CYBERLINKS

Universal Hyperlinks and Unified Browsing for Your World of Information

Cyberspace Today

Cyberspace, as represented by today's Internet, is a distributed, global network which houses vast amounts of information on every imaginable subject. The World-Wide Web infrastructure makes it possible for people to link related or interconnected information on the Internet. Web browsers mask the complexity of accessing this information by presenting it in a simple, point-and-click graphical user interface.

The interconnected nature of information on the Internet since the Web boom makes it easy to navigate the Internet information space and discover useful information in specific interest areas.

Today, however, there are at least two distinct and disjoint information spaces in the digital world of computers, in which people work and operate, and the Internet is only one of them. Understanding this is key to creating a better connected world, in which information navigation becomes more seamless than it is today.

Disjoint Digital Information Spaces

The Internet Information Space

Information created on the Internet is accessible to nearly everyone who cares to access it. On the Internet, information can be exposed to a large viewing audience in the form of Web pages, files available for downloading, or postings to newsgroups and electronic discussion groups. The Internet is a reasonably connected information space because it is very easy to link to related information sources regardless of their location or technology needed to access them. Web browsers provide the necessary means for a user to traverse links in a seamless fashion.

The Corporate/Personal Information Space

Consider the second information space, within corporations and homes that use computers. In the corporate setting, the information space is made of databases, applications, and vast piles of unstructured information such as reports, documents, presentations etc. created by individuals using computers.   In the home setting, people using the computer are also producers and consumers of similar types of information such as documents. Information in this corporate/personal information space is simply not interconnected, giving rise to poor organization and very difficult navigation. In addition to this, information in the corporate/personal information space simply cannot be linked to

the vast amounts of information on the Internet. Can you create a presentation in which you can place links to other applications and documents in your own machine that are related to the subject matter of your presentation? Can you create a quarterly sales report in which you can link to related documents within your corporate network as well as updated competitive information on the Internet? Imagine being able to!

Disjoint Information = Poor Navigation

The Internet and the corporate/personal digital information spaces are indeed very different and disjoint today. The kind of information produced and the tools used to produce information in these two information spaces are different. By and large, the information from these two information spaces are poorly interconnected and makes for poor navigation from the perspective of a information seeker.

CyberLinks, The Information Bridge

There is a need to bridge these disparate information spaces to make information navigation and access seamless, irrespective of which information space the information comes from. Interconnecting the digital information spaces will create a significant impact on the ability to navigate and access information. Lack of tools that connect both of these worlds by providing electronic links to information, regardless of its format and location, has kept many users away from using the Internet effectively (i.e. beyond simple e-mail).

CyberLinks is just the solution to interconnect related information within your corporate/personal world as well as with information in Cyberspace. The following sections present CyberLinks in the form of Frequently Asked Questions (FAQ).

What is CyberLinks?

CyberLinks is software designed for Microsoft Windows (Windows 3.1, Windows for Workgroups 3.11 as well as Windows 95 and Windows NT) that permits users as well as software developers to create documents or applications which incorporate live, on-line, seamless, links to related applications, documents, or other information sources, whether they are resident on a user's local machine, on a corporate network server, or anywhere on the global Internet.

CyberLinks is based on Microsoft's OLE technology, and therefore can be accessed from virtually any application that is OLE compatible (includes popular applications like MS-Word , MS-Excel , MS-Powerpoint , Lotus SmartSuite , IQ/Objects etc.). CyberLinks can be incorporated within applications built using virtually any application development tool which can use OLE-based components (OCX/ActiveX) (e.g. Microsoft Visual C++, Microsoft Visual Basic, PowerBuilder etc.)

What Information can I Link to?

CyberLinks lets you create documents with links to virtually anywhere. In all the cases we describe below, the links can refer to information within your corporate network or on the global Internet. In some cases, the links can refer to information on your own machine.

Link to World-Wide Web, Gopher, FTP sites

You can use CyberLinks to create links to information residing in World-Wide Web servers, Gopher servers, and FTP servers anywhere. Here are some examples.

■ You are creating the quarterly sales report for your region. In your sales report, as part of your normal text, you can incorporate links to locations on your competitor's Web site, wherein they describe their aggressive new pricing, which impacted your sales figures. Anyone who receives the report can simply click on this link and gain on-line access to the appropriate web site.

■ You are responding to a customer support issue, and are sending a document via E-mail to the customer, providing an update on the software problem reported. In this document, you can place a link to the location on Microsoft's FTP server, where an updated driver is available, which you think will fix the customer's problem. Your customer can simply click on this link and download the driver.

■ You are an expert Internet user, and are creating a document for novice users within your department describing to them, specific Gopher servers in which gems of information related to your business are available. In this document, you include links to those Gopher servers (like the Mother Gopher), where the user can find most valuable information.

■ You are a software application developer. In your latest and greatest version of the software, you have included references in your documentation that the customer can send E-mail on the Internet for support and access your Web site for breaking news. In the new version of this application, you can include links to your E-mail and Web site directly in your About box or Help menu. Your customers can now simply click on About box or Help menu to gain access to the appropriate section of your web site or send an E-mail to your customer support department.

Link to Terminal Sessions via Telnet/Tn3270

You can incorporate links for terminal sessions to sites accessible via Telnet or Tn3270. For example, you are creating an application under Windows, in which one option is for the application user to run a terminal session to your mainframe. In this application, you can incorporate a link to this Tn3270/Telnet session.

Link to Usenet Newsgroups

You can link to any Usenet newsgroup. For example, you are a marketing person responsible for compiling a set of interest groups on Usenet for targeted postings or announcements of your new product. In the report to your boss, you can place links to the Usenet newsgroups you have found. Your boss has to simply click on a newsgroup link to participate in the newsgroups.

Link to WAIS databases

You can link to any WAIS database. You have done exhaustive research on a particular topic and have found that a particular set of queries issued against WAIS databases on

the Internet offer the most meaningful results to track. In your research paper, you can include links to these WAIS database <u>queries</u>, for the reader's reference.

Link to E-mail

You can link to E-mail. For example, you are a high-level executive sending a direct electronic letter to all your customers, in which you want to impress upon them the openness of your new management team, and how you would like for the customers to drop in an E-mail to <u>you</u> or any of your direct staff anytime. In this document, you can include links to all the E-mail addresses needed.

Link to Applications

You can link to applications within your own machine or anywhere within your corporate network. For example, you are creating a presentation in which you would like to jump directly to an application and demonstrate it and then continue your presentation. In this presentation, you can include a link to <u>this application</u>.

Link to documents

You can link to documents of any kind within your own machine or anywhere within your corporate network. For example, you are a project leader and are compiling the release report for a product. In this document, you can place links to all the relevant documents (for example, <u>master directory</u>, and <u>other files</u>) that might be useful in understanding the product and this release in its entirety.

How Can I Make These Links?

With CyberLinks, all these different links described above, are available in the form of four OLE objects – CyberText™, CyberPicture™, CyberMap™, and CyberButton™.

You can create a link in your document, by choosing any one of these four objects from the "Insert | Object …" or "Insert | New Object …" menu of your application.

Software application developers can incorporate any of these four objects in forms or dialog boxes, or via the menu in any other application development tool. If the development tool supports OLE components, there is absolutely no code to write -- the CyberLinks objects will take care of it all after you set the correct properties. For any other application development tool that doesn't support OLE components, this link functionality can be achieved with just one line of code.

Can I Create Links in any Document?

Your document must be created using an application which is OLE-aware. Specifically, the application must be able to insert OLE objects via the "Insert | Object …" or other similar command. Wordpad, MS-Word, MS-Excel, MS-PowerPoint, Lotus Word Pro, IQ/Objects, are some examples of applications you can use to create documents with CyberLinks.

The CyberLinks User Edition has been created for users to incorporate live hyperlinks to information within their documents.

Can I Create Links in any Application I am Developing?

Yes! If the development tool you are using to create the application is capable of using OLE controls, then, you can incorporate links without any coding. Microsoft Visual Basic 4.0 and Microsoft Visual C++ 4.0 are examples of this kind of tool. If you are using any other development tool, you can incorporate links with one line of code, so long as the development tool can call Windows Dynamic Link Libraries (DLLs). There are literally hundreds of tools which can call Windows DLLs.

The CyberLinks Developer Edition has been created to permit developers to incorporate live hyperlinks into their applications.

What can I do with a Document with Links made using CyberLinks?

Once you have created a document with CyberLinks, you can edit it, save it or print it like a normal document. You can also share the document within your corporation or on the Internet via e-mail. You can publish the document on corporate file servers, internal Web servers or on the World-Wide Web.

You can create documents with CyberLinks and include it in a software product for distribution (the CyberLinks README document, as well as this white paper are examples).

A *free* CyberLinks Runtime Edition is available, which can be freely distributed (by licensed users of either the CyberLinks User Edition or CyberLinks Developer Edition), to enable free distribution of documents and applications which incorporate CyberLinks.

What External Software is CyberLinks Compatible with?

CyberLinks is built for Windows 3.1, Windows for Workgroups 3.11, Windows 95 and Windows NT (versions 3.51 and later).

CyberLinks is compatible with the leading World-Wide Web browsers and Internet Access products. The current list includes, Netscape Navigator, Microsoft Internet Explore, and NCSA Mosaic.

Specifically, the potential of CyberLinks is brought out best when used with Netscape Navigator 2.0 (or later) and plugins such as Inso's Word Viewer Plug-in, Inso's QuickView Plus, or NCompass Lab's NCompass ActiveX plugin for Netscape. With this combination, you will be able to *directly publish Word documents with live links* on the Web, and *navigate those links seamlessly* within Netscape Navigator.

Can the recipient use different Internet products from the sender?

Yes. CyberLinks incorporates an "Intelligent Configuration Agent", which is fine tuned to work with whatever software is available on your machine, or that of the recipient of any document you create. This means that you can create links to the Web in your document (and, say, you use Netscape Navigator) and send the document over to a friend (who, say, uses Microsoft Internet Explorer). Your friend can jump to the Web links in your document just fine, and CyberLinks will automatically use the Microsoft Internet Explorer on your friend's machine.

Building Intranets -- "Direct Intranet Publishing" and "Unified Browsing"

Organizations that are building intranets (collection of Web servers used for internal communications) today are all faced with a challenge. Posting information on Web servers requires the same to be available in HTML format (the language of the Web).

However organizations create most of their information internally using applications such as Word, Excel etc. There is a basic mismatch between the information formats used by organizations internally and the what is required for use on Web servers. Two solutions are available today to solve those problems:

HTML Converters

This genre of tools (available separately, or built into document preparing applications) require documents to be converted from their native formats into HTML. This process usually results in loss of quality in the presentation of the information, a duplicate copy of the information (one in native format, and another in HTML format), and an extra step in the process of publishing information onto internal Web servers.

HTML Authoring Tools

This genre of tools are designed from ground up to provide WYSIWYG authoring capabilities for creating HTML documents. They look and function like modern word-processors. This approach requires organizations to equip their users with this new tool in addition to whatever wordprocessor they already own.

A Better Alternative?

Imagine if you could include hyperlinks in any of your documents using the tools you are already familiar with! Imagine if you could publish these documents in their native formats on Web servers! Imagine using a modern browser (such as Netscape Navigator) to browse through these documents just as you would do HTML pages! Imagine being able to do this under 16-bit Windows or Windows 95 or Windows NT!

"Direct Intranet Publishing"

Direct intranet publishing involves the following:

a) using the tools you already own and are familiar with to create hyperlinked documents, and

b) directly publishing them on a Web server in their native formats

"Unified Browsing"

Unified browsing enables you to use your browser (such as Netscape Navigator) to navigate through these documents just as you can HTML pages. The hyperlinks in these documents would behave just as normal HTML-based hyperlinks.

The Promise of MS-Office 97 …

This is the kind of promise that Microsoft offers in their future Office 97 product and operating system extensions ("Nashville"). However, this vision from Microsoft requires you to upgrade ALL your users to Windows 95 (or later version), and the yet-to-be-released Office 97 packages! Microsoft's vision does not include any plans for migrating your installed base to future technologies.

… Available Today with CyberLinks

CyberLinks, on the other hand, enables "direct intranet publishing" and "unified browsing" TODAY!

CyberLinks is designed from ground-up to be the only universal, portable hyperlinking solution for your (non-HTML) documents, which will work in both 16-bit and 32-bit Windows environments TODAY! In combination with Netscape Navigator and plugins (Inso QuickView Plus or the free Inso Word Viewer for 16-bit and 32-bit Windows, NCompass ActiveX Plugin for 32-bit Windows, etc.), CyberLinks can deliver the power of "direct intranet publishing" and "unified browsing" for your intranet TODAY!

This approach can make the process of building intranets much simpler by letting users use the tools they are already familiar with for information creation and publishing!

Where's the Proof?

You are seeing it. Simply double-click on any of the highlighted (blue, underlined) items in this document (like <u>this one</u>). They are CyberText links at work.

Benefits for Users

CyberLinks offers wide-ranging benefits to users who create and work with documents.

- CyberLinks enables you to author documents in your favorite tools (wordprocessors, spreadsheets etc.) with hyperlinks to related information anywhere within your own desktop, within corporate intranets or on the global Internet.

- CyberLinks lets you publish documents with live links (such as this one, created with Microsoft Word), on the World-Wide Web or within corporate webs, without

requiring format conversions to HTML, or maintaining multiple copies of documents in different formats.

- In combination with the latest Internet innovations such as Netscape Navigator 2.0 and the Microsoft Word viewer plug-in from Inso, CyberLinks enables seamless navigation across Web pages as well as Word documents, from within the browser.

- CyberLinks enhances the collaborative document authoring experience by providing the ability to include live links to on-going project work within any document regardless of the tool used to author it.

- CyberLinks improves the document viewing and sharing experience within a workgroup, or across the entire globe by incorporating standards-based hyperlinking technology.

- CyberLinks brings to information within corporate intranets, the same benefits that World-Wide Web technologies brought to the global Internet. With CyberLinks, any document can now incorporate live links to related information just as web pages do.

- CyberLinks brings technologies such as "image-maps" (common on the World-Wide Web) directly into users' documents, with a simple, point-and-click, drag-and-drop user interface.

- CyberLinks is fully compatible with World-Wide Web technologies, but doesn't require Web servers or other similar infrastructure

- CyberLinks fits seamlessly into the working environment of any desktop, and intelligently operates with a user's software preferences

Benefits for Developers

CyberLinks offers the following tangible benefits to application developers:

- CyberLinks enables you to develop applications with hyperlinks to related information anywhere within the desktop, within corporate intranets or on the global Internet.

- With CyberLinks, any application can now incorporate live links to related information just as pages on the World-Wide Web do.

- With CyberLinks, simple text, button and picture objects come alive with links to information anywhere. No programming is required to achieve this.

- CyberLinks allows application developers to incorporate sophisticated image-maps within their application user interfaces.

- CyberLinks is fully compatible with World-Wide Web technologies, but doesn't require Web servers or other similar infrastructure.

- CyberLinks fits seamlessly into the working environment of any desktop, and intelligently operates with a user's software preferences.

- CyberLinks will communicate seamlessly with popular Web browsers such as Netscape Navigator, Microsoft Internet Explorer, and the original NCSA Mosaic.

CyberLinks Summary

CyberLinks is an innovative software solution to bridge the disjoint Internet and the corporate/personal information spaces. CyberLinks enables you to include links to any information, anywhere, within any OLE-capable document or application, without any programming.

CyberLinks is designed to radically improve the way you communicate, organize, navigate and find information.

CyberLinks will link your world of information to related information anywhere in Cyberspace.

How can I get CyberLinks?

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