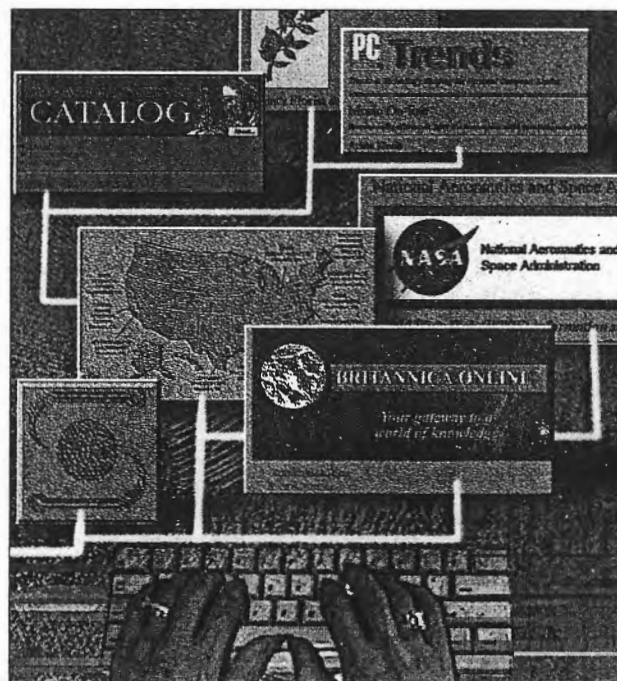


WEB BROWSERS

The Web Untangled



By Rick Ayre and Kevin Reichard

The World-Wide Web is the hottest source of instant information (and entertainment) on the Internet today. Web browsers are the software keys that unlock the door to that world of wonders.

The World-Wide Web is a playground of the mind, a place where anyone with the time and inclination can travel the globe, grabbing a portrait of the First Cat during a tour of the virtual White House, listening to digitized songs from cool, obscure bands, or skimming guides to cities and countries the world over. It's also a way for businesses—from newspapers and record houses to high-tech vendors like Microsoft and Sun—to reach out to customers. It doesn't exist in any physical sphere; indeed, the World-Wide Web is redefined every day by the people who use it.

One of the Web's many emerging identities is as the world's largest hypertext publishing enterprise, a vast panoply of interconnected pages and graphics. At its simplest, the act of publishing on the Web requires little more than a touch of formatting with HTML (hypertext markup language—see "HTML: Nothing but Net" for further details on publishing procedures). Consuming a publication is as simple as pointing your Web browser in the direction of the document; it does the rest.

Web browser? Yes. Sampling the wares of the Web requires a special software tool called a browser. NCSA Mosaic, the most famous browser of all (and 1994 winner of a *PC Magazine* Award for Technical Excellence), really launched the Web as a popular source of instant data—some practical,

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HIGHLIGHTS

Web Browsers

NCSA MOSAIC wins this year's Andy Warhol award for its blinding flash of fame. Within a few months, it has single-handedly put Web browsing, and the Web itself, on the map.

ALL-IN-ONE is the watchword of the new browsers. When we first examined Internet access tools (October 11, 1994), we looked to developers to provide an entire suite of tools. Now, packages such as Netscape include NewsNet and e-mail functionality.

MULTIPLE SESSIONS is another cutting-edge development. Products like Frontier Technologies Corp.'s WinTapestry and BookLink Technologies' InternetWorks (soon to be a part of America Online) let you initiate several sessions simultaneously. IBM Web Explorer even allows you to run multiple sessions of that program.

A PROFUSION OF PAGES is one result of NCSA Mosaic's success. In the BM (before Mosaic) era, Web pages numbered in the hundreds; in the AM (after

Mosaic) age, there are thousands, with new ones appearing daily. Almost anyone with access to an HTTP (hypertext transport protocol) server can be a worldwide electronic publisher.

BUSINESS BURSTS on the Internet/WWW scene with its own profusion of pages, and cybermalls are already lining the highways of the Web. But many vendors are waiting for security measures to be perfected before they launch whole hog into international electronic commerce.

some frivolous—and brought it to the masses. As a byproduct, it spurred development of thousands of “home pages” that can be read by anyone with full Internet access.

To find the aforementioned portrait of First Cat Socks, for example, you merely steer Mosaic (or any other browser) to the White House URL (uniform resource locator): <http://www.whitehouse.gov>. The network handles the task of connecting you directly to the computer that stores the various elements composing the White House home page. The browser then renders those elements—text, graphics, and possibly sound or video—and presents them as a “printed” document.

Browsing the Web is not only easy and fun, it's also forward-thinking, portending the future of personal computing: You work at your own computer, yet you mine data stored around the world. Furthermore, you do it with little effort and without having to know or care where or how the data is stored, what kind of computer it's stored on, or what kind of network that computer is connected to.

NERVES OF COPPER

The Internet, the physical foundation on which the World-Wide Web rests, is a supranational network of computers connected both by wires and by a common communication protocol, TCP/IP. It's a distributed network, so that it continues to function even if parts of it go down. It has evolved as a loose federation without central administration and, therefore, with no one person or organization in control.

Conceived at the CERN particle physics lab in Switzerland, the World-Wide Web was born of CERN scientists' desire to communicate more easily and efficiently with researchers in other locations. A proposal circulated in March 1989 articulated the goal of making all information accessible in a simple and consistent way and led, in November 1990, to a Web prototype that ran on a NeXT computer.

The first generation of Web servers, as you might expect, was populated mostly with information that physicists wanted to share. The second generation was populated primarily by technical research liter-

ature. Today, we're into a third generation of servers, populated with anything and everything under the sun.

GETTING THERE

The depth and breadth of Web content today is staggering. And one of the ways that the Web succeeds in making this content so accessible is through the full indexing and search capabilities that, with blessed foresight, were built into it from the beginning.

Suppose you're interested in the music of Liz Phair and want to see what Web resources are devoted to your favorite singer. Without signposts, the Web can be a daunting, amorphous maze; with a reliable guide like Carnegie-Mellon's Lycos home page (<http://lycos.cs.cmu.edu>)—which contains 216,000 unique indexed URLs—you can simply enter *Liz Phair* and *music* as search terms. Lycos then returns the existence of a Liz Phair home page (<http://txfs1.hfb.se/people/mlu/Music-Page/LizPhair/liz.phair.html>), complete with lyrics, pictures, a discography, and biographical information. Better yet, it contains links to other Liz Phair resources on the Internet. To get to any of these, you simply double-click the highlighted text. You don't have to remember URLs; the Web browser knows precisely where to go.

As a publishing venture, the Liz Phair home page is about as small-scale as you can get: It's the work of a single student (Magnus Lundquist, attending the Col-

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lege of Borlange, Sweden) and is part of a larger collection of his varied interests (Calvin & Hobbes, The X-Files, Winona Ryder). For some examples of business-related Web publishing, see our sidebar "Businesses on a Virtual Rush to the Virtual Mall."

The Internet turns publishing economics upside down: Though the traditional publishing model involves considerable expenditure of capital when physically producing a document, creating a Web document is merely a matter of formatting text with an appropriate hypertext markup language (such as Easy HTML from the National Science Foundation), then placing the document on a Web server (one equipped with HTTP, the hypertext transport protocol). No printing or distribution costs are involved—just the cost of connecting the Web server to the Internet.

LOOKING AT BROWSERS

The first Web clients (readers) were text-mode line browsers, able to follow hyperlinks from one document to other, often remotely located, documents. As users added richer data types to their documents (images, sound, video), protocols were developed to handle the presentation of those types, and text browsers began to evolve into GUI multimedia tools.

NCSA's Mosaic was the first Windows-based Web browser—the killer app that started the stampede to the Web. Today, largely as a result of its stellar success, the browser field is in furious ferment, with new products released weekly and existing ones updated sometimes *hourly*. Browsers are even making it into operating systems: IBM includes a browser with OS/2 Warp, Version 3, and Microsoft plans one for Windows 95.

To help you keep score in this brand-new ball game, our evaluation covers every Web browser that we felt was essentially complete when we conducted our tests. It includes six products that were officially shipping, three freeware packages not officially released by their developers but available for downloading, and one prerelease product that was not generally available to the public, but will be by the time you read this. The group



• Netscape Navigator

The world of Web browsers is in ferment—bubbling and seething with the energy of transformation. In fact, things are changing so fast that many products, including some world-class ones, are being held by their developers in a kind of indefi-

nite prerelease state—even while being made freely available to the public.

Our Editors' Choice, Netscape Navigator, is one such product: The package's developer, Netscape Communications Corp., has been giving it away free over the Internet since November 1994—but hasn't yet declared it officially "done." Done or not, we think it's the best Web browser you can get today.

Since many of Netscape's developers came from the team that created the original Mosaic at NCSA (practically the only browser in existence that actually has a history), comparisons to that program are perhaps inevitable. Netscape is more robust and markedly faster—it's optimized for dial-up connections and is able to display page elements before they're fully downloaded. It also has a much more usable inter-

face. Netscape is easy to configure yet retains some of Mosaic's valuable research-oriented features, such as the ability to annotate hotlists. When used in conjunction with Netscape's yet-to-be-released Web server products, the browser promises to gain secure transaction capability.

IBM's Web Explorer, another "prerelease" browser, is freely available to users of OS/2 Warp, Version 3, via download from the Internet. Web Explorer wins high marks for ease of setup and connects transparently to the Web. We give it an honorable mention. One up-and-coming browser worth looking out for is BookLink Technologies' InternetWorks, a "true" prerelease product (you *can't* actually get this one yet). I-Works promises to support OLE 2.0 and full e-mail capabilities and has an engaging tabbed-notebook interface.

IN SEARCH OF GREATNESS

So what makes a great browser? First, the software should come with an easy-to-use, interactively customizable installation and setup routine. At a bare minimum, it should make it easy to mark your place and return quickly. It should facilitate viewing documents and files in various formats and should give you options for handling large multimedia objects like sound and video files. It should, of course, render graphical elements accurately, interpret HTML appropriately, and do all of the above as fast as possible. Finally, it should be extensible, so you can use *your* favorite software for viewing if you wish or snap in new software if it should emerge.

Does any current browser fill this extensive bill of particulars? Read the reviews that follow and find out.

includes NCSA Mosaic itself (now just a basic browser, but still free), the Mosaic licensees—primarily through Spyglass—that offer Spyglass's Enhanced NCSA Mosaic or further refinements of the Spyglass version, and a number of newer products developed from the ground up, like Netscape Communications Corp.'s Netscape Navigator.

Browsers are distributed in an interesting variety of ways, too. For example, both the freeware NCSA Mosaic and the commercial Netscape are given away for free over the Internet. Other browsers are components of full-featured Internet software bundles, such as WebSurfer with Netmanage's Chameleon. Then there are shareware browsers like Netcom's NetCruiser, Version 1.50: You can try one for free, but you must pay if you plan on using it for more than a week or so.

Suitability to Task: Web Browsers

Web browsers are windows onto the Internet's emerging world of electronic publishing. Though all browsers display text and graphics and follow hypertext links, they do so with differing degrees of grace and thoroughness. Some are naturally easier to contend with than others.

In our **setup and connecting** task, we evaluate the sometimes complex process of getting a browser up and running. We look at how much help vendors supply in assembling and organizing the information necessary to make Internet connections, what, if any, resources they provide (such as their own home pages or other on-line aids) for getting connected, and how much configuration tweaking is required. We also delve into such questions as: What kinds of

connections does a package support? Is TCP/IP and Winsock connectivity supplied? If setup was *not* straightforward, how easy was it to reach the vendor for help, and how helpful were the support personnel when we got through to them?

SUITABILITY TO TASK

	Power	Ease
Setup and connecting	EXCELLENT	FAIR
Navigation	GOOD	GOOD
Extensibility	FAIR	POOR

Our **navigation** task indicates how easy products are to use once you're actually on-line, addressing questions such as:

Does the package provide a home page (or other source) with some sort of "directory" of Web pages? (The absence of this useful feature is a definite minus.) How easy or hard is it to create and maintain

a list of your favorite pages or add and remove pages from such a list? When you're moving around the Internet, how far back does the package allow you to cache previous pages? How informative is the package about current status (such as the size of a download)? Is the screen clearly organized? Can you create custom lists of Web pages?

In evaluating products' **extensibility**, we take a glimpse at issues that go beyond the basics of Web browsing: What level of HTML compliance does a package provide? What features does it have that others do not? Will it let you fill out interactive documents? Does it have built-in text and graphics editors? Can it readily interface with third-party readers or editors? Can you print text from it? Graphics? Both? Does it allow you to view the underlying HTML document? Can it take on the functions of other Internet tools like newsreaders and mail packages?

SPRY Inc.

• AIR Mosaic

BY PADRAIC BOYLE

Surfing the World-Wide Web has never been easier, thanks to SPRY's AIR Mosaic, Version 1.1. Although its 16-bit architecture can slow things down, especially when grabbing large .GIFs, AIR Mosaic is a flexible, easy-to-use, easy-to-configure WWW front end. (A 32-bit version of AIR Mosaic is available but is not fully supported by SPRY.) This browser is available as a standalone over the Internet; you can download it via FTP (<ftp.spry.com>\Air Mosaic Demo\AMOS DEMO.exe) from SPRY to give it a trial run and then register it for \$29.95. AIR Mosaic is also included in SPRY's Internet In A Box, available in retail outlets for \$149.99, as well as in its popular AIR Series.

One of AIR Mosaic's strongest selling points is its ease of installation; you don't need to update any Windows drivers or add Win32s support. (This is important because of incompatibilities between Win32s and many systems.) But as with most of the browsers reviewed, AIR Mosaic requires a separate TCP/IP stack or PPP-compliant communications package with Winsock support. Fortunately, AIR Mosaic operates with all the popular TCP/IP and PPP packages on the market.

Once you are connected to the Internet, AIR Mosaic automatically retrieves SPRY's home page; from there you're introduced to the world of the Web. If an error occurs or you get lost, AIR Mosaic's context-sensitive on-line help gets you back on track.

FINDING YOUR WAY

AIR Mosaic is exceptionally easy to use and to customize. With the click of a button, you can add documents to a hotlist that can be quickly retrieved using a hotkey. A row of buttons at the top of the screen allows you to execute tasks without having to use the pull-down menus.

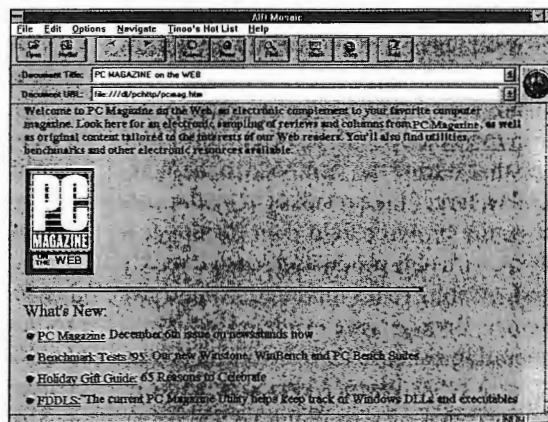
For a more manageable structure as you wend your way through the maze of resources, AIR Mosaic lets you categorize documents into folders, which can be added to the menu bar. You can create up to 15 hotlist folders, each of which can handle approximately 200 URLs.

A feature unique to AIR Mosaic is the Kiosk mode, which allows you to view the full screen without the obstruction of the menu. This is particularly handy if you wish to view a home page in its entirety, but the feature is somewhat limiting. You can only travel forward using hyperlinks in Kiosk mode, and you can't use the menu selections.

Also, you have to exit Kiosk mode to toggle between pages or navigate backwards.

HOW SLOW CAN YOU GO?

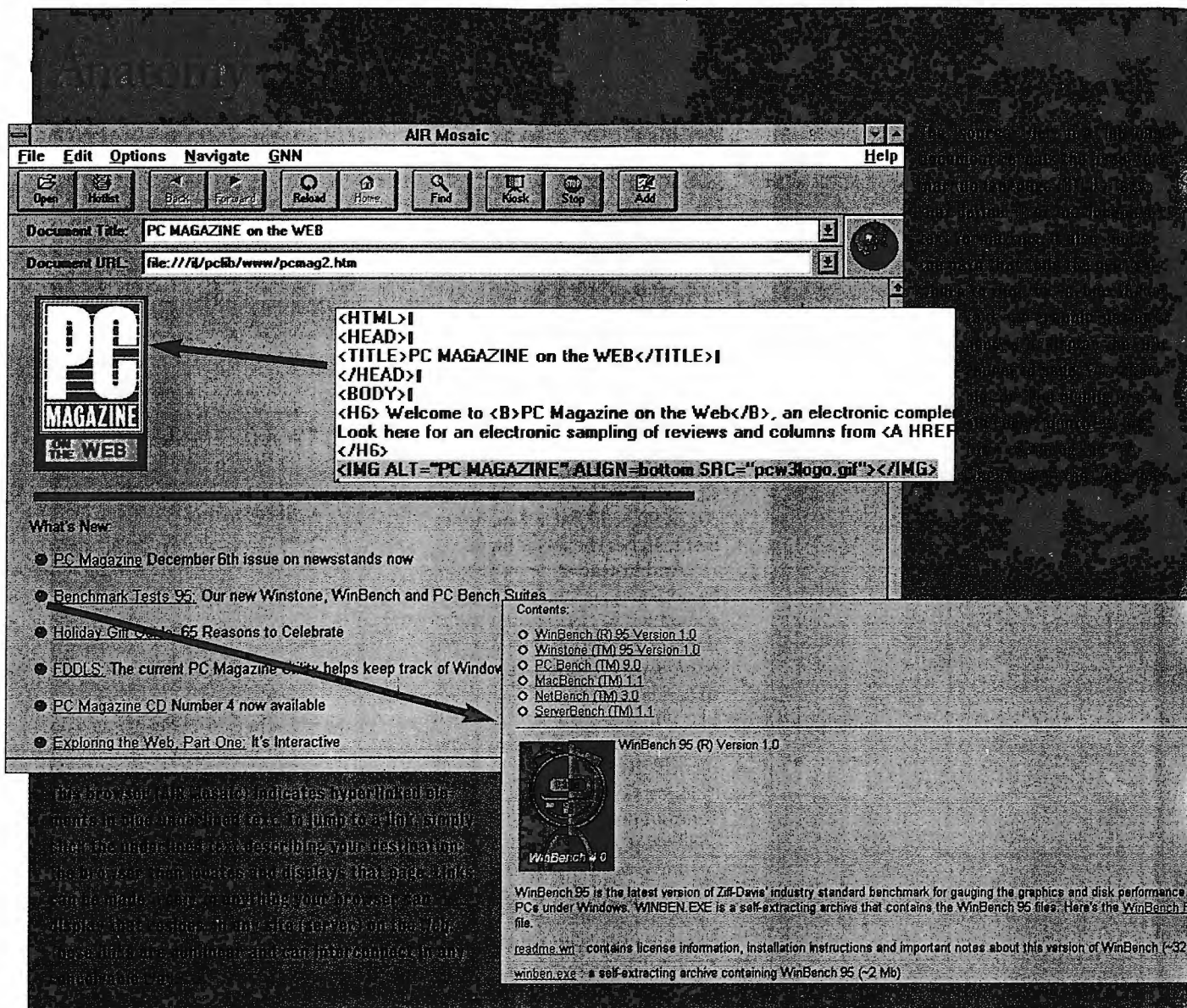
AIR Mosaic's sluggishness when loading large .GIFs can cause some anguish, especially if you're dialing in to a service and paying by the minute. You can turn off the graphics to save time, but then you'll lose the beauty of the more creative home pages. Some of the other



The rendering of Web pages is bold and clear in SPRY's AIR Mosaic. The Kiosk mode, which hides the menu and displays the full screen, lets you take advantage of this.

browsers handle this better. Netscape Navigator, for example, lets you navigate though a page while the .GIF is downloading.

As for other features: FTP and Gopher utilities, a graphics viewer, telnet, and 3270 emulation are all included in AIR



Mosaic. The package also provides limited support for Usenet newsgroups and e-mail. Both Internet In A Box and AIR Series provide full newsgroup and e-mail capabilities.

If time is not of the essence and you need a good, utilitarian Web browser,

SUITABILITY TO TASK		
	AIR Mosaic	
	Power	Ease
Setup and connecting	GOOD	GOOD
Navigation	GOOD	FAIR
Extensibility	FAIR	GOOD

AIR Mosaic is an excellent choice. Although a bit sluggish, AIR Mosaic is easy to use and configure, and its utilities more than make up the difference.

► **AIR Mosaic, Version 1.1.** SPRY Inc., Seattle WA; 800-777-9638, ext. 26; 206-447-0300; fax, 206-447-9008; e-mail, info26@spry.com.

Circle 452 on reader service card

Cornell Law School Legal Information Institute

• Cello

BY KEVIN REICHARD

When compared with other freeware Web browsers—such as the original NCSA Mosaic—Cello 1.01a is a worthy competitor. But as a rival to the slick new commercial browsers like BookLink's Internet Works, Cello (developed at Cornell Law School's Legal Information Institute) comes up just a bit short.

Apart from its features, Cello's primary appeal to Web aficionados is the speed with which it processes HTML documents (even those jammed with graphics). Although all Web browsers are somewhat dependent on the underlying networking scheme for their perceived speed, Cello works well even over a 14.4-Kbps modem connection. Cello requires that you have a SLIP or PPP connection via Winsock or a direct TCP/IP connection. The package is available over the Internet via FTP from <ftp://law.cornell.edu/pub/LII/Cello/cello.zip>

STRING MUSIC

Cello's integrated capabilities make it the only software you'll need for most of your Web browsing tasks. It can follow hyper-

Late, but Not Forgotten

By Sarah Roberts and Amarendra Singh

The phrase *explosive growth* is used a lot in the PC industry, but perhaps never more appropriately than for the current Web-browser market. In one startling example, 1.25 million America Online subscribers will soon have access to the World-Wide Web through Internet Works—a product so new it hadn't even shipped when AOL purchased it last November. I-Works was one of three products that didn't reach us in time for full review, but it should be available in final form by the time you get this issue. We were able to take a good look at all three packages. Here's our report.

WORKING IT

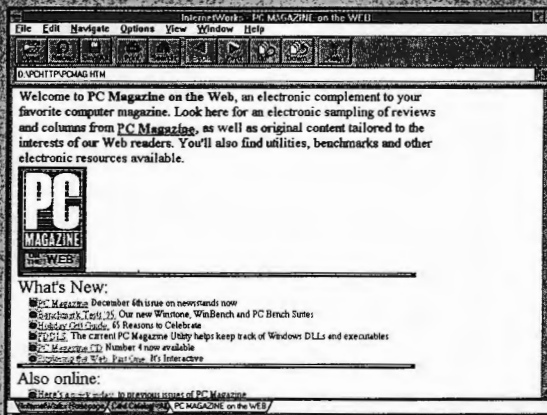
Internet Works (developed by BookLink Technologies) doesn't come with its own TCP/IP stack, but it is Winsock 1.1-compliant. This means it will work with any TCP/IP package, through either a direct or a modem-based connection.

Like many other browsers, I-Works introduces you to the Web through its own home page; it then offers a variety of ways to navigate the Internet. The most innovative of these is by clicking the notebook-style divider "tabs" that the package provides for each Web page. Another cool I-Works navigation feature is the card catalog, which lets you create what are essentially hotlists. The advantage here is that Internet Works supports multiple card catalogs, so you can sort your favorite Web sites in multiple dimensions.

Still other features set this package apart from the current crop of browsers: I-Works offers true multithreading so you can send an e-mail message, download a file, and visit your favorite home page—all at the same time. Another key feature is I-

Works' OLE 2.0 support; presently, InterAp from California Software has the only browser to offer OLE functionality. I-Works also has news-groups, file saving, and printing.

BookLink is offering another versions of I-Works: Internet Works Lite is available for free at [ftp://ftp](http://ftp).



BookLink Technologies' Internet Works has a friendly interface: The clear toolbar, tabs, and rendering make it easy to get around and remember where you've been.

booklink.com/lite, but it has only limited multithreading capabilities and doesn't offer OLE 2.0 support or e-mail. The full version of I-Works is scheduled to sell for \$129 and will include the Internet Yellow Pages.

A ROSE BY ANY OTHER NAME

One of the first companies to license Enhanced NCSA Mosaic from Spyglass was FTP Software, best known for its TCP/IP package (included in its Internet tool set, Explore OnNet). FTP's version of Mosaic naturally has much the same functionality as the Spyglass version we review in this roundup, but FTP has made some welcome improvements to the basic package.

Explore OnNet Mosaic offers the basics—support for multiple windows, printing, forms, proxy gateway, the ability to create hotlists, and more. Perhaps the most exciting addition is that (as with Netscape Navigator) you can read and view your files as they are

downloading instead of having to wait. Explore OnNet is designed for a modem-based connection but works with most TCP/IP stacks and PPP- and Winsock 1.1-compliant packages.

One area that still needs work is Web navigation. Explore OnNet Mosaic has only two simple navigation icons—one to move forward and one to move backward. You have to use the menu bar or hotkeys to access all commands, which can be irritating. Also, you can't modify the .INI file to customize your menu bar, which you can do in the original NCSA Mosaic. Overall, Explore OnNet has made a decent showing and is currently available for \$149.

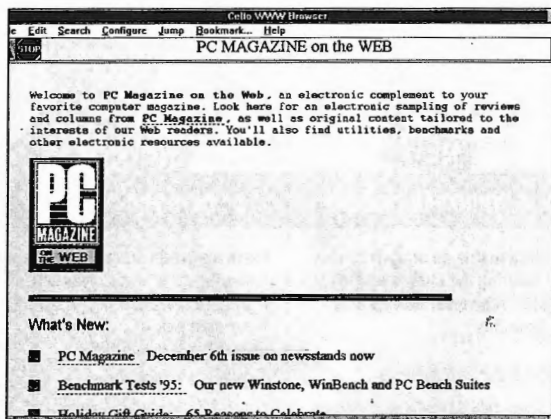
SURFING SAFARI

The last latecomer was Netmanage's WebSurfer (a component of Chameleon). This package may have the easiest configuration and installation process yet. All you have to do is click on the "Instant Internet" icon and voilà—your software is configured for an Internet connection, ready for you to sign up for an Internet account through any one of several on-line services.

Netmanage's home page is the first place you'll go. Like IBM Web Explorer, WebSurfer includes some features seasoned Web veterans will appreciate, like support for simultaneous connections and the ability to import your old Mosaic .INI file so you can automatically retain all your favorite sites. In addition, WebSurfer keeps a "history" page that allows quick connections to previously visited sites, lets you create hotlists of your favorite locations, and supports printing.

To get WebSurfer, you must either buy Chameleon, which retails for \$199, or download just the Web browser at ftp.netmanage.com. □

text links to newsgroups, send (but not retrieve) electronic mail, and perform a search on a WAIS gateway—as long as you provide IP addresses for these func-



Cello's navigational tools are limited (you can jump forward or stop a download only from the toolbar), and its graphical page-rendering is cruder than that of some other browsers.

tions. Cello also launches telnet, 3270, and FTP sessions independently.

The main tradeoff for Cello's power is its less-than-graceful handling of in-line graphics (graphic images in HTML documents) and document layouts. When you view a Web document, everything but the document text (bars, boxes, images, and so on) is a graphic. Something as simple as the edges on a two-tone bar or a drop shadow must be rendered by the browser, and here Cello falls short, treating such graphical elements rather crudely. Two-tone bars, for example, appear uneven at the ends; drop shadows are rendered with thick, ungainly lines.

OVER FAITHFUL

In addition, Cello interprets HTML too literally in rendering the spaces around

SUITABILITY TO TASK

	Cello	
	Power	Ease
Setup and connecting	FAIR	GOOD
Navigation	GOOD	FAIR
Extensibility	FAIR	GOOD

HTML tags, which makes word spacings uneven and gives the document a choppy, amateurish look. Cello also has an unusual default method of indicating hypertext links. Instead of relying on a contrasting color or underlining (or both), it puts a dotted line around the linked word or

phrase, separating it awkwardly from the rest of the text. Another quirk: Cello doesn't automatically resize Web pages when you resize a window, so you must reload the document to display the appropriate layouts.

Some of these bumps can be smoothed out manually. For instance, Cello's hypertext link default can be changed through an easily accessible menu choice that replaces the dotted lines with underlining. Furthermore, every text element can be adjusted by font, size, and color. Still, the general perception is that Cello-rendered Web pages are on the rough side—especially when compared with NCSA Mosaic or Netscape Navigator. This issue of faithful rendering will only become more important as the Web's popularity as an electronic publishing platform increases.

Sad to say, a product finalized in March 1994 is already showing its age. But this is the unfortunate reality of the competitive world of Web browsers. By the time you read this, Version 2 of Cello should be available, at least in beta form. Developer Thomas R. Bruce promises that this total rewrite will address many of the concerns raised here (such as better control over in-line images) and add support for forms, a button bar, and Object Linking and Embedding (OLE).

► **Cello, Version 1.01a.** Cornell Law School Legal Information Institute, *Ithaca, NY*; e-mail, lii@fatty.law.cornell.edu. Circle 453 on reader service card

Spyglass Inc.

• Enhanced NCSA Mosaic for Windows

BY PADRAIC BOYLE

Spyglass holds a big card—the official licensing agreement for commercial rights to the NCSA Mosaic graphical interface—and recently played it by unveiling Enhanced NCSA Mosaic for Windows (now in Version 1.02).

When Spyglass acquired the rights to Mosaic, it decided essentially to start over by streamlining and stabilizing the code and eliminating some features such as the

hotlist and some task buttons. Several of these features will begin reappearing in the next release. Meanwhile, in Version 1.02, Spyglass has improved the original Mosaic by including printing, support for forms and multiple windows, a proxy gateway, and a newsreader (albeit a very limited one).

You can get Spyglass's Enhanced NCSA Mosaic by buying *The Mosaic Handbook for Microsoft Windows* (\$29.95), published by O'Reilly and Associates. But the package is primarily shipped from OEMs to companies that then customize the package and ship their own integrated release.

Installing Spyglass's Enhanced NCSA Mosaic is pretty straightforward. Windows drivers are automatically installed and configured for Win32s operations; however, Win32s may cause problems in systems with high-end graphics cards or with less than 4MB of RAM. The package does not come with either a TCP/IP stack or an asynchronous package, but it does work with most TCP/IP stacks or PPP-compliant packages that support WIN-SOCK.DLL.

To configure Enhanced NCSA Mosaic you have to make selections in the Preferences dialog box or manually edit the .INI file, which can be cumbersome. (This is in contrast to SPRY's AIR Mosaic, for example, which handles configuration via pull-down menus.) Version 2.0 of Enhanced NCSA Mosaic, due out by the time you read this, should include a friendlier configuration menu.

FOR WHOM THE DECK IS STACKED

Once you're connected, your first glimpse of the Web is through Spyglass's home page, which is stored on your local PC—not Spyglass's server. From there you can hyperlink to the Web.

One of Enhanced NCSA Mosaic's most useful features is support for multiple windows. This allows you to connect to multiple hosts and switch between windows to view data. Navigating Enhanced NCSA Mosaic is similar to navigating most of its competitors, except that it has few of the one-click navigation aids provided by other packages (only backward and forward arrows are available).

Other minor inconveniences: When you retrieve a document or .GIF, the

SUMMARY OF FEATURES

Web Browsers



Products listed in alphabetical order	AIR Mosaic 1.1	Cello 1.01a	Enhanced NCSA Mosaic for Windows 1.02	InterAp 26	NCSA Mosaic 2.0	NetCruiser 1.50	Netscape Navigator
■ = YES □ = NO							
List price	\$29.95 (also included in other SPRY products)	Free	Varies by vendor	\$295.00	Free	Included with Netcom's Internet service	Free (\$99.00 per user for corporate package)

General Features

Allows multiple simultaneous connections	■	■	□	□	■	□	■
Requires third-party SLIP/PPP provider	■	■	■	■	■	□	■
Winsock 1.1-compatible	■	■	■	■	■	□	■

Configuration

Editable .INI file	■	■	■	■	■	■	■
User can turn off graphics	■	■	■	■	■	■	■

Navigation and Storage

Can save documents to disk	■	■	■	■	■	■	■
Can print text and graphics	■	■	■	■	■	■	□
Displays progress report while loading pages	■	■	■	■	■	■	■
Offers interactive hotlist	■	■	■	■	■	■	■
Can add current URL to hotlist	■	■	■	■	■	■	□

History and Customization

History log	■	■	■	■	■	■	■
Unlimited page cache	□	■	□	□	□	■	■
Customizable page cache	■	■	■ (via .INI file)	■	■	□	■
User can create and edit stylesheets	□	□	■	■	□	■	□
Macro support	□	□	□	□	□	■	□
OLE 2.0 support	□	□	□	■	□	□	□
Forms support	■	□	■	■	■	■	■

Tools

archie	□	■	□	□	□	□	□
FTP	■	■	■	■	■	■	■
Gopher	■	■	■	■	■	■	■
Jughead	□	■	□	□	□	□	□
Veronica	□	□	□	■	□	□	□
WAIS	□	■	□	□	□	□	□

Miscellaneous

Usenet newsgroups	■	■	■	Optional	■ (read only)	■	■
E-mail	■	■	□	Optional	□	■	■ (send only)
MIME support	■	□	N/A	Optional	N/A	□	□
Search capabilities	■	■	■	■	■	■	□
Local on-line help	■	■	■	■	□	■	□
Printed documentation	■	□	■	■	■	■	■ (corporate package; optional for free version)
Debugging	■	■	■	■	■	□	■

N/A①—Not applicable: The product is a native OS/2 application.
N/A②—Not applicable: The product does not have this feature.
① Only fonts are editable, via .INI file.

status bar at the bottom of the screen shows the source path and name but offers no information about the size of the file or the progress of downloads. Furthermore, the package includes no graphics viewer, although it supports third-party viewers.

Another of Enhanced NCSA Mosaic's strong points: If you're in the middle of retrieving a document and the transmission is taking too long, you can abort the task by hitting the Esc key. Multiple windows support is still its biggest plus. Enhanced NCSA Mosaic is not as feature-rich as

other products on the market, such as AIR Mosaic, but it does provide a no-frills stepping-stone to the wonders of the Web.

► **Enhanced NCSA Mosaic for Windows, Version 1.02.** Spyglass Inc., Naperville, IL;

708-505-1010; fax, 708-505-4944; e-mail, info@spyglass.com.

Circle 454 on reader service card

California Software Inc.

● **InterAp**

BY PADRAIC BOYLE

If California Software comes through with all the goodies promised for InterAp, its Internet access package, this product should be a real presence in the rapidly evolving scene. And at press time, California Software seemed pretty

SUITABILITY TO TASK

	Enhanced NCSA Mosaic for Windows	
	Power	Ease
Setup and connecting	GOOD	GOOD
Navigation	FAIR	GOOD
Extensibility	FAIR	GOOD

Businesses on a Virtual Rush to the Virtual Mall

By Jill H. Ellsworth

The hottest thing going on the Internet these days is the World-Wide Web. And the hottest development on the Web is... business. The use of the Web for commercial home pages, cyber-malls, and virtual storefronts has recently outstripped Gopher use as the most popular Internet activity.

Companies as diverse as Dun & Bradstreet, Mighty Dog T-Shirts, Rolls Royce of Beverly Hills, Roswell's Bookstore, and Scottso the Clown are all creating a business presence on the Internet. Their Web home pages are typically designed to attract customers with flashy text and graphics (like the frequently updated pictures of Iguana Images' mascot, Dupree, at <http://iguana.images.com/>). They also provide point-and-click access to information, entertainment, and direct on-line sales.

This fire is being fueled by the rise of easy-to-use graphical browsers such as Cello, Mosaic, and Netscape Navigator and graphical Internet front ends like those provided by Chameleon, Netcom, and Pipeline. These nifty new tools are attracting new users to the Internet by the tens of thousands.

IT TAKES ALL KINDS

The range in size and types of businesses using the Web is enormous. Small businesses and sole proprietors operating on a shoestring—florists, physicians, craftspeople, realtors, and the like—are there alongside big companies like Motorola, Sun Microsystems, and Time.

One tremendous advantage of the Web as a venue for small businesses is that it can level the playing field, letting a cottage industry in the hills of Pennsylvania compete on a more or less equal footing with a corporate giant headquartered in Manhattan. The cost of Internet access is so low that even small businesses can afford

to be there—preparing their own Web pages or using the services of an increasing number of Web consultants.

HAPPENINGS ON THE EDGE

Businesses using the Web are conducting many traditional activities on-line: communication, customer support, and, increasingly, marketing and sales.

Hewlett-Packard, for example, offers a customer support site at <http://support.mayfields.hp.com>. Customers can access software patches, cruise for solutions to technical prob-

lems, get announcements and news, and offer feedback.

you visit The Branch Mall's home page (<http://branch.com:1080/>), you can click on the voice link to hear a welcome message, then click on hotlinks to any of the storefronts.

Nova Scotia Technical Network provides a cybermall for commercial products and services called Cyber Ads (<http://www.nstn.ca/cybermall/first.html>), which has an Internet Business Directory, a Cybrary, and public information Kiosks.

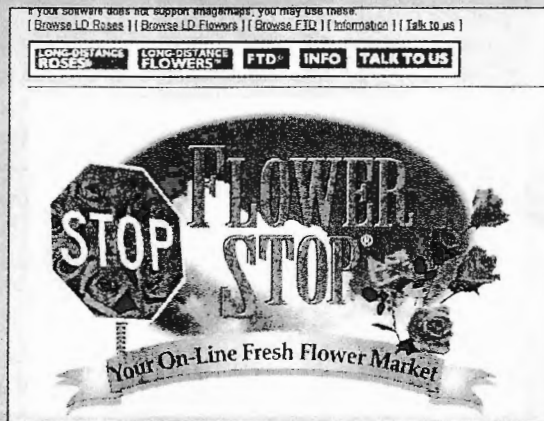
BEYOND THE BLUE HORIZON

The future of commerce on the Web will likely turn on one key item: security. Many groups are hard at work creating secure transaction methodologies—dubbed cyberbucks, digi-cash, net-cash, and the like—that will effectively support on-line monetary transactions through such devices as encrypted signatures and authentication algorithms. Once in place, such security measures should make buying and selling in cyberspace popular.

One offshoot of the burgeoning business activity on the Web is an ancillary industry of Web service providers that offer home-

page preparation, Web space rental, and various consulting services. The Tenagra Corporation is one of the most interesting. A part of the NASA commercialization center, Tenagra orchestrated the creation of the Racquet Workshop—the first tennis pro shop on the Web—by doing a competitive market assessment, defining page content, processing the images, and setting up the Web site (<http://arganet.tenagra.com/Tenagra/tenagra.html>).

With Internet connectivity offered virtually for free by Microsoft Windows 95 and OS/2 Warp, with the Internet growing by about 10 percent a month, and with Web activities doubling every three months, the future of business on the Web looks bullish. □



Ordering fresh flowers is just one of the things you can do on the Web. You can get to Flowerstop, Your Online Fresh Flower Market, from The Branch Mall's home page.

lems, get announcements and news, and offer feedback.

EINet, by contrast, provides commercial Web services and multimedia products such as MacWeb, WinWeb, MacWAIS, and WinWAIS in support of commerce and security on the Internet. In an effort to give back to the Internet, they support a directory of resources (<http://galaxy.einet.net/>).

Companies can set up their own Web servers as virtual storefronts or lease "space" in a cybermall from a Web services provider. One of this new breed, The Branch Mall, has electronic stores for all kinds of vendors.

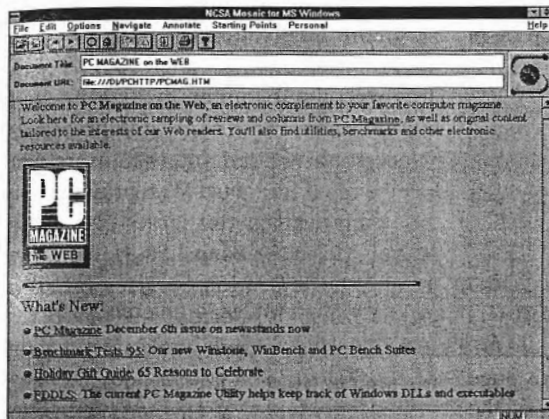
These currently include book-sellers, chocolatiers, a logging and timber company, and vendors of flags, exercise devices, and tuxedos. When

National Center for Supercomputing
Applications, University of Illinois

• NCSA Mosaic

BY SEAN GONZALEZ

If you have direct or dial-up TCP/IP Internet access and don't have NCSA Mosaic, Version 2.0, wait no longer to down-



The now-famous globe logo spins in the upper-right-hand corner of the screen as NCSA Mosaic accesses Web pages. Interrupting the process is as simple as clicking on the icon.

load this World-Wide Web browser (ftp.ncsa.uiuc.edu). Mosaic 2.0, younger sibling of the browser that started it all, is available free of charge (though not yet officially released) over the Internet for noncommercial purposes. (Licensing for commercial use is possible through Spyclass, whose Mosaic product is also reviewed here.)

Mosaic 2.0 is a 32-bit application for Microsoft Windows 3.1, Windows for Workgroups, Windows NT, and OS/2. But unless you run Windows NT, you'll need your vendor's 32-bit extensions for Windows (Microsoft's 32-bit extensions for Windows—Win32s, Version 1.1.5a—are in the same directory as Mosaic 2.0). For those who can't run 32-bit applications, two old, unsupported 16-bit versions (Version 1.0 and Version 2.0 Alpha 2) are still available from NCSA.

Thanks to a great installation guide and FAQ document, installing Mosaic 2.0 is a snap. If you need more information, you can order it via the Mosaic support line or by e-mail (orders@ncsa.uiuc.edu).

Mosaic 2.0 will run as-is from the distribution package, but you may want to make some changes to MOSAIC.INI, such as adding your e-mail address and defining

your SMTP and NNTP servers for Usenet News. If your system has sufficient RAM, increasing the setting for the number of automatically cached documents will speed access to recently viewed pages.

TOOL TIME

When you run Mosaic 2.0, the first thing you'll see is NCSA's home page, which includes links to Mosaic 2.0's online documentation and Web-server directories. The documentation contains such useful information as how to configure any necessary viewers. (NCSA's upcoming GUI configuration tool should make this a lot simpler.)

Mosaic 2.0 includes a couple of useful feedback tools: Tool Tips identifies each toolbar button's function, and the status bar displays URLs as you move the cursor over them and informs you of a page's download size and progress.

Mosaic 2.0 also provides

three tools for managing URLs. You can annotate pages you've visited; each annotation is then displayed as a URL at the bottom of the page the next time you

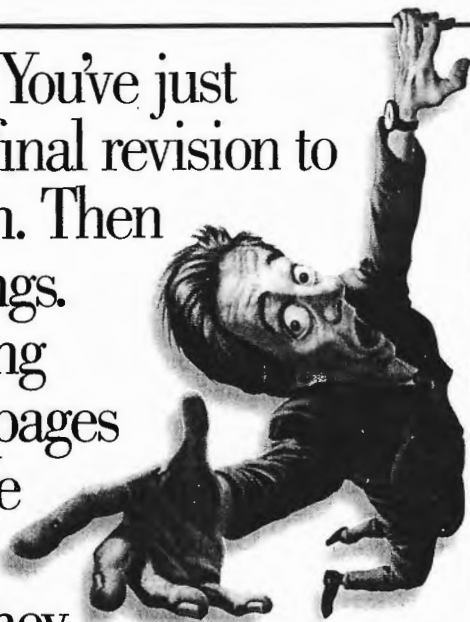
SUITABILITY TO TASK		
NCSA Mosaic		
	Power	Ease
Setup and connecting	GOOD	FAIR
Navigation	GOOD	GOOD
Extensibility	GOOD	GOOD

open it. You can create a hotlist of URLs—a good way to store those you access infrequently. And you can build cascaded menus of URLs using the Menu Editor. Both the hotlist and the Menu Editor let you open URLs from pull-down menus.

SEMISTANDARD BEARER

Although HTML standards are still being defined, Mosaic 2.0 is almost fully HTML, Version 2-compliant. This means you can use most Internet resources, including forms, FTP, Gopher, newsgroups, telnet, and WAIS. Newsgroup support is limited

It's 3:50 pm. You've just finished the final revision to the sales plan. Then the phone rings. "We're sending over 10 new pages of competitive info." Click. Good thing they lock the windows on this floor. You have to get it into the plan by the end of the day. What now?



to read-only, however; no tools to manage subscriptions to newsgroups are available. Mosaic 2.0 does not support MAILTO URLs (which allow you to send e-mail directly from the browser), but NCSA plans to implement this feature soon.

Mosaic 2.0 lets you view or save the HTML source of a page. You can also print the formatted page or even use a Print Preview feature, but these tools are still unreliable. NCSA hopes they'll be bug-free by the official Version 2.0 release.

Site administrators should be pleased with Mosaic 2.0's advanced features. Kiosk Mosaic disables configuration-editing options to prevent unauthorized changes. Mosaic 2.0 also supports proxy gateways, and, in a joint effort with Spyglass, NCSA plans to add data encryption and authentication and digital signature support.

Aside from a few quirks and bugs, Mosaic 2.0 is a stellar Web browser. Having paved the way for others, it remains at the leading edge of this new and exciting technology.

► **NCSA Mosaic, Version 2.0.** National Center for Supercomputing Applications, University of Illinois, *Champagne, IL*; 217-244-3473; e-mail, orders@nca.uiuc.edu.

Circle 456 on reader service card

Netcom On-Line Communication Services Inc.

• NetCruiser

BY KEVIN REICHARD

Using Netcom On-Line Communication Services' NetCruiser, Version 1.50, means taking the bad with the good. Although there's much to like about NetCruiser and its Web browser, there's also much that may fail to please.

Part of NetCruiser's appeal is that it comes free with subscriber service to Netcom's Internet access service, which is \$19.95 a month with a \$25 startup fee. (Note that the software works *only* with this service.) NetCruiser offers a variety of Internet tools, including a separate Web browser. Connecting to the Internet in this manner is absolutely painless; NetCruiser handles all of the messy network-connection details.

The other side of the access equation, however, is that using Netcom's service limits you to the proprietary NetCruiser

tools. So if you like NetCruiser's Web browser, you're sitting pretty; if you dislike it, this could be a problem.

ONE STEP OVER THE LINE

Chances are you will like the NetCruiser browser, as it affords easy access to World-Wide Web servers. A well-designed toolbar lets you navigate through previously chosen Web sites as well as add sites to a list of bookmarks. In

SUITABILITY TO TASK

NetCruiser		
	Power	Ease
Setup and connecting	GOOD	FAIR
Navigation	GOOD	GOOD
Extensibility	FAIR	FAIR

a move that 14.4-Kbps modem users will love, the NetCruiser browser provides full information about the status of a page download, telling you how much of the page has been grabbed and how much is to come—including graphics files. Anyone who's sat through the interminable download of a massive .GIF—or of a .GIF-studded page—will appreciate this level of feedback.

NetCruiser and the Web browser seem clearly intended for Internet novices; unfortunately, the browser is configured with a minimum of interesting Web sites. Users are also expected to know a Web site's URL or its physical location. The only linked searching tool is the CERN Web-server listings, which tends to be more difficult to use than indexes such as Carnegie-Mellon's Lycos. Netcom also provides its own home page and linked pages for NetCruiser users; though these are useful, they could be expanded to provide a larger view of the vast WWW.

The NetCruiser browser's performance was regrettably inconsistent. Out of 19 test connections, the browser failed to connect to a Web server 5 times. Twice it connected but then choked on the resulting home page, returning an error message. Additionally, we experienced two general system failures that may have been due to the network connection.

Part of the problem lies in the frequent NetCruiser upgrades released during the evaluation period (indeed, it sometimes seemed like upgrade *du jour*). It's clear that the code hasn't achieved an acceptable level of stability, as evidenced by the system crashes and errors. The flip side, of course, is that Netcom seems committed to bringing out new versions of NetCruiser as needed.

In the end, NetCruiser is an adequate tool for novices who want relatively painless exposure to the Internet and are willing to contend with some stability issues. More sophisticated Internet users who need a reliable, robust Web browser may find their needs better served elsewhere.

► **NetCruiser, Version 1.50.** Netcom On-Line Communication Services Inc., *San Jose, CA*; 800-501-8649, 408-983-5970; fax, 408-241-9145; e-mail, info@netcom.com.

Circle 457 on reader service card

A Netscape Communications Corp.

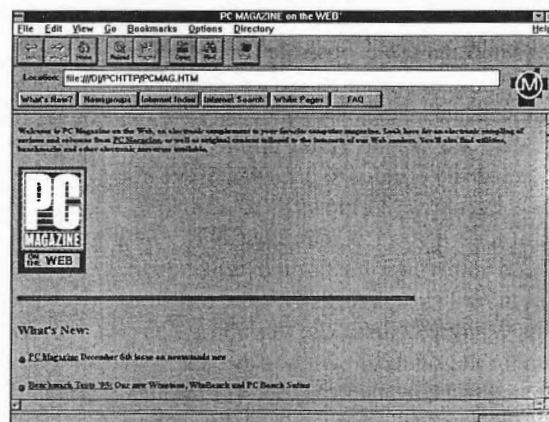


EDITORS' CHOICE

Netscape Navigator

BY ANGELA GUNN

With all the media hype surrounding NCSA Mosaic, the question on everyone's mind is: Can the Web move beyond this alleged "killer app"? Judging from



Single-button access to newsgroups, choice Web pages, powerful search engines, and clear, crisp graphical images are part of what makes Netscape Navigator stand out.

the early release of Netscape Navigator we downloaded in November, the answer seems to be yes. This sparkling new free-ware browser from Netscape Communications Corp. is still under construction but is available via FTP from <ftp.mcom.com/netscape/>. The designers of

Netscape were on the original NCSA Mosaic team, and from the looks of things, they've learned from that pioneer product's triumphs and shortcomings. Netscape is designed with a finer understanding of what people want from the Web—faster graphics and fewer configuration hassles.

Installation is simple: Download the file, unzip it, move the NETSCAPE.INI file to the Windows directory (if you've never used any other version of Mosaic before), and manually add the icon to a program group. Be warned that crucial configuration information isn't available in the beta .ZIP file; Version 1.0, however, will have the info. You have to connect to the *home.mcom.com* site to find out which TCP/IP stacks have been tested with the browser—an annoying catch-22. (At press time, the freeware product Trumpet, Chameleon's NetManage, FTP Software's PCTCP, Microsoft Windows for Workgroups, and Microsoft NT had all been tested.)

PUMPED, PRIMED, AND READY

Once the package is loaded and linking, you may never want to log off again. Netscape positively crackles compared with older browsers. Part of the speed may be attributable to psychology; Netscape keeps you so well informed about your transfer status (by byte count and status thermometer) that no time is spent fretting over it. This perception is enhanced by the "fade-in" effect: When Netscape links to a server using Netscape Communications' server software, you can view graphics before they've entirely arrived. Saving to disk and printing work as expected; however, a few of the more advanced Web pages, particularly those with forms, proved troublesome to access. (It's unclear whether the fault lay with Netscape or the server.)

To retrieve help information, you have to go on-line, but help and certain other pages linked to Netscape Communications' home page are well-chosen and are echoed on the main screen by a set of interface buttons. Netscape doesn't allow you to import old lists from NCSA Mosaic,

but that's not a problem; designing a new hotlist is a treat. The program keeps track of the pages, when they were created, and any notes you care to make about them (a welcome throwback to the old Annotate function in NCSA Mosaic). You can also arrange pages into submenus and used the search engine to page through the list if it gets too long.

LEAVING YOUR MARK

Two of Netscape's navigation aids can truly enhance your travels. First, you can keep track of your links for days, weeks, or even a year after you've first used them. Second, the history list (which is configurable to take up as much memory as you wish) makes it easy to generate bookmark items you've already seen without actually having to be in the page.

Netscape also graciously forgives bad habits. For example, if you start loading

an image type you don't have a viewer for, Netscape reminds you that an application hasn't been chosen and asks if you want to try anyway, abort, or save to disk. And scrolling down mid-transfer doesn't faze the software; pages continue loading without incident. This is a real boon if you're impatient when grabbing graphics-heavy pages.

That Netscape was built to work with proprietary server software called Netsite doesn't really seem to matter. (Netscape Communications is giving away the browser to encourage sales of its server software to Web sites.) It's still a star, even as a solo act. The lack of configuration files may intimidate the novice user, but even slightly experienced Internet surfers should download Netscape and check out the future of World-Wide Web browsers. What the heck—it's free.

► **Netscape Navigator.** Netscape Communications Corp., Mountain View, CA; 800-638-7483, 415-254-1900; fax, 415-254-2601; e-mail, info@mcom.com. Circle 458 on reader service card

	SUITABILITY TO TASK	
	Power	Ease
Netscape Navigator		
Setup and connecting	GOOD	EXCELLENT
Navigation	EXCELLENT	GOOD
Extensibility	EXCELLENT	GOOD

187 pages of legal briefs have just arrived at the office. On your desk. Apparently, your boss wants you to key them into his new client report. By 5:00 pm. For a moment, you wonder if life in prison without parole would be so bad after all. What now?

IBM Corp.

• Web Explorer

BY AMARENDRA SINGH

A few of the packages in this roundup require you to change your TCP/IP stack, but IBM's Web Explorer is the only one that asks you to change your operating system. Web Explorer is part of a package of Internet tools and services called Internet Connection for OS/2 that IBM is essentially giving away with the new OS/2 Warp, Version 3.

As of November, this product was freely available only as a prerelease version; upon completion it will be freely available to all OS/2 Warp users. To get Web Explorer (now or when it's finalized), just click the Update Software icon in the Internet Access group of OS/2 Warp's interface and the program will be downloaded from the Internet. Those with earlier versions of OS/2 can download the browser at ftpq1.ny.us.ibm.net.

As of this review—and as far as we or

in a couple of details about your system and location. Once it has the necessary info, the system dials out and registers you automatically.

You can, of course, use Web Explorer with other access providers, but you're on your own if problems crop up. Web Ex-

SUITABILITY TO TASK

Web Explorer		
	Power	Ease
Setup and connecting	FAIR	GOOD
Navigation	GOOD	GOOD
Extensibility	FAIR	GOOD

plorer's extensive on-line help doesn't deal with non-IBM connections. (Although IBM has clearly designed the product with modem-based connections in mind, Web Explorer can also be used with a direct LAN-based TCP/IP connection.)

POINT YOUR COMPASS

OS/2 Warp's browser is easy to navigate: Buttons and pull-down menus guide you effortlessly through the Web and its services.

When navigating between several loaded documents, you can move backward and forward with the click of a button. Like most of the products we tested, Web Explorer lets you store your favorite home pages in an easily accessible hotlist. Web Explorer (like Frontier Technologies' WinTapestry) goes beyond standard capabilities to let you access multiple Web pages simultaneously, but OS/2 Warp's multitasking capabilities make the process smoother than with other products. You can even run multiple sessions of Web Explorer simultaneously.

CONFIG CINCH

The Web explorer is also easy to configure. A pull-down menu lets you customize everything from font sizes and colors to the use of your own applets for file viewing.

In addition to Web Explorer, IBM's Internet Connection for OS/2 provides a complete set of native OS/2 tools for accessing Internet services. The list of applications includes e-mail, FTP, a news reader, and telnet.

Despite the fact that it is quite literally

in a category by itself, Web Explorer is clearly going to be a major contender in the Web browser arena. It may be the only OS/2 game in town, but it's definitely one you'd want to play in. We strongly recommend that all OS/2 users check it out. Of course, you can't run it under Windows. But if IBM smiles and says "That's the point," you can hardly blame them.

► **Web Explorer.** IBM Corp., Armonk, NY; 800-342-6672; fax, 800-426-6063.

Circle 459 on reader service card

Frontier Technologies Corp.

• WinTapestry

BY KEVIN REICHARD

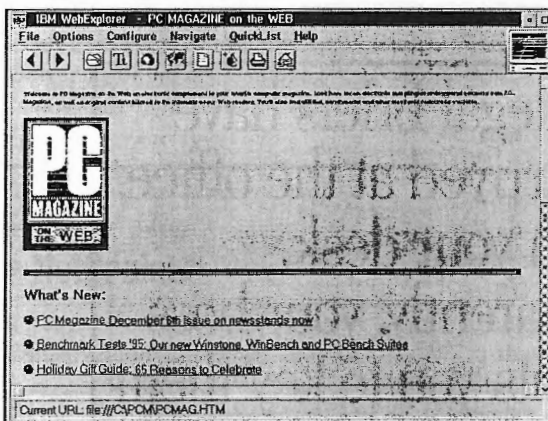
Frontier Technologies Corp.'s WinTapestry is a stellar tool for sampling the wares of the World-Wide Web. Preconfigured to connect with an amazing 410archie, FTP, Gopher, Veronica, WWW, and WAIS servers, WinTapestry is among the most fully prewired browsers in existence. Unfortunately, getting its parent program, the \$149 SuperHighway Access for Windows, properly installed and configured can be a bit of a headache.

Before installing SuperHighway Access, you'll need to have either a preexisting dial-up account with an Internet service provider (Frontier provides none) or an existing TCP/IP connection. Frontier does, however, include scripts for 53 modems and log-in configurations for 44 service providers, subdivided by protocol (CSLIP, PPP, or SLIP).

CONFIGURATION ARCANA

For many Internet users, this configuration process will probably seem pretty arcane—after all, dial-up connections have a well-deserved reputation for being finicky. If your dial-up script doesn't work immediately—as was the case when we connected to the Minnesota Regional Network, for example—you may find yourself experimenting with the underdocumented SuperHighway Access scripting language to work out the problem.

Telephone support from Frontier (which is available only to registered users of the company's SuperTCP product and requires a long-distance call to suburban Milwaukee) was adequate, if slow. In the end, problems were solved by the time-consuming process of trying several slight-



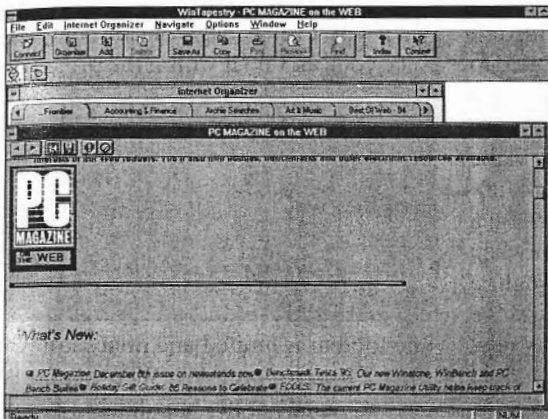
Along with its full-featured toolbar and menu options, Web Explorer has a nifty 3-D status icon that is animated when Web pages are loading.

IBM knows—Web Explorer is the only native OS/2 Web browser on the market. Built from the ground up by the folks at Big Blue, it's neither a rehash of an existing Windows-based product nor a minimalist make-do. Web Explorer is a complete, full-featured browser designed to take specific advantage of the operating system.

IBM has done an excellent job of making connections to its Internet access service (the IBM Global Network, also called Advantis) transparent to users. Setup is no more complicated than filling

ly different scripts over and over. We can't blame Frontier for the anarchy among dial-up service providers, but the product's documentation—both printed and on-line—should devote more attention to the daunting task of configuration.

Since SuperHighway Access is Winsock



Although the tabs, toolbar, and menu take up a good bit of the screen, WinTapestry's graphical rendering is one of the best around, with a full 3-D look and shading.

1.1-compliant, you can use it with any other Winsock-compliant tools you fancy, such as Cello, NCSA Mosaic, or Netscape Navigator. You probably won't want to, though, as WinTapestry is (as we mentioned) preconfigured to take you effortlessly to an amazing number of sites on the Internet—perhaps as many as 1,000 if you count all the secondary (submenu) links.

INFO FOR ALL

The World-Wide Web was envisioned as a vast supranational pool of universally accessible information. In theory, it shouldn't matter if the information is maintained on

SUITABILITY TO TASK

	WinTapestry	
	Power	Ease
Setup and connecting	GOOD	FAIR
Navigation	GOOD	GOOD
Extensibility	FAIR	GOOD

an FTP, Gopher, or Web server; more importantly, the user shouldn't need to make these distinctions, either.

WinTapestry fulfills this egalitarian promise by organizing sources by subject, such as politics, education, or science. Want to grab some position papers from your state government? Just click on Government Information under the Politics

menu and you'll be presented with a list of states. You don't need to worry if the ultimate destination is an FTP, Gopher, telnet, Usenet newsgroup, or Web site. (There is explicit support forarchie, Gopher, Veronica, and WAIS servers within WinTapestry, however, should you need them.)

Adding your personal favorite Web resource is delightfully easy; just select the Add button on the toolbar and attach the resource to the appropriate category—or create your own set of categories. Instead of placing an emphasis on the process of cruising the Internet, SuperHighway Access puts the emphasis on the content within the Internet—a crucial difference that most Web browsers fail to address.

Unfortunately, you'll need separate SuperHighway Access tools to access mail and newsgroups. With their varied interfaces, the SuperHighway tools are more a collection of disparate programs

than a unified package for browsing the World-Wide Web.

This doesn't diminish the ultimate worth of WinTapestry, however. If you're looking for a Web browser that points you in the direction of hundreds of useful resources, WinTapestry should be on your short list of contenders. Just walk in with your eyes wide open—and build in some frustration time when configuring your dial-up connection.

► **WinTapestry.** Frontier Technologies Corp., Mequon, WI; 414-241-4555; fax, 414-241-7084; e-mail, superhighway@Frontiertech.com.

Circle 460 on reader service card

EINet

• WinWeb

BY ANGELA GUNN

With the explosion of Web browsers on the market, more and more companies are trying to differentiate their products based on content. WinWeb, from EINet, certainly seems to be taking that route: Its browser offers no extraordinary features, but its

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