Microsoft®

Microsoft® Office
Microsoft Outlook™, the Internet and Intranets
Microsoft Outlook 97

for Windows®

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Introduction

The Internet and corporate intranets have become important components of the desktop user's experience and foundation technologies for enterprise messaging and groupware solutions. Internet e-mail and bulletin-board discussion groups are powerful communication tools for businesses and individuals. The World Wide Web is a dominant sales, marketing and analysis tool. Repositories of Microsoft® Office and other documents, shared on corporate intranets using Internet connectivity protocols, are emerging as a powerful and cost-effective means of collaboration and information sharing.

- With all the complexity of Internet and intranet information at their fingertips, users demand a single, integrated client for organizing, managing and communicating the information they find on the Internet, an intranet or LAN and the information that arrives in their inbox.
- Information systems administrators need a robust, secure, controlled framework for integrating communication activities inside the organization with the Internet and World Wide Web.
- Workgroups need to create custom groupware applications to enhance productivity while reducing costs.
- Finally, organizations need to develop repositories of ideas and documents and share them in a cost-effective manner among employees and external sources such as vendors and organizational partners.

The Internet and intranets can offer real business value, regardless of the size of the organization involved, but the current crop of tools is insufficient. The value of the Internet and intranets to organizations can be summarized in these four areas:

- **Communication over the Internet.** Businesses of all sizes, from Fortune 500 companies to home offices, increasingly rely on Internet mail to connect employees to one another and to customers, to streamline organizational practices through workflow, and to maintain relationships with vendors and partners. Internet messaging is the foundation for group scheduling across organizations, sharing business cards, discussion groups and document-based workflow — all activities that require a powerful messaging and discussion client.
- **Sharing information on an intranet.** Organizations are deploying intranets to provide uniform, easy access to corporate data for employee training, group collaboration, business analysis and decision support.
- **Using the Internet and intranets for groupware.** New technologies and opportunities for connectivity mean new kinds of custom groupware applications. Integrating the Internet and intranet technologies into client/server groupware applications will provide higher return on IS investment and enable streamlining of business practices across the organization.
- **Keeping track of the Web.** The World Wide Web has become an essential marketing and promotional channel and a powerful tool for

research on industry and cultural trends. Users need tools to categorize, sort and group Web sites as they find them, then share them with their workgroups in an organized, easy-to-maintain way.

Microsoft Outlook™ 97, the first desktop information manager of its kind, is a workgroup client that combines enterprise messaging, group scheduling, personal information management and a powerful form-design environment. Outlook is a communications client that makes organizing and sharing information easier for users in organizations of all kinds and sizes. This white paper details many of the Internet and intranet features of Outlook 97. It explains how these features can be deployed across organizations to create business solutions that take full advantage of the Internet and corporate intranets.

Outlook is the one product that addresses all these important Internet and intranet business needs in a single, powerful client application that is tightly integrated with Office 97. Outlook enables organizations to make the best use of the power of Microsoft Exchange Server groupware technology, Microsoft Internet Explorer and Microsoft Internet Information Server to bring groupware to the Internet and intranets.

Communication via the Internet

3Outlook is the desktop information manager that links the Internet and intranets for communication.

For many organizations both large and small, electronic messaging, group scheduling and threaded discussions have become critical parts of the infrastructure for communicating both inside and outside the organization. For millions of individuals, e-mail is a way to do business from small and home offices and to keep in touch with friends and family. Historically, large organizations built internal messaging systems, often mainframe-based, that were based on closed protocols. Individuals in small or home offices signed up for mail delivery with a proprietary online service that was also based on closed messaging protocols. What connected these islands of messaging, if anything, was the Internet.

Now, a new generation of client/server mail systems, exemplified by Microsoft Exchange Server, has become available. These systems are based on open standards such as the messaging application programming interface (MAPI) and MIME. They provide secure and robust messaging with seamless Internet access. However, to get the most out of the Internet, users must have a rich set of client tools at hand for managing the complexity of information that flows into their world through e-mail. Outlook advances the state of the art in e-mail and group scheduling through a rich set of features, an intuitive user interface, and seamless integration among e-mail, scheduling and personal information management.

Outlook is a true Internet communication client, providing a comprehensive set of features that can be used with Microsoft Exchange Server or directly with Internet service providers and online services. Outlook users can send and receive e-mail messages, schedule requests and task requests across the Internet as in the following examples:

- An advertising firm can route its latest proposal to a company's marketing manager for approval or rework, flagged for review within five days.

- A supplier can send customized order forms to buyers in 50 companies at the same time, tracking who has received the form and who hasn't.
- A lawyer in a three-person office can send meeting requests to his clients through e-mail, attaching documents to be reviewed.
- A researcher can participate in Internet bulletin-board discussions using Microsoft Exchange public folders.

The rest of this section discusses some of the Outlook features that support Internet communication. Outlook contains dozens of other e-mail and scheduling features that help manage and organize communication. For a more detailed description, see the Microsoft Outlook 97 Enhancements Guide.

Sending and Receiving Mail Using Internet Standards

Users of Outlook can send and receive Internet mail easily. For organizations using Microsoft Exchange Server, Internet mail is handled by the Internet Mail Connector. For users not on Microsoft Exchange, mail can be sent to and received directly from the Internet using the SMTP/POP3 Transport Provider, a MAPI service provider that is installed and doesn't require Microsoft Exchange Server. Support for all major Internet mail and directory protocols (SMTP/POP3, MIME, X.400, POP3, TNEF, NNTP, LDAP, IMAP4) is currently provided by or has been announced for Outlook or Microsoft Exchange Server.

Participating in Internet Discussions

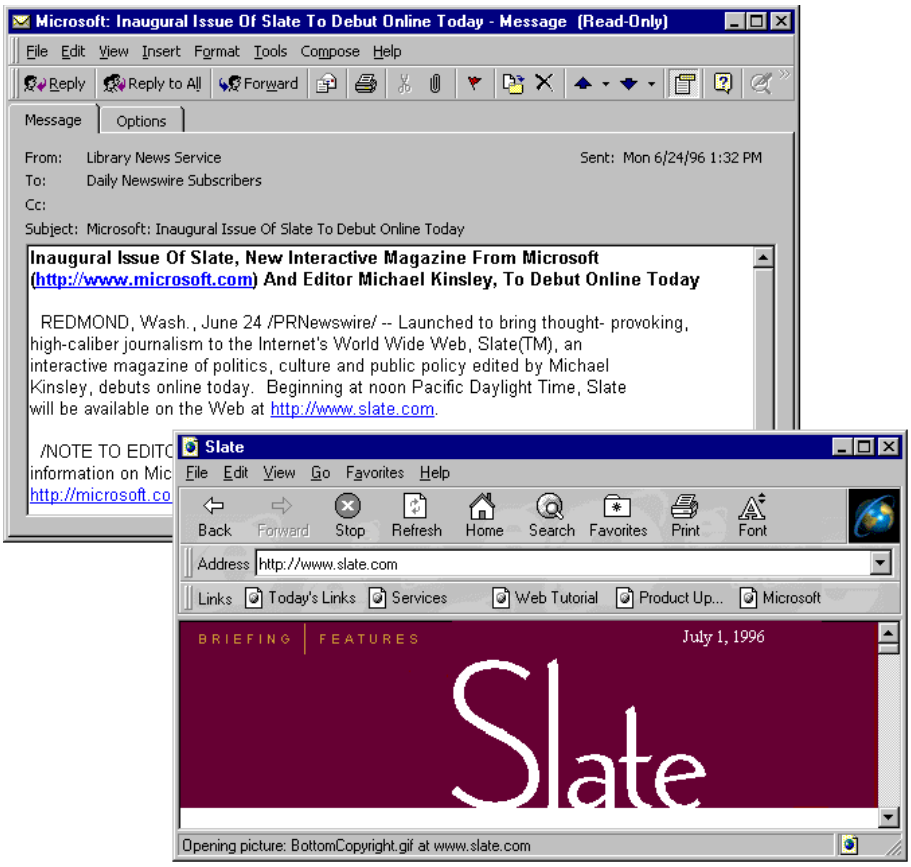
Internet bulletin boards are available to users of Outlook in Microsoft Exchange public folders. Outlook is a full-featured threaded discussion client. It allows custom views of a discussion to be created with a variety of next and previous actions based on whether the item has been read, the item's conversation topic, the sender of the item, and the item's importance.

Hyperlinks

Outlook automatically recognizes Internet addresses (URLs) in the body of e-mail messages and converts them to hyperlinks. Clicking the hyperlink launches a browser such as Microsoft Internet Explorer to view the Internet or intranet site. Outlook also recognizes other common links, including e-mail addresses and file links, as in these examples:

mailto:davidgood@ms.com
http://microsoft.com/
file:\\kitsap\prodplan\budget.xls

Outlook recognizes hyperlinks immediately as users type them, not just when they open a message. In addition, a hyperlink can appear in the body of any Outlook item, including tasks, appointments and contacts.



Users can navigate the World Wide Web or an intranet from any Outlook item.

Group Scheduling and Assigning Tasks Across the Internet

Users of Outlook can send and receive group scheduling meeting requests across the Internet to other users of Outlook or Microsoft Schedule+. Users of Outlook can also assign tasks across the Internet and be notified automatically when any updates to the task have occurred or the task has been completed. These features extend users' ability to manage projects and resources beyond their workgroup.

Address Correction of Internet Mail Addresses

The AutoName Check feature automatically resolves and properly formats Internet e-mail addresses that are entered into the To, CC and BCC fields while creating an e-mail message, meeting request or task request. For example, Outlook removes spaces and changes commas to periods, so that "david go @ ms,com" is resolved as "davidgo@ms.com." AutoName Check also helps ensure that e-mail is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names, even while users continue to compose their message.

Connecting to Microsoft Exchange Server Over the Internet

Using Outlook, users can connect to Microsoft Exchange Server over the Internet for complete access to e-mail, schedules, tasks, etc. The Microsoft Exchange Server provider mechanism uses remote procedure calls and TCP/IP Windows® Socket to allow specification of domain naming system (DNS)-style Internet names for use with an Internet service provider. During profile configuration, a DNS-style Internet name (such as exserv1.microsoft.com) is specified as the Microsoft Exchange Server name, and Outlook can then use this profile to connect across the Internet. Security is provided to users on the Windows NT® operating system. A variety of access and security options can be set as part of Microsoft Exchange Server configuration.

Today, the Internet doesn't just connect messaging systems — it is an integral part of the infrastructure for communicating between organizations and individuals. However, it is the e-mail, scheduling and discussion client that defines the user's experience of the Internet's communication infrastructure, and only a client with the power of Outlook unlocks the power of the Internet for the desktop user.

4Using Microsoft Exchange Server, Outlook becomes a publishing and information-sharing tool for group information on an intranet.

Sharing Information on an Intranet

Intranets have been identified as a key information infrastructure, providing widespread and easy access to enterprise data using networking protocols such as TCP/IP and HTTP and document formats such as Microsoft Office file formats and HTML. Intranets make it easier for people within an organization to publish and share information online. They facilitate group information sharing and collaboration, and they provide easy and uniform access to business information.

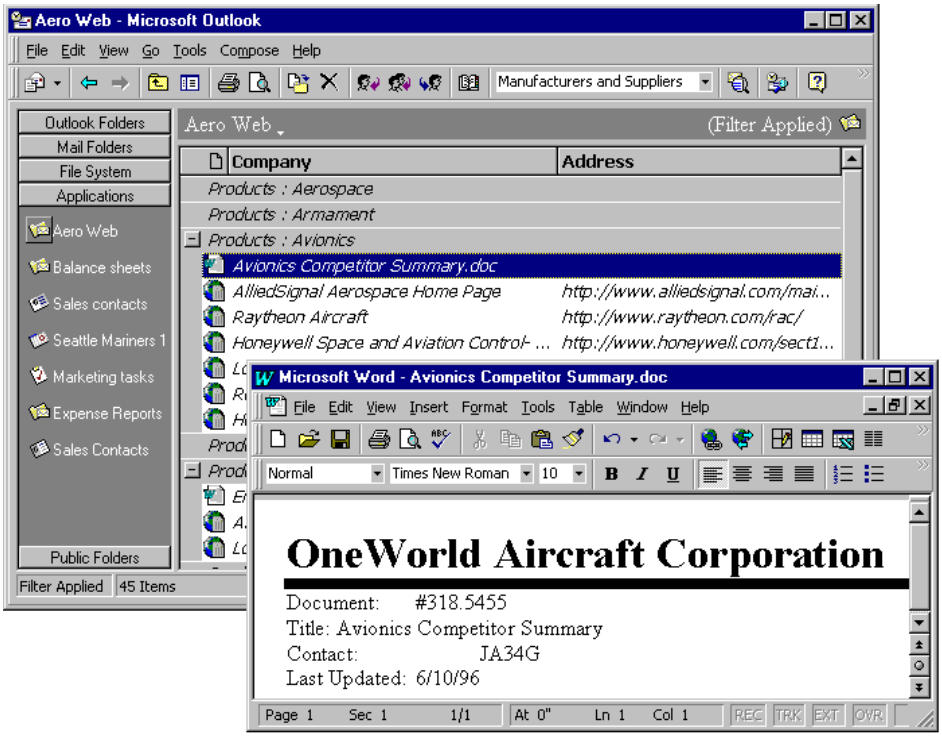
The primary user experience of intranets is through a browser such as Microsoft Internet Explorer and document-authoring applications such as Microsoft Office. However, Outlook provides an important set of tools for managing repositories of intranet documents and providing customized views and easy access to the information. Intranets can be combined with Microsoft Exchange Server to create sophisticated enterprise solutions for messaging, groupware and the sharing of Office and HTML documents.

A Common Repository of Internet and Office Documents

Information is useful only if it is available to the right people at the right time; this is true regardless of the format of the information or its point of origin. One of the most effective means of providing access to collections of documents is using Microsoft Exchange public folders in conjunction with, or as the infrastructure of, the corporate intranet. Documents created in Microsoft Word, Microsoft Excel and the PowerPoint® presentation graphics program can be posted to a Microsoft Exchange public folder, then organized and viewed using Outlook. Windows operating system-based URL files, which store links to intranet

and Internet sites, are another kind of document that can be organized and stored in public folders alongside Office documents.

Outlook views can display Office document properties (such as author, subject, creation date) as well as custom, user-defined properties that are promoted out of the documents themselves. Outlook views can display those properties, allowing repositories of documents to be viewed with a rich set of sorting, filtering and grouping tools. Multiple private views can be created on public folder repositories, enabling all users to customize their view of the public folder repository. Finally, these documents can be opened directly from Outlook: URL files will launch a registered browser and navigate to the address specified in the file, and documents will launch the appropriate productivity application.



Microsoft Exchange public folders can contain both Internet addresses and Office documents.

As an example, consider the OneWorld Aircraft Corp., which needed a more efficient way to distribute the latest sales and marketing materials to its field sales force. In the past, sales reps had to search a variety of information sources and servers to find what they needed. They didn't always have access to up-to-date competitive information. Taking advantage of the company's investment in Office, OneWorld set up an intranet that combined Office documents with Internet documents. The preceding figure shows an Outlook view of this intranet application in a Microsoft Exchange public folder. Note that the same folder contains both Internet World Wide Web links and Office documents, in this case a Word summary for each market segment grouping.

This solution provides faster communication of competitive intelligence to the field, and the related public folder threaded discussions can speed feedback from the field to marketing. Thus, the company increases sales effectiveness by using the messaging and groupware infrastructure of

Microsoft Exchange, and Outlook provides a uniform client experience for document organization, messaging and groupware.

Allowing the user to view a public folder of combined intranet and Internet information is yet another way Outlook harnesses the Internet and intranets to provide users with a powerful, easily administered groupware experience.

5Outlook and Microsoft Office 97 are the solution for robust groupware applications for the Internet or an intranet.

Using the Internet and Intranets for Groupware

Outlook is squarely at the intersection of the Internet, the intranet and groupware. With one product, users and administrators can create business solutions that build on Microsoft Exchange messaging, custom forms, intranet information sharing and Internet connectivity. The key to building these solutions is the Outlook form-design environment.

Sending Custom Forms Over the Internet

Outlook enables administrators and users to create custom groupware and workflow applications based on customized forms. Using the Outlook 32-bit form-design environment, users can customize existing Outlook Forms (such as the forms for contacts and tasks) or create entirely new forms. Typically, custom forms will be stored in a Microsoft Exchange Server forms registry along with forms created using Microsoft Exchange Forms Designer. Outlook Forms can also be included as part of an e-mail message that can be sent across the Internet. Sending custom forms over the Internet extends the power of groupware applications beyond the user's immediate group or organization, employing the Internet's connectivity to create specialized, even individualized, groupware applications.

With Outlook, custom groupware forms can be designed and sent over the Internet.

The figure above shows a 32-bit Internet form created by Contoso Pharmaceuticals, a company that regularly sends documents for legal review and approval to external counsel. Because the form layout can be stored with the message, this form can be sent across the Internet to Contoso Pharmaceuticals' legal counsel along with the document to be reviewed. This form demonstrates how Outlook can combine the messaging and security features of Microsoft Exchange with the connectivity of the Internet to provide interorganization and intranet groupware.

Customizing Forms With Internet Technology

The groupware applications that can be created with Outlook can be made richer still through the use of the Microsoft Visual Basic® programming system, Scripting Edition (VB Script) and ActiveX™ Controls. VB Script is a powerful scripting language that has been integrated into the Outlook form-design environment. ActiveX Controls are Internet- and intranet-ready controls that can be dragged and dropped onto both HTML pages and Outlook Forms to extend the functionality of intranet and groupware applications. Together, these technologies give Outlook an unparalleled set of custom application design tools.

Creating Easy Groupware With Office Documents

When creating groupware for use with intranets and the Internet, Outlook users and administrators can start with the proven applications of Microsoft Office. Using ActiveX Technology, Outlook form-design tools can transform existing Microsoft Office documents into customized groupware and workflow forms that can be sent across an intranet or stored in an intranet repository. Thus, organizations can make use of their investment in Office documents to provide simple yet highly effective groupware applications. With forms such as these, users get the best of familiar and proven Office technology, Microsoft Exchange security and connectivity, and Outlook client features such as delivery and read receipts and Inbox management rules. Simple and intuitive, this is Internet and intranet groupware that is easy to design and easy to use, providing real business value for organizations of all kinds and sizes.

Building an Intranet Repository of Forms

Outlook Forms can be stored as documents, similar to the document templates used in Word and Microsoft Excel. As such, they can be linked from HTML pages and additional Office documents, allowing organizations to create repositories of custom groupware forms. Users can also create links to individual MAPI folders and Outlook items directly from an intranet page. This enables organizations to control their workflow and groupware forms through a centralized networked location that can be accessed with a browser.

By combining Outlook, Office and Microsoft Exchange Server, users' ability to create custom groupware solutions is extended beyond the boundaries of intranets to streamline business processes across the Internet.

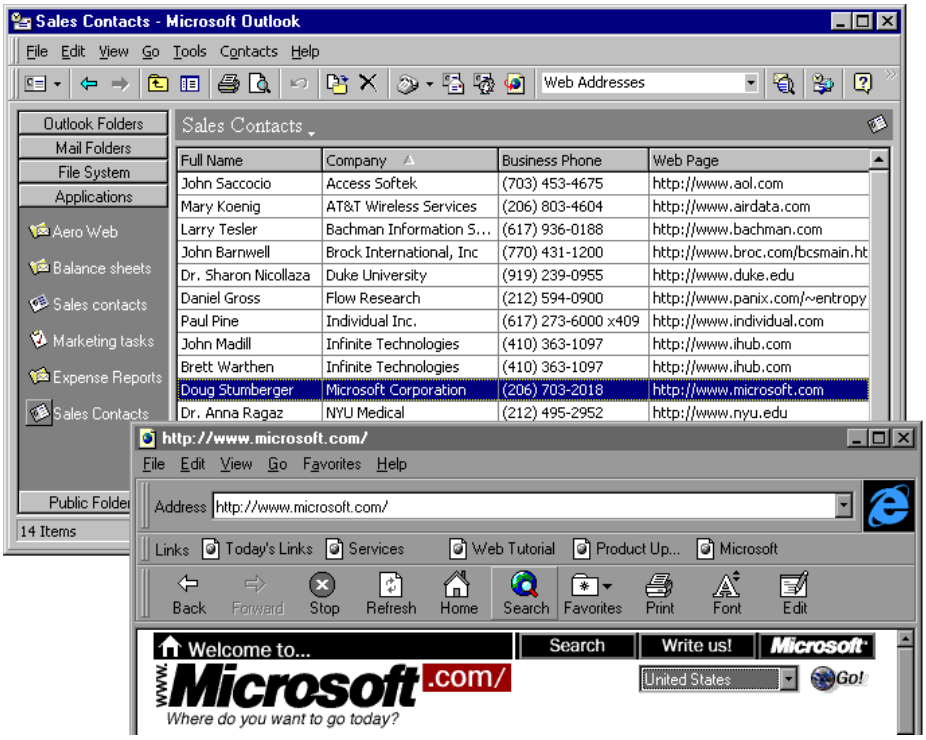
6In conjunction with Microsoft Internet Explorer, Outlook is the solution for information gathering on the Internet or intranets.

Keeping Track of the Web

The World Wide Web has become an essential tool for marketing, promotion, sales and research. Users need powerful tools to categorize, sort and group Web sites as they find them and then share them with their workgroups. Keeping track of where to go on the Web or an intranet and where the user has been is made easy by the following features of Outlook.

Keeping Track of a Contact's Web Site

Because more and more companies and individuals have Web or intranet sites, Outlook allows users to store an Internet address for each contact in a field on a contact form. The location can then be navigated to by clicking the Explore Web command bar button on the contact form or in views of contacts. This feature can be the basis of a custom groupware solution when combined with the Outlook view definition features and Microsoft Exchange public folders. For example, a company's sales department could maintain a list of corporate customers as a public folder of Outlook contacts. This list could then be displayed with a customized Outlook view that showed the vendor's business phone, e-mail address and Web address. Clicking Explore Web Site launches the user's browser and navigates to that site from that view.



Outlook and Microsoft Internet Explorer can be used for managing and browsing Internet and intranet information.

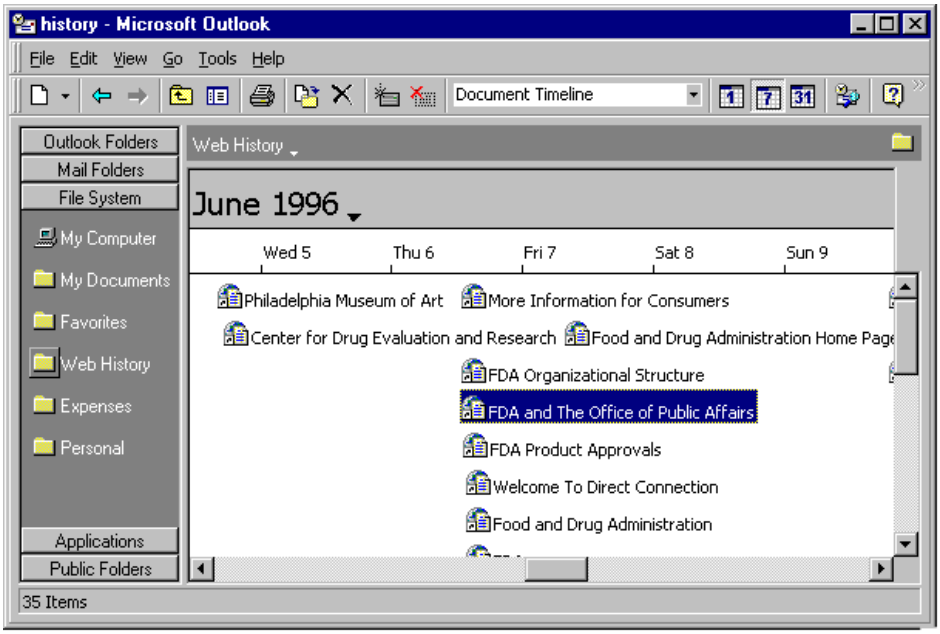
The figure above shows an intranet groupware application built with Microsoft Outlook that uses Microsoft Exchange public folders. In this case, a workgroup built a public folder of sales contacts. Each contact has a related Web site. Users can simply navigate to the public folder, highlight a contact and navigate to that site.

Accessing Web Favorites From the Outlook Bar

Outlook includes the Windows Favorites folder as a default shortcut on the Outlook Bar. With a single click, users have access to their favorite URLs and Office documents. These are viewed using the comprehensive set of default views in Outlook or with specially created views. Using Outlook as a Web address book allows users to navigate to intranet and Internet sites using their regular browser.

Viewing a Timeline of History

The intranet- and Web-browsing experience is one of quick navigation from one page or site to the next. Users cover a lot of ground quickly, which makes it difficult to recall where the important information resides. For this reason, Microsoft Internet Explorer maintains a history list of sites that have been visited by the user in a Windows folder. With Outlook, users can ask questions about when a site was visited or a document found on the intranet or Web by applying the Outlook Document Timeline view to a history folder. Questions such as “Where was that human resources policy document I saw on the intranet last Wednesday morning?” can be answered quickly. And, when the document or URL is found, the user can launch the Office application or registered browser to view the document itself.



A Document Timeline view of a user’s World Wide Web history

The figure above shows the Web History folder created using Microsoft Internet Explorer, as it appears using the Outlook Document Timeline view.

Outlook enables users to keep track of information on the Web, enhancing an organization’s ability to put the information to productive use in the service of day-to-day business needs.

Summary

7In short, Microsoft Outlook provides an easy way for users to organize information and communicate with others on the Internet and corporate intranet.

This white paper describes a varied and powerful set of Internet and intranet features. It demonstrates how these features support a wide set of business processes and objectives. With Outlook, Office, Microsoft Exchange Server and Microsoft Internet Explorer, users can create and manage intranet repositories of documents, replete with custom views based on document properties. A wide variety of communication activities can take place across the Internet, from mailing a custom groupware application in an e-mail message to assigning tasks and taking part in bulletin-board discussions. Using the powerful form-design environment of Outlook, applications using the new ActiveX and VB Script technologies can be built with ease and quickly integrated into the user's daily activities. Information found on the Web can finally be organized, shared and used productively — all with the same powerful desktop information manager.

Microsoft Outlook 97 — one window to your world of information

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