dedicated to DeLorean cars. I found out all kinds of information, including that the average second-hand price of a DeLorean car is \$15,000.

So exactly what is it?

Formally, the Web can be described as a hypermedia document system—a hypertext system, that is, which supports links not just to text but to other media types such as still images, video and audio. Furthermore, the Web is distributed. Unlike conventional hypertext systems, where links point to local documents, Web documents can contain links which point to objects residing on remote machines.

Try imagining an enhanced version of AmigaGuide. Make the text a little richer using a variety of different sized fonts. Next embed images within the document text. Then network a few Amigas together on the Internet, each with their own AmigaGuide files. Place a few special links in these files which make them point to the AmigaGuide files on the other networked machines. Now, by using your new AmigaGuide browser on one machine you can click on what looks like just another link and transparently view a page stored on a different machine. And by clicking on a link contained in that page, you retrieve a page from yet another machine.

Link enough of these together and eventually you'll give rise to a Web effect all over the world—a World Wide Web.



History

WWW was originally conceived in 1989 by Dr. Tim Berners-Lee as a means of sharing information between high energy physicists working at CERN in Geneva. Since then it has spread to millions of users throughout the world, due in no short way to the Mosaic program.

Mosaic was created by the NCSA (National Center for Supercomputing Applications) Software Development Group at the University of Illinois. Over the last couple of years they have created versions of Mosaic for the X Window System, Windows and the Macintosh.

Although based on NCSA Mosaic, Mosaic for the Amiga—AMosaic—has no formal link with NCSA. For quite some time AMosaic was the only Web browser available for the Amiga, but this monopoly couldn't last and now a number of excellent alternatives have become available.

The Browsers

At the time of writing there are five well-known Amiga browsers either available or about to become available. By the time you read this book, all of the browsers discussed below will be readily available and there will no doubt be an even larger number of Web browsers for Amiga users to choose from.

ALynx

Description

A simple text-based Web browser

Author

P. Marquardt

Price

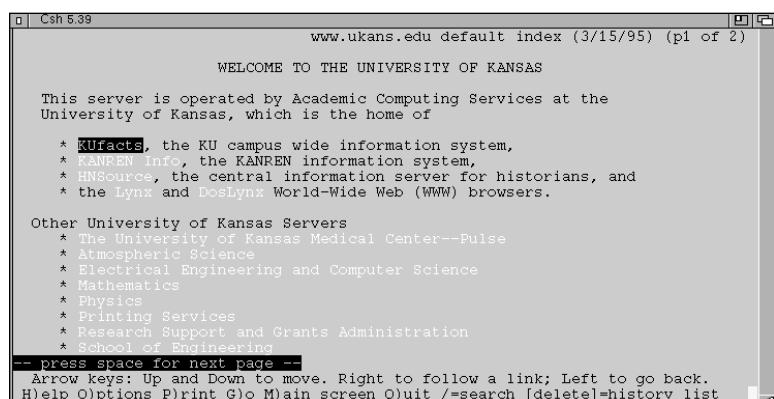
Freely distributable

Location

comm/net/ALynx.lha

Requirements

No additional software needed



A port of the Unix Lynx program, ALynx is really only useful if there is some reason why you can't run one of the graphical browsers. Because it is a text-based browser you are able to get only a rough representation of what is available on Web pages. Some Web sites which use large graphics for all their menus will be unusable with ALynx. It's handy to have installed, just in case you want to check a Web page quickly without using one of the graphical browsers, but not really of much use otherwise.

AMosaic

Description

The first widely used Amiga Web browser

Authors

Michael Fisher, Michael Witbrock, Michael Meyer

Price

Freely distributable

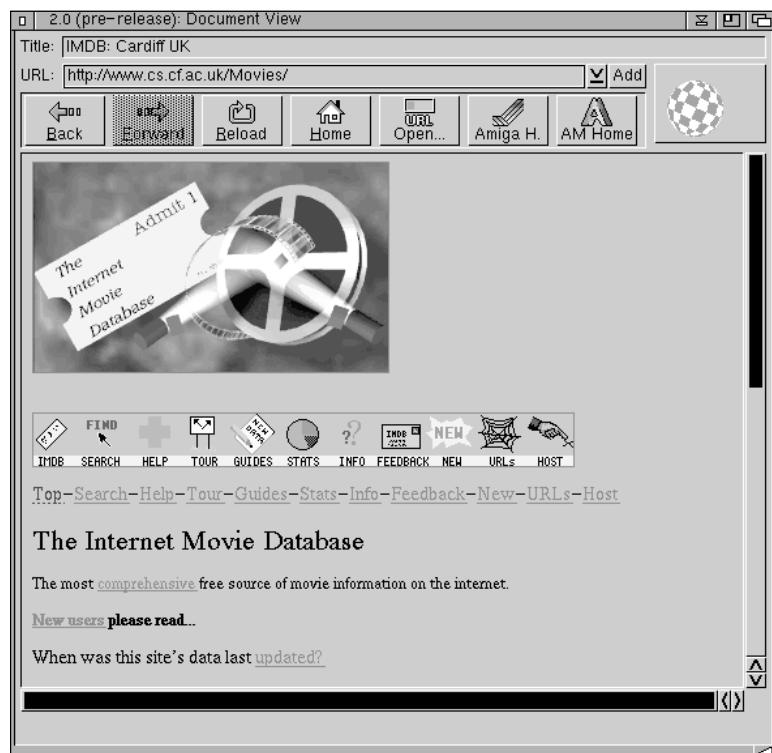
Location

ftp://omnipresence.com/pub/amiga/amosaic/AMosaic20Prerelease3_AmiTCP.lha

Requirements

Magic User Interface (MUI)

GIF DataType



AMosaic has gone through several releases and for a long time was the only graphical browser available on the Amiga. Most bugs have been ironed out, but it is still not completely perfect. Since it requires MUI it can be a little slow on low-end Amigas, but on the plus side it supports forms (text input on Web pages) and can use NNTP to read Usenet news from a news server. It is a reasonable Web browser but unlikely to be updated in the future.

IBrowse

Description

A "next-generation" Web browser

Author

Stefan Burstrem, published by HiSoft Systems

Price

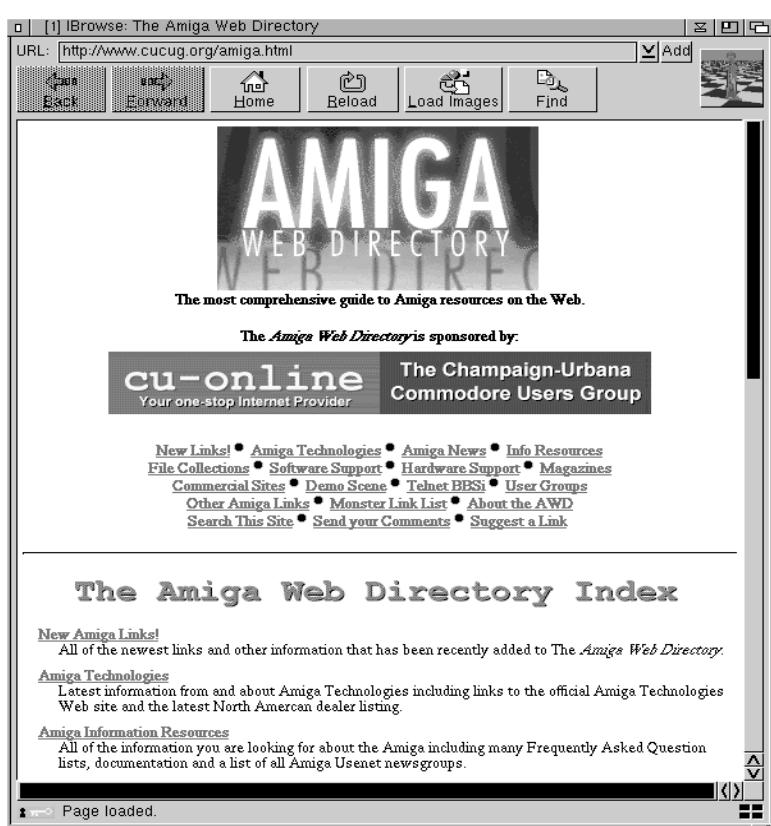
£29.95

Location

<ftp://omnipresence.com/pub/amiga/ibrowse/IBrowseDemoR5.lha>

Requirements

Magic User Interface (supplied with full version)



From the same people who developed AMosaic, IBrowse is a very attractive Web browser. By using MUI and some other tricks it is highly customisable and can be tailored to suit personal preferences quite easily. Its goal appears to be the equivalent of Netscape (a popular PC/Unix Web browser) on the Amiga. It supports many Netscape-type features, such as backgrounds and progressive inline image decoding.

Because of its emphasis on supporting Netscape-like features, IBrowse is a good choice if you want to view Web sites which were developed to look best when viewed using Netscape. Opponents of IBrowse have argued that its use of MUI makes it far too slow and that too much effort has gone into supporting Netscape enhancements instead of standardised HTML tags and commands. However, it is a high quality Web browser and is definitely worth installing.

AWeb

Description

A totally new, fast, standards-compliant Web browser

Author

Yvon Rozijn

Price

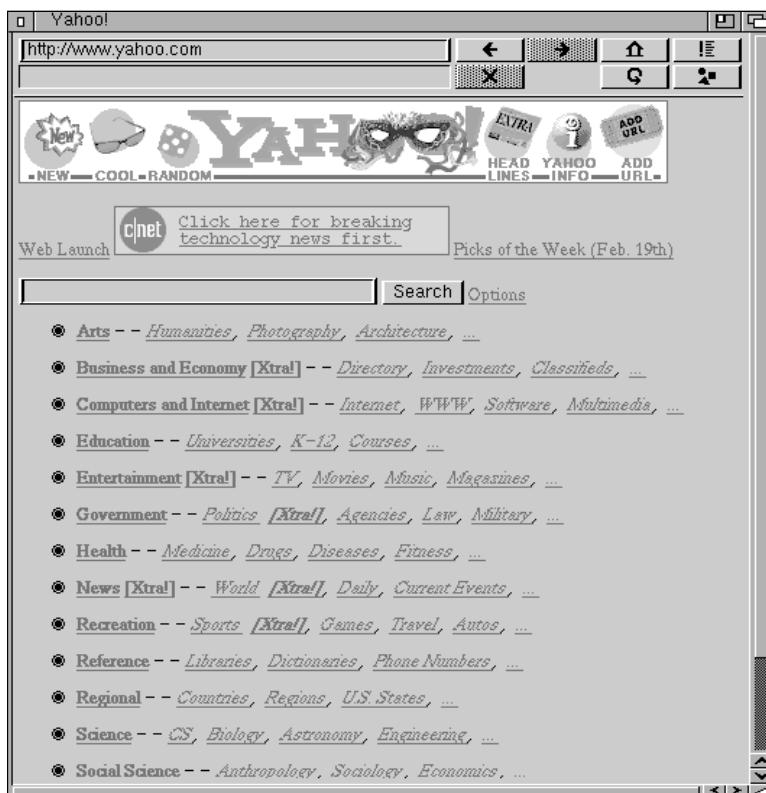
Registered freeware, £25 buys extra features

Location

comm/tcp/AWeb.lha

Requirements

A GIF DataType for viewing images



AWeb is a new browser that is currently in beta-testing. There has been quite a debate on the Internet among Amiga users as to whether or not AWeb is better than IBrowse. By the time you read this both IBrowse and AWeb should be in widespread use and you will be able to try them both out to choose a personal favourite.

The big win for AWeb over IBrowse is its size and speed. It is a smaller and faster Web browser than IBrowse and it does not use MUI. On a basic Amiga system it will appear to run significantly faster than the other available browsers. If you own a high-end Amiga with a graphics card there won't be as much of a difference, but it'll still be worth checking out.

AWeb places more emphasis on support for HTML standards than Netscape enhancements so is preferred over IBrowse by many Internet puritans. Another excellent Web browser, it is a good choice for low-end systems.

Mindwalker

Description

The official Amiga Technologies Web browser

Author

Amiga Technologies GmbH

Price

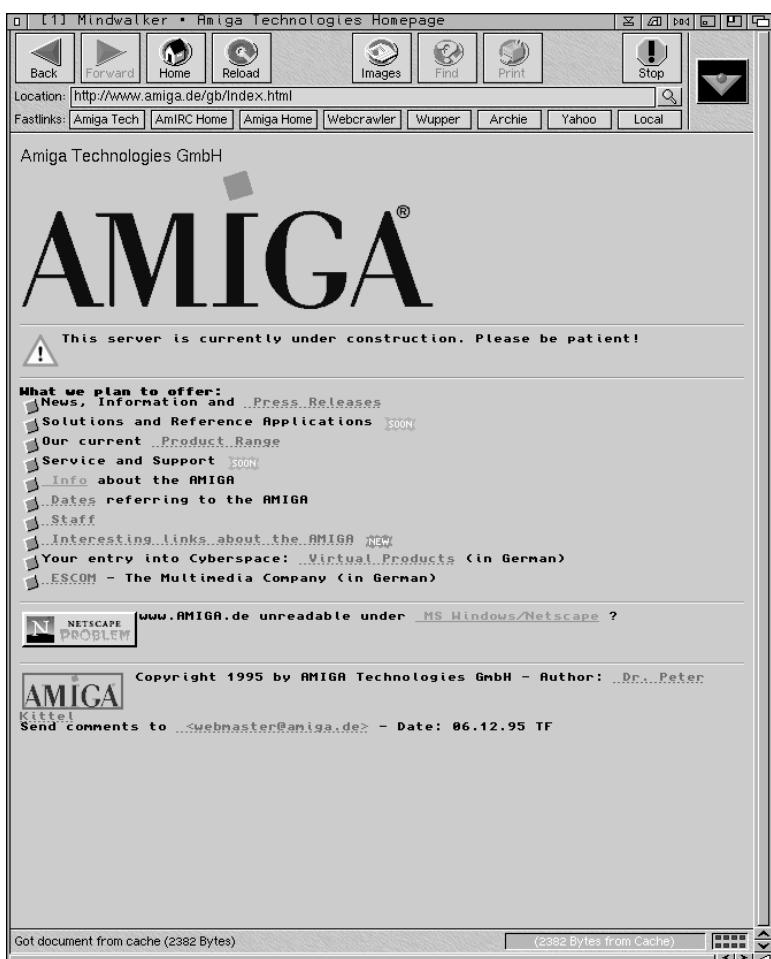
To be announced

Location

To be announced

Requirements

Magic User Interface (MUI)



Mindwalker is the Web browser which Amiga Technologies are distributing with the A1200 Surfer pack. As it uses MUI it should be similar in speed to AMosaic and IBrowse.

HTML

The language used to write a page of Web data is called HTML—the HyperText Markup Language. It is essentially a collection of styles used to define the various components of a Web document. In use it's quite similar to typesetting languages such as TeX or LaTeX. Here's a small example:

```
<HTML>
<HEAD><TITLE>This is the title of my document</TITLE></HEAD>
<BODY>
<H1>This is a level one heading</H1>
Here is some normal text. We can have <B>bold</B> text or
words in <I>italics</I>. We can put paragraphs at the end
of our text.<P>
We can include a GIF picture right here:
<P>
<IMG SRC="amiga.gif">
<P>
We can even make links to other web pages by doing
<A HREF="page.html">this</A>.
<P>
<HR> Finally, a line across the page.
</BODY>
</HTML>
```

This looks a lot more complicated than it actually is. HTML is just ordinary text with embedded formatting commands called “tags”. Tags use the angle brackets `<` and `>` to differentiate themselves from normal text.

If a tag has a “`/`” in it, then it is marking the end of a tag’s usage. So for example, HTML documents should start with the tag `<HTML>` and end with the tag `</HTML>`.

The next two tags a document should have are `<HEAD>` and `<BODY>`. These, along with `</HEAD>` and `</BODY>`, are used to say what text will go in the header of the Web browser page, and what text will be in the body of the page. In our sample HTML file, the only text we have for the header of the page is the name of the document, which should be displayed in the titlebar of the Web browser, and so we use the `<TITLE>` tag.



Within the body of our text we use **<I>** to denote italicised text, **** for bold text, **<P>** to get a paragraph break, and **<HR>** to draw a line (“horizontal rule”) across the page.

The two most important tags on the page are the **** and **<A>** tags. To insert an image into a Web page we use the **** tag. It’s as simple as that. The **SRC=** in the tag specifies the source or filename of the image. The most common format for Web pictures is the GIF image, although slowly JPEGs are becoming more widespread. Trying to use Amiga IFFs is not a good idea as most systems on the Internet don’t support the IFF format. GIFs are quicker to create and quicker to display than JPEG images, but they are limited to 256 colours and are larger in filesize than their JPEG equivalents.

The **<A>** tag is the anchor tag. This is the most important tag of all as it is how you specify a link to another Web page. The **HREF=** in our example simply means “hypertext reference”. By clicking on the word “this” on our Web page, the browser will load a page called “page.html”.

HTTP

To network all these HTML files on different machines a protocol is needed to transfer data between the client browser and Web server. Enter HTTP—the HyperText Transfer Protocol.

HTTP is transport protocol independent, which means it can be implemented using any underlying transport protocol, such as TCP/IP or Novell IPX. However, almost all current implementations run over TCP, usually on port 80. Hence the requirement for AmiTCP or the Commodore AS225 software if you want to start net surfing.

Setting up a Web server is as simple as running a program called HTTPD, which is a program that just sits listening for incoming requests. These requests can be as simple as **GET /** which would request the server’s home page. As a user you don’t need to know anything about HTTP itself. Your browser sends the commands to the HTTPD server for you.

The URL

One of the innovations which has come with the Web is the URL—the Uniform Resource Locator. The URL, as the name implies, is a uniform way of specifying how resources on the Internet can be located. You can think of it simply as a Web page address, but it can be used to describe lots of things. For example:

The Amiga Technologies GmbH home page
<http://www.amiga.de/>

The location of the AmiTCP demo
ftp://src.doc.ic.ac.uk/pub/aminet/comm/tcp/AmiTCPdemo_40.lha

A WWW browser accessible via telnet
<telnet://info.cern.ch>

A Gopher site
<gopher://gopher.ucd.ie/>

The Amiga graphics Usenet news group
<news:comp.sys.amiga.graphics>

Creating a Web page

Having a personal Web page has now become as popular for Internet users as having an email address. If the sample HTML page shown earlier looks a bit too much like hard work, there are a number of programs which can help you create Web pages more easily on your Amiga. We'll take a quick look at three of them, guide2html, HTML-Heaven and Webmaker.

Guide2html

Description

Converts AmigaGuide files to HTML

Author

Christian 'Kochtopf' Scholz

Price

Freely distributable

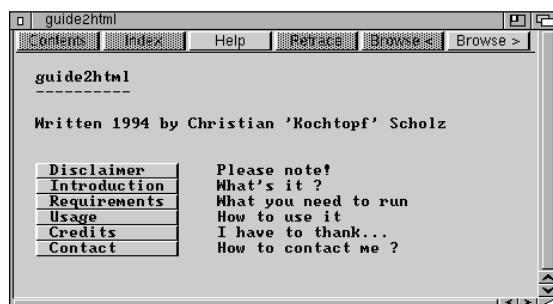
Location

<text:/hyper/guide2html.lha>

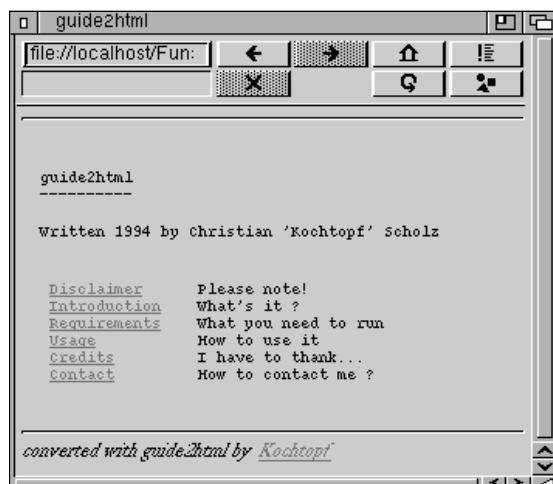
Requirements

No additional software needed

Guide2html is a simple program that will convert files written in AmigaGuide format to HTML. This is useful if you have written some hypertext in AmigaGuide and would like to put it online using the Web. For example, take the documentation provided with the program...



Now use Guide2html to convert it into HTML, and hey presto you've instantly got an HTML version of some AmigaGuide text...



HTML-Heaven

Description

A suite of programs to create HTML from your favourite text editor

Author

Paul Kolenbrander

Price

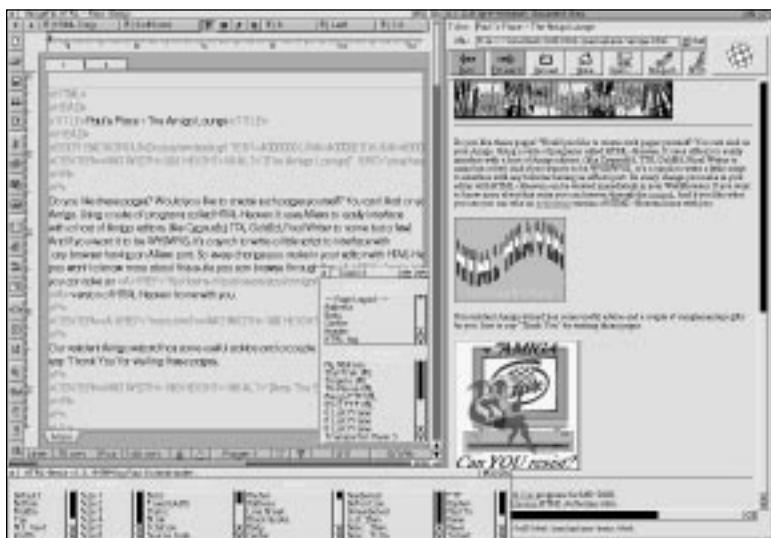
Shareware (US\$15)

Location

<text/hyper/HTML-Heaven.lha>

Requirements

No additional software needed



HTML-Heaven uses the Amiga's ARexx scripting language to interface with your favourite text editor. It works with editors such as AME, CygnusEd, Amiga Ed, Final Writer 4, Wordworth 5, GoldEd, TurboText and any other editor that supports ARexx.

Since the hardest part of writing HTML is remembering all the tags and what they do, HTML-Heaven gives you a number of windows which show you all the tags available and let you insert the tag into your text by simply clicking on the buttons displayed in its windows. If you intend writing a lot of HTML on your Amiga, this can come in pretty handy, but if you are just creating the odd page now and again then the package might be a little complex and offer more features than you really need. A handbook on HTML is probably all you need.

There are currently no desktop publishing style programs that create HTML available for the Amiga, so HTML-Heaven is about the closest you'll get to a graphical HTML builder on the Amiga.

WebMaker

Description

A graphical tool to help create HTML files

Author

Pascal Rullier

Price

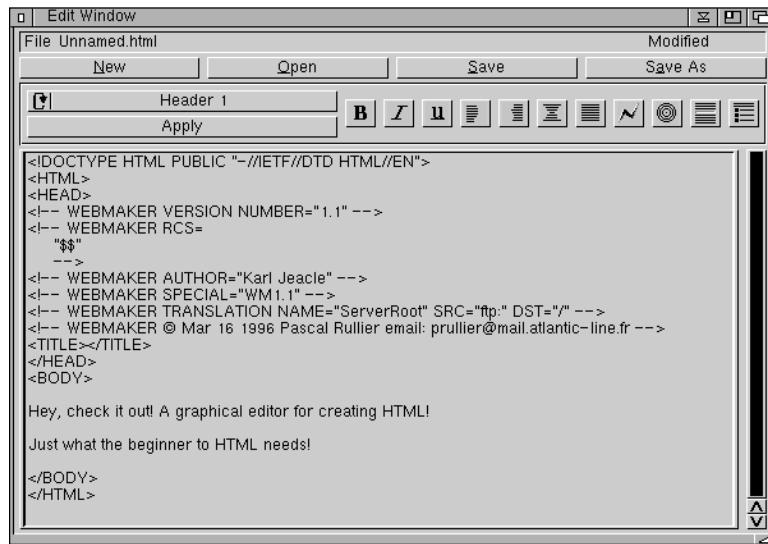
Uncrippled shareware, all contributions welcome

Location

text/hyper/WebMaker1_1.lha

Requirements

Magic User Interface (MUI)



WebMaker is one of the first dedicated HTML editors available on the Amiga. It's not a text editor with HTML extensions. It's not a DTP program that can save as HTML. Its sole purpose in life is to help write HTML.

In appearance it's like a basic text editor, but the difference is that every menu option and every on-screen button is somehow related to HTML. When you create a new document it automatically inserts all the basic tags needed for a Web page, leaving you to start typing in content immediately.

WebMaker allows you to highlight text and then click a button or pull down a menu to insert the relevant HTML tags into the page. This works for almost every HTML command available, and where more than one parameter might be relevant for the tag (such as an anchor) WebMaker will pop up a small window where you can type in the necessary details.

Although this is an early release without a built-in preview function, WebMaker comes with a third-party program, HTMLView, which previews HTML pages in a window on your Workbench. By using this program, or just keeping a separate Web browser running while you create pages with WebMaker, you'll be able to preview your HTML pages instantly.

WebMaker is a good choice for the HTML beginner.

Recommended Web pages

Walk into any bookstore and you will find shelves of books dedicated to the Web. Many of them will be large directories of Web pages. These are often a tempting purchase if you are new to the Web, but the Internet is growing so quickly that no book can hope to cover all the best Web sites out there. The smart way to use the Web is to only ever keep a small number of Web page addresses to hand, and then re-use them over and over to find new places to visit.

This is possible because of something called a search engine—Web sites which maintain huge databases of information on the content of almost every Web site in the world.

Each search engine has advantages and disadvantages and is usually tailored to meet the requirements of a particular type of search. Search engines use forms on their Web pages to allow you to enter a keyword upon which to search.

Search engines

Yahoo

<http://www.yahoo.com/>



Yahoo is probably the best known search engine. It is categorised by subject and is a good place to start if you just want a list of sites relevant to a particular topic.

Infoseek

<http://www.infoseek.com/>

Lycos

<http://www.lycos.com/>

Infoseek and Lycos are good examples of the other type of search engine available on the Web. They automatically browse Web sites all over the world and build a database of the information they find on each page. They don't store everything on every page they find, just a few words or a few lines from each Web page visited—enough to fulfil any search requirements.

SavvySearch

<http://www.cs.colostate.edu/~dreiling/smartform.html>

SavvySearch acts as a smart front-end to other search engines. Instead of typing your query into multiple engines, you just give it to SavvySearch once and it goes off, asks a number of search engines, and then summarises its findings.



General interest

A few sites that you might want to check out to get a feel for what's available on the Web:

Movie Database

<http://www.imdb.com/>

This Movie Database is one of the best resources available on the Internet. You can look up just about any movie ever made and get fully cross-referenced cast listings, reviews, ratings and biographical information on actors and actresses.



The BBC

<http://www.bbcnc.org.uk/>

Lots of useful background information about what's happening at the BBC.



The Electronic Telegraph

<http://www.telegraph.co.uk/>

Definitely a sign of things to come. The day when you can read a personalised newspaper on your computer every day can't be far away.



The FA Premiership

<http://www.fa-premier.com/>

Up-to-date facts and match reports about all the clubs in the English Premiership. If you're into soccer, this is an excellent site.



Weathernet

<http://cirrus.sprl.umich.edu/wxnet/>

24-hour weather reports from around the world.



CityNet

<http://www.city.net/>

Pointers to information on all countries and major cities in the world.



Amiga sites

Amiga Technologies GmbH

<http://www.amiga.de/>

The home page of the company which owns the Amiga. Watch here for press releases and details of new Amigas and the current product line.

The Amiga Web Directory

<http://www.cucug.org/amiga.html>

Maintained by an Amiga User Group in the United States, this has to be the definitive collection of Amiga related links available on the Web.

Aminet

<http://src.doc.ic.ac.uk/public/aminet/info/www/home-src.doc.html>

The world's largest Amiga FTP archive can also be accessed through the World Wide Web. If you don't have proper FTP access then Aminet on the Web will come in handy.



The Web isn't just limited to browsing text and pictures. You can also use your Web browser to download files from the Aminet archives.

Miscellaneous

Four11

<http://www.four11.com/>

Looking for someone's email address on the Internet? This site has millions of email addresses on file.

The WWW Virtual Library

<http://www.w3.org/hypertext/DataSources/bySubject/Overview.html>

The predecessor of the search engine. This page is still a useful place to check out if Yahoo doesn't come up with the goods.