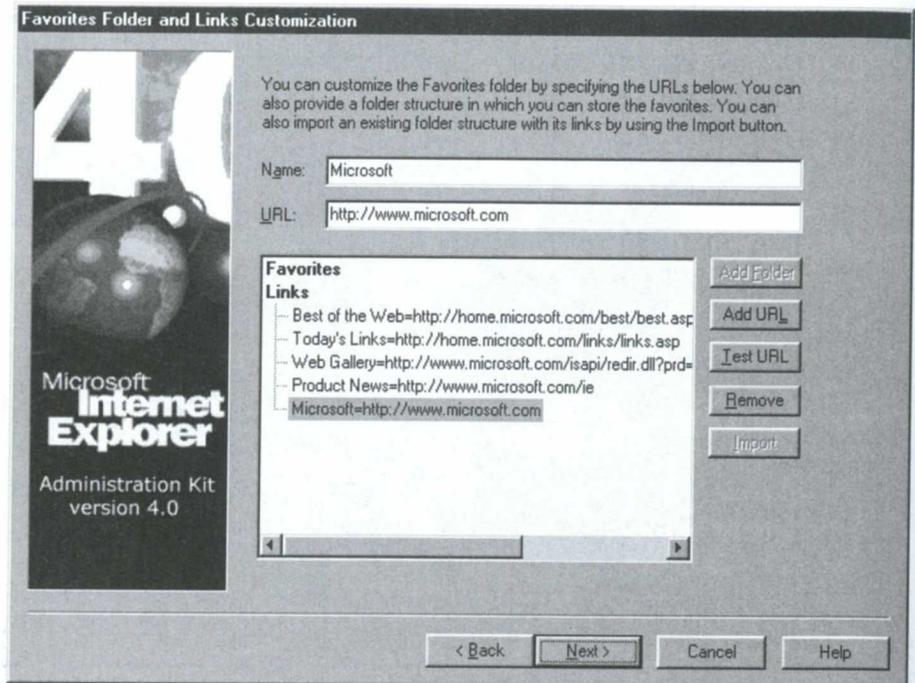


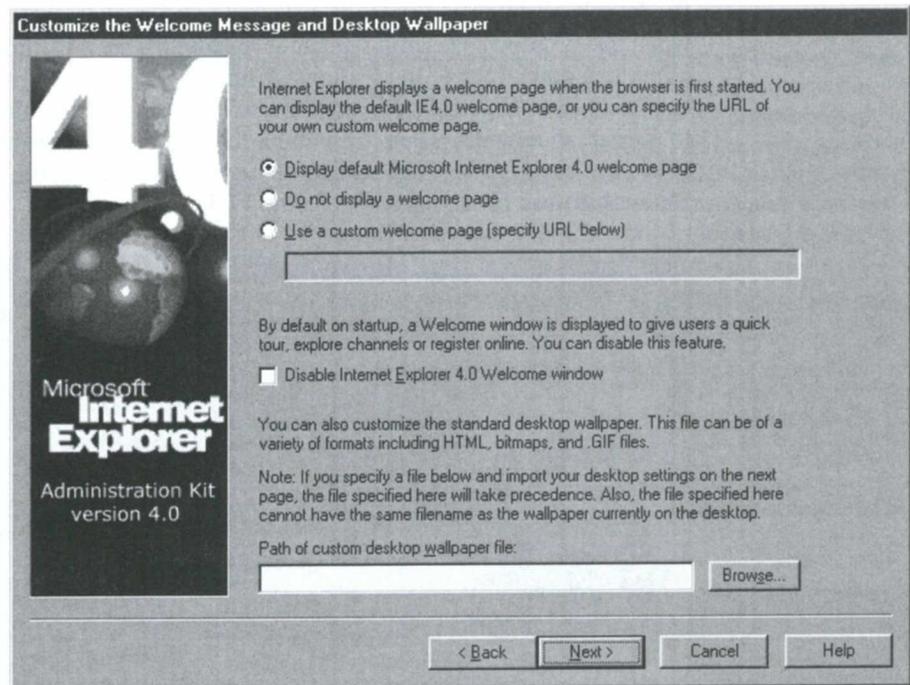
Option	Description
<b>Online support page URL</b>	Type the URL of the Web page that you created to offer technical support, and then click <b>Test URL</b> to ensure that the URL is correct.

This page will appear when your users click **Online Support** on the **Help** menu in Internet Explorer 4.



Option	Description
<b>Name</b>	Type a name for the Favorite or link.
<b>URL</b>	Type a URL for the Favorite or link.
<b>Add Folder</b>	To insert a hierarchical directory into the Favorites list, which can include more Favorites, click <b>Add Folder</b> .
<b>Add URL</b>	Select <b>Favorites</b> or <b>Links</b> or a folder, and then click <b>Add URL</b> to add its URL.
<b>Test URL</b>	You can click <b>Test URL</b> to ensure that the URL is correct.
<b>Import</b>	Select <b>Import</b> to point the IEAK to a link or a folder of links that you would like to import into the package.

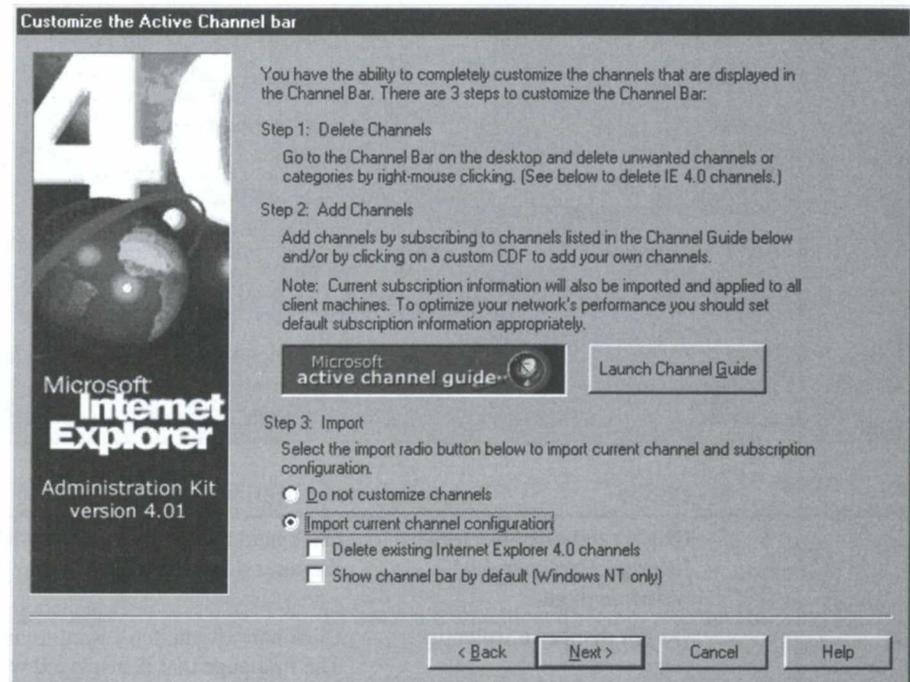
The favorites you specify on this wizard page appear in the Favorites folder of end users' computers. For example, you could add key URLs for your organization, such as the Help Desk and the Human Relations Web pages.



Option	Description
<b>Display default Microsoft Internet Explorer 4.0 welcome page</b>	Click here to choose the default Microsoft Internet Explorer 4 welcome page.
<b>Do not display a welcome page</b>	Click here if you don't want to display a welcome page. The first page that is displayed will be the home page.
<b>Use a custom welcome page (specify URL below)</b>	Click here, and type the URL for your custom welcome page.
<b>Disable Internet Explorer 4.0 Welcome window</b>	Click here to disable the Internet Explorer welcome window, which displays by default on the user's desktop when the Windows Desktop Update is installed.
<b>Path of custom desktop wallpaper file</b>	Type the URL for your custom desktop wallpaper, which can be a .bmp, .gif, or .htm file, or click <b>Browse</b> to locate the file.

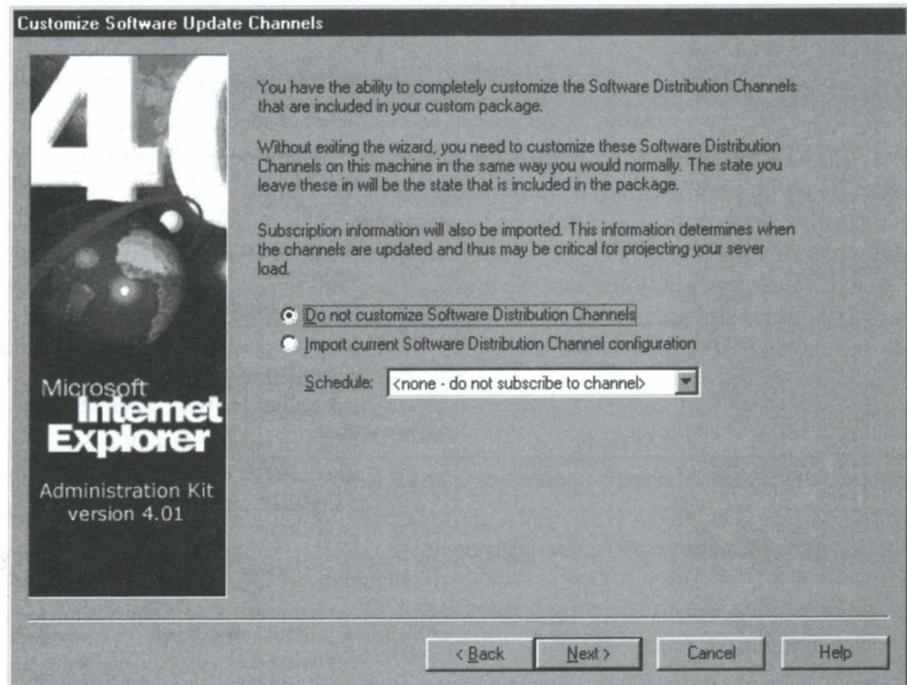
Internet Explorer displays a Welcome page the first time the browser is launched. You can display the default Internet Explorer Welcome window, or you can specify the URL of your own custom welcome page. The welcome page is not the same as the home page, which is the page that opens each time you start your browser (after the first time) and when the user clicks the **Home** button.

By default, an Internet Explorer Welcome window displays on the user's desktop when the Windows Desktop Update is installed. The Welcome window provides a link to a quick tour of the features of Internet Explorer, as well as a link to explore Active Channels. It's recommended that you allow the Welcome window to appear, so new users can learn about the new features of Internet Explorer 4. Users can easily turn off the welcome tutorial by clearing the check box for **Show this next time you log in** on the Welcome window.



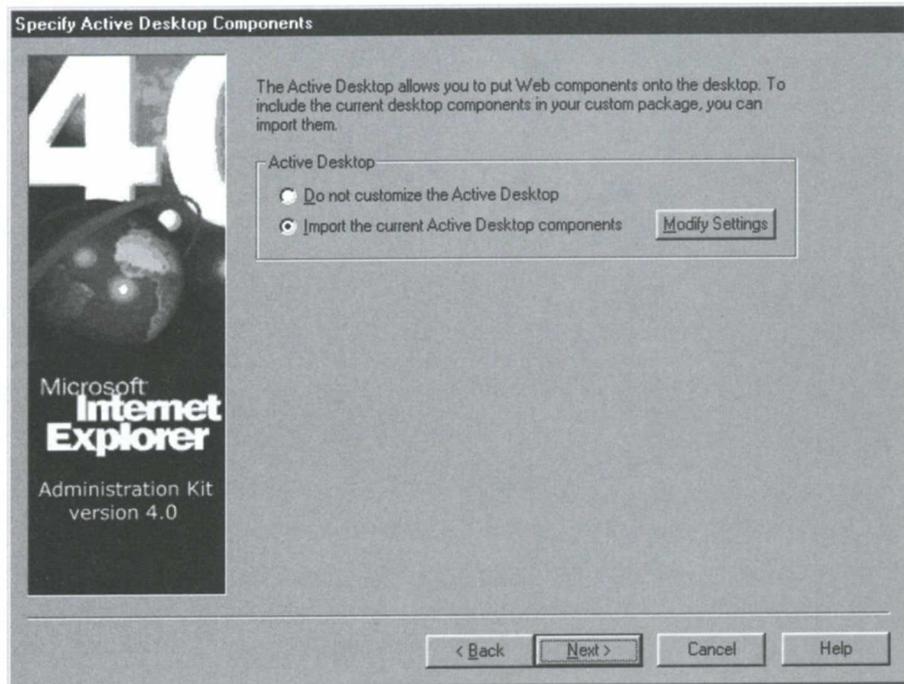
In order to insert a customized set of Active Channels into your IEAK packages, you must set them up on your computer the way that you want them to be configured on your users' desktops. The IEAK will import your current settings and distribute them to your users. If you want to prevent users from changing, adding, or deleting these channels once Internet Explorer is installed, you can specify this in Stage 5 of the IEAK Configuration Wizard using the System Policies and Restrictions page. For more information about setting up channels, see Chapter 16, "Managed Webcasting," in Part 4, "Information Delivery: Webcasting."

Option	Description
<b>Launch Channel Guide</b>	This is simply a shortcut to the Microsoft Channel Guide on the Internet, where you can easily subscribe to the channels and configure how they will appear on your users' Channel bar. You can also add channels from your intranet without going to the Microsoft Channel Guide. For more information, see "Understanding Active Channels" and Desktop Items" in Chapter 16, "Managed Webcasting."
<b>Do not customize channels</b>	Select if you do not want to install channels on end users' computers.
<b>Import current channel configuration</b>	Select to import the channels you have set up on your computer.
<b>Delete existing Internet Explorer 4.0 channels</b>	Select to delete any existing Active Channels on end users' computers.
<b>Show channel bar by default</b>	<i>For Windows NT only.</i> Select to show the Channel bar in the browser window by default.



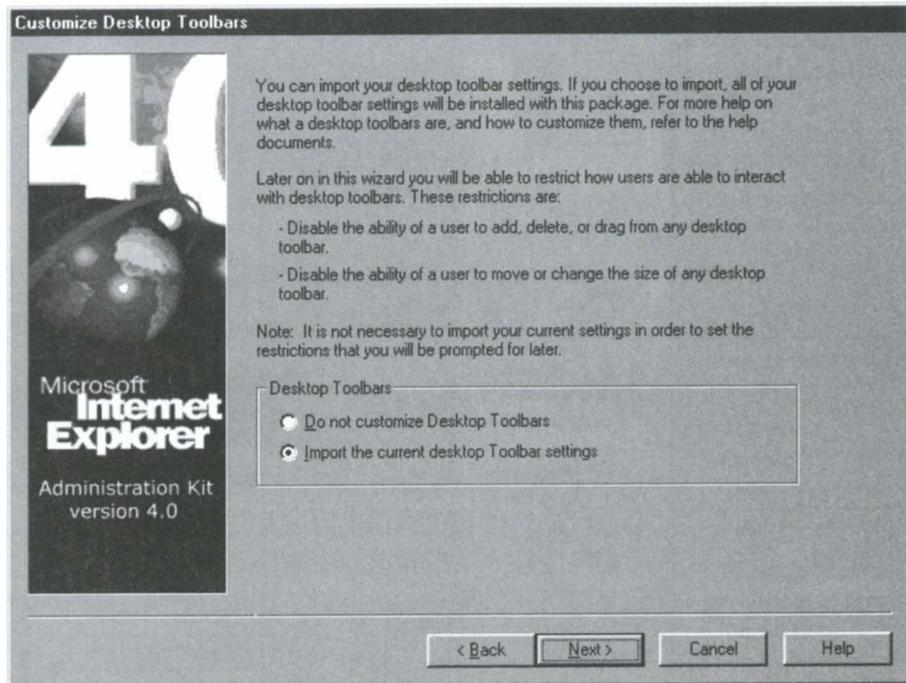
In order to insert a customized set of software distribution channels into your IEAK packages, you must set them up on your computer in the way that you want them to be configured on your users' desktops. The IEAK will import those settings and distribute them to your users. If you want to prevent users from changing their software distribution channel configuration once Internet Explorer is installed, you can specify this in Stage 5 of the IEAK Configuration Wizard, using the System Policies and Restrictions page. For more information about setting up software distribution channels, see Chapter 38, "Software Distribution and Updates."

Option	Description
<b>Do not customize Software Distribution Channels</b>	Select if you do not want to install software distribution channels on end users' computers.
<b>Import current Software Distribution Channel configuration</b>	Select to import the software distribution channels you have set up on your computer, and select a schedule option from the <b>Schedule</b> box.
<b>Schedule Options</b>	
<b>&lt;none – do not subscribe to channel&gt;</b>	Select to specify that all software distribution channels are imported, but not subscribed to, when the custom package is installed on users' computers. This is the default. Be careful you do not select this by mistake.
<b>Auto</b>	Select to specify that each software distribution channel uses the schedule information contained in the SCHEDULE section of its CDF file when the custom package is installed on users' computers
<b>Daily</b>	Select to specify that all software distribution channels are scheduled to be updated daily when the custom package is installed on users' computers.
<b>Monthly</b>	Select to specify that all software distribution channels are scheduled to be updated monthly when the custom package is installed on users' computers.
<b>Weekly</b>	Select to specify that all software distribution channels are scheduled to be updated weekly when the custom package is installed on users' computers.



In order to insert a customized set of Active Desktop items into your IEAK packages, you must set them up on your computer in the way that you want them to be configured on your users' desktops. The IEAK will import those settings and distribute them to your users. If you want to prevent users from changing their desktop configuration once Internet Explorer is installed, you can specify this in Stage 5 of the IEAK Configuration Wizard. For more information about setting up Active Desktop items, see Chapter 16, "Managed Webcasting," in Part 4, "Information Delivery: Webcasting."

Option	Description
<b>Do not customize the Active Desktop</b>	Select if you do not want to customize the Active Desktop.
<b>Import the current Active Desktop components</b>	Select to import the desktop items you have set up on your computer.
<b>Modify Settings</b>	Click to open the <b>Display Properties</b> dialog box. Use the Web tab to specify or change settings for desktop items.



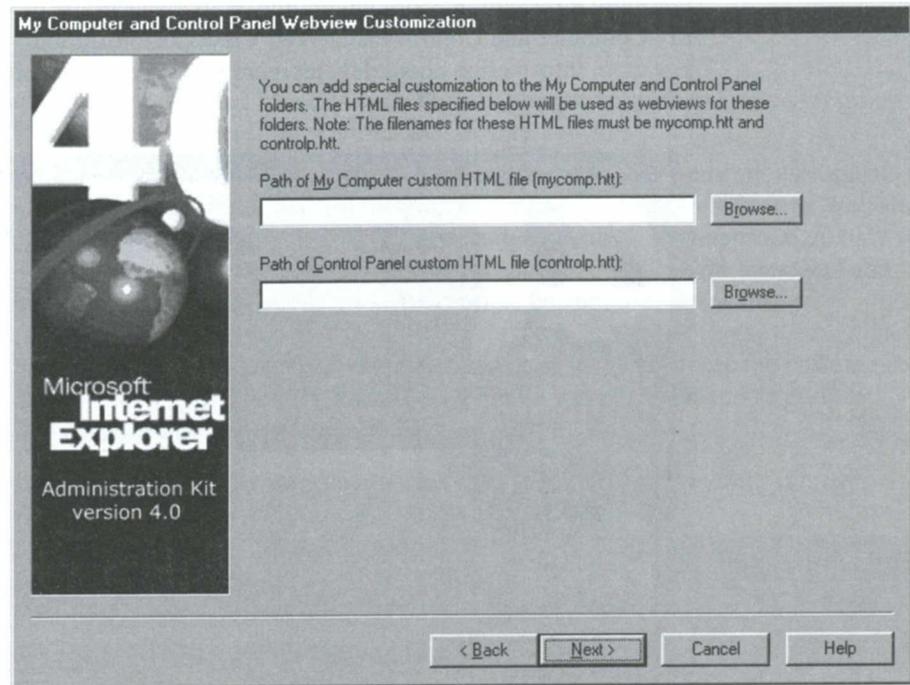
Option	Description
Desktop Toolbars	Click the option you want to use.

You can import your current settings by clicking **Import the current desktop Toolbar settings**. Click **Do not customize Desktop Toolbars** if you want users to have the default toolbar settings.

You can add the following four toolbars where you want them:

- The **Quick Launch** toolbar provides shortcuts to several often-used features of Internet Explorer 4: the desktop, the Web browser, Outlook Express, and channels.
- The **Address** toolbar enables you to enter a Web-page address (URL) without first opening the Internet Explorer browser.
- The **Links** toolbar provides shortcuts to important Web sites (for example, <http://www.microsoft.com/>) so that you can open them without first opening the browser.
- The **Desktop** toolbar contains all the shortcuts on your desktop and organizes them in one convenient location.
- In addition to the ready-made toolbars, you can create a toolbar from the contents of any folder.

For more information about these toolbars, see Part 3.

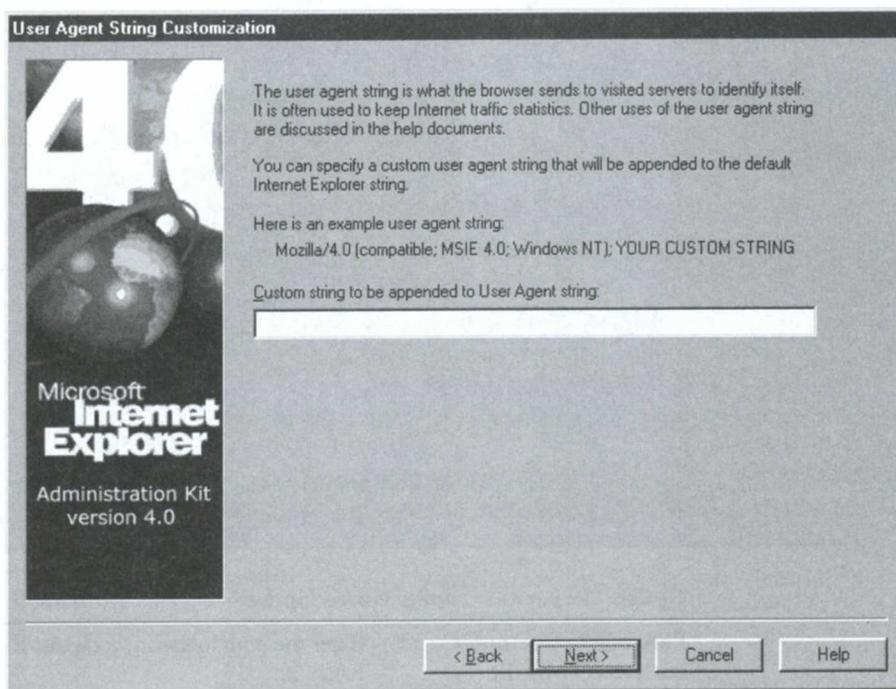


Option	Description
<b>Path of My Computer custom HTML file (mycomp.htt)</b>	Enter the path to the mycomp.htt file, or click <b>Browse</b> to locate it.
<b>Path of Control Panel custom HTML file (controlp.htt)</b>	Enter the path to the controlp.htt file, or click <b>Browse</b> to locate it.

You can customize how My Computer and Control Panel appear on your users' desktops by customizing the files that serve as templates for them: mycomp.htt (My Computer) and controlp.htt (Control Panel). If the user installs the Windows Desktop Update, My Computer and Control Panel can appear as Web pages in Web view. One reason to customize these folders is to provide your own instructions, a company logo, or links for support or corporate sites. For more information, see Part 3.

If you have installed the Windows Desktop Update on your computer, these files are located in the C:\Windows\Web or C:\Windows\NT folder. You can open them using a text editor, such as Notepad, or an HTML editor. It's recommended that you make a backup copy of these files before working with them, so you can restore them to their original state, if needed.

For more information about integrating Web views in the IEAK, see “Stage 4: My Computer and Control Panel Web View Customization,” in the IEAK Help. For more information about development with **WebViewFolderContents** objects, see the *Internet Client SDK*.



Option	Description
<b>Custom string to be appended to User Agent string</b>	Enter the text you want to append to the user agent string for user-group browsers.

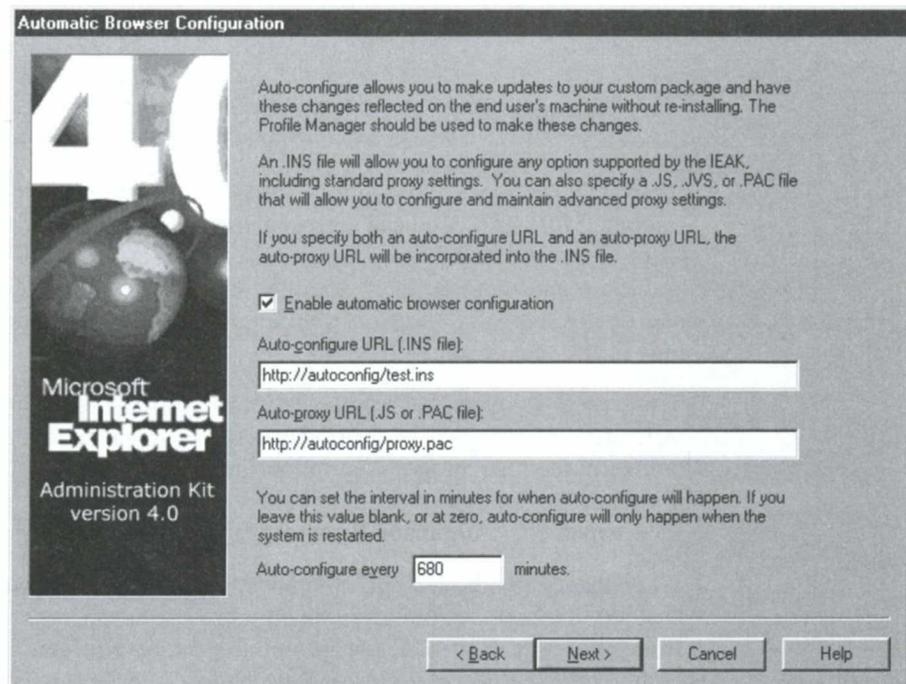
The user agent string is what a browser sends to Web servers to identify itself. Web servers use the information to identify the browser type and version, and typically record the information in server usage logs. Many organizations use the user agent string information to track statistics about browser usage on their Web sites. For example, organizations can identify what percentage of users access Web pages using Internet Explorer and Netscape Navigator. Based on a browser's user agent string, some Web sites download Web pages that are tailored to the capabilities of the browser type and version.

You only need to customize the user agent string if you want to do any of the following:

- Track the browser usage of specific user groups, and differentiate user group browser statistics from your intranet or Internet sites.
- Provide custom Web content to user groups based on the custom user agent string. For example, you might want to set up your Human Relations Web site to provide different Web pages for managers, with content appropriate only for managers. Therefore, you build separate custom packages for managers and non-managers, and include the appropriate custom user agent string.

Be aware that other organizations that track site statistics will see the custom user agent string. The following example shows how the IEAK appends a custom string *CustomUserAgentString* to the default user agent string:

```
Mozilla/4.0(compatible;MSIE 4.0b1;WindowsNT);CustomUserAgentString
```



Option	Description
<b>Enable automatic browser configuration</b>	Click if you want to turn on automatic browser configuration for this custom package.
<b>Auto-configure URL (.INS file)</b>	Type the URL for the auto-configuration (.ins) file. This URL points to the auto-configuration (.ins) file for this custom package. You can create a different file for each user group in your organization. Use a unique file name for each group managed—for example, sysadm.ins for system administrators and grpman.ins for group managers. The URL includes the file name in the following format:  <i>http://path/file name</i>
<b>Auto-proxy URL (.JS or .PAC file)</b>	Enter the path to the .js or .pac file. The URL includes this file name in the following format:  <i>http://path/file name</i>
<b>Auto-configure every ___ minutes</b>	Enter an interval, in minutes, when automatic configuration occurs. After deployment, Internet Explorer updates the auto-configuration information at the specified interval. If you leave the space for this interval blank or type “0,” auto-configuration occurs only when users manually refresh the browser’s automatic configuration or when Internet Explorer is restarted.

Automatic browser configuration is a feature of Internet Explorer 3 and Internet Explorer 4. You can set up Internet Explorer to periodically download auto-configuration files maintained on a central server. The contents of auto-configuration files are used to specify a wide variety of application, desktop, and shell settings for users. Internet Explorer 3 ignores any settings that apply only to Internet Explorer 4.

You typically create and maintain separate auto-configuration files for the different user groups in your organization. You can build custom packages configured to read auto-configuration files for each user group. You can then distribute the appropriate custom build to each user group. For more information, see Chapter 37, “Automatic Browser Configuration.”

When the custom packages are deployed with automatic browser configuration enabled, Internet Explorer periodically downloads the auto-configuration files from the server. Each time the auto-configuration information is refreshed, the system checks to see if there are new changes and then updates user, application, desktop, and system settings, as necessary.

You can use automatic browser configuration to manage a wide range of settings for users' computers, including Internet Explorer settings, desktop settings, and system settings. You can use the IEAK Profile Manager to create and modify auto-configuration files to change most of the settings and options you specified using the IEAK Configuration Wizard. You can also use the Profile Manager to update and manage system policies and restrictions and to lock down settings to prevent your users from changing the settings you specify. For example, you can prevent users from changing automatic browser configuration settings in their **Internet Options** settings. For more information, see Chapter 37, "Automatic Browser Configuration."

You can use the auto-proxy (.js or .pac) files to configure proxy settings dynamically for user groups. Using auto-proxy files is optional. You may want to specify proxy settings for each user group, using the Specify Proxy Settings page, which displays next. For more information about creating auto-proxy files, see Chapter 37, "Automatic Browser Configuration," and "JavaScript or JScript Auto-Proxy Example Files" in the IEAK Help.

**Specify Proxy Settings**

You can specify what proxy servers, if any, you want your users to connect to.

Enable proxy settings

Proxy Servers

	Address of proxy	Port number
HTTP:	<input type="text"/>	<input type="text" value="80"/>
Secure:	<input type="text"/>	<input type="text" value="80"/>
FTP:	<input type="text"/>	<input type="text" value="80"/>
Gopher:	<input type="text"/>	<input type="text" value="80"/>
Socks:	<input type="text"/>	<input type="text"/>

Use the same proxy server for all addresses.

Exceptions

Do not use proxy server for addresses beginning with:

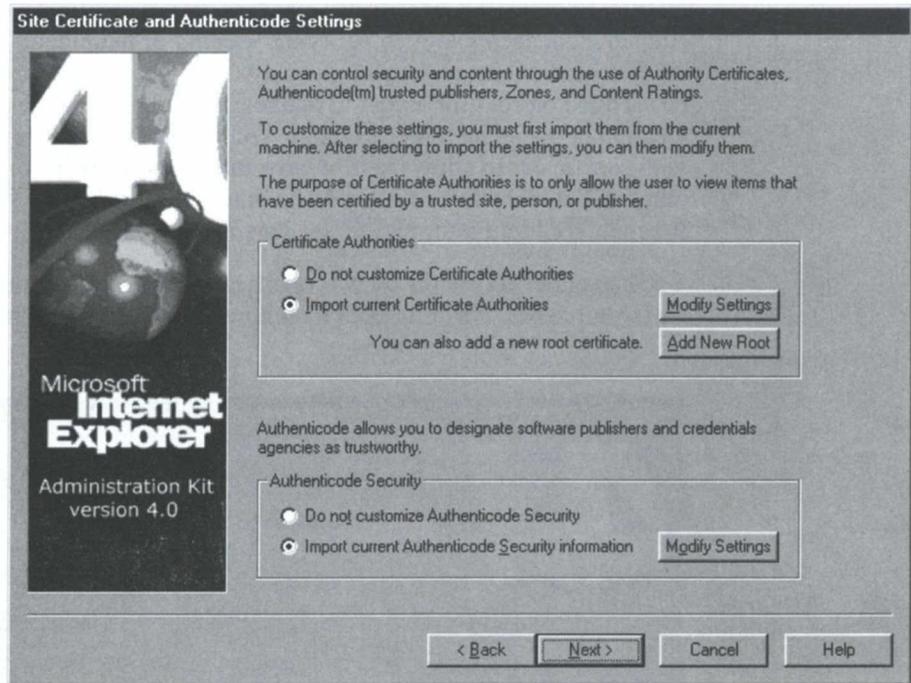
Use semicolons (;) to separate entries.

Do not use proxy server for local (intranet) addresses.

< Back   Next >   Cancel   Help

<b>Option</b>	<b>Description</b>
<b>Enable proxy settings</b>	If you do not use proxy servers, clear this check box. You should clear this check box if you use auto-proxy files.
<b>HTTP</b>	Type the URL of the proxy server for HTTP and its port number.
<b>Secure</b>	Type the URL of the secure proxy server and its port number.
<b>FTP</b>	Type the URL of the proxy server for FTP and its port number.
<b>Gopher</b>	Type the URL of the proxy server for Gopher and its port number.
<b>Socks</b>	Type the URL of the socks proxy server and its port number.
<b>Use the same proxy server for all addresses</b>	To use different proxy servers for different URLs, clear this check box.
<b>Exceptions</b>	Type the path(s) or domain(s) that do not require the use of proxy servers.
<b>Do not use proxy server for local (intranet) addresses</b>	To use proxy servers for local intranet URLs, clear this check box.

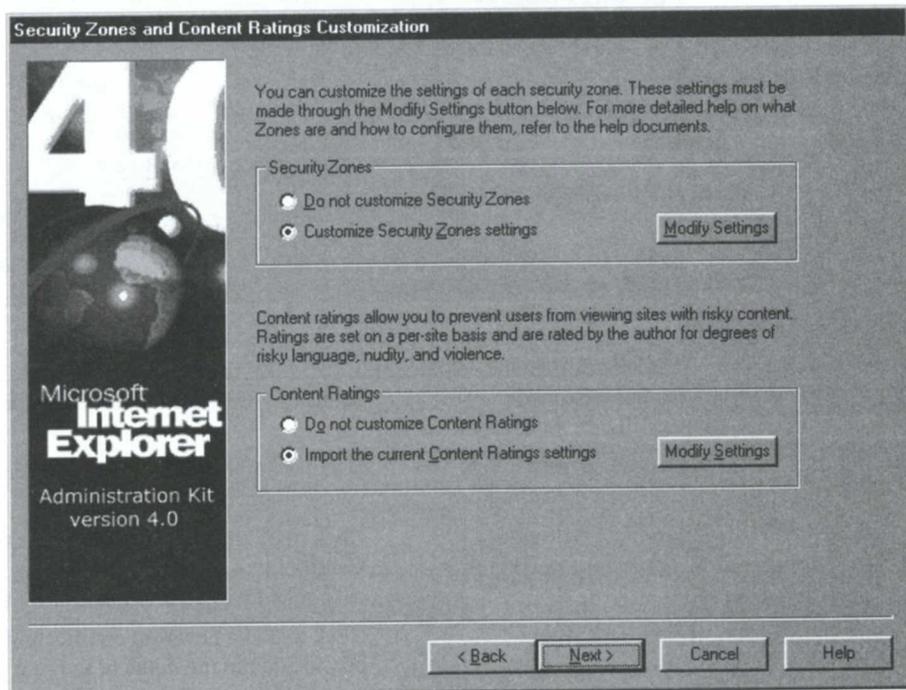
For more information about configuring proxy settings, see Chapter 8, "Configuring Connection Settings."



Option	Description
<b>Do not customize Certificate Authorities</b>	Select to accept the default Certificate Authorities settings.
<b>Import current Certificate Authorities</b>	Select to import the certificate settings you have set up on your computer.
<b>Modify Settings</b>	Click to modify Certificate Authority settings. Use the <b>Certificate Authorities</b> dialog box to remove certificates or to select trusted certificates for each <b>Issuer Type</b> .
<b>Add New Root</b>	Click to add a new root certificate. Use the <b>Browse</b> dialog box to add the <i>file name</i> of the root certificate file.
<b>Do not customize Authenticode Security</b>	Select to not install trusted publishers and authorities on your users' computers.
<b>Import current Authenticode Security information</b>	Select to import the trusted publishers and authorities you have set up on your computer.
<b>Modify Settings</b>	Click to remove trusted publishers and authorities. Use the <b>Authenticode Security Technology</b> dialog box to remove certificates for trusted publishers and authorities.

Internet Explorer 4 uses industry-standard digital certificates and Microsoft Authenticode technology to verify the identity of individuals and organizations on the Web and to ensure content integrity. Together with security zones, these can be used to control user access to online content based on the type, source, and location of the content. For example, you can use security zones in conjunction with certificates to allow users to have full access to Web content on your intranet, but limit the access to Web content from restricted sites located on the Internet. For more information, see Part 7, "Security and Privacy."

You can either accept the default certificate settings or customize the settings to meet your needs. For information on how to configure certificates, see Chapter 28, "Digital Certificates."



---

<b>Option</b>	<b>Description</b>
<b>Do not customize Security Zones</b>	Select to accept the default security zone settings.
<b>Customize Security Zones settings</b>	Select to import custom security zone settings you have set up on your computer.
<b>Modify Settings</b>	Click to customize security zone settings. Use the <b>Security</b> dialog box to specify the security levels assigned to the security zones.
<b>Do not customize Content Ratings</b>	Select to install browsers on users' computers with default settings and with content ratings disabled.
<b>Import the current Content Ratings settings</b>	Select to import custom content rating settings you have set up on your computer.
<b>Modify Settings</b>	Click to customize content rating settings. Use the <b>Content Advisor</b> dialog box to specify the custom content ratings.

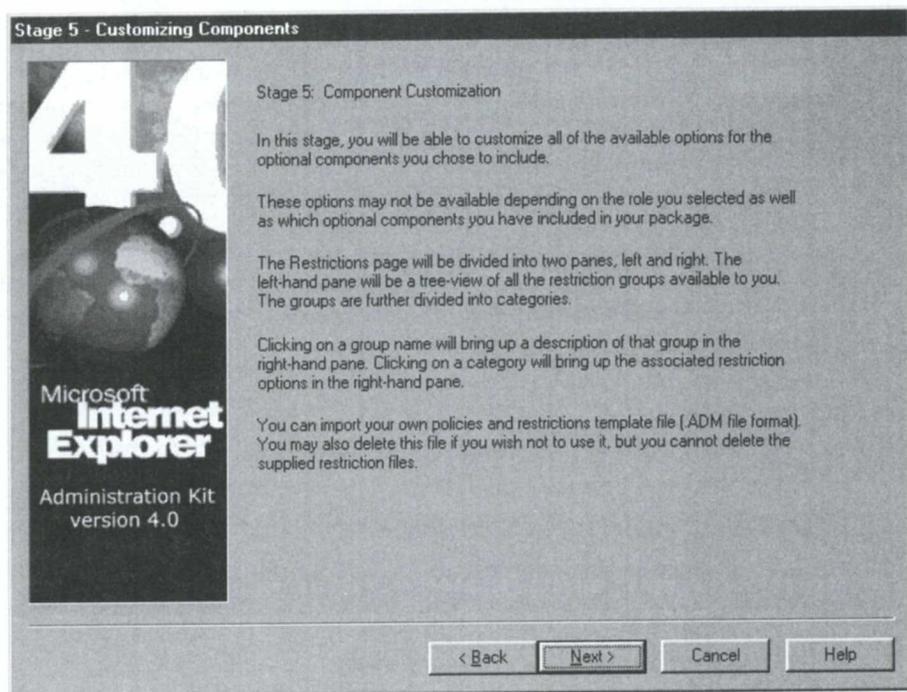
You can manage security zones and content ratings for your company and customize the settings for each security zone. For more information, see Chapter 27, "Security Zones." You can configure security zone settings to control how users can access Web content from sites located on the intranet, Internet, trusted sites, and restricted sites.

You can also control the types of content users can access on the Internet. You can adjust the content rating settings to reflect what you think is appropriate content in four areas: language, nudity, sex, and violence. For more information, see Chapter 30, "Content Advisor."

## Stage 5: Customizing Components

In Stage 5, you will:

- Specify your users' Outlook Express news and mail settings.
- Specify any LDAP server settings to provide Internet directory services to your users.
- Specify the Outlook Express welcome e-mail message to welcome users and customize the InfoPane that appears when users start the program.
- Specify default signatures to provide a corporate disclaimer or signature in Internet newsgroup or e-mail messages.
- Specify system policies and restrictions settings and lock down a wide range of browser, application, and system settings.



The IEAK Configuration Wizard pages in Stage 5 are:

- Specify Internet Mail Servers, Domain, and News Server
- Specify LDAP Server Settings
- Outlook Express Customizations
- Include a Signature
- System Policies and Restrictions

**Specify Internet Mail Servers, Domain, and News Server**



You can leave the following settings blank and let users enter this information when they first run Outlook Express. If you choose to provide this information, users will have to provide only account name and password information.

A POP3 or IMAP server specifies the server for incoming mail, while a SMTP server specifies the server for outgoing mail. Your SMTP server may have the same name as your POP3 or IMAP server.

Incoming mail (POP3 or IMAP) server:

Outgoing mail (SMTP) server:

Internet news server:

Make Outlook Express the default mail client  
 Make Outlook Express the default news client

You can use Secure Password Authentication (SPA) to authenticate your logons.  
 Use Secure Password Authentication

< Back   Next >   Cancel   Help

This wizard page appears only when you have chosen Outlook Express as an Internet Explorer component. It's optional because end users can provide this information when they run Outlook Express. This is a good way for administrators to pre-configure server settings that their users may not have.

Option	Description
<b>Incoming mail (POP3 or IMAP) server</b>	Type the server name, domain name, and subdomain for handling incoming mail.
<b>Outgoing mail (SMTP) server</b>	Type the server name, domain name, and subdomain for handling outgoing mail. This may be the same as the incoming mail server.
<b>Internet news server</b>	Type the server name of which Network News Transfer Protocol (NNTP) to use.
<b>Make Outlook Express the default mail client</b>	If you want Outlook Express to be the default mail client, select this check box.
<b>Make Outlook Express the default news client</b>	If you want Outlook Express to be the default news client, select this check box.
<b>Use Secure Password Authentication</b>	If you want Secure Password Authentication to authenticate users when they log on, select this check box.

**Specify LDAP Server Settings**

Internet Mail allows you to specify an Lightweight Directory Access Protocol (LDAP) server to provide Internet Directory services to your users.

Friendly Name:

Directory Service:

Home Page:

Search Base:

Service Bitmap:

Check names against this server when sending mail

Authentication type:

Anonymous

Secure Password

Password

< Back    Next >    Cancel    Help

Directory services are powerful search tools that help your users find people and businesses around the world. The Address Book supports LDAP for accessing directory services, and it comes with built-in access to several popular directory services. You can specify the LDAP services for your users.

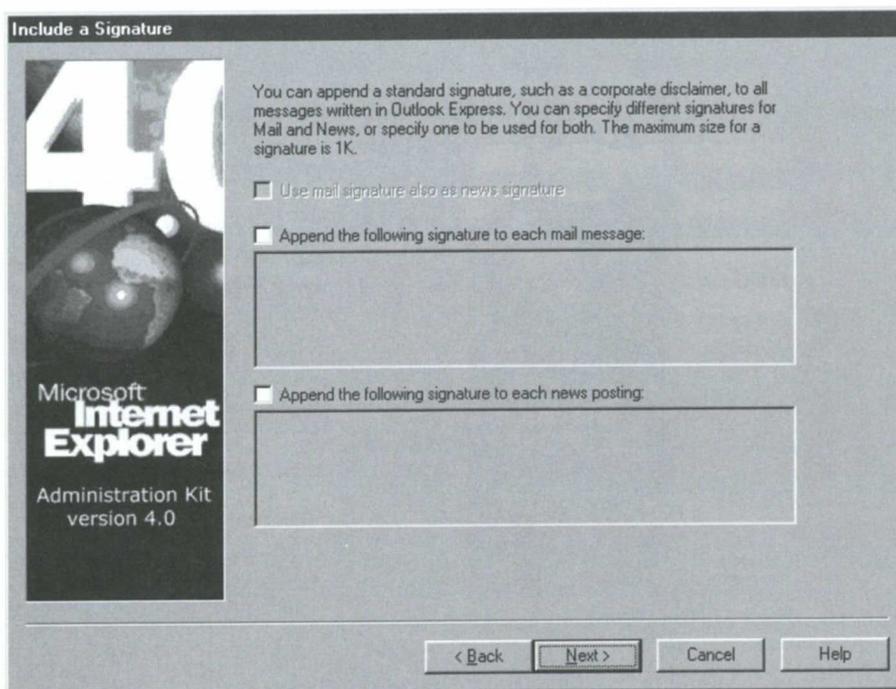
Option	Description
<b>Friendly Name</b>	Type the name of the LDAP server.
<b>Directory Service</b>	Type the directory service.
<b>Home Page</b>	Type the URL of the home page that Internet Explorer displays when the end user requests the LDAP Web site.
<b>Search Base</b>	Type the root or scope for the hierarchical level at which to search the LDAP server: base, one, or sub.
<b>Service Bitmap</b>	Type the path to the location of the bitmap, or click <b>Browse</b> to locate it.
<b>Check names against this server when sending mail</b>	If you want Outlook Express to check names before sending mail, select this check box.
<b>Authentication type</b>	Select the authentication type: Anonymous, Secure Password, or Password.

Option	Description
URL	Click to specify a URL for the Outlook Express InfoPane.
Local file	Click to use an HTML file for the Outlook Express InfoPane.
HTML path ( <i>InfoPane</i> )	Type the path to the InfoPane file, or click <b>Browse</b> to locate it.
HTML path ( <i>custom welcome message</i> )	Type the path to the custom welcome message file, or click <b>Browse</b> to locate it.
Sender	Type the user's name.
Reply-to	Type the user's e-mail address.

You can give Outlook Express a custom look and welcome new users with an e-mail message.

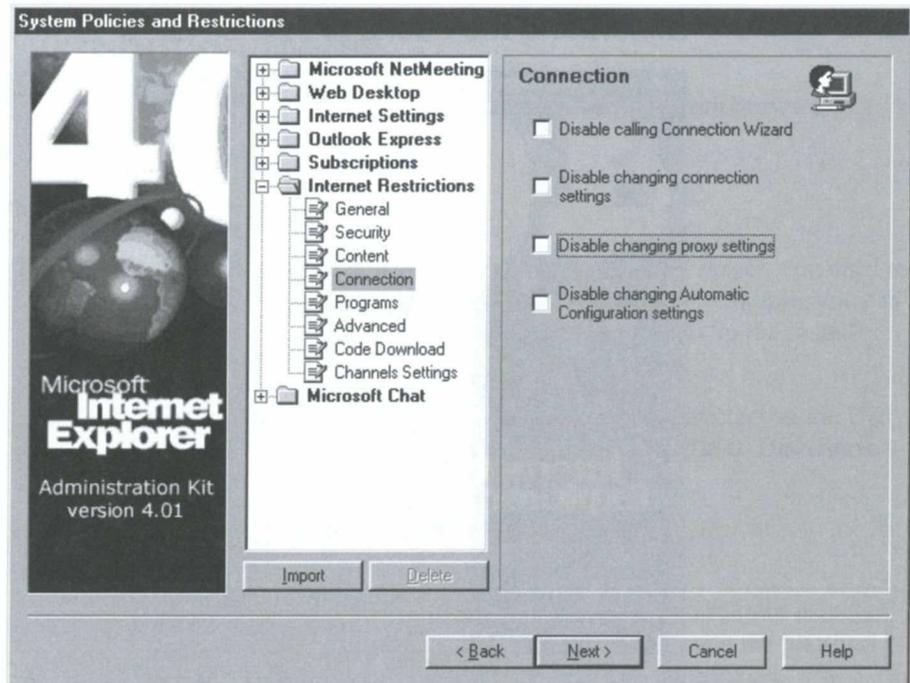
The Outlook Express InfoPane contains helpful information and links. You can customize this pane with support numbers, Frequently Asked Questions (FAQs), and information about your company.

The InfoPane appears as a window at the bottom of Outlook Express when you start the program. You can customize the InfoPane with an HTML file that is either a local file or an Internet address (URL).



Option	Description
<b>Use mail signature also as news signature</b>	To use the e-mail signature for posting news, select this check box.
<b>Append the following signature to each mail message</b>	Type the signature to append to each e-mail message.
<b>Append the following signature to each news posting</b>	Type the signature to append to each news posting.

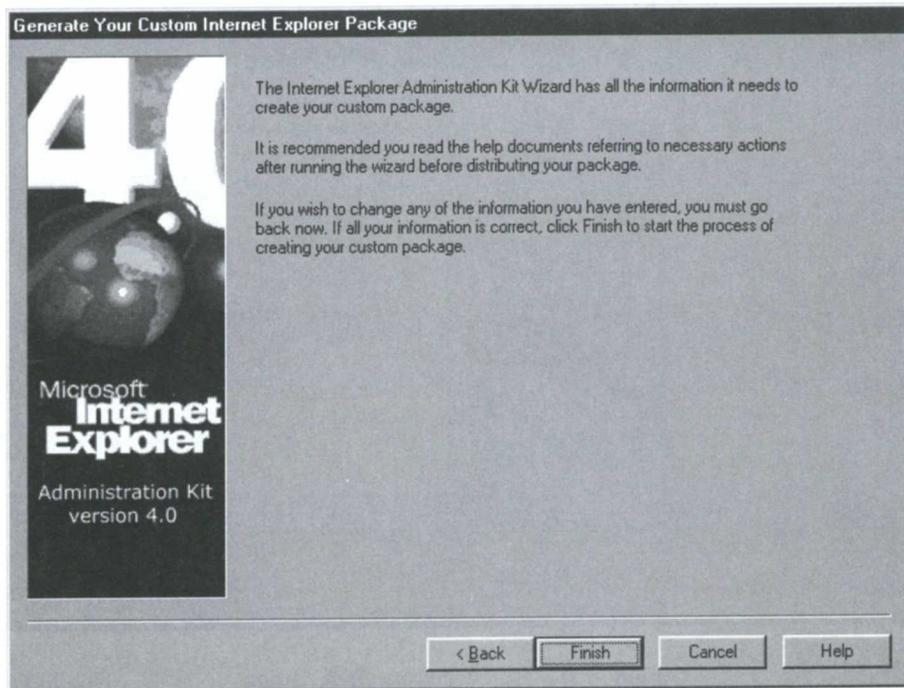
You can include a default signature or disclaimer that will appear on Outlook Express newsgroup or e-mail messages. A disclaimer is often used to show that messages submitted by employees over the Internet do not represent official company policies. The maximum size of the signature is 1K. You can choose to append signatures to newsgroup messages only, to e-mail messages only, or to both types of messages.



Option	Description
<i>Left pane</i>	Select the subject for which you want to change policies and restrictions.
<i>Right pane</i>	Specify the policies and restrictions you want for the subject.

For more information on the System Policies and Restrictions page, see Chapter 37, “Automatic Browser Configuration.” Also, for a complete list of all the options on this page, see Appendix J, “Custom-Build Checklist.”

## Generating the Package



After finishing Stage 5, the IEAK Configuration Wizard displays this page to give you a last chance to make changes. Once you click **Finish**, the wizard creates the package as you specified.

## Signing Custom Package Files

Digital signatures identify the source of programs and guarantee that the code hasn't changed since it was signed. Depending on how users' browser security levels are configured, users could be warned not to download files that aren't signed, or could be prevented from downloading them. Therefore, you should digitally sign the .cab files created by the IEAK Configuration Wizard and any custom components you include.

Signing .cab files and custom programs requires two steps: obtaining a digital certificate—from a Certificate Authority (CA) such as VeriSign or GTE—and signing the code. For more information, see Chapter 28, "Digital Certificates," "Signing Your Programs" in the IEAK Help, and "Signing Code with Microsoft Authenticode Technology" in the *Internet Client SDK*.

## Producing Distribution Media

This section covers the downloading and distributing of custom browser packages.

### Designating Distribution

If you created the browser package on an Internet or intranet server, you need to set up your Web site so that users can download the files. For example, you can create a page where you post download information and a link to the install engine, IE4Setup.exe.

The IEAK Configuration Wizard places IE4Setup.exe in a directory at the URL you entered in the **Destination folder** box on the **Select Media to Distribute Your Browser** page during Stage 1. For example:

```
C:\Webshare\WWWroot\CIE\Download\Win95_NT\En\IE4setup.exe
```

---

**Note** The IEAK Configuration Wizard creates the directory structure using a convention that indicates the language version (English: En) and the platform (Windows 95 and Windows NT: Win95\_NT) for the custom package.

---

If you created the browser package on your hard disk or network drive, you need to move the distribution files from the IE4site folder on your hard disk or network drive to the IE4site folder on the an Internet or intranet server at the URL you specified for your distribution servers.

The IE4site folder contains the .cab files of the language version you are posting and the folder contents. For example, the English version is located in IE4site\En. You need to move the IE4site\*Language version* folder and the files it contains to the URL you specified for download sites. For example, move files in C:\Cie\IE4site\En to C:\Webshare\Wwwroot\Cie\IE4site\En.

Active Setup uses the IE4site\IE4sites.dat file to locate the files Active Setup needs to install the custom package on users' computer. You need to move the file IE4site\IE4sites.dat to the URL for the download site (or sites) you specified when you ran the IEAK Configuration Wizard. For example, move IE4sites.dat from C:\IE4site\IE4sites.dat to C:\Webshare\Wwwroot\Cie\IE4site\IE4sites.dat.

## Designating Other Distribution Media

For packages on compact discs or floppy disks, make sure to produce a sufficient volume of the chosen distribution media to meet end-user needs.

If you distribute your custom browser on compact discs for Windows 95 users, a splash-screen Autorun program appears when the user inserts the compact disc. This program offers users the choice to install your custom browser or view more information. If the current version of Internet Explorer is already installed, the Autorun program detects it. The browser appears in what is known as Kiosk mode, with the Start.htm file loaded.

The IEAK Configuration Wizard will also enable you to distribute your custom browser on multiple 1.44-MB floppy disks.

## Distributing Internet Explorer

Depending on the media in which you distribute the custom packages, you can use one or more of the following methods to distribute Internet Explorer to end users:

- From download Web or FTP sites on the Internet
- From download Web or FTP sites on your intranet
- From compact discs
- From floppy disks

For each of these methods, end users run the Active Setup program, IE4setup.exe, to install the custom build of Internet Explorer.

## Using Compact Discs and Floppy Disks

For distribution from compact discs and floppy disks, IE4Setup.exe is included on the distribution media. Users install Internet Explorer by running IE4Setup.exe from the AutoRun splash screen of the compact disc or from Disk 1 of the floppy disk set. Active Setup installs the appropriate files from the distribution media. You can provide written instructions to guide users through the installation process. You can include the instructions in an e-mail message to users or as hard-copy instructions packaged with the distribution media.

## Using Distribution Sites on the Intranet or Internet

From distribution sites on the intranet or Internet, you can deliver IE4setup.exe directly to end users as an e-mail attachment, if your network bandwidth and load can support sending multiple copies of IE4Setup.exe, which is about 420K. You can also direct users where to go to download the IE4Setup.exe. For example, you could send an e-mail message with instructions and a link to a download Web page. The download Web page could provide instructions on how to download Internet Explorer.

## Running Active Setup

When users run IE4.Setup.exe, Active Setup installs Internet Explorer from the distribution media as follows:

- IE4Setup.exe extracts the setup files into a temporary directory.
- IE4Setup.inf looks at the [String] section for the URL location of the IE4site.dat file.
- Active Setup goes to the file IE4site.dat, which points to the location of the download .cab files and then displays the download options to the end user.
- Active Setup downloads the .cab files, which are placed in the specified directory; for example, C:\Program Files\Internet Explorer.
- Active Setup extracts the .cab files.
- Active Setup installs Internet Explorer and each component for the specified installation package.

After Internet Explorer is installed, Active Setup prompts the user to restart the computer. After the computer restarts, Active Setup completes configuring the user's desktop and opens the Welcome splash screen to introduce the user to Internet Explorer 4.

## Troubleshooting Active Setup

For troubleshooting Active Setup:

- Review the Active Setup Log.txt file in the Windows directory. Each installation creates a log file, which collects information about that particular installation. If an Active Setup Log.txt file exists when an installation is started, Active Setup renames the existing log as a .bak file and creates a new log file. (For more information about the Active Setup Log.txt file, see Part 1, "Installing Internet Explorer 4.")
- Make sure that the download URL in the file IE4Setup.inf is exact.
- Refer to Appendix B, "Troubleshooting Installation and Uninstallation."

## Assisting Users During Installation

The user support team should monitor the progress of the pilot program and provide user assistance, as necessary. It's recommended that you provide an online support Web site that can provide users with help resources to solve common problems.

You should use your experience from pilot programs to provide the types of information and help your typical users need. As solutions are developed to solve users' problems during the deployment process, you should update the support Web site to provide solutions to problems.

You could integrate the online support site with your help desk and provide mechanisms to escalate unusual or difficult problems to user support specialists.

# Automatic Browser Configuration

## In this chapter

- Automatic Browser Configuration Overview 672
- Understanding Automatic Browser Configuration 672
- Setting Up Automatic Browser Configuration 673
  - Setting Up Custom Packages 674
  - Locking Down Automatic Browser Configuration 675
  - Creating User Auto-Configuration Files 677
  - Signing Auto-Configuration Cabinet Files Digitally 678
  - Creating Auto-Proxy Files 678
  - Configuring Central Auto-Configuration Servers 679
  - Setting Up Auto-Configuration in Previously Deployed Browsers 679
  - Updating Distribution Files 681
- Using the IEAK Profile Manager 682
  - Starting the IEAK Profile Manager 682
  - Changing Wizard Settings 683
  - Changing System Policies and Restrictions 685
  - Using Custom Policy Templates 687
  - Using Auto-Configuration File Templates 687
  - Maintaining Auto-Configuration Files 688

## Automatic Browser Configuration Overview

This chapter describes how to set up Internet Explorer and servers on the network to enable automatic browser configuration and how to use the automatic browser configuration feature of Microsoft Internet Explorer 4 to centrally manage desktop configurations. This chapter also explains how to use the Internet Explorer Administration Kit (IEAK) Profile Manager to create and manage separate configuration files for different user groups in your organization.

The information provided here will help you to:

- Understand the automatic browser configuration feature.
- Set up computing systems for automatic browser configuration.
- Use the IEAK Profile Manager to maintain configuration files.

## Understanding Automatic Browser Configuration

Automatic browser configuration is a feature of Internet Explorer 3 and Internet Explorer 4. You can set up Internet Explorer to periodically download auto-configuration files maintained on a central server. The contents of auto-configuration files are used to specify a wide variety of application, desktop, and shell settings for users. Internet Explorer 3 ignores any settings that apply only to Internet Explorer 4.

You typically create and maintain separate auto-configuration files for the different user groups in your organization. You can build custom packages configured to read auto-configuration files for each user group. You can then distribute the appropriate custom build to each user group.

When the custom packages are deployed with automatic browser configuration enabled, Internet Explorer periodically downloads the auto-configuration files from the server. Each time the auto-configuration information is refreshed, the system checks to see if there are new changes, and then updates user, application, desktop, and system settings, as necessary.

---

**Note** Some auto-configuration changes require the system to be restarted before changes to the system registry can take effect.

---

You can use automatic browser configuration to manage a wide range of settings for users' computers, including Internet Explorer settings, desktop settings, and system settings. You can use the IEAK Profile Manager to create and modify auto-configuration files to change most of the settings and options you specified using the IEAK Configuration Wizard. You can also use the Profile Manager to update and manage system policies and restrictions, and to lock down settings to prevent your users from changing the settings you specify. For example, you can prevent users from changing automatic browser configuration settings in their **Internet Options** settings.

## Setting Up Automatic Browser Configuration

You should set up automatic browser configuration when you deploy Internet Explorer. With automatic browser configuration enabled on all desktops in your organization, you can make configuration settings centrally, without having to touch the individual computers again. You can still set up automatic browser configuration after deployment, but then it requires some additional steps.

### **To set up automatic browser configuration before deployment:**

- Set up custom packages for automatic browser configuration.
- Lock down automatic browser configuration.
- Create user-configuration files.
- Digitally sign auto-configuration cabinet files.
- Create optional auto-proxy files.
- Configure central auto-configuration servers.

### **To set up automatic browser configuration after deployment:**

- Set up automatic browser configuration for deployed browsers.
- Update distribution files with the new custom-package files.

## Setting Up Custom Packages

You use the IEAK Configuration Wizard to set up automatic browser configuration when you build custom packages. When the custom packages are deployed, Internet Explorer is installed with automatic browser configuration enabled.

To build custom packages, you need to run the IEAK Configuration Wizard and specify the custom package. For more information, see “Building Custom Packages” in Chapter 36, “Implementing the Deployment.”

To set up automatic browser configuration, perform the following steps at the **Automatic Browser Configuration** page:

**Automatic Browser Configuration**

40

Microsoft  
**Internet Explorer**  
Administration Kit  
version 4.0

Auto-configure allows you to make updates to your custom package and have these changes reflected on the end user's machine without re-installing. The Profile Manager should be used to make these changes.

An .INS file will allow you to configure any option supported by the IEAK, including standard proxy settings. You can also specify a .JS, .JVS, or .PAC file that will allow you to configure and maintain advanced proxy settings.

If you specify both an auto-configure URL and an auto-proxy URL, the auto-proxy URL will be incorporated into the .INS file.

Enable automatic browser configuration

Auto-configure URL (.INS file):

Auto-proxy URL (.JS or .PAC file):

You can set the interval in minutes for when auto-configure will happen. If you leave this value blank, or at zero, auto-configure will only happen when the system is restarted.

Auto-configure every  minutes.

< Back   Next >   Cancel   Help

1. Select **Enable automatic browser configuration**.
2. Type the URL for the *user-configuration file* in the **Auto-configure URL (.INS file)** box.
3. Type the URL for the *auto-proxy file* in the **Auto-proxy URL (.JS or .PAC file)** box.
4. Type the *auto-configuration interval* in the **Auto-configure every \_\_\_\_\_ minutes** box.

The information you need is explained in the table below.

Information Needed	Explanation
<i>URL for the user-configuration file</i>	This URL points to the auto-configuration (.ins) file for this custom package. You can create a different file for each user group in your organization. Use a unique file name for each group managed—for example, sysadm.ins for system administrators and grpman.ins for group managers. The URL includes the file name in the following format:  <i>http://path/file name</i>
<i>URL for the auto-proxy file</i>	You can use the auto-proxy (.js or .pac) file to configure proxy settings dynamically. The URL includes this file name in the following format:  <i>http://path/file name</i>
<i>auto-configuration interval</i>	This interval is the time, in minutes, during which automatic configuration occurs. After deployment, Internet Explorer updates the auto-configuration information at the specified interval. If you leave the space for this interval blank or type “0,” auto-configuration occurs only when users manually refresh the browser’s automatic configuration or when Internet Explorer is restarted.

#### 5. Finish building the custom package.

To specify automatic browser configuration, the IEAK Configuration Wizard places the following entries in the [URL] section of the install.ins file:

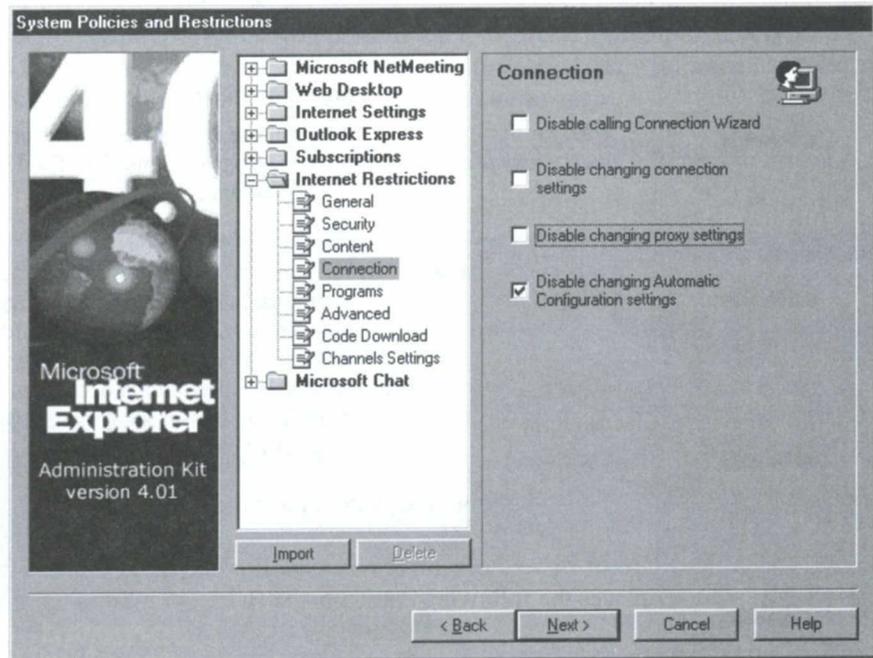
```
AutoConfig=1
AutoConfigURL=http://URL/user-configuration file name
AutoConfigJSURL=http://URL/auto-proxy file name
AutoConfigTime=auto-configuration interval
```

## Locking Down Automatic Browser Configuration

You can use the IEAK Configuration Wizard to lock down automatic browser configuration and prevent users from changing automatic browser configuration in their **Internet Options** settings. After browsers are deployed, you can use the IEAK Profile Manager to lock down automatic browser configuration for user groups that have automatic browser configuration implemented.

► **To lock down automatic browser configuration**

1. Go to the **System Policies and Restrictions** page of the IEAK Configuration Wizard.
2. In the System Policies & Restrictions hierarchy, select **Internet Restrictions**, and then click **Connection**.



**Note** The IEAK Configuration Wizard is shown here, but the **System Policies and Restrictions** section of the IEAK Profile Manager works similarly.

3. In the right pane, click **Disable changing Automatic Configuration settings**.
4. Finish building the custom package.

When Internet Explorer is installed on end users' computers, the **Automatic Connection** option on the **Connections** tab of the **Internet Options** dialog box appears dimmed, preventing users from opening the **Automatic Configuration** dialog box to change settings.

## Creating User Auto-Configuration Files

You use the IEAK Profile Manager to create and maintain user auto-configuration files. The Profile Manager generates the auto-configuration .ins file and companion .cab files that are needed to configure users' systems.

You can create user auto-configurations for each user group in your organization. You use the Profile Manager to specify the configurations and save them as *usergroup.ins* files, where *usergroup* is a unique name for each user group. The Profile Manager automatically generates the companion .cab files. For example, you could specify a user-group configuration for system administrators and save the configuration as *sysadmin.ins*. The Profile Manager would then generate the necessary companion .cab files.

A .cab file stores compressed files in a library. Cabinet files are used to organize installation files that are downloaded to users' systems. The cabinet files that the Profile Manager generates contain information (.inf) files that are automatically unpacked on users' systems.

The *usergroup.ins* file is used by Internet Explorer to change browser customization settings corresponding to the Wizard Settings section of the Profile Manager. For more information, see "Changing Wizard Settings" later in this chapter. Internet Explorer processes the contents of the *usergroup.ins* file and makes any changes specified. For example, if proxy settings have changed in *usergroup.ins*, Internet Explorer updates the user's Internet proxy settings. Internet Explorer also downloads and unpacks the companion .cab files for Windows to process. The unpacked auto-configuration .inf files are used by Windows to change system policies and restrictions corresponding to the System Policies and Restrictions section of the Profile Manager.

Each .inf file contains version information. When you modify user configurations, the Profile Manager changes the affected .inf files, updates the version information, and repackages the companion .cab files. When the auto-configuration .cab files are downloaded to a user's system and unpacked, the system checks the version of the .inf files and only updates system settings using new versions of the .inf files.

## Signing Auto-Configuration Cabinet Files Digitally

Digital signatures identify the source of programs and guarantee that the code hasn't changed since it was signed. Depending on how users' browser security levels are configured, users could be prevented from downloading .cab files that aren't signed. Therefore, you should digitally sign the companion (.cab) files created by the IEAK Profile Manager.

Signing .cab files requires two steps: obtaining a digital certificate—from a Certificate Authority such as VeriSign or GTE—and signing the code. For more information, see Chapter 28, “Digital Certificates,” “Signing Your Programs” in the IEAK Help, and “Signing Code with Microsoft Authenticode Technology” in the *Internet Client SDK*.

## Creating Auto-Proxy Files

You can use a text editor to create auto-proxy (.js or .pac) files that dynamically assign browser proxy settings based on the location of hosts. Auto-proxy files are JScript files. When an auto-proxy file is specified, Internet Explorer uses the auto-proxy script to determine if it should connect directly to a host or use a proxy server. You can use auto-proxy files to configure users automatically to use different proxy servers for different domains.

The following example shows an auto-proxy function that checks to see whether the host name is a local host, and if it is, whether the connection is direct. If the host name is not a local host, the connection is through the proxy server, named proxy1.

```
function FindProxyForURL(url, host)
{
    if (isPlainHostName(host))
        return "DIRECT";
    else
        return "PROXY proxy1:80";
}
```

The *isPlainHostName()* function checks to see if there are any dots in the host name. If there are, it returns false; otherwise, the function returns true. For more examples of JScript auto-proxy files, see Help in the IEAK Configuration Wizard.

---

**Note** Using auto-proxy files is optional. You may want to specify proxy settings for each user group that uses the IEAK Configuration Wizard or the IEAK Profile Manager. You can also lock down the proxy-settings option. For more information, see “Using the IEAK Profile Manager” later in this chapter.

---

## Configuring Central Auto-Configuration Servers

You need to configure servers on your intranet to support automatic browser configuration. To configure central management servers:

- Install Web-server software, such as Microsoft Internet Information Server.
- Install the auto-configuration and auto-proxy files on the server at the URLs necessary for automatic browser configuration.

The number of automatic browser configuration servers you need will vary depending on the size and demands of your organization. If your organization is large, you could configure automatic browser configuration servers for each domain. For example, you specify automatic browser configuration for user groups in domain 1:

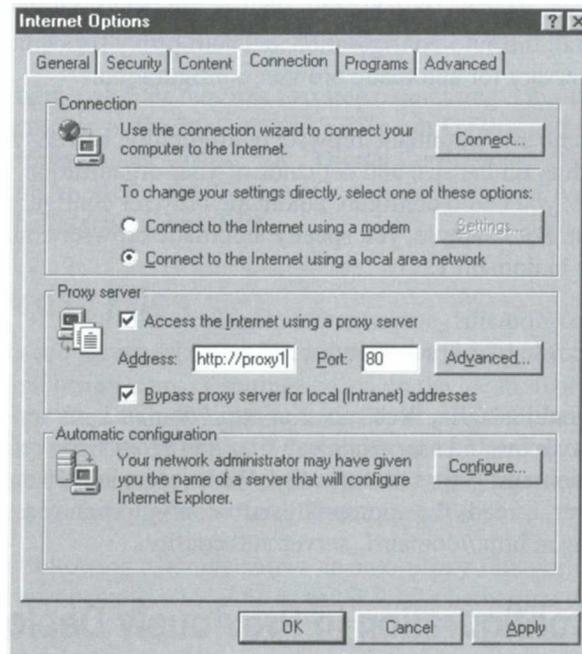
- [http://domain1\\_server/autoconfig/usergroup.ins](http://domain1_server/autoconfig/usergroup.ins)  
[http://domain1\\_server/autoconfig/proxy1.pac](http://domain1_server/autoconfig/proxy1.pac)

You would install a Web server at [http://domain1\\_server/](http://domain1_server/) and install the *usergroup.ins* and *usergroup.cab* files and *proxy1.pac* on the server at [http://domain1\\_server/autoconfig/](http://domain1_server/autoconfig/). When users in domain 1 start Internet Explorer, it reads the appropriate auto-configuration files and the auto-proxy file residing at [http://domain1\\_server/autoconfig/](http://domain1_server/autoconfig/).

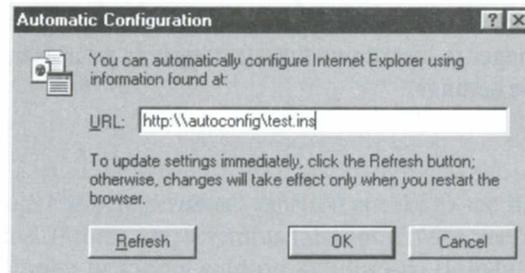
## Setting Up Auto-Configuration in Previously Deployed Browsers

Clearly, it is advantageous to use the IEAK to customize Internet Explorer 4 so that automatic configuration is enabled before you deploy the browser. If that is not possible, users will have to perform a simple procedure to turn on automatic configuration. Once they have performed these steps, you can use the IEAK Profile Manager to lock down these settings, so your users will not be able to change these settings.

- ▶ **To set up Internet Explorer 4 for automatic configuration**
  1. From the Internet Explorer window, on the **View** menu, choose **Internet Options**.
  2. Select the **Connection** tab.



3. Select **Configure**.



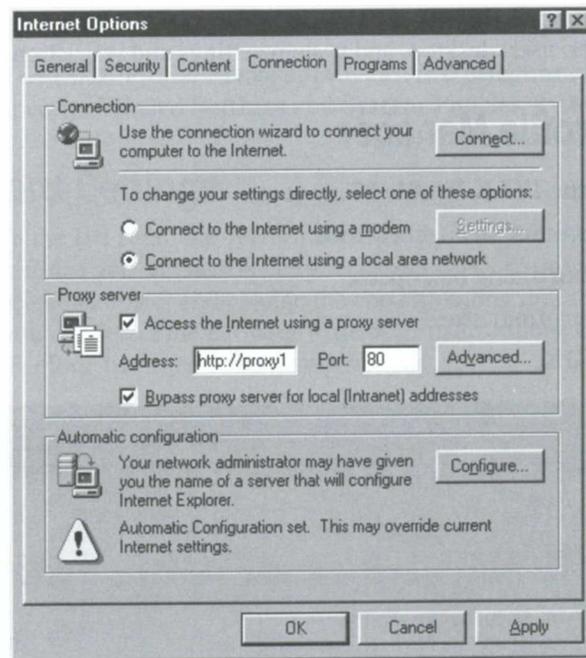
4. Type the *URL/auto-configuration file name* in the URL box.
5. Select **Refresh** to refresh auto-configuration information.

---

**Note** Some auto-configuration changes require the system to be restarted before changes to the system registry will take effect.

---

When automatic browser configuration is turned on, the **Connection** tab displays a caution: “Automatic configuration set. This may override current Internet settings.”



## Updating Distribution Files

If you deployed Internet Explorer with automatic browser configuration disabled, you should update distribution files from new custom package builds that are enabled for automatic browser configuration. This ensures that new-user installations of Internet Explorer are enabled for automatic browser configuration.

Be sure to update all download sites. If you distribute custom packages using compact discs or floppy disks, you'll also need to produce new compact discs or floppy disks for distribution.

## Using the IEAK Profile Manager

You can use the IEAK Profile Manager to create and maintain the auto-configuration files. With the Profile Manager you can specify a wide range of browser, user, desktop, and system settings and restrictions.

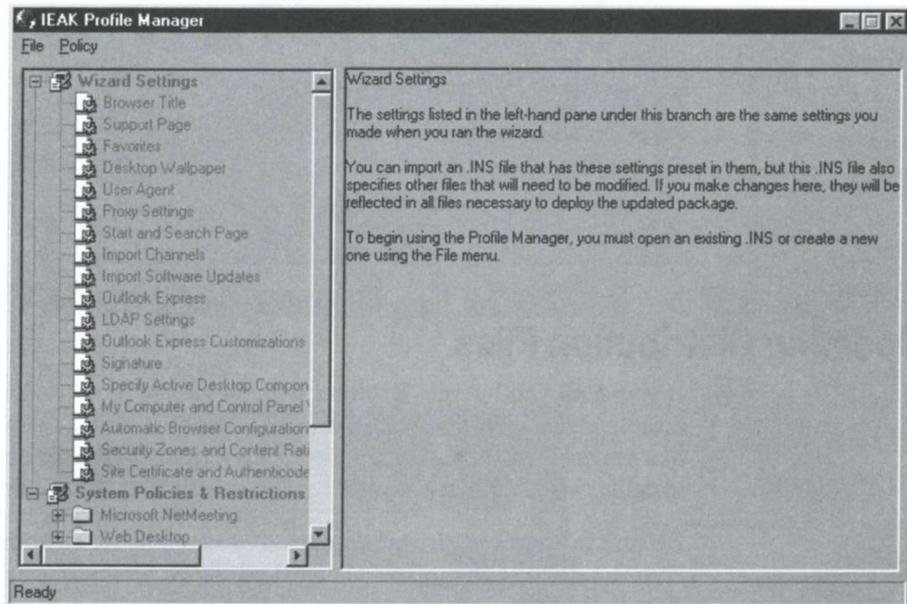
### Starting the IEAK Profile Manager

► **To start the IEAK Profile Manager**

1. On the **Start** menu, click **Run**.

The **Run** dialog box opens.

2. Type **profmgr.exe**.
3. Click **OK**.

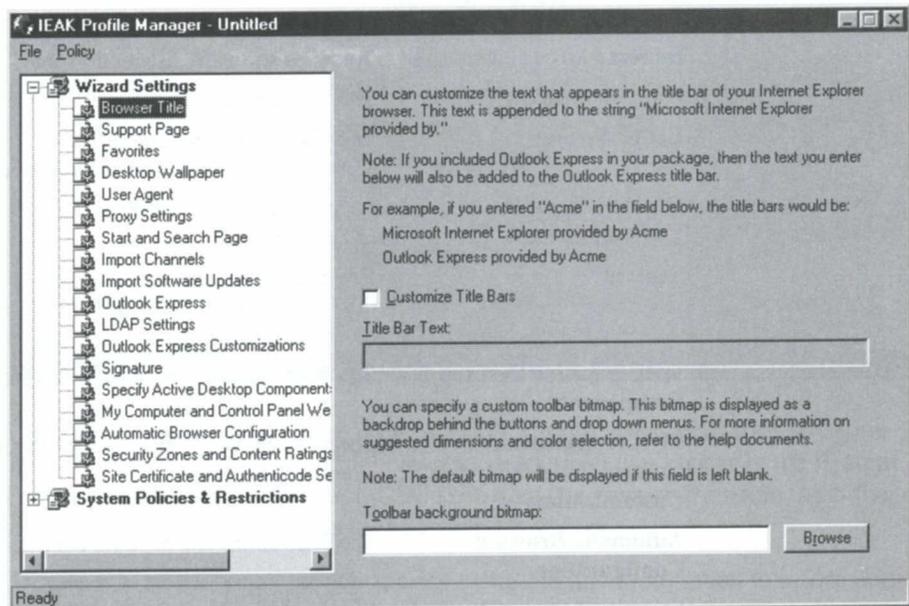


The Profile Manager is organized into a left pane showing a hierarchical tree of objects and a right pane showing the options. When you select an object in the tree in the left pane, the options and settings for that object appear in the right pane. You can change options or specify settings as necessary to manage automatic browser configurations.

The IEAK Profile Manager provides two categories of settings that you can specify: **Wizard Settings** and **System Policies & Restrictions**.

## Changing Wizard Settings

In the left pane, the Wizard Settings object and its subobjects correspond to settings you can also specify using the IEAK Configuration Wizard. You can select an object and change the corresponding options and settings. For example, you can select the Browser Title object and change the **Browser Title Bar** and **Toolbar background bitmap** options.



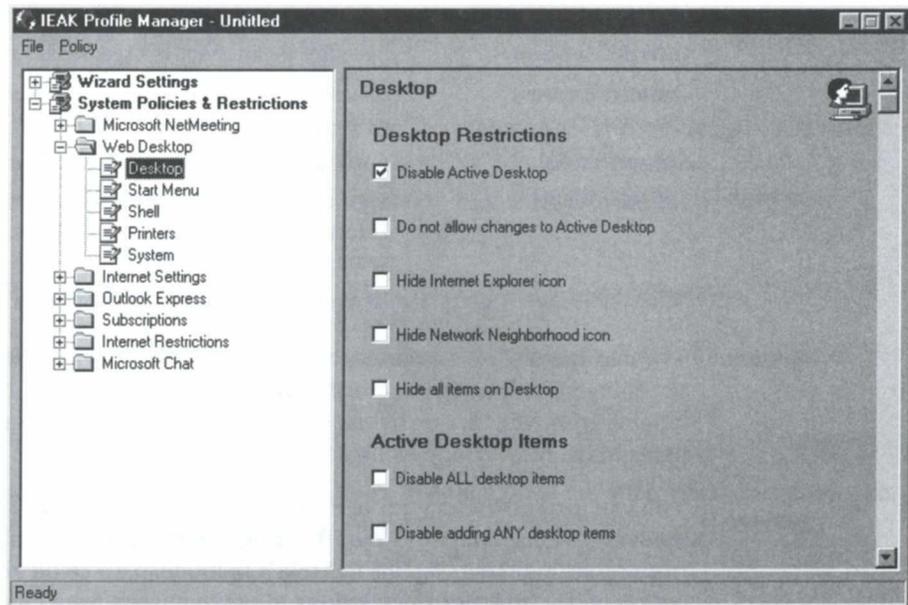
The following table briefly describes each subcategory of the **Wizard Settings** section of the IEAK Profile Manager.

Area	Description
<b>Browser Title</b>	Specifies the text that appears in the title bar of Internet Explorer and in a custom toolbar bitmap.
<b>Support Page</b>	Specifies the online-support page that appears when users select Online Support on the <b>Help</b> menu in Internet Explorer.
<b>Favorites</b>	Specifies the default favorites that appear on the <b>Favorites</b> menu in Internet Explorer.
<b>Desktop Wallpaper</b>	Specifies a custom wallpaper file to be used for the desktop background.
<b>User Agent</b>	Specifies a custom user agent string that will be appended to the default Internet Explorer string.
<b>Proxy Settings</b>	Specifies the proxy settings that Internet Explorer uses.
<b>Start and Search Page</b>	Specifies the start page that appears when users click <b>Home</b> and the search page that appears when users click <b>Search</b> .
<b>Import Channels</b>	Specifies custom Active Channels on users' desktops.
<b>Import Software Updates</b>	Specifies software distribution channels on users' desktops.
<b>Outlook Express</b>	Specifies Outlook Express Internet mail and news settings.
<b>LDAP Settings</b>	Specifies a Lightweight Directory Access Protocol (LDAP) server to provide Internet directory services to users.
<b>Outlook Express Customizations</b>	Specifies a custom InfoPane and welcome message for Outlook Express.
<b>Signature</b>	Specifies a standard signature line, such as a corporate disclaimer, to be appended to Outlook Express mail and news messages.
<b>Specify Active Desktop Components</b>	Specifies custom Active Channels on users' desktops.
<b>My Computer and Control Panel Webview Customization</b>	Specifies custom Web views for the My Computer and Control Panel folders.
<b>Automatic Browser Configuration</b>	Specifies automatic browser configuration settings.
<b>Security Zones and Content Ratings Customization</b>	Specifies security and content rating settings.
<b>Site Certificate and Authenticode Settings</b>	Specifies digital certificate and Authenticode trust settings.

For more information about specific Wizard Settings options, see "Building Custom Packages" in Chapter 36, "Implementing the Deployment."

## Changing System Policies and Restrictions

In the left pane, the **Systems Policies & Restrictions** object and its subobjects correspond to the same settings available on the IEAK Configuration Wizard **System Policies and Restrictions** page. You can select an object and change the corresponding policies and restrictions. For example, you can expand the Web Desktop tree and select the **Desktop** object to specify Desktop options, such as **Disable Active Desktop**.



The IEAK uses a default set of Windows policy templates (.adm) files to define the rules for the wide range of policies and restrictions that appear in the **System Policies & Restrictions** hierarchy. You can also use your own custom .adm files to add policies and restrictions to the hierarchy.

Policies and restrictions that you specify using the IEAK are saved to information (.inf) files, which are packaged into the auto-configuration companion cabinet (.cab) files for download to user's systems. When unpacked, the .inf files are used to change policies and restrictions on users' systems.

The first time the IEAK Configuration Wizard is run, the policy template (.adm) files in the C:\Program Files\Ieak\Policies directory are created. The following table briefly describes each of the default areas for which you can specify system policies and restrictions.

Area	Description
<b>Microsoft NetMeeting</b>	Specifies policies to control user and computer-access privileges for your NetMeeting community.
<b>Web Desktop</b>	Restricts users from adding, accessing, modifying, or deleting various portions of the desktop.
<b>Internet Settings</b>	Specifies a variety of Internet settings for users.
<b>Outlook Express</b>	Specifies restrictions to help reduce Internet mail and news-support costs.
<b>Subscriptions</b>	Specifies restrictions for subscriptions.
<b>Internet Restrictions</b>	Specifies and locks down settings for Internet Explorer <b>Internet Options</b> settings, code download, and channel settings.
<b>Microsoft Chat</b>	Restricts access to Chat features and functions.

You can specify a wide variety of Internet Explorer, application, desktop, and operating system settings across your organization. You can customize settings, ranging from whether users can delete printers to whether or not they can add items to the new Windows Desktop Update.

You can lock down features and functions. For example, you could use the **System** options, under the **Web Desktop** category, to prevent Windows 95 users from restarting their systems in MS-DOS mode. You could also use the **Security** option under **Internet Restrictions** to prevent users from changing any of the security settings on the **Security** tab in Internet Explorer. When features are locked down, they either don't appear, or they appear dimmed on the user's desktop.

Before changing system policies and restrictions, you should understand the impact of the security settings on your users, especially if you have roaming users who share computers with other users. For example, what are the implications of removing icons from the desktop or not allowing users to change their security settings? Make sure that your users understand which features they have access to and which features need to be configured by your IT organization.

## Using Custom Policy Templates

Those who are familiar with Windows policy template (.adm) files can create their own templates to define additional restrictions. Policies and restrictions and .adm files are standard in Windows 95 and Windows NT. For more information, see your Windows documentation.

You can choose **Import** on the **Policy** menu in order to import custom .adm files. You should choose **Check Duplicate Keys** on the **Policy** menu to check for duplicate registry keys in the templates, then delete any duplicates from your templates. Always test your templates thoroughly in the lab before using them to make changes to users' systems.

When you use custom policy templates, the IEAK Profile Manager generates an .inf file, using the file prefix for the imported custom template. For example, if you import custom.adm, a custom.inf file will be generated and added to the companion .cab files.

## Using Auto-Configuration File Templates

You should use the install.ins file for each custom package as a template to create your auto-configuration files.

► **To use install.ins as a template**

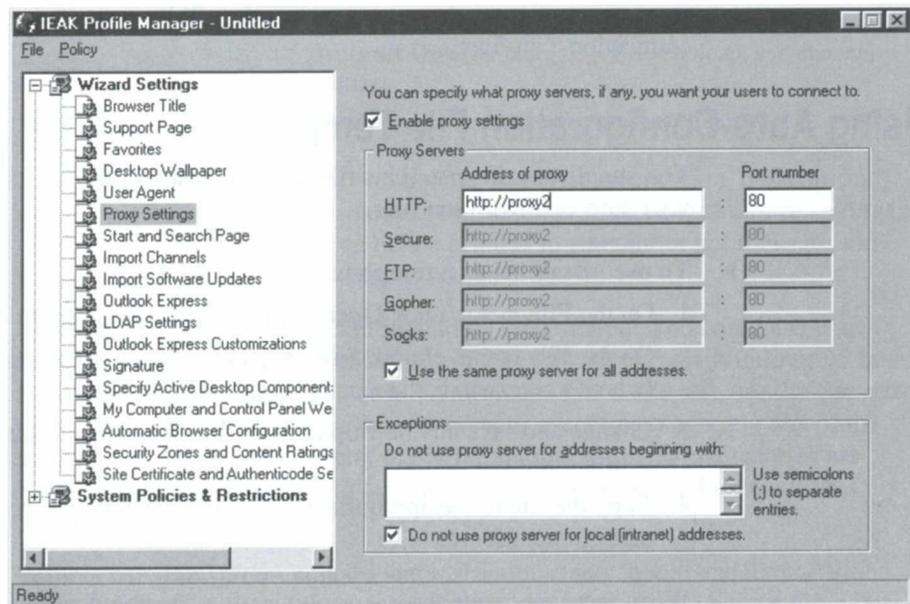
1. On the **File** menu, click **Open**, and then open the appropriate install.ins file.
2. On the **File** menu, choose **Save As**, and save the file as *usergroup.ins* (where *usergroup* is the name of the user group).
3. Change and save any new options or settings you want for the user group configurations.
4. Copy the file to the appropriate auto-configuration directory on the central management server.

When you first create the *usergroup.ins* file, the companion .inf files are generated and packaged as .cab files.

## Maintaining Auto-Configuration Files

You maintain auto-configuration files by opening the *usergroup.ins* file in the Profile Manager, changing settings, and saving the *usergroup.ins* file. The Profile Manager keeps the companion files current, each time you save the *usergroup.ins* file.

For example, if you add more proxy servers to your network and you don't use auto-proxy files, you'll need to update users' settings by selecting the Proxy Settings object in the Wizard Settings hierarchy in the left pane of the IEAK Profile Manager. You would use the IEAK Profile Manager to modify the proxy settings for the affected user groups. Automatic browser configuration then updates the users' proxy settings at the specified auto-configuration interval or when Internet Explorer is restarted.



**Caution** You should not maintain files directly on the production server. You should copy *usergroup.ins* files and their companion files to a working directory, modify the files as necessary, and test auto-configuration in a lab to verify that auto-configuration changes work as intended. After changes have been validated, update the auto-configuration files on the production server.

# Software Distribution and Updates

## In this chapter

- Software Distribution Overview 690
- Understanding Software Distribution Channels 690
- Implementing Software Distribution Channels 691
  - Identifying Software Distribution Requirements 691
  - Selecting Software Distribution Strategies 692
    - Determining the Number of Distribution Sites 692
    - Determining the Types of Channels 692
    - Specifying Distribution Schedules 695
    - Choosing Installation Methods 695
    - Choosing Notification Methods 695
  - Configuring Software Distribution Channels 696
    - Creating Web Content 696
    - Creating the CDF Files 697
    - Creating OSD Files 699
    - Creating Software Distribution Packages 700
    - Signing Software Distribution Packages 701
    - Configuring Web Servers 702
  - Building Custom Packages With Pre-Configured Channels 702
    - Configuring the Current Computer 702
    - Importing the Software Distribution Channels 703
    - Locking Down Software Distribution Channels 704
  - Deploying the Custom Packages 704
- Managing Software Distribution Channels 705

## Software Distribution Overview

This chapter describes how to implement a software distribution system using Active Channels in Microsoft Internet Explorer 4. It describes how software distribution channels work. It also details how to configure software distribution channels and deploy custom packages of Internet Explorer, including the software distribution channels for your users.

This chapter provides information to help you:

- Understand software distribution channels.
- Implement software distribution channels.
- Manage software distribution channels.

## Understanding Software Distribution Channels

Internet Explorer 4 users can subscribe to Active Channels, which are Web sites designed to deliver content from the Internet or intranet to subscribing computers. Subscribers receive updated information from Active Channels on demand or at scheduled intervals. You can turn any Web site into an Active Channel by creating a Channel Definition Format (CDF) file to define the channel. For more information on Active Channels, see Chapter 16, “Managed Webcasting” and the *Internet Client Software Development Kit (SDK)*.

Software distribution channels are a special type of Active Channel. The CDF files for software distribution channels contain Open Software Distribution (OSD) elements that specify the software distribution settings and options. You can schedule a software distribution channel to update subscribers’ computers at an interval of time such as daily, weekly, or monthly. Each time the channel is updated, the latest version of the CDF file is downloaded to subscribers’ computers. When the OSD section of the CDF file indicates that a new version of the software is available, subscribers’ computers can be instructed to do one of the following:

- Download the installation files to users’ hard disks so that users can manually install the update.
- Install the update automatically.

You specify the update process to be used in the OSD section of the CDF file for the channel. You can also notify users and provide instructions for installation of the updates.

## Implementing Software Distribution Channels

You can use software distribution channels to distribute software updates over your intranet or the Internet to end-user desktops. To implement software distribution channels:

- Identify software distribution requirements.
- Select software distribution strategies.
- Configure Web servers for software distribution channels.
- Build custom packages of Internet Explorer with pre-configured software distribution channels and automatic browser configuration enabled.
- Deploy the pre-configured custom packages to end users.

The following sections describe the process for implementing software distribution channels. Detailed technical information is provided in the following resources:

- For more information about the CDF and OSD specifications, see the Microsoft Site Builder Network specifications and standards page at <http://www.microsoft.com/standards/>.
- For detailed information about how to use CDF files and OSD files to create software distribution channels, see the *Internet Client SDK*. To obtain the Internet Client SDK, see <http://www.microsoft.com/msdn/sdk/inetsdk/asetup/>.
- For information on how to use sample CDF templates to set up software distribution channels for updating Internet Explorer 4, see the section named “Updates with Software Distribution Channels” in the Internet Explorer Administration Kit (IEAK) Help.

## Identifying Software Distribution Requirements

Before selecting strategies for software distribution, identify the software distribution requirements for your organization. Begin by surveying the user groups in your organization and identifying the software packages they use. Be sure to note special requirements for each group, such as language requirements and any custom applications they use. For example, you would note that a graphics design group uses a suite of professional illustration applications that are not used by other groups in your organization.

After all user groups are surveyed:

- Identify the applications you want to support.
- Identify the user groups you want to provide with pre-configured software distribution channels.
- Group common applications into functional categories such as office-productivity applications and Internet applications.
- Group specialized applications by function or by the user groups that use them.

You'll use this information to help specify software distribution strategies for each user group that you want to support.

## Selecting Software Distribution Strategies

The strategies you choose depend on various factors, including the size of your organization and the types of applications you need to distribute to your users. Select strategies for each of the following:

- Number of distribution sites
- Types of software distribution channels
- Software distribution channel-update schedule
- Installation methods
- Notification methods

### Determining the Number of Distribution Sites

Small organizations may need only one distribution Web site. Large organizations may need to provide multiple, mirrored software distribution Web sites to distribute network load and to meet the needs of diverse groups of users. For example, an organization with large operations in North America, Europe, and Asia could implement mirrored distribution sites in each major region of North America, Europe, and Asia.

### Determining the Types of Channels

The types of software distribution channels you include in custom packages of Internet Explorer will depend on the number and types of applications you plan to support, as well as the design limitations of CDF and OSD.

Depending on the contents of the CDF file, each software distribution channel can:

- Appear in the Channel bar or in the Software Updates folder on the **Favorites** menu in Internet Explorer.
- Include an unlimited number of software packages or SOFTPKG update items that specify software packages you can update.
- Define the installation of multiple languages, processors, and operating systems for each SOFTPKG update item.

---

**Note** Each user can configure Internet Explorer to enable e-mail notification. If a user has configured a channel to enable e-mail notifications, a notification page for each SOFTPKG update item can be automatically sent by e-mail to the user when the channel is updated.

---

When the channel appears in the Software Updates folder:

- Updates are indicated by a red gleam in the upper-left corner of the channel, and users can select the channel to view the notification Web page in the browser window. This Web page typically contains information briefly describing all available updates, and hyperlinks to pages providing more information on each update.
- Each channel can include an unlimited number of SOFTPKG update items, but only the top-level channel notification page will appear in the browser. Users are notified of individual updates only if they enable e-mail notification in Internet Explorer.
- Only the top-level channel can contain the SCHEDULE element, so all SOFTPKG update items will be updated on the subscribers' computers at the same time.

When the channel appears on the Channel bar:

- The top-level channel and all SOFTPKG update items appear as a hierarchical tree on the Channel bar.
- Updates are indicated by a red gleam in the upper-left corner of the top-level channel and users can select the top-level channel to view the notification Web page in the browser's right pane. This Web page typically contains information briefly describing all available updates, and hyperlinks to pages that provide more information on each update.

- Each SOFTPKG update item appears under the top-level channel without a red gleam. However, users can select each item to view the corresponding notification page in the browser's right pane. Users are notified of individual updates only if they enable e-mail notification in Internet Explorer.

---

**Note** A SOFTPKG item with **USAGE VALUE="None"** does not appear in the channel hierarchy.

---

- Only the top-level channel can contain the SCHEDULE element, so all SOFTPKG update items will be updated on the subscribers' computers at the same time.

Since only the top-level channel shows the update gleam, you should use top-level notification pages to provide a summary of all available updates. The top-level notification page is the Web page users see when they click on the top-level Channel bar. By default, notification pages appear in the browser window and can also be sent to users via e-mail (when users enable e-mail notification). The summary page could provide a brief description of available updates and provide hyperlinks to the corresponding notification page for each update.

In addition, you can create an Active Desktop item that displays a summary page of available software components. An Active Desktop item is simply a Web page that displays in a floating, borderless frame on the user's desktop. Custom Active Desktop items require special CDF files. For more information, see Chapter 14, "Active Desktop," and Chapter 16, "Managed Webcasting."

When you deploy custom packages of Internet Explorer to end users, you should have enough pre-configured software distribution channels to meet your organization's needs. If automatic browser configuration is enabled for your user groups, however, you can use the IEAK Profile Manager to add or delete software distribution channels for deployed browsers.

You can also easily add SOFTPKG update items to CDF files for existing software distribution channels. Likewise, you can also easily delete SOFTPKG update items if an application is discontinued.

When you pre-configure custom packages for user groups, you should only provide the software distribution channels that each user group needs. For example, you could provide a software distribution channel for office-productivity applications to all user groups, but you wouldn't pre-configure the channels for users in the human resources department to include a software distribution channel for software-developers' applications.

## Specifying Distribution Schedules

Specify the schedule for updates by using the SCHEDULE element in CDF files. You can specify daily, weekly, or monthly update frequencies as well as the time of day and the interval during which updates can occur. You can override the default CDF schedule, using the IEAK Configuration Wizard or the IEAK Profile Manager to specify different schedules for each custom package you build. Assigning user groups to different schedules, such as alternating days or weeks, can help distribute network load. All SOFTPKG update items use the same schedule as the top-level channel.

Schedule software downloads for times of low network load—especially for large software packages. To avoid heavy load on your distribution servers when all subscribers update the software distribution channel, you should randomize the time that Internet Explorer updates the channel. For example, you could schedule updates for a channel to occur between 1 A.M. and 5 A.M. one day a week. On the specified day, each subscribed Internet Explorer updates the download channel at a random time between 1 A.M. and 5 A.M.

## Choosing Installation Methods

Use any of the following installation methods:

- Notify users by e-mail when new software updates are available. Provide instructions and hyperlinks so they can download the software manually.
- Download the installation files to users' hard disks, notify users, and provide instructions and hyperlinks so they can run the installation program manually.
- Install the updates on users' computers automatically, and notify users that the updates were made.

Use the installation methods that meet your needs, but be cautious about specifying large software packages to download or install automatically. Thoroughly test installation methods in the lab before implementing them as a production solution.

## Choosing Notification Methods

Users do not receive e-mail notification on updates automatically. They can receive notification if they enable e-mail notification for each software distribution channel using the **Internet Explorer Software Distribution Channel Receive property** page. Also, even though Active Channels provide a top-level update gleam and you can provide a summary page to describe the available updates, users may not view the Internet Explorer Channel bar or the Software Updates folder on the **Favorites** menu for long periods of time—if ever. For this reason, consider multiple ways to notify your users, such as sending e-mail notices and instructions to all users for each new software update.

## Configuring Software Distribution Channels

Software distribution channels are Web sites dedicated to software distribution. The content of the Web sites must support the software distribution strategies you select.

To configure software distribution channels:

- Create the Web content to support the channels.
- Create the CDF files to configure the channels.
- Create the OSD files for Microsoft Internet Component Download (MSICD) distributions.
- Create the software distribution packages.
- Sign the software distribution packages.
- Configure the Web servers to support the channels.

### Creating Web Content

You can provide notification Web pages for each CDF file. You can also provide optional Channel bar graphics images for use by Internet Explorer.

The notification Web page is used to describe, briefly, all updates available and typically provides users with hyperlinks to the individual update-notification pages for more details. The summary page could be an HTML page or an Active Server page. The notification page is specified in the CDF file for the CHANNEL element HREF attribute—for example, HREF="http://webserver/filename.htm" where *filename* is the name of the summary page. When users select the channel on the Channel bar or in the **Favorites** menu, the summary page appears in the browser's right pane. If USAGE VALUE="E-mail", a notification page is sent via e-mail to users who have enabled e-mail notification.

You can create two optional graphics images in either .gif or .jpg format that are used by Internet Explorer to display in the desktop Channel bar and in the browser Channel bar. You can also create an optional .ico image for use in the browser window Channel bar hierarchy. The .ico image will appear to the left of each item in the Channel bar hierarchy. You can use a different icon for each SOFTPKG item in a CDF file.

- **Desktop Channel bar logo.** 32 pixels high by 80 pixels wide and a black background.  
CDF entry: <LOGO HREF="*filename.gif*" STYLE="Image">
- **Browser Channel bar logo.** 32 pixels high by 194 pixels wide and a color background.  
CDF entry: <LOGO HREF="*filename.gif*" STYLE="Image-Wide">

- **Browser Channel bar icon.** 16 pixels high by 16 pixels wide, with different images, colors, or shapes to indicate whether an item is a container for other items or is actual content.

CDF entry: <LOGO HREF="*filename.ico*" STYLE="Icon">

You can use the Channel bar logo for the browser window logo, and the extra area will be filled in with the same color as the rightmost top pixel. Animated .gif files are not supported. Images are displayed with a fixed 256-color palette regardless of the monitor color depth. Therefore, you should use the Windows halftone palette.

---

**Note** The Channel bar provides users with a 14-pixels-high by 14-pixels-wide red gleam to indicate when channel content has been updated. The gleam is a triangular overlay applied to the upper-left corner of the Channel bar logos. When creating Channel bar logos, do not place critical text or visual elements in this area. A 7-pixels-high by 7-pixels-wide gleam is also applied to the upper-left corner of icons to indicate when item content has been updated.

---

## Creating the CDF Files

Create a CDF file for each software distribution channel to be installed on users' desktops. An unlimited number of subchannels or SOFTPKG items can be nested in the CDF file, but they will all have the same schedule as the top-level channel.

This section describes the elements of CDF that are used to define software distribution channels. For more information about CDF files, see "Understanding CDF Files" in Chapter 16, "Managed Webcasting."

The following shows an example CDF file that, when subscribed to, appears on the **Favorites** menu in the Software Updates folder. This CDF file specifies the download of software package 1 to users' hard disks.

```
<?XML version="1.0"?>
<!DOCTYPE Channel SYSTEM "http://www.w3c.org/Channel.dtd">
<CHANNEL HREF="http://ie4support/softdist/product1_info.htm" >
  <TITLE>Software Distribution Channel 1</TITLE>
  <ABSTRACT>This is the abstract for the channel.</ABSTRACT>
  <USAGE VALUE="SoftwareUpdate" />
  <SCHEDULE>
    <INTERVALTIME DAY="7" />
    <EARLIESTTIME HOUR="1" />
    <LATESTTIME HOUR="5" />
  </SCHEDULE>
```

```

<SOFTPKG NAME="{D27CDB6E-AE6D-11CF-96B8-444553540000}"
  VERSION="2,33,608,0" AUTOINSTALL="No"
  STYLE=" " PRECACHE="Yes">
  <IMPLEMENTATION>
    <OS VALUE="win95" />
    <CODEBASE HREF="http/download/Pkg1_95.cab" />
  </IMPLEMENTATION>

  <IMPLEMENTATION>
    <OS VALUE="winnt" />
    <CODEBASE HREF="http/download/Pkg1_NT.cab" />
  </IMPLEMENTATION>
</SOFTPKG>
</CHANNEL>

```

In this example:

- **CHANNEL HREF**="[http://ie4support/softdist/product1\\_info.htm](http://ie4support/softdist/product1_info.htm)" provides the notification page for this channel.
- **<USAGE VALUE="SoftwareUpdate" />** specifies that this channel appears in the **Software Update** folder on the **Favorites** menu and not on the Channel bar.
- **INTERVALTIME DAY="7"** specifies the interval as weekly. Use "1" for daily or "28" for monthly (every four weeks).
- **EARLIESTTIME HOUR="1"** and **LATESTTIME HOUR="5"** specifies that subscribed Internet Explorer browsers refresh the channel at random times between 1 A.M. and 5 A.M. Use a 24-hour scale starting with Midnight = "0."
- **HREF**="<http://ie4support/softdist/package1.htm>" is the notification page that appears in the browser's right pane when users click this software update channel. You can provide installation instructions and hyperlinks on this page.
- **VERSION="2,33,608,0"** specifies the major, minor, build, and custom version numbers of the update. You change this for each new version and the system looks for update instructions.
- **AUTOINSTALL="No"** specifies that the software update is not automatically installed by the system. Use "Yes" to specify automatic installation of the update without user action. AUTOINSTALL overrides the PRECACHE element.
- **STYLE="MSICD"** specifies that the user's computer should use the MSICD to download the distribution package and look at the OSD file for processing instructions. Use "ActiveSetup" to specify that the user's computer should use Active Setup to install the package.

When `STYLE="ActiveSetup,"` the `CODEBASE HREF` does not specify a `.cab` file and an `OSD` file is not used. Instead, Active Setup looks for the Internet Explorer update-distribution package by checking the `IE4site.dat` file. For example, the `IMPLEMENTATION` section for an Internet Explorer 4 update channel could specify the location of `IE4site.dat` as follows:

```
<IMPLEMENTATION>
  <OS VALUE="win95" />
  <CODEBASE HREF="http/ie4support/ie4site/ie4site.dat" />
</IMPLEMENTATION>
```

- **PRECACHE="Yes"** specifies that the software update is downloaded to the user's hard disk. Use "No" to specify that the update is not downloaded.
- **OS VALUE="win95"** and **CODEBASE HREF="http/download/Pkg1\_95.cab"** specifies an implementation for Windows 95-based computers. Windows 95-based computers install this package.
- **OS VALUE="winnt"** and **CODEBASE HREF="http/download/Pkg1\_NT.cab"** specifies an implementation for Windows NT-based computers. Windows NT-based computers install this package.

You can specify an `OS VALUE` element for each operating system you need to support. In addition, you can specify other attributes for the `IMPLEMENTATION` element, including the `LANGUAGE` and `PROCESSOR` attributes to further differentiate implementations. You can add `IMPLEMENTATION` sections that provide software packages for each of your platforms and operating systems.

Many other `OSD` elements and attributes can be used to specify software distribution channels. For example, you can use the `DEPENDENCY` element to specify a software component that needs to be present on the user's computer for the software distribution package to install successfully. For more guidelines on how to create `CDF` files for software distribution and a detailed reference on `CDF` and the `OSD` extensions, see the *Internet Client SDK*.

## Creating OSD Files

The `OSD` file is similar to the `OSD` section of the `CDF` file. This file contains the information that users' computers need to download the `MSICD` distribution package from the server.

---

**Note** You do not create `OSD` files if you use Active Setup to install a software package.

---

The following example OSD file specifies a download location for the Windows 95 version of software package 1.

```
<?XML version="1.0" ?>
<!DOCTYPE SOFTPKG SYSTEM
"http://www.microsoft.com/standards/osd/osd.dtd" >
<?XML::namespace href="http://www.microsoft.com/standards/osd/msicd.dtd"
as="msicd"?>

<SOFTPKG NAME="{D27CDB6E-AE6D-11CF-96B8-444553540000}" VERSION="2,0,0,0"
STYLE="MSICD">
  <TITLE>Update for Product 1</TITLE>
  <ABSTRACT>This distribution contains package1.
</ABSTRACT>

  <msicd::NATIVECODE>
    <CODE NAME="diagnose.ocx"
      CLASSID="{D27CDB6E-AE6D-11CF-96B8-444553540000}"
      VERSION="2,33,608,0" >
      <IMPLEMENTATION>
        <OS VALUE="win95" />
        <CODEBASE HREF="http/download/Pkg1_95.cab" />
      </IMPLEMENTATION>
    </CODE>
  </msicd::NATIVECODE>
</SOFTPKG>
```

The OSD file is packaged in the Pkg1\_95.cab file, and the system uses the OSD file information to properly install the distribution package. You create an OSD file for each implementation of the software package that you install. For more information, see the *Internet Client SDK*.

## Creating Software Distribution Packages

Create the software distribution packages you need to support your software distribution channels. Active Setup distribution packages and MSICD software distribution packages contain files that are compressed using the .cab compression format. For more information on .cab, see the *CAB SDK*, which is provided as a self-extracting executable file (Cab-Sdk.exe) in the \bin directory of the *Internet Client SDK*.

For Active Setup, each .cab file contains an .inf file that specifies how the .cab file should be installed. To locate the .cab files for the update, Active Setup reads the information in the ie4site.dat file specified by the CODEBASE HREF="http/ie4support/ie4site/ie4site.dat" entry in the OSD section of the CDF file.

You can use Internet Express (IExpress) to create software packages that can be installed with Active Setup. IExpress is included in the IEAK 4. For more information, see Help for the IEAK.

For MSICD, the .cab files contain the OSD file that specifies how the .cab files should be installed. The MSICD CAB can be packaged three ways:

- Only the OSD file in the .cab file
- The OSD file and application files in the .cab file
- The OSD file and another .cab file in the .cab file

Having only the OSD file in your .cab file is the smallest distribution package possible. The OSD file would indicate the URL of the resource containing the software update in the CODEBASE HREF="http://download/filename.cab" element of the OSD file.

The simplest case is to package the OSD file with the application files into the .cab file. In this case, the OSD file does not need the CODEBASE element in it. When no CODEBASE element is given, the user's system automatically checks the same .cab file in which the OSD file was found to locate the application files.

When multiple program files are involved, and especially when the application files are separated into multiple subdirectories, it is easier to organize the distribution package by creating a .cab file that contains the OSD file and another .cab file that contains the application files.

## Signing Software Distribution Packages

Digital signatures identify the source of programs and guarantee that the code hasn't changed since it was signed. Depending on how users' browser security levels are configured, users could be prevented from downloading .cab files that aren't signed. Therefore, you should digitally sign .cab, .exe., or .ocx files before distributing software to users' computers.

Signing software package files requires two steps: obtaining a digital certificate—from a Certificate Authority (CA) such as VeriSign or GTE—and signing the code. For more information, see Chapter 28, "Digital Certificates," "Signing Your Programs" in the IEAK Help, and "Signing Code with Microsoft Authenticode Technology" in the *Internet Client SDK*.

## Configuring Web Servers

Configure enough Web servers to support your distribution channels, as well as the volume of software you distribute. You can include multiple channels on each Web server.

To configure Web servers:

- Install Web-server software, such as Microsoft Internet Information Server.
- Configure file systems for each software distribution channel.
- Add the notification pages, graphics files, and distribution packages.

## Building Custom Packages With Pre-Configured Channels

Build custom packages with software distribution channels pre-configured for each user group in your organization. You should also enable automatic browser configuration, so you can add and manage software distribution channels after browsers are deployed.

When the IEAK Configuration Wizard adds software distribution channels to custom packages, it imports the Internet Explorer software distribution channel configurations from the computer running the wizard. You import the current software distribution channel configuration and specify schedule options.

You can also use the IEAK Configuration Wizard to lock down software distribution channels and prevent users from adding, deleting, or modifying the channels that you specify.

## Configuring the Current Computer

Configure the current computer's Internet Explorer to incorporate your software distribution channels before running the IEAK Configuration Wizard. To configure the computer for software distribution channels, you subscribe to each of the software distribution channels you want to include for this user group.

### ► To subscribe to a software distribution channel

1. Run Internet Explorer 4.
2. On the **File** menu, click **Open**, and enter `http://server/path/filename.cdf`.

Where *server/path/filename* is the Web server, path, and file name in which the CDF file is located.

An **Add Active Channel** or an **Add Software Distribution Channel** dialog box appears.

3. At the dialog box, select **OK** to subscribe to the channel.

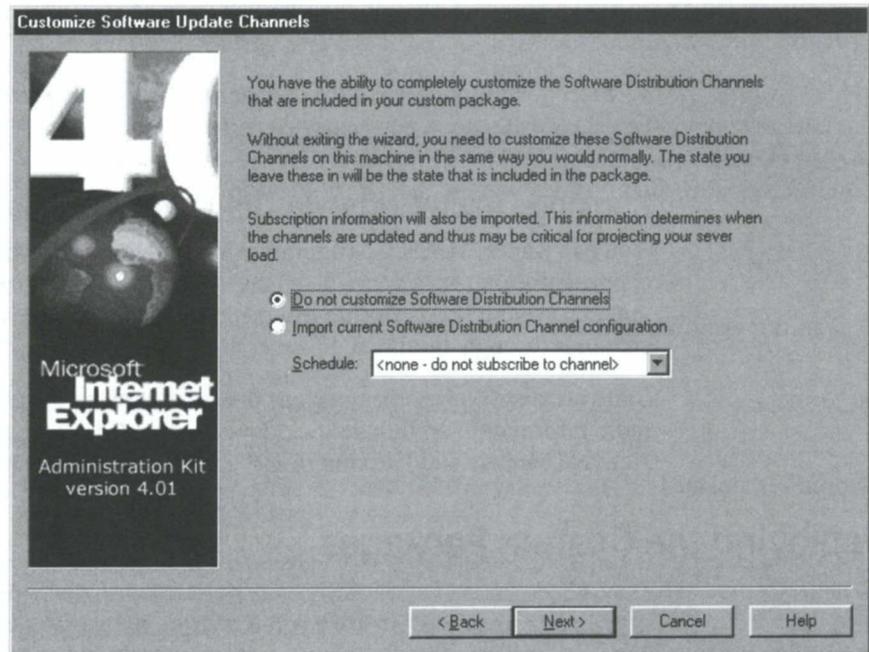
Repeat this process for each software distribution channel.

## Importing the Software Distribution Channels

To import the software distribution channels, use the IEAK Configuration Wizard.

► **To import the software distribution channels**

1. Run the IEAK Configuration Wizard, and navigate to the **Customize Software Update Channels** page:



2. Select **Import current Software Distribution Channel configuration** to import the software distribution channel configurations.
3. Select one of the following options from the **Schedule** selection box.

Option	Description
<none – do not subscribe to channel>	Specifies that all software distribution channels are imported, but not subscribed to, when the custom package is installed on users' computers. This is the default. Be careful you do not select this by mistake.
Auto	Specifies that each software distribution channel uses the schedule information contained in the SCHEDULE section of its CDF file when the custom package is installed on users' computers.

Option	Description
<b>Daily</b>	Specifies that all software distribution channels are scheduled to be updated daily when the custom package is installed on users' computers.
<b>Monthly</b>	Specifies that all software distribution channels are scheduled to be updated monthly when the custom package is installed on users' computers.
<b>Weekly</b>	Specifies that all software distribution channels are scheduled to be updated weekly when the custom package is installed on users' computers.

4. Select **Next** to use the current channel configuration for the custom build.
5. Finish building the custom package.

## Locking Down Software Distribution Channels

You can use the IEAK Configuration Wizard to lock down software distribution channels for the custom packages that you build. After browsers are deployed, you can use the IEAK Profile Manager to lock down software distribution channels through automatic browser configuration.

Software distribution channels use the same settings as Active Channels. For more information on how to lock down Active Channels, see "Locking Down Active Channels and Desktop Items" in Chapter 16, "Managed Webcasting."

## Deploying the Custom Packages

Deploy custom packages to your user groups with the appropriate software distribution channels pre-configured. When custom packages are deployed and installed, you can manage software distribution and updates for each user group using the software distribution channels. For more information about how to deploy custom packages, see "Building Custom Packages" in Chapter 36, "Implementing the Deployment."

You could also add subscription links for the CDF files to your Web pages, so users who do not have pre-configured software distribution channels can visit your Web pages and click on the links to subscribe to the channels.

## Managing Software Distribution Channels

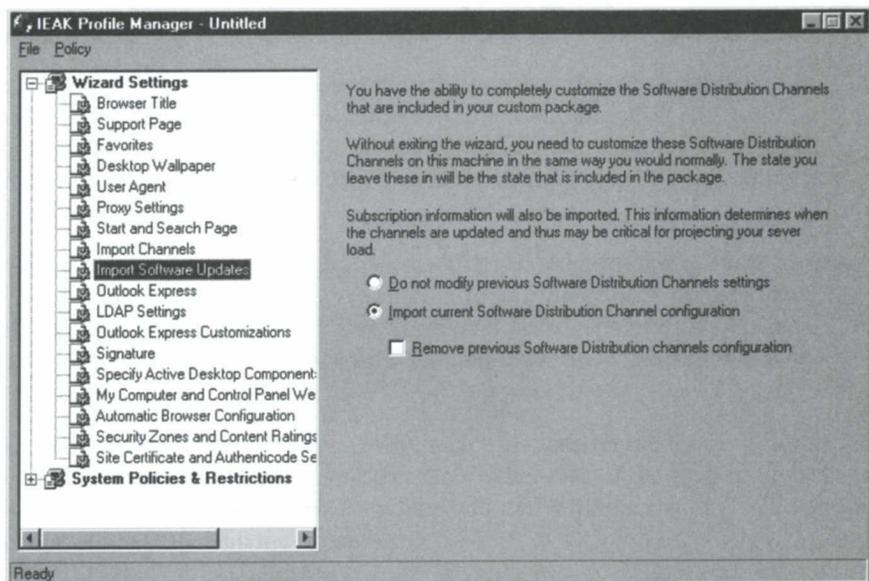
To manage software distribution channels for deployed browsers, you can use the IEAK Profile Manager in conjunction with automatic browser configuration. (For more information about automatic browser configuration, see Chapter 37, “Automatic Browser Configuration.”)

To change software distribution channels for a group, you configure the channels on the machine running the IEAK Profile Manager and then use the Profile Manager to import the configurations and save the new configuration settings to the auto-configuration files for the user group.

When automatic browser configuration is refreshed at users’ computers, users’ desktops are configured with the new software distribution channel settings you specify. You can also optionally remove previous software distribution channel configurations from users’ computers.

### ► To change software distribution channel configurations

1. Use Internet Explorer to configure software distribution channels for the current desktop.
2. Run the IEAK Profile Manager.
3. Open the auto-configuration (.ins) file for the user group.
4. In the left pane, select the **Wizard Settings** hierarchy, and select the **Import Software Updates** object.



5. In the right pane, select **Import current Software Distribution Channel configuration** to import the software distribution channel configurations.
6. If you want to remove previous channel configurations from users' computers, select **Remove previous Software Distribution channels configuration**.
7. On the **File** menu, click **Save**.  
Changes are made to users' configurations as scheduled by automatic browser configuration.

## APPENDIX A

# Switches, Keys, and Files in Internet Explorer 4 Setup

This appendix details the following switches, keys, and files for Internet Explorer Setup:

- WExtract command-line switches for IE4Setup.exe
- Other setup registry keys
- Command-line switches for Active Setup AutoUpdate
- Command-line switches for ACME Setup
- The sections of the SoftBoot.inf
- Files left in the system after uninstalling Internet Explorer

To learn more about Setup, see Chapters 2 and 3.

## WExtract Command-Line Switches for IE4Setup.exe

The command-line switch */c:program command* specifies the command to execute, which overrides the command defined in running WExtract at authoring time. If the command is blank, WExtract just extracts files to the defined temporary folder and leaves files there without executing a command or deleting any files.

If there is no blank */c:* switch (user does not request to keep the extracted files), WExtract adds the RunOnce entry *wextract /d:subfolder path* before the RunCommand phase, in case the RunCommand phase never returns (failed install). This way, the next reboot will clean up the leftover files in the temp folder from the failed process.

If the RunCommand phase returns, WExtract will clean up the temp subfolder and delete the RunOnce entry entered earlier. Otherwise, if the RunCommand phase never returns to WExtract, RunOnce will call WExtract with the */d* option at reboot time to clean up the process.

Switch	Purpose	Description
<b>/q</b>	Quiet mode	The difference between User and Admin quiet mode has to do with the amount of user-interface dialog boxes that are presented. User quiet mode will still present some user-interface dialog boxes, whereas Admin quiet mode will not show any user interface dialog boxes.
<b>/qu -</b>	User quiet mode	
<b>/qa -</b>	Admin quiet mode	
<b>/t:folder path</b>	Change target folder	Provides a target path. Failure to use a colon will return user to command help (/?). If the folder specified does not exist, WExtract will create it and remove it after using the files, if the /c switch is not also used. By default, without the /t: switch, WExtract will extract files to a unique, randomly created subfolder under C:\Temp or to the current folder if C:\Temp does not has enough space.
<b>/c</b>	Extract only	Prevents the execution of a Setup process after the extraction is complete.
<b>/c:path to exe</b>	Change Setup.exe	Specifies the path to .exe to run instead of the default .exe after file extraction.
<b>/r:n</b>	Never reboot	Never reboot.
<b>/r:i</b>	Reboot if necessary	Reboot if necessary.
<b>/r:a</b>	Always reboot	Always reboot.
<b>/r:s</b>	Silent reboot	Silent reboot.
<b>/n:g</b>	Do not run GrpConv	Do not run GrpConv.
<b>/n:e</b>	Do not extract files	Do not extract files.
<b>/n:v</b>	No version checking	No version checking. Enables you to install over anything.
<b>/i:y</b>	Integrated shell mode	Install integrated shell mode.
<b>/i:n</b>	Browser-only mode	Install browser-only mode.
<b>/q</b>	Batch mode	Install batch mode with no user interface dialog boxes.
<b>/m:mode</b>	Specify installation option	Used to select the installation option ( <b>Full</b> , <b>Standard</b> , <b>Enhanced</b> ), exact syntax not known.
<b>/s:installation path</b>	Target location	Chooses the location to install Internet Explorer.
<b>/u:download path</b>	Download location	Chooses the location to download the Internet Explorer files.

## Other Setup Registry Keys

The following is a list of other registry keys—not mentioned in Chapter 2—that Setup uses before the download phase is complete:

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\Internet Explorer 4.0**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\Communication Components**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\Multimedia Components**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\Web Authoring Components**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\Additional ActiveX Controls**

**HKEY\_CURRENT\_USER\Software\Microsoft\Active Setup\jobs\job.IE4\CustomOptionalComponents**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup[VALDWORD]“TrustValueSet”=“3”**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\Installed Components**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\Component Progress**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\Component Progress\IE4**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\InstallInfo\**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\InstallInfo\“Setup option”=“6”**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security\Basic**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security\Basic[VALSTR]“SecurityName”=“Basic Authentication”**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security\Basic[VALSTR]“DLLFile”=“WININET.dll”**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security\Basic[VALSTR]“SchemeList”=“Basic”**

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Security\Basic[VALBINARY]“Flags”=“00000000”**

## Command-Line Switches for Active Setup AutoUpdate

The following is based on Trigger.exe, now renamed to Actsetup.exe:

Switch	Description
/j:	Specifies “Job” branch to use under ActiveSetup for baseURL and .cif file name.
/u:	URL used to override job, no site switching.
/s:	URL of site list location.
/q	No user interface for any of the session.
/I:	GUID ID to install.
/c:	CIFCAB:.cif file name.

When a user runs Actsetup.exe with a job name, the .exe will look in the branch under the registry key

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Active Setup\Job**

for the job name. Stored there will be the following values:

- SitelistURL
- Region
- baseURL
- alternate URLs
- .cif
- .cif .cab name

Then Actsetup.exe will look at the InstalledComponents branch and queue up all the items in the list by creating a temporary job. The job will then be passed to Jobexec.dll for processing. If the **/u:** is specified, only one URL will be used and will override the job settings. If **/s:** is used, Actsetup.exe will get the list and first try the URLs in the job list. If none are found, it will display to the user a list of sites similar to the user interface in the base Internet Explorer setup. The selected URLs should also be written back to the "job" branch under ActiveSetup, if possible.

If **/I:** is passed, only that GUID will be used for the update. Priorities for installed items will be based on entries in the CIF file. Priority =  $x$  (larger numbers being higher priority). Actsetup.exe will not set up any of the priorities in the job it creates. If not set in the .cif file, there will be no priorities for the session.

## Command-Line Switches for ACME Setup

Switch	Purpose	Description
<b>s/a</b>	Administrator mode	Only available from original media (not from an image or flat).
<b>/b &lt;digit&gt;</b>	Always suppress AppMainDlg by preselecting one big button.	Always suppresses AppMainDlg by preselecting one big button. <digit> is the 1 based index into the button list in the data field of the AppMainDlg object. Invalid digit == noop.
<b>/c &lt;COA&gt;</b>	Specify OEM PID	Enters and validates the 20-character Product ID from the OEM Certificate of Authorization, replacing user dialog box. Example: /C 12345OEM123456712345 (OEM must be in caps.)
<b>/f</b>	No LFNs	Suppresses long file names and uses FAT compatible 8.3 names.
<b>/g "&lt;pathfile&gt;"</b>	Generate logfile	Generates the log file that provides details of the install. Requires a fully qualified path.  Note: When logging is turned on for Debug builds, any Assertion Failures will be sent directly to the log file without displaying a message box.
<b>/g# "&lt;pathfile&gt;"</b>	Debug only	Debug only: dumps all error messages to log.
<b>/gc "&lt;pathfile&gt;"</b>	Debug only, including all calls and returns from custom actions	Like /g, but includes all calls and returns from custom actions. This can get very big.

Switch	Purpose	Description
<b>/g+ “&lt;path\file&gt;”</b>	Append log entries to existing log file	Appends log entries to existing log file.
<b>/g#c+ “&lt;path\file&gt;”</b>		Can use any permutation or combination of /g parameters
<b>/h</b>		Reserved for BiDi Help file specification.
<b>/i</b>		Reserved for BiDi Help file UI interface choice.
<b>/k “&lt;CD key&gt;”</b>	Specify PID	Enters and validates the 10- or 11-digit key from the compact-disc sticker, replacing the user dialog box that would appear. Example: /k “1234567890” (key size depends on whether trigger is being used).
<b>/l &lt;lst file&gt;</b>	Specify Setup.lst file	Specifies the file that lists files bootstrapper copies to the temporary directory. Defaults to Setup.lst. Not seen by Acmssetup.exe.
<b>/m [#]</b>	Bypass anti-piracy limits	Bypasses anti-piracy limits. When used with a number, such as /m50, it specifies the additional licenses to be activated by an MLP purchaser.
<b>/n “”</b>		Uses Win.ini. Copies Disincentive Name if it exists; otherwise, prompts the user. Not useful with /a.
<b>/n “&lt;name&gt;”</b>		Uses Win.ini. Copies Disincentive Name if it exists; otherwise, uses the <name> value. Not useful with /A.
<b>/o “”</b>		Uses Win.ini. Copies Disincentive Org if it exists; otherwise, prompts the user.
<b>/o “&lt;org&gt;”</b>		Uses Win.ini. Copies Disincentive Org if it exists; otherwise, uses the <org> value.
<b>/p &lt;script file&gt;</b>	Debug only	Debug only: List of forced checkpoint failures.
<b>/q[01 T]</b>	Quiet install mode	Batch mode: no UI. Normally, the exit dialog box is still displayed (/q or /q0). /Q1 will suppress the exit dialog box, /QT will suppress all UI, including the background frame window and the copy gauge. Assert failures will still show up in debug mode, however.  Note: An administrator can modify the check box State fields in the .stf file to generate a customized batch mode Setup. (See table.txt for more detail.)

Switch	Purpose	Description
<b>/qn[1lt]</b>	Quiet mode with reboot suppressed	Not valid with <b>/q0</b> . Warning: Chaining together several installs with suppressed reboots may have unpredictable results.
<b>/r</b>	Reinstall the application	
<b>/s &lt;src dir&gt;</b>	Specify alternative source files	Specifies the location of source files to be installed. Overrides the default source (where ACME was launched from, or the source specified in the maintenance mode .stf file). Provided automatically by the bootstrapper if ACME is bootstrapped.
<b>/t &lt;table file&gt;</b>	Specify alternative table files	Specifies table file to use (default is <b>&lt;base&gt;.stf</b> , where <b>&lt;base&gt;</b> is the "8" part of your .exe file's 8.3 file name).
<b>/u [a]</b>	Uninstall the application	Uninstalls the application. If <b>/q</b> is also specified, the user will not be prompted about removing shared components. <b>/u</b> will not remove shared components by default. <b>/ua</b> will always remove shared components without prompting the user.
<b>/v</b>	Don't bind executable files	Doesn't bind .exe files that are marked as bindable. This gives you a back door if binding turns out to be a problem.
<b>/w &lt;stf file&gt;</b>	Specify alternative stf files	Used to indicate that the bootstrapper is running on a previously installed .stf file. Not seen by Acmssetup.exe.
<b>/x "&lt;path\file&gt;"</b>	Create a network install log file.	Creates a network install log file for tracking the number of installs from an admin image. Overrides the value (if any) specified in the .stf file. See doc\table.txt for a description of Network Log Location.
<b>/y</b>	Do not copy files	Does not copy files. Useful when trying to track down problems that occur after the (time-consuming) step of copying the files.
<b>/z</b>		Optional UI hook .dll for replacement dialog boxes (consumer).
<b>/#</b>	Force reserialization of the PID	Forces reserialization of the Product ID. This is to be used in the rare case that two installations from the same original media have received the same generated PID.
<b>/?</b>	Usage message	
<b>/##</b>		<b>##</b> or other invalid parameter yields a better usage message.

Notes about command-line switches:

- The ACME command-line arguments are case insensitive.
- The **/a** and **/q** flags are mutually exclusive.
- The **/u** and **/r** flags are mutually exclusive and only make sense when running maintenance mode.

## The Sections of the SoftBoot.inf

[W95\_NoKillProgs]

SoftBoot will not close these programs/processes.

[NT\_NoKillProgs]

SoftBoot will not close these programs/processes.

[W95\_SafeKillProgs]

These programs will be terminated safely, i.e., a WM\_ENDSESSION message will be sent to them.

[NT\_SafeKillProgs]

These programs will be terminated safely, i.e., a WM\_ENDSESSION message will be sent to them.

[16BitDLLs]

When programs/processes are terminated, their 16-bit DLLs are not freed up. This section specifies the 16-bit DLLs that need to be freed up explicitly.

[KeepDLLs]

Do not process the entry in the Wininit.ini that says to replace these files.

[OkIfDe1FileFails]

During uninstall time, if SoftBoot cannot delete these files, don't flag this condition as requiring a hard reboot.

[KnownApps]

We do not care if these programs/processes are running. If these are running, the user will not be prompted to close programs.

## Files Left in the System After Uninstalling Internet Explorer

Windows\Dooflop.exe  
Windows\MSImgSiz.dat  
Windows\FpXpress.ini  
Windows\RaUninst.exe  
Windows\MSMusCtl.ini  
Windows\Active Setup Log.txt  
Windows\IE4 Setup Log.txt  
Windows\IE4 Uninstall Log.txt  
Windows\JavaInst.log  
Windows\Reg Restore Log.txt  
Windows\Soft Boot Log.txt  
Windows\Bind List Log.txt  
Windows\RunOnceEx Log.txt  
Windows\WpLog.txt  
Windows\INF\IE4Setup.inf  
Windows\INF\ICW95.inf  
Windows\INF\INFD132.pnf  
Windows\INF\INFD324.pnf  
Windows\INF\CChat2.inf  
Windows\INF\Setup.pnf  
Windows\INF\MSImm.inf  
Windows\INF\IR50\_32.inf  
Windows\INF\MSDXMIni.inf  
Windows\INF\VdoLive.inf  
Windows\INF\FPXpress.inf  
Windows\INF\CabPayIE.inf  
Windows\INF\ChlEn-US.pnf  
Windows\INF\MSImm.pnf  
Windows\INF\INFD0F1.pnf  
Windows\System\IEJava.cab  
Windows\System\ChatSock.dll  
Windows\System\ILS.dll  
Windows\System\MSSCMC32.dll  
Windows\System\L3CodeCa.acm  
Windows\System\WLDAP32.dll  
Windows\System\ViVOG723.acm  
Windows\System\IR50\_32.dll  
Windows\System\IR50\_QC.dll

Windows\System\NSFile.ocx  
Windows\System\IVVideo.dll  
Windows\System\IR50\_QCX.dll  
Windows\System\HomePage.inf  
Windows\System\IE4Files.inf  
Windows\System\UniD192.tmp  
Windows\System\IE4Unit.exe  
Windows\System\IE4Unit.inf  
Windows\System\MSVCRT.dll  
Windows\System\AsycFilt.dll  
Windows\System\CFGMgr32.dll  
Windows\System\CkCNV.exe  
Windows\System\MSAPSSPC.dll  
Windows\System\IERnOnce.dll  
Windows\System\LoadWC.exe  
Windows\System\SetupAPI.dll  
Windows\System\SoftBoot.exe  
Windows\System\SoftBoot.inf  
Windows\System\Cabinet.dll  
Windows\System\VdK32119.acm  
Windows\System\UniD1B4.tmp  
Windows\System\UniD204.tmp  
Windows\System\InetComm.dll  
Windows\System\MSOEMAPI.dll  
Windows\System\MSOERt.dll  
Windows\System\MSOEAcct.dll  
Windows\System\VdK3211W.dll  
Windows\System\VdK32116.dll  
Windows\System\VdoWave.drv  
Windows\System\VdoDEC32.dll  
Windows\System\DEC VW\_32.dll  
Windows\System\ClrVidDD.dll  
Windows\System\TR2032.dll  
Windows\System\UNAXA.exe  
Windows\System\IAC25\_32.ax  
Windows\System\IVFSrc.ax  
Windows\System\SetDefEd.exe  
Windows\System\MSDatSrc.tlb  
Windows\System\MSR2C.dll  
Windows\System\MSR2CENU.dll  
Windows\System\MSVBVM50.dll  
Windows\System\WLTUnins.exe

Windows\Help\MSMusCtl.hlp  
Windows\Help\SignIn.hlp  
Windows\Help\InetComm.hlp  
Windows\Help\Conn\_OE.hlp  
Windows\Help\Conn\_OE.cnt  
Windows\SendTo\Mail Recipient.MAPIMail  
Windows\Fonts\WebDings.ttf  
Windows\Java\Security.txt  
Windows\Cursors\Globe.ani  
Windows\Temporary Internet Files\OAVI1SGX\Desktop.ini  
Windows\Temporary Internet Files\ULCRMVYH\Desktop.ini  
Windows\Temporary Internet Files\C1QL8AWK\Desktop.ini  
Windows\Temporary Internet Files\4JDTB8SW\Desktop.ini  
Windows\Recent\PreIE4US.txt.lnk  
Windows\Recent\WithUS1712.2.txt.lnk  
Windows\Application Data\Microsoft\Internet Explorer\Desktop.htt  
Windows\Downloaded Program Files\Microsoft XML Parser for Java.osd  
Windows\Downloaded Program Files\Internet Explorer Classes for Java.osd  
Windows\Downloaded Program Files\DirectAnimation Java Classes.osd  
Recycled\Desktop.ini  
Program Files\Common Files\MSCreate.dir  
Program Files\Common Files\Microsoft Shared\MSCreate.dir  
Program Files\Common Files\Microsoft Shared\Stationery\Baby News.htm  
Program Files\Common Files\Microsoft Shared\Stationery\  
    Balloon Party Invitation.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Chess.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Chicken Soup.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Formal Announcement.htm  
Program Files\Common Files\Microsoft Shared\Stationery\For Sale.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Fun Bus.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Holiday Letter.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Mabel.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Running Birthday.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Story Book.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Tiki Lounge.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Ivy.htm  
Program Files\Common Files\Microsoft Shared\Stationery\One Green Balloon.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Baby News Bkgrd.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Chess.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Chicken Soup Bkgrd.gif  
Program Files\Common Files\Microsoft Shared\Stationery\  
    Formal Announcement Bkgrd.gif

Program Files\Common Files\Microsoft Shared\Stationery\For Sale Bkgrd.gif  
Program Files\Common Files\Microsoft Shared\Stationery\FunBus.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Holiday Letter Bkgrd.gif  
Program Files\Common Files\Microsoft Shared\Stationery\MabelT.gif  
Program Files\Common Files\Microsoft Shared\Stationery\MabelB.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Running.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Santa Workshop.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Soup Bowl.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Squiggles.gif  
Program Files\Common Files\Microsoft Shared\Stationery\StoryBook.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Tiki.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Christmas Trees.gif  
Program Files\Common Files\Microsoft Shared\Stationery\Ivy.gif  
Program Files\Common Files\Microsoft Shared\Stationery\  
    Balloon Party Invitation Bkgrd.jpg  
Program Files\Common Files\Microsoft Shared\Stationery\Technical.htm  
Program Files\Common Files\Microsoft Shared\Stationery\Tech.gif  
Program Files\Common Files\System\MSAdC\MSAdCo.dll  
Program Files\Common Files\System\MSAdC\MSAdCor.dll  
Program Files\Common Files\System\MSAdC\MSAdCe.dll  
Program Files\Common Files\System\MSAdC\MSAdCer.dll  
Program Files\Common Files\System\AdO\MSAdEr15.dll  
Program Files\Common Files\System\AdO\MSAdOr15.dll  
Program Files\Common Files\System\OLE Db\MSDAdC.dll  
Program Files\Common Files\System\OLE Db\MSDAPS.dll  
Program Files\Common Files\Services\Bigfoot.bmp  
Program Files\Common Files\Services\Four11.bmp  
Program Files\Common Files\Services\WhoWhere.bmp  
Program Files\Common Files\Services\InfoSpce.bmp  
Program Files\Common Files\Services\SwrchBrd.bmp  
Program Files\Common Files\Services\VeriSign.bmp  
Program Files\Common Files\Services\InfoSpBz.bmp  
Program Files\Internet Explorer\Setup\MSCreate.dir  
Program Files\Internet Explorer\Signup\Install.ins  
Program Files\Internet Explorer\Plugins\NpsMIVdo.dll  
Program Files\Outlook Express\\_ISetup.exe  
The entire contents of the Internet Explorer 4 Setup folder

## A P P E N D I X B

# Troubleshooting Installation and Uninstallation

This appendix reviews some of the issues related to Microsoft® Internet Explorer 4 installation and uninstallation that may require troubleshooting and explains procedures for solving installation and uninstallation problems. Topics include:

- Cannot install Internet Explorer 4 after download
- Windows Desktop Update not enabled after installing Internet Explorer
- Problems installing 128-bit server gated cryptography
- Problems reinstalling Windows® 95 with Internet Explorer 4
- Invalid page fault when installing additional components
- Problems installing Service Pack 3 after Internet Explorer
- Cannot uninstall Internet Explorer 4 using the Add/Remove Programs tool
- Cannot view Internet properties after uninstalling
- Problems returning to an earlier version of Internet Explorer
- Removing Internet Explorer 4 for Windows 95 using IERemove.exe
- Removing Internet Explorer for Windows NT® 4.0 using IERemove.exe

To learn more about these topics, see Part 1.

---

**Important** This section contains information about editing the registry. Before you edit the registry, you should first make a backup copy of the registry files (System.dat and User.dat). Both are hidden files in the Windows\System folder.

---

---

**Warning** Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk.

---

## Troubleshooting Installation

There are a variety of problems you may encounter during or after installation of Internet Explorer 4.

### Cannot Install Internet Explorer 4 After Download

During download of Internet Explorer 4, Active Setup determines the version of the operating system running and automatically downloads the files appropriate for that operating system. Because these files are unique to the operating system, you cannot download the Internet Explorer installation files using one operating system and then install it to another operating system.

If you attempt to install Internet Explorer from files that were downloaded using a different operating system than the one you are currently running, the following error message may display:

**The Internet Explorer files on your computer are not the correct files for your operating system. To continue, you must download the correct files from the Internet. Do you want to continue?**

If you click **No**, Active Setup quits. If you click **Yes**, Internet Explorer continues with Active Setup and attempts to download the appropriate files from the Internet.

---

**Note** You must be connected to the Internet for the download to continue.

---

- ▶ **To resolve this installation issue, use any of the following methods:**
  - Download the installation files using the same operating system on which you intend to install Internet Explorer.
  - Download the installation files for both operating systems in one session.

### Windows Desktop Update Not Enabled After Installing Internet Explorer

After you install Internet Explorer with the Windows Desktop Update, the Windows Desktop Update (and Active Desktop™) may be disabled. This problem occurs when you are running different language versions of Internet Explorer and Windows 95 or Windows 95 OEM Service Release. For example, Windows Desktop Update would be disabled if you installed the English version of Internet Explorer 4 on a computer running a non-English version of Windows 95. As a result, Web sites and pictures are not displayed on your desktop, and the **Desktop** tab does not appear in the **Display Properties** dialog box.

To correct this problem, uninstall Internet Explorer, and then install the same language version of Internet Explorer as the version of Windows 95 or OEM Service Release installed on your computer. For more information about installing Internet Explorer 4, see Chapter 2, "Phase 1: Active Setup."

## Problems Installing 128-Bit Server Gated Cryptography

If you install the English-language, exportable 128-bit Server Gated Cryptography (SGC) add-on for Internet Explorer 3 on a computer with Internet Explorer 4 installed, the following message may display:

### Microsoft Internet Explorer SGC 128 update

**Your computer already has a newer or 128-bit version of this product. Installation will exit.**

- ▶ **To enable 128-bit strong encryption in Internet Explorer 4, use either of the following methods:**
  - Install the 128-bit strong encryption version of Internet Explorer 3 before you upgrade to Internet Explorer 4.
  - After you install Internet Explorer 4, download the 128-bit strong encryption upgrade for Internet Explorer 4 from the following Web site:  
**<http://www.microsoft.com/ie/download/?ie/download/128bit.htm>**

To learn more about SGC, see Chapter 28, "Digital Certificates."

## Problems Reinstalling Windows 95 with Internet Explorer 4

Before you reinstall any version of Windows 95, you should uninstall Internet Explorer 4. If you do not uninstall Internet Explorer 4 before reinstalling Windows 95, you may be unable to start Windows or run Internet Explorer or related components. To avoid these problems, uninstall Internet Explorer, reinstall Windows 95, and then reinstall Internet Explorer.

If you already reinstalled Windows 95 without uninstalling Internet Explorer 4 first and are having problems, read the following information, and select one of the methods explained below. To select the correct method for recovery, you must determine the version of Windows 95 you are running.

► **To determine the version of Windows 95 you are running**

1. In the Windows Control Panel, double-click the System icon.
2. On the **General** tab, locate the version number under the System heading, and then match that number to the version of Windows 95 in the following table:

Version number	Version of Windows 95
40.950	Windows 95
40.950A	Windows 95 plus the Service Pack 1 Update, or OEM Service Release 1
40.950B	OEM Service Release 2 (OSR2)

If you are running OEM Service Release version 2.1, you will see the version number 40.950B (the same as OSR2). To determine whether you are running OSR 2.1, check for “USB Supplement to OSR2” in the list of installed programs in the **Add/Remove Programs Properties** dialog box. Then, check for version 43.1212 of the Ntkern.vxd file in the Windows\System\Vmm32 folder.

Windows 95 may have been preinstalled on your computer. These installations are referred to as original equipment manufacturer (OEM) installations.

► **To determine whether you have an OEM installation of Windows 95**

1. In the Control Panel, double-click the **System** icon.
2. On the **General** tab, locate the Product ID number under the Registered To heading. This number typically contains 20 digits. If digits 7, 8, and 9 contain the letters “OEM,” you have an OEM installation of Windows 95. For example:

12345-OEM-6789098-76543

If you are using an OEM installation of Windows 95, you should contact your computer’s manufacturer for Windows 95 support.

The methods outlined below are specific to the version of Windows 95 you are running and whether you selected **Yes** or **No** in all **Version Conflict** dialog boxes that displayed while you reinstalled Windows 95.

Version of Windows 95	Response to version conflicts	Use this method
Windows 95 or A	Yes	1
Windows 95 or A	No	2
Windows 95B	Yes	3
Windows 95B	No	4

**Method 1**

You do not need to make any changes to your current configuration. Reinstalling Windows 95 with Internet Explorer 4 installed and answering **Yes** to all file version conflicts does not cause any problems.

**Method 2**

Windows 95 works properly, but you may need to reinstall Internet Explorer to resolve browser problems. Reinstalling Internet Explorer 4 should resolve any file version conflicts resulting from reinstalling Windows 95.

**Method 3**

Windows 95 works properly, but you may experience problems running Internet Explorer 4, because Windows 95 reinstalls Internet Explorer 3. To resolve this problem, reinstall Internet Explorer 4.

**Method 4**

If you are using the Windows Desktop Update component, the following error messages may occur:

- When you start your computer:  
**Error loading Explorer.Exe. You must reinstall Windows.**
- When you click **OK**:  
**Error Starting program: The Explorer.Exe File is Linked to Missing Export SHLWAPI.DLL:ShopenRegstreamA**

In addition, the following may occur:

- Your computer stops responding (hangs) or shuts down.
- If you did not have the Windows Desktop Update installed, you may be able to start Windows 95, but you cannot run Internet Explorer, and your desktop icons cannot be moved.

**► To resolve these issues**

1. Restart your computer. When the "Starting Windows 95" message appears, press the F8 key; then choose **Command Prompt Only** from the **Startup** menu.
2. Type the following line, and press ENTER to change to the Uninstall folder:  
**cd *uninstall folder*** where *uninstall folder* is the location of the uninstall folder for Internet Explorer 4. For example:  
cd C:\Progra~1\Intern~1\Uninst~1.

3. Type the following line, and press ENTER to view the hidden files:  
**attrib -s -h -r \*.\***
4. Type the following lines to restore the files necessary to start Windows 95:  
**iextract integr~1.dat**
5. Type the following lines to place the files in their proper folders:  
**copy explorer.exe c:\windows**  
**copy shell32.dll c:\windows\system**
6. Restart the computer.
7. Uninstall Internet Explorer 4, and then reinstall it.

## Invalid Page Fault When Installing Additional Components

When you try to install additional components from the Internet Explorer Components Download page, an invalid page fault may occur in Kernel32.dll. As a result, you may not be able to properly restart your computer. This problem can occur if you do not have enough free hard disk space to install the selected components. To correct this problem, free some hard disk space, and try to install the additional components again.

---

**Note** The Components Download page does not indicate the amount of hard disk space needed to install the selected components. Instead, the Web page lists the total size of the components.

---

## Problems Installing Service Pack 3 After Internet Explorer

When you try to reapply or uninstall Windows NT 4.0 Service Pack 3 after installing Internet Explorer 4, the following warning message may appear:

### Update.exe

This program may not run correctly because of the new features in Internet Explorer 4. You may need to obtain an updated version of this program. For information about obtaining an updated version, click **Details**. If you want to try running this program, click **Details** to determine whether it will cause other problems. Then, if running this program will not cause other problems, click **Run Program**.

The warning dialog box includes a **Run Program** button (runs the program normally), a **Cancel** button (stops the program from running), and a **Details** button.

This warning occurs for the following reasons:

- Reapplying Service Pack 3 has rendered the Internet Explorer 4 shell (and other components) inoperable and invalidated your Service Pack 3 Uninstall folder.
- Uninstalling Service Pack 3 has rendered the Internet Explorer 4 shell (and other components) inoperable.

You can reapply Service Pack 3 by clicking **Run Program** on the warning dialog box and choosing the following options while you're reapplying Service Pack 3:

- Select **No, I do not want to create an Uninstall directory**.
- Select **No** whenever you are prompted to replace newer files.

If you're trying to uninstall Service Pack 3, click **Cancel** on the warning dialog box and uninstall Internet Explorer 4 before uninstalling Service Pack 3.

Windows NT 4 Service Pack 3 is required to run Internet Explorer 4. If you don't have Service Pack 3 installed when you install Internet Explorer 4, the following error message displays, and Setup cannot continue:

**Windows NT 4 Service Pack 3 must be installed before Internet Explorer 4 installation can continue.**

If you click **Details** on the warning dialog box, the following message appears:

**Do not uninstall Windows 95 Service Pack 1. Doing so will render the Internet Explorer 4 shell inoperable.**

This message should read as follows:

**Do not uninstall Windows NT 4 Service Pack 3. Doing so will render the Internet Explorer 4 shell inoperable. If you are reapplying Service Pack 3, you can safely click Run Program if you choose the following while you are reapplying Service Pack 3:**

---

**Note** To prevent the warning from being displayed when you run this program in the future, select the **Don't display this message in the future** check box.

---

## Troubleshooting Uninstallation

There are a variety of problems you may encounter during or after uninstallation of Internet Explorer 4.

### Cannot Uninstall Internet Explorer 4 Using the Add/Remove Programs Tool

If you cannot uninstall Internet Explorer 4 using the Add/Remove Programs tool in the Control Panel, it is probably because you have deleted the uninstall information by removing the necessary Setup files (IE4bak.dat, IE4bak.ini, *Integrated Browser.dat*, and *Integrated Browser.ini*). The Internet Explorer **Advanced Uninstall** dialog box offers the option to uninstall this backup information, but doing so will prevent you from uninstalling Internet Explorer in the future. (For more information, see “Deleting Uninstall Files” in Chapter 7.)

If you attempt to reinstall Internet Explorer after deleting these files, the following message will display:

**You are upgrading a version of Internet Explorer 4 in which the uninstall feature has been disabled. If you choose to continue, Setup will update your PC with the newer version, but the uninstall feature will remain disabled.**

### Cannot View Internet Properties After Uninstalling

After you remove Internet Explorer 4, the following may occur because you have an incorrect version of the Inetcpl.cpl file installed on your computer:

- The **Internet** icon may not be present in the Control Panel.
  - You may not be able to access the **Internet Properties** dialog box.
  - When you are running Internet Explorer 3, and you select **Options** on the **View** menu, nothing happens.
- **To install the correct Inetcpl.cpl file**
1. Delete the Inetcpl.cpl file in the Windows\System folder.
  2. Install (or reinstall) Internet Explorer 3. To download Internet Explorer 3, see <http://www.microsoft.com/ie/>.

## Problems Returning to an Earlier Version of Internet Explorer

If you install Internet Explorer 4 and then decide that you want to return to an earlier version of Internet Explorer, you should uninstall Internet Explorer 4 before installing the earlier version.

If you attempt to install an earlier version of Internet Explorer on a computer with Internet Explorer 4 installed, the following error message appears:

**Internet Explorer 3 cannot be installed on a system that has Internet Explorer 4 installed.**

If you click **OK**, the following message appears:

**There was an error during the Setup process. Either the user pressed Cancel or there was not enough disk space. Installation failed.**

To correct this problem, install Internet Explorer 4 again, and then uninstall it. You can then safely install an older version of Internet Explorer. For information on how to reinstall Internet Explorer 4, see "Reinstalling Components" in Chapter 7. (The process for reinstalling Internet Explorer is the same as the process for reinstalling its components.)

## Removing Internet Explorer 4 for Windows 95 Using IERemove.exe

This section describes how to remove Internet Explorer 4 for Windows 95 using the IERemove.exe tool and a registry (for example, System.1st) that was created before you installed Internet Explorer 4.

Use this procedure for the following situations:

- You tried to uninstall Internet Explorer 4, but were unsuccessful.
- With Internet Explorer 4 installed on your computer, you restored a registry that was created before you installed Internet Explorer 4.

Do *not* use this procedure for the following situations:

- You have not tried to uninstall Internet Explorer 4 by using the **Add/Remove Programs** applet in the Control Panel.
- You have removed the Internet Explorer 4 backup files. If you removed these files and are unable to uninstall Internet Explorer using the standard procedure (see Chapter 7), you cannot remove Internet Explorer without reinstalling Windows 95 to a different folder.

For more information about IERemove.exe, see “Understanding IERemove.exe,” in Chapter 7.

---

**Note** IERemove.exe is a command-line executable file designed to remove Internet Explorer 4 and its components. IERemove.exe cannot remove Internet Explorer without using command line options. For information about the command-line options available for IERemove.exe, type **ieremove /?**.

---

► **To remove Internet Explorer 4 by using the IERemove.exe tool and a registry that was created before you installed Internet Explorer 4**

If you have not already done so, restore the registry that was created before you installed Internet Explorer 4.

---

**Note** During the Internet Explorer 4 installation, the original System.1st file is replaced with a copy of the registry. The original System.1st file is saved in the Integrated Browser.dat file (Integr~1.dat).

---

1. To extract the original System.1st file from the Integr~1.dat file, type the following command at a command prompt and press ENTER:  
**cd path\uninst~1** where *path* is the path to the folder where Internet Explorer is installed.
2. Type the following line, and press ENTER:  
**attrib integr~1.dat -h**
3. Type the following line, and press ENTER:  
**iextract /L dir integr~1.dat system.1st** where *dir* is the folder in which the extracted file will be saved.
4. Restart the computer. When the “Starting Windows 95” message appears, press the F8 key, and then choose **Safe Mode Command Prompt Only** from the **Startup** menu.
5. Type the following commands, pressing ENTER after each command:  
**cd path\uninst~1**  
**attrib integr~1.dat -h**  
**iextract integr~1.dat**  
**copy shell32.dll c:\windows\system**  
**copy explorer.exe c:\windows**  
where *path* is the path to the folder where Internet Explorer is installed.

6. Restart the computer.
7. From the **Start** menu, select **Run**, and then type the following command in the **Open** box (with quotation marks):

```
"path1\ieremove.exe" /i:"path2\integrated  
browser.dat"/n:"path3\ie4bak.dat"
```

where *path1* is the full path to the IERemove.exe file, *path2* is the full path to the Integrated Browser.dat file, and *path3* is the full path to the IE4bak.dat file. For example, if the IERemove.exe file is in the C:\Windows\System folder, the Integrated Browser.dat file is in the C:\Program Files\Internet Explorer\Uninstall Information folder, and the IE4bak.dat file is in the C:\Windows folder, you would type the following command (with quotation marks):

```
"c:\windows\system\ieremove.exe" /i:"c:\program files\internet  
explorer\uninstall information\integrated  
browser.dat"/n:"c:\windows\ie4bak.dat"
```

8. Click **OK**, click **Yes**, then restart your computer after the IERemove.exe tool is finished running.
9. Reinstall Internet Explorer 4, and then uninstall it. This step is necessary to ensure that the additional components included with Internet Explorer 4 are removed.

## Removing Internet Explorer for Windows NT 4.0 Using IERemove.exe

This section describes how to remove Internet Explorer 4 for Microsoft Windows NT by using the IERemove.exe tool and the Emergency Repair Disk (ERD).

Use this procedure for the following situations:

- You tried to uninstall Internet Explorer 4, but were unsuccessful.
- You created an ERD before you installed Internet Explorer 4, and then you used the ERD while Internet Explorer 4 was installed on your computer.

Do *not* use this procedure for the following situations:

- You have not tried to uninstall Internet Explorer 4.
- You have removed the Internet Explorer 4 backup files. If you removed these files and are unable to uninstall Internet Explorer using the standard procedure (see Chapter 7), you cannot remove Internet Explorer without reinstalling Windows NT to a different folder.

For more information about IERemove.exe, see “Understanding IERemove.exe,” in Chapter 7.

---

**Note** IERemove.exe is a command-line executable file designed to remove Internet Explorer 4 and its components. IERemove.exe cannot remove Internet Explorer without using command-line options. For information about the command-line options available for IERemove.exe, type **ieremove /?**.

---

Before proceeding, locate the “Integrated Browser NT.dat” and the IE4bak.dat files.

► **To locate the “Integrated Browser NT.dat” and IE4.bak files**

1. From the **Start** menu, select **Find** and then **Files Or Folders**.
2. In the **Named** box, type “**Integrated Browser NT.dat**” (with quotation marks), and then click **Find Now**.
3. Note the path for the “Integrated Browser NT.dat” file in the In Folder column.
4. Repeat steps 1 to 3 for the IE4bak.dat file.
5. From the **File** menu, select **Close**.

To remove Internet Explorer 4, use the IERemove.exe tool and an ERD that was created before you installed Internet Explorer 4. The following steps guide you through uninstalling the Windows Desktop Update component (if it has been installed) and Internet Explorer. You should uninstall the Windows Desktop Update component before you uninstall Internet Explorer 4.

► **To uninstall the Windows Desktop Update component using IERemove.exe**

1. Use the ERD that was created before you installed Internet Explorer 4 to repair your Windows NT installation.
2. Restart your computer and log on to Windows NT.
3. Press CTRL+ALT+DELETE to open the **Windows NT Security** dialog box, and then click **Task Manager**.

4. On the **File** menu, select **New Task (Run)**, and type the following command in the **Open** box (with quotation marks):

**“*path1*\ieremove” /i:“*path2*\integrated browser nt.dat”** where *path1* is the full path to the IERemove.exe file and *path2* is the full path to the “Integrated Browser NT.dat” file.

For example, if Windows NT is installed in the C:\Winnt folder, the IERemove.exe file will be in the C:\Winnt\System32 folder, and the “Integrated Browser NT.dat” file will be in the C:\Program Files\Plus!\Microsoft Internet\Uninstall Information folder. In this case, you would type the following command (with quotation marks):

**“c:\winnt\system32\ieremove” /i:“c:\program files\plus!\microsoft internet\uninstall information\integrated browser nt.dat”**

5. Click **OK**.
6. Minimize the Task Manager window.
7. At the Internet Explorer 4 Uninstall prompt, click **OK**.
8. Click **Yes**, and then click **OK**.
9. Close Task Manager, and restart your computer.

► **Uninstall Internet Explorer using IERemove.exe**

1. From the **Start** menu, select **Run**.
2. In the **Open** box, type the following command (with quotation marks):

**“*path1*\ieremove” /n:“*path2*\ie4bak.dat”** where *path1* is the full path to the IERemove.exe file and *path2* is the full path to the IE4bak.dat file.

For example, if Windows NT is installed in the C:\Winnt folder, the IERemove.exe file will be in the C:\Winnt\System32 folder, and the IE4bak.dat file will be in the C:\Winnt folder. In this case, type the following command (with quotation marks):

**“c:\winnt\system32\ieremove” /n:“c:\winnt\ie4bak.dat”**

3. Click **OK**, and then click **OK** again.

After the IERemove.exe tool has uninstalled Internet Explorer 4, reinstall Internet Explorer 4, and then uninstall it normally. This step is necessary to ensure that the additional components included with Internet Explorer 4 are removed.



## APPENDIX C

# Troubleshooting the Browser

This appendix reviews some of the issues related to the Microsoft® Internet Explorer browser that may require troubleshooting and explains procedures for improving and configuring browser performance. Topics include:

- Font size change is not saved
- Determining your previous version of Internet Explorer
- Slow connections and inability to view non-Microsoft sites
- Restoring functionality to the downloaded program files folder
- Changing the download location for ActiveX files

To learn more about the browser, see Part 2.

---

**Important** This section contains information about editing the registry. Before you edit the registry, you should first make a backup copy of the registry files (System.dat and User.dat). Both are hidden files in the Windows folder.

---

---

**Warning** Using Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk.

---

## Font Size Change is Not Saved

When you change the font size in Internet Explorer by using the **Fonts** command on the **View** menu or the **Fonts** button on the toolbar and then restart Internet Explorer, your change is lost.

---

**Note** This behavior is by design. The **Fonts** command on the **View** menu and **Fonts** button on the toolbar are designed to immediately change the font size for the current session only. The **Internet Options** dialog box enables you to change the default font size for future sessions.

---

► **To change the default font size for viewing Web pages**

1. On the **View** menu, click **Internet Options**.
2. On the **General** tab, click **Fonts**.
3. Select a font from the **Font Size** box.
4. Click **OK**, then **OK** again.

Because of the different ways Web pages can be formatted, some pages will not be affected by the above procedure. To change the appearance of such pages, you'll need to override the page formatting.

► **To override page formatting**

1. On the **View** menu, click **Internet Options**.
2. On the **General** tab, click **Accessibility**.
3. Select any of the following options:
  - Ignore Colors specified on Web pages
  - Ignore font styles specified on Web pages
  - Ignore font sizes specified on Web pages
  - Format documents using my style sheet
4. Click **OK**.

For more information, see "Customizing Display of Fonts, Colors, and Styles" in Chapter 33, "Accessibility Features and Functionality."

---

## Determining Your Previous Version of Internet Explorer

To determine your previous version of Internet Explorer after installing Internet Explorer 4, view the PreviousIESysFile value under the following registry key:

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\IE4\Setup**

The following table lists the possible values for the PreviousIESysFile registry value and the version of Internet Explorer that corresponds to each:

Value	Version
4.70.0.1155	3.0
4.70.0.1158	3.0
4.70.0.1215	3.01
4.70.0.1300	3.02
4.71.<xxxx>	4.0

---

**Note** The Internet Explorer 4 Uninstall feature returns your computer to a pre-Internet Explorer 4 browser. As a result, the PreviousIESysFile value cannot be used to determine if you upgraded to Internet Explorer 4 over an earlier, beta version of Internet Explorer 4.

---

The PreviousIESysFile value is used by the Internet Explorer 4 Uninstall program to determine which components should be removed when Internet Explorer 4 is removed. The registry contains a RequiredIESysFile value for each component. If the RequiredIESysFile value for a particular component is equal to or less than the PreviousIESysFile value, the component is not removed when you remove Internet Explorer 4. If the RequiredIESysFile value for a component is greater than the PreviousIESysFile value, the component is removed when you remove Internet Explorer 4.

## Slow Connections and Inability to View Non-Microsoft Sites

When you use Internet Explorer version 3 or 4 with a proxy server and Novell NetWare 32-bit client software to browse the Internet, you may experience the following:

- Slow connections.
- Inconsistent downloads.
- An inability to view non-Microsoft sites.

To resolve these problems, verify that you are using the Novell NetWare 32-bit client and that you are connecting to the Internet using a proxy server.

► **To verify that you are using the Novell client**

1. On the **Start** menu, point to **Settings**, then click **Control Panel**.
2. Double-click the **Network** icon, and click the **Configuration** tab.
3. Verify that **Novell 32** appears in the box labeled **The following network components are installed**.

► **To verify that you are connecting using a proxy server**

1. On the **View** menu, click **Internet Options**, then click the **Connection** tab.
2. Verify that the **Access the Internet Using a Proxy Server** check box is checked and that the **Address** box contains entries. This indicates that Internet Explorer is set up to connect to the Internet through a proxy server.

► **To add DontUseDNSLoadBalancing to the Internet settings registry key**

If you are using the Novell NetWare 32-bit client and are connecting to the Internet using a proxy server, use the following information to add to the registry key:

1. Create a new binary value named:  
**DontUseDNSLoadBalancing** under the following registry key:  
**HKEY\_CURRENT\_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings**
2. Set the value to:  
01 00 00 00
3. Restart your computer.

---

**Note** The Novell NetWare 32-bit client is not manufactured by Microsoft. Microsoft makes no warranty, implied or otherwise, regarding this product's performance or reliability.

---

For more information about configuring proxy server settings, see Chapter 8, "Configuring Connection Settings."

## Restoring Functionality to the Downloaded Program Files Folder

The Download Program Files folder contains functionality that enables you to easily uninstall ActiveX controls. When this folder is deleted, a new Downloaded Program Files folder is created the next time Internet Explorer downloads new program files. However, the newly created folder does not contain the functionality to easily uninstall ActiveX controls. This section describes how to restore this functionality to the new folder.

- ▶ **To restore the ability to easily uninstall ActiveX controls**
  1. From the **Start** menu, point to **Programs**, then click **MS-DOS Command Prompt**.
  2. Type `cd\`, and then press **ENTER**.
  3. Type the following command, and then press **ENTER**:  
`cd windows\system`  
where *windows* is the folder in which Windows is installed.
  4. Type the following command, and then press **ENTER**:  
`regsvr32 /i occache.dll`
  5. Type `exit`, and then press **ENTER**.
  6. From the **Start** menu, select **Shut Down**, click **Restart**, and then **OK**.

Controls that were deleted with the original folder are listed with a status of **Damaged**. These controls should be removed because the associated files have already been deleted.

## Changing the Download Location for ActiveX Files

ActiveX .ocx and .inf files are installed in the Windows\Downloaded Program Files folder by default.

► **To change the location of ActiveX files**

1. Use Registry Editor to change the ActiveXCache value to the location you want in the following registry key:

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\  
CurrentVersion\Internet Settings**

2. Use Registry Editor to change the 0 value to the location you want in the following registry key:

**HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\  
CurrentVersion\Internet Settings\ActiveXCache**

---

**Note** The values you enter in steps 1 and 2 must match.

---

The new value can be a folder on a local hard disk, a Universal Naming Convention (UNC) name, or a mapped network drive. Storing ActiveX files on a network server may reduce Internet Explorer performance, because the ActiveX files must be delivered over the network.

## APPENDIX D

# Troubleshooting the Active Desktop

This appendix reviews some of the issues related to the Microsoft® Internet Explorer Active Desktop™ that may require troubleshooting and explains procedures for solving problems that may occur in this area. Topics include:

- Pointing to desktop icons causes text to disappear
- Changing to single-click mode using the registry
- Images copied to the desktop are saved as Active Desktop items
- **Find on the Internet** command appears twice on the Start menu
- Active Desktop items stop working when offline
- System properties do not show that Microsoft Plus! is installed
- Internet Explorer cannot find the Active Desktop
- Do not use Web pages with frames as your desktop wallpaper

To learn more about the Active Desktop, see Part 3.

---

**Important** This section contains information about editing the registry. Before you edit the registry, you should first make a backup copy of the registry files (System.dat and User.dat). Both are hidden files in the Windows folder.

---

---

**Warning** Editing the registry incorrectly can cause serious problems that may require you to reinstall your operating system. Microsoft cannot guarantee that problems resulting from the incorrect editing of the registry can be solved. Edit the registry at your own risk.

---

## Pointing to Desktop Icons Causes Text to Disappear

If your computer is running Internet Explorer 4 and the Windows Desktop Update and you point to an icon on the desktop, the text under the icon may disappear. This behavior occurs when selected items and desktop are configured to use the same color in the **Display Properties** dialog box. To resolve this problem, either configure Windows® 95 so that selected items and the desktop are not configured to use the same color, or configure Windows 95 so that you must double-click to open an object.

- ▶ **To configure Windows 95 so that selected items and the desktop are not configured to use the same color**
  1. From the **Start** menu, point to **Settings**, then click **Control Panel**.
  2. Double-click the **Display** icon.
  3. Click the **Appearance** tab, click **Selected Items** or **Desktop** in the list of items, then select a different color.
  4. Click **OK**.
  
- ▶ **To configure Windows 95 so that you must double-click to open an object**
  1. Double click the **My Computer** icon on the desktop, then click **Options** on the **View** menu.
  2. Click the **View** tab, then click **Double-Click To Open Any Item**.
  3. Click **OK**.

## Changing to Single-Click Mode Using the Registry

If the Windows Desktop Update is installed, administrators can configure Internet Explorer so that instead of double-clicking to open an item, users single click, and rather than using a single-click to select an item, users point to select. Users can select this Web-style option for themselves (by selecting **Folders and Icons** from the **Settings** menu on the **Start** menu), but administrators may find it helpful to implement this option without user intervention. To do this, you must create a registry file.

- ▶ **TO create the .reg file**
  1. Using any text editor, such as Notepad, create a file with the following content:

```
regedit4[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\explorer]“IconUnderline”=hex(0):03,00,00,00
```



## “Find on the Internet” Command Appears Twice on the Start Menu

When you click **Start** and then point to **Find**, you may see two **On The Internet** commands, and one of the commands may not work correctly. This can occur when both Internet Explorer 4 and FindX PowerToy are installed on your computer.

Windows PowerToys are a suite of tools available for free download from the Microsoft Web site. Microsoft Technical Support does not support the installation or usage of PowerToys or any of their components. FindX is a Windows 95 PowerToy that you can use to add your own custom commands to the **Find** menu, including a built-in **On The Internet** command.

To resolve this issue, remove FindX PowerToy from your system.

- ▶ **To remove the FindX PowerToy**
  1. Click **Start**, point to **Settings**, then click **Control Panel**.
  2. Double-click the **Add/Remove Programs** icon.
  3. On the **Install/Uninstall** tab, click **Find... Extensions** in the list of installed programs.
  4. Click **Add/Remove** to remove FindX.

## Active Desktop Items Stop Working When Offline

Active Desktop items that host Java programs may stop working when Internet Explorer 4 is offline. This can occur if the Java program is removed from the Temporary Internet Files folder. Also, if the Java program is not packaged into a .cab, .zip, or .jar file, it may not get cached at all.

Active Desktop items are retrieved from the cache when Internet Explorer 4 is offline. If the cache reaches its maximum size, Java programs may be automatically removed from the cache to make room for current downloads. If an Active Desktop item hosts a Java program that has been removed from the cache and Internet Explorer 4 is offline, the Active Desktop item stops working.

- ▶ **To activate Active Desktop items for offline use**

Empty the Temporary Internet Files folder or increase the amount of hard disk space it uses, by using the appropriate method:

  - Empty the Temporary Internet Files folder by following these steps:
    1. In Internet Explorer, on the **View** menu, click **Internet Options**.

2. On the **General** tab, in the **Temporary Internet Files** box, click **Delete Files**.
3. Click **OK** when you are prompted to delete the files, and then click **OK** again.
4. Connect to the Internet.
5. Right-click an empty area on your desktop, point to **Active Desktop**, and then click **Update Now** to update the Active Desktop items.
  - Increase the amount of hard disk space the Temporary Internet Files folder uses by following these steps:
    1. In Internet Explorer, on the **View** menu, click **Internet Options**.
    2. On the **General** tab, in the **Temporary Internet Files** box, click **Settings**.
    3. Move the **Amount of disk space to use** slider to the right.
    4. Click **OK**, then click **OK** again.
    5. Connect to the Internet.
    6. Right-click an empty area on the desktop, point to **Active Desktop**, then click **Update Now** to update the Active Desktop items.

## System Properties Do Not Show That Microsoft Plus! Is Installed

If you install Microsoft Plus! and then install Internet Explorer 4, the **System Properties** dialog box may indicate that Microsoft Plus! isn't installed. The information line no longer shows:

**Microsoft Plus! for Windows 95**

Instead, this line reads:

**IE 4.0 7-digit build number**

The opposite behavior may also occur. If you install Microsoft Plus! after installing Internet Explorer 4, the **System Properties** dialog box line no longer shows:

**IE 4.0 7-digit build number**

Instead, this line reads:

**Microsoft Plus! for Windows 95**

This behavior is solely cosmetic; it does not affect your ability to run installed Microsoft Plus! or Internet Explorer.

## Internet Explorer Cannot Find the Active Desktop

When you make changes to the Active Desktop, the following error message may occur:

**Internet Explorer cannot find the Active Desktop HTML file. This file is needed for your Active Desktop. Click OK to turn off Active Desktop.**

This occurs when the Windows\Web folder has been moved or renamed, because Internet Explorer needs to write to certain files stored within that folder.

To solve the problem, use Windows Explorer to create a new Windows\Web folder, or remove and reinstall Internet Explorer to re-create the folder. For the procedures to uninstall and reinstall Internet Explorer, see Chapter 7, "Uninstalling Internet Explorer" and Chapter 6, "Adding and Removing Components After Setup," respectively. (The process for reinstalling Internet Explorer is the same as the process for reinstalling its components.)

## Do Not Use Web Pages with Frames as Your Desktop Wallpaper

If you use a Web page as your desktop wallpaper and it contains frames, some desktop items may stop working. For example, you may find that the Channel bar is removed from the desktop.

The Active Desktop cannot display desktop wallpaper with frames. Such pages are actually several separate pages tied together with links. If a frame set is copied to a computer, it is not usable as wallpaper, even if all related pages are copied.

## A P P E N D I X E

## Troubleshooting Webcasting

This appendix reviews some of the issues related to Webcasting in the Microsoft® Internet Explorer 4 that may require troubleshooting and explains procedures for solving problems with Web-site and channel subscriptions. Topics include:

- Unattended dial-up does not work without user intervention
- E-mail notification is not sent for updated web sites
- Red gleams do not appear on channel bar when site content updates
- Subscription images are downloaded even if images are disabled

### Unattended Dial-Up Does Not Work Without User Intervention

If you configure an unattended dial-up connection in Internet Explorer 4 or Outlook™ Express, you may receive the following message when the modem attempts to connect:

**You are currently using NetWare servers, which will be inaccessible if you establish this connection.**

**Click OK to continue dialing. Click Cancel if you do not want to dial at this time.**

The unattended dial-up connection does not continue until you click **OK**. This can occur if the Microsoft Client for NetWare Networks™ is installed on your computer and the Inter-network Packet Exchange/Sequenced Packet Exchange (IPX/SPX)-compatible protocol is bound to the Dial-Up Adapter. To resolve this problem, disable the IPX/SPX protocol for the Dial-Up Adapter.

► **To disable the IPX/SPX protocol in the Dial-Up Adapter**

1. From the **Start** menu, point to **Programs**, point to **Accessories**, and then click **Dial-Up Networking**.
2. Right-click the connection you are using for the unattended dial-up, and then click **Properties**.
3. Click **Server Type**, and then click the **IPX/SPX Compatible** check box to clear it.
4. Click **OK**, and then click **OK** again.

You can use unattended dial-up in the following situations:

- You configure Internet Explorer to perform an unattended dial-up connection when it updates Web-site and channel subscriptions.
- You configure Outlook Express to automatically dial when it checks for new messages.

## E-Mail Notification Is Not Sent for Updated Web Sites

Despite the fact that `<USAGE VALUE="Email" />` has been specified for a parent `ITEM` element in a CDF file, the subscribed user may not receive e-mail notification when a content update occurs. This problem may occur for one of two reasons: when the user subscribed to the channel, he or she did not specifically ask to receive e-mail notifications for content update, or the SMTP server was not specified correctly.

For channel e-mail notifications to be sent, the following three conditions must be met:

1. `<USAGE VALUE="Email" />` must be specified in the CDF file, as in this example:

```
<CHANNEL HREF="http://example.microsoft.com">
  <ITEM HREF="http://example.microsoft.com/emailthis.htm">
    <USAGE VALUE="Email" />
  </ITEM>
</CHANNEL>
```

2. When subscribing to the channel, the user must select one of the two **Yes** options on the **Add Favorite** dialog box, then click the **Customize** button and select **Yes, send an e-mail notification to the following address** when asked if he or she wants to be notified in an e-mail message when the page has changed.
3. When prompted for an e-mail address, the user must click the **Change Address** button and specify the correct SMTP server name. If you do not know the correct server name, ask your Internet service provider (ISP) what server name to specify.

If all three conditions above are met, an e-mail notification is sent to the subscribed user in this format:

```
Subject: Internet Explorer Notice: <web site title>  
Message: <site URL> Your subscription to <web site title> has been  
updated. To view the subscription offline, click here: <site URL>  
This message was sent by the Internet Explorer 4.0 Information Delivery  
Agent.
```

If your e-mail client is HTML-aware, then the e-mail received is the actual Web page specified in the <ITEM> tag in the CDF file.

## Red Gleams Do Not Appear on Channel Bar When Site Content Updates

When you subscribe to a channel Web site, a gleam may not appear on that channel's icon on the Channel bar, even though the contents of the subscribed Web site have changed.

When Internet Explorer checks a subscribed channel for updated information, it only checks the actual subscribed CDF file (that is, the specific type of information requested by the user during the subscription setup). If the subscribed file changes, a red gleam appears on that channel's icon. If the subscribed file does not change, no gleam appears on the subscription's icon. This is true whether or not any other content in the subscribed channel has changed.

## Subscription Images Are Downloaded Even If Images Are Disabled

When you disable image downloading in an Active Desktop™ item's subscription properties, images may still be downloaded and displayed when the desktop item's subscription is updated. To prevent images from being downloaded when an Active Desktop item's subscription is updated, you must disable image downloading in both the subscription and in Internet Explorer.

► **To disable image downloading for desktop items**

1. In Internet Explorer, on the **Favorites** menu, click **Manage Subscriptions**.
2. In the **Subscriptions** dialog box, right-click the subscription for which you want to disable image downloading, and then click **Properties**.
3. Click the **Receiving** tab, then click **Advanced**.
4. In the **Items To Download** box, click the **Images** check box to clear it, then click **OK**, and click **OK** again.
5. On the **File** menu, click **Close** to close the Subscriptions window.
6. In Internet Explorer, on the **View** menu, click **Internet Options**, and then click the **Advanced** tab.
7. Under **Multimedia**, click the **Show Pictures** check box to clear it, and then click **OK**.

If image downloading is disabled in Internet Explorer 4 only, images are still downloaded when the desktop item's subscription is updated, but these images are not displayed in the desktop item.

# Troubleshooting Outlook Express

This appendix discusses some of the issues related to Microsoft Outlook™ Express that may require troubleshooting and explains procedures for solving problems that may occur. Topics include:

- Problems changing the default mail client for Internet Explorer
- Cannot import address book in Outlook Express
- Preview pane does not display news messages when enabled
- Error message: **The command failed to execute.**
- Internet mail and news files renamed by Outlook Express

For more information about Outlook Express, see Chapter 18.

## Problems Changing the Default Mail Client for Internet Explorer

- ▶ **To change the default mail client in Internet Explorer**
  1. In Internet Explorer, on the **View** menu, click **Internet Options**.
  2. Click the **Programs** tab.
  3. In the **Mail** drop-down list and in the **News** drop-down list, click the programs you want.
  4. Click **OK**.

In Internet Explorer, these changes modify the URL:MailToProtocol registered file type that is listed when you follow these steps:

1. In My Computer, on the **View** menu, click **Folder Options**, and then click **File Types**.
2. Click **URL:MailToProtocol**, click **Edit**, click **Open** in the **Actions** box, and then click **Edit**.

The command line that controls the program that is used to open a MailTo Uniform Resource Locator (URL) appears in the **Application used to perform action** box.

Some programs may modify this setting without updating the list of programs available in Internet Explorer. For example, the Eudora Internet mail client changes the URL:MailToProtocol registered file type to the following:

```
C:\<EudoraFolder>\Eudora.exe /m
```

You can also change the default program back to **Internet Mail** or **Windows Messaging** in the **Mail** box on the **Programs** tab.

Selecting **Internet Mail** in the **Mail** box changes the URL:MailToProtocol registered file type to:

```
rundll32.exe C:\WINDOWS\SYSTEM\mailnews.dll,Mail_RunDLL
```

Selecting **Windows Messaging** in the **Mail** box changes the registered file type to:

```
rundll32.exe url.dll,MailToProtocolHandler %1
```

► **To specify Microsoft Outlook 97 as the program you want to open MailTo URL addresses**

1. In My Computer, on the **View** menu, click **Folder Options**, and then click **File Types**.
2. Click **URL:MailToProtocol**, click **Edit**, click **Open** in the **Actions** box, and then click **Edit**. Click the **Application used to perform action** box and press **DELETE** to delete the data in the box.
3. Type the following (including quotation marks) for the **Application used to perform action** box for the **Open** command:  
**“C:\Program Files\Microsoft Office\Office\Outlook.exe” -c IPM.Note /m “%1”**
4. To save the changes, click **OK** until you return to My Computer.

- ▶ **To specify Microsoft Outlook Express as the program you want to open MailTo URL addresses**
  1. In My Computer, click **Folder Options** on the **View** menu, and then click **File Types**.
  2. Click **URL:MailToProtocol**, click **Edit**, click **Open** in the **Actions** box, and then click **Edit**. Click the **Application used to perform action** box, and press **DELETE** to delete the data in the box.
  3. Type the following (including quotation marks) for the **Application used to perform action** box for the **Open** command:  
**“C:\Program Files\Outlook Express\Msimn.exe” /mailurl:%1”**
  4. To save the changes, click **OK** until you return to My Computer.

## Specifying Older Mail Programs

The list of mail programs that you can choose under the Internet Explorer options is made up of registry keys, which outline the behavior of the program you want to use. Modifications that need to be made to the registry are detailed and very specific. Most programs either self-register upon usage or have an option to become the default program. If these options are not available, please contact the manufacturer about how to make its program the default mail client.

## Cannot Import Address Book in Outlook Express

When you attempt to import an address book in Outlook Express version 4, the address book may not be imported and you may not see an error message. This occurs when the Wabmig.exe file is missing or damaged.

If the Wabmig.exe file is damaged, rename the file, and then reinstall Outlook Express.

- ▶ **To rename the Wabmig.exe file**
  1. From the **Start** menu, point to **Find**, and then click **Files Or Folders**.
  2. In the **Named** box, type **Wabmig.exe**, and then click **Find Now**.
  3. Right-click the file, and then click **Rename**.
  4. Rename the file to **Wabmig.xxx**.
  5. Reinstall Outlook Express.

## Preview Pane Does Not Display News Messages When Enabled

While you are reading news messages in Outlook Express, you may receive the following message in the preview pane even though the preview pane is already enabled:

**Press <Space> to display the selected message. You can also choose to automatically show messages in the preview pane from the Options command.**

If you press SPACEBAR, the message reappears. If you double-click the news message to open it, you receive the following error message:

**There was an error opening the message.**

This occurs when there is not enough free space on your hard disk to open the news message. Increase the amount of free space on your hard disk by using one or more of the following methods:

- Remove any unnecessary files from the hard disk.
- Empty the Recycle Bin.
- Delete the Internet Explorer 4 Setup folder, or remove unnecessary files from the folder. Deleting this folder does not affect the performance of Internet Explorer, but it is important to note that without this folder, you will not be able to reinstall Internet Explorer or its components from the hard disk; you will have to download another copy from the Microsoft Web site.

---

**Warning** The Setup folder contains important backup files that are necessary for uninstalling Internet Explorer. IE4bak.dat and IE4bak.ini and, if Windows Desktop Update is installed, Integrated Browser.dat, and Integrated Browser.ini. are critical files. It is recommended that you not delete these files. (For more information, see “Deleting Uninstall Files” in Chapter 7.) If you need to make more disk space available, it is recommended that you leave these files and delete other files in the folder.

---

## Error Message: The Command Failed to Execute

When you attempt to save a mail attachment to your hard disk in Outlook Express, you may receive the following error message:

### The command failed to execute.

This occurs when there is not enough free disk space on your hard disk to save the attachment.

Increase the amount of free space on your hard disk by using one or more of the following methods:

- Remove any unnecessary files from the hard disk.
- Empty the Recycle Bin.
- Delete the Internet Explorer Setup folder. (Important: Note the warnings and information about removing the Setup folder, above.)

After you free some hard disk space, try to save the attachment again.

## Internet Mail and News Files Renamed by Outlook Express

When you install Internet Explorer 4, the Windows® Address Book files used by Internet Mail and News 1 for Windows® 95 and Windows NT® 4.0 are renamed. This is because Outlook Express is installed as an upgrade to Internet Mail and News.

The following files in the Windows\System or Winnt\System32 folder are renamed:

<b>File Name</b>	<b>Renamed To</b>
<b>Wab32.dll</b>	Wab32.ie3
<b>Wabfind.dll</b>	Wabfind.ie3
<b>Wabimp.dll</b>	Wabimp.ie3

The following files in the Windows folder are renamed:

<b>File name</b>	<b>Renamed to</b>
<b>Wab.exe</b>	Wab.ie3
<b>Wabmig.exe</b>	Wabmig.ie3
<b>Username.wab</b>	<i>path</i> \Username.wab.ie3

where *path* is one of the following paths:

- Windows\Profiles\Username\Application Data\Microsoft\Address Book
- Program Files\Internet Explorer\Outlook Express\Username\Address Book
- Program Files\Common Files\Microsoft Shared\Address Book

When the *Username.wab* file is moved and renamed, a new copy of the *Username.wab* file is used by Outlook Express. The Windows Address Book files are restored, however, if you uninstall Internet Explorer 4.

## APPENDIX G

# Troubleshooting HTML Authoring

This appendix reviews some of the issues related to Microsoft® Internet Explorer 4 HTML authoring that may require troubleshooting and explains procedures for resolving these authoring problems. Topics include:

- Text doesn't wrap in text boxes
- Background images are not displayed
- Internet Explorer browser is not automatically redirected
- Frames not displayed in web pages
- Permission denied when scripting across frames

For more information about HTML authoring for Internet Explorer 4, see Part 6.

## Text Doesn't Wrap in Text Boxes

When you enter text in a text box created using the <TEXTAREA> tag on a Hypertext Markup Language (HTML) page, the text may not wrap correctly. In this case, the text continues to flow to the right side of the text box without breaking or wrapping. This is because the HTML page does not contain the parameters that activate text wrapping in a text box.

- ▶ **To wrap text in a text box, use one of the following methods:**
  - Use the WRAP attribute of the <TEXTAREA> tag with either the Physical or Virtual value to enable word wrapping.

The non-wrapping <TEXTAREA> tag might look like:

```
<TEXTAREA NAME="Name" ROW99S=6 COL99S=40>  
</TEXTAREA>
```

- To enable wrapping, insert WRAP=Physical, as in the following example:

```
<TEXTAREA NAME="Name" ROW99S=6 COL99S=40 WRAP=Physical>  
</TEXTAREA>
```

When you are typing in the text box, manually insert line breaks by pressing ENTER to wrap the text.

## Background Images Are Not Displayed

Pages created with the Data Form Wizard by Visual InterDev™ may not display background images in Internet Explorer 4. If this occurs, it is likely due to the fact that Internet Explorer 4 adheres more closely to the HTML 3.2 specification than does Internet Explorer 3. In the Cascading Style Sheet (CSS) spec, CSS tags take precedence over HTML tags. Pages created using the Data Form Wizard reference a CSS; the CSS has a tag for the background image of Transparent, thus overriding any value in the body tag of the ASP file.

► **To display background images**

- Delete the “background: transparent” line from the BODY property of the CSS.

## Internet Explorer Browser Is Not Automatically Redirected

When you load a Web page that contains the <meta http-equiv=“refresh”...> HTML tag, the browser may not be automatically redirected to another Web page. This may occur for one of the following reasons:

- The author of the page did not place the <meta http-equiv=“refresh”...> tag in the <HEAD> section of the HTML source code.
- The syntax of the <meta http-equiv=“refresh”...> HTML tag is incorrect.

To resolve this issue, update the Web page using the appropriate method:

- If the <META> tag is not located in the <HEAD> section  
Modify the HTML source code to place the <META> tag in the <HEAD> section of the Web page. This may require adding the <HEAD> and </HEAD> tags to the Web page.
- If the syntax of the <META> tag is incorrect  
Modify the HTML source code to correct the syntax of the <META> tag. For example, a <META> tag might look like this:

```
<meta http-equiv="refresh" content="n;url=http://www.domain.com/  
pagename.htm">
```

where *n* is the number of seconds the browser program pauses before loading the new Web page.

For information about the HTML 3.2 Specification Reference, see <http://www.w3.org/TR/REC-html32.html>.

## Frames Not Displayed in Web Pages

When you're using Internet Explorer 4 to view a Web page, a blank page may display instead of a defined set of frames. If you right-click an empty area of the Web page and then click **View Source**, or right-click an empty area of the Web page, click **Properties**, and then click **Analyze**, the following message may display:

**This document might not display properly because there is a <FRAMESET> within the <BODY> of the document.**

This behavior is by design and occurs when the Web author puts the <FRAMESET> tag after the <BODY> tag in the main or "framing" HTML document. All <FRAMESET> tags and underlying instructions should precede any <BODY> tags.

► **To resolve this problem**

1. Remove the <BODY> tag.
2. Remove any additional HTML code between the <HEAD> of the document and the <FRAMESET>.

The framing HTML document defines the frame regions that display in the browser and the documents or objects that initially appear in the frames.

For information about the HTML syntax for frames, see

<http://www.w3.org/pub/WWW/TR/WD-frames-970331.html>.

## Permission Denied When Scripting Across Frames

Script code that attempts to access a script or an object in a different frame may result in the following script error message:

**Permission denied: 'Parent.RemoteFrame.RemoteObject'**

Internet Explorer 4 implements cross-frame security. A script or an object in one frame is not allowed to access scripts or objects in another frame when the documents referenced by the frames' SRC attribute specify Web servers in different second-level domains. This corresponds to the *domain-name.xxx* portion of the full server-name syntax *server.domain-name.xxx*.

The Internet Explorer Dynamic HTML object model allows a certain subset of safe actions to be scripted. For example, the *window.location* property of a remote server's frame can be set to allow navigation, but it cannot be read to prevent one frame from snooping on the contents of another frame.

For example, it is valid for a document retrieved from <http://test.microsoft.com/> to manipulate another document retrieved from <http://test.microsoft.com/>. It is not valid for a document retrieved from <http://server1.some-domain-name.org/> to manipulate a document retrieved from <http://server2/> or <http://server3.microsoft.com/>.

The intention of cross-frame security is to prevent a Web-page author from misusing or snooping on the trusted objects authored by another Web page author. Only pages hosted in the same domain can be trusted to safely script the contents of a particular page. Cross-frame security should also prevent unwanted communication between documents on opposite sides of a corporate firewall. Please refer to the *Microsoft Internet Client Software Development Kit (SDK)* for more information.

To allow two documents hosted on the same second-level domain to interact, both documents must set the *document.domain* property to their shared second-level domain. For example, one document on <http://example.microsoft.com/> could script and access another document on <http://test.microsoft.com/> if both documents used the following line of script code:

```
<SCRIPT LANGUAGE="VBScript">
document.domain = "microsoft.com"
</SCRIPT>
```

Given the following FRAMESET:

```
<FRAMESET COLS="50%, *" FRAMEBORDER=1>
<FRAME SRC="http://server1/server1.html" ID="Server1Frame">
<FRAME SRC="http://server2/server2.html" ID="Server2Frame">
</FRAMESET>
```

Script in the "Server1Frame" frame is not permitted to access script or objects in the "Server2Frame" frame, and vice versa.

The following example script code in server1.html causes the "Permission Denied" error, given that **RemoteTextBox** is an object created on the server2.html document:

```
<!-- From server1.html -->
<SCRIPT LANGUAGE="VBScript">
Sub CommandButtonLocal_Click()
Parent.Server2Frame.RemoteTextBox.Text = "Changed Text"
'Server2Frame has SRC on different server
end sub
</SCRIPT>
```

## A P P E N D I X H

## Frequently Asked Questions About Cabinet Files in Java

This appendix covers some of the Frequently Asked Questions (FAQs) about cabinet (.cab) files. For other Java-related FAQs visit:  
<http://www.microsoft.com/support/java/content/faq/default.htm>.

### Where do I get the Code Sign Kit?

You can find the Code Sign Kit on the Visual J++™ CD-ROM, *Microsoft® ActiveX® Software Development Kit (SDK)*, or “Java Signing Tools” in the *Microsoft SDK for Java 2.0 Beta 2* or newer. The *Microsoft ActiveX SDK* is available at <http://www.microsoft.com/Intdev/sdk/>. The *Microsoft SDK for Java 2.0 Beta 2* is available at <http://www.microsoft.com/java/sdk/>.

### Where can I get the *CAB Developers Kit* or the *CAB Resource Kit*, and what are they used for?

The *CAB Developers Kit* has been incorporated into the *Microsoft SDK for Java*, which is available at <http://www.microsoft.com/java/sdk/>. It's also available stand-alone at <http://www.microsoft.com/workshop/prog/cab/default.htm>. It will give you all of the tools you need to build cabinet files. The latest version includes cabarc.exe, a new tool that makes it easier to create cabinet files directly from the command line.

The *CAB Resource Kit* provides the information necessary to help the tool development community understand and work with cabinet files. It includes the compression and decompression application programming interfaces (APIs), documentation on their interfaces, and sample applications using these APIs. Soon, there will be more information on the cabinet file format. The updates provided on January 13, 1997, featured multithread and multicontext support and allow use in MFC-based applications.

**When programmatically creating a .cab file from a Java application, can I reserve space in the .cab for signing?**

The Java CAB API currently does not support the creation of reserved areas. The command-line tools, Cabarc.exe and Diamond.exe, support this functionality. The latest version of the Signcode.exe utility that is available in the *Microsoft SDK for Java 2.0 Beta 2* and newer does not require space to be reserved in the .cab file for a digital signature. It will automatically create space in the .cab when it is signed.

**Can I sign a Java class file for use with Internet Explorer?**

Although it is possible to digitally sign a Java class file and verify the signature using the trust check utility, Internet Explorer does not recognize the class as signed and does not present a certificate to the user at runtime. Furthermore, the class is not considered trusted by the Microsoft VM for Java. Presently, you need to place the classes within a .cab file, which can then be signed.

**Will the Microsoft Virtual Machine for Java support the .jar file format?**

Jar support is the same as .zip. .jar = .zip + manifest. So Microsoft will support uncompressed and compressed .jar files, but not signed .jar files. If you need Java security (beyond sandbox) in Internet Explorer 4, you need to use a signed .cab file. This applies to all fine-grained Java security (including running in a sandbox on the local machine using the Package Manager).

**Can my applet that is inside a .cab file use class files from outside the .cab that are not installed in the local machine's CLASSPATH?**

Class files from a Web server cannot be used by classes in a .cab file with the Microsoft VM for Java, build 1517 and earlier. With build 2057 of the VM, from the *Microsoft SDK for Java 2.0 Preview*, you can use classes from outside of the .cab file.

**When I run signcode.exe on my .cab file, I get the following error:**

**Unable to sign the program <.cab file>. (80004005)**

You did not reserve space in your .cab file. Recreate the .cab file using the -s 6144 option to Cabarc.exe. This space must be reserved in the .cab file to allow room for the digital signature. Note: it is not necessary to use the -s switch with the signing tools included with the *Microsoft SDK for Java 2.0 Beta 2* or newer. The Signcode.exe utility will now create the necessary space for the certificate at the time the .cab file is signed.

**Unable to sign the program <.cab file>. (80030070)**

You did not reserve enough space in your .cab file. Recreate the .cab file using the **-s 6144** option to Cabarc.exe. Note: it is not necessary to use the **-s** switch with the signing tools included with the *Microsoft SDK for Java 2.0 Beta 2* or newer. The Signcode.exe utility will now create the necessary space for the certificate at the time the .cab file is signed.

**Unable to sign the program <.cab file>. (80070005)**

Your .cab file is marked read-only.

**Unable to sign the program <.cab file>. (80070057)**

Your .cab file is corrupt.

**When do I use the -s option for Cabarc.exe?**

The **-s 6144** option reserves unnecessary space in most situations. With the 'test' certificate, you can typically get by with 1K of reserved space in the .cab. A good estimate of the space required is slightly larger than the size of the .spc file with which you are signing. Also note, it is possible that the certificate will require more than 6144 bytes. Note: it is not necessary to use the **-s** switch with the signing tools included with the *Microsoft SDK for Java 2.0 Beta 2* or newer. The Signcode.exe utility will now create the necessary space for the certificate at the time the .cab file is signed.

**When do I use the -i option for Cabarc.exe?**

The **-i** switch is used to insert a version number, SET ID, into a .cab file. The version number will be displayed when viewing a .cab file with the following command-line statement: **cabarc L <.cab file>**. Diamond.exe uses the ID number when spanning multiple .cab files.

**How do I install a Java package on the user's machine?**

You can use a setup information (.inf) file in a .cab to install Java libraries and packages on the local machine. The .inf file defines which files to extract from the .cab and where to place them on the user's system. There is an example .inf file called Master.inf included in the *Microsoft SDK for Java*. Place all the Java libraries and packages in a .cab file. In a second signed .cab file, place the unsigned .cab file and the .inf file. Reference the signed .cab file with an **<OBJECT>** tag in your HTML page.

### **For distributing trusted applets on my intranet, is there a more elegant solution than using a test certificate?**

Currently, the only solution is to relax the security in Internet Explorer by placing the classes on the user's machine in the CLASSPATH or distributing the files in a signed .cab file. You can obtain a certificate for use within the company or use the test certificate and have the users run the Wvtston.reg file to enable test certificates on their machines.

### **Can I include .gif, .jpg, or .au files used by my applet in a .cab file?**

Yes, the .cab file serves as a single, compressed repository for all .class, audio, and image files required by the applet. When creating the .cab file, be sure to use the **-r** and **-p** options to Cabarc.exe to recurse and preserve directory structure if any of the files in the .cab are in subdirectories. The **cabarc.exe -l** command can be used to confirm the directory structure was preserved.

Image and audio clips stored in the .cab can be retrieved by the applet code via the java.lang.applet.getImage and java.lang.applet.getAudioClip methods. Note that in order for Internet Explorer to find an image file or audio clip from within the .cab file, the URLs passed to these methods must be based upon the applet's codebase. For example, if the following code is found within an applet loaded from a .cab file, the image file picture1.gif and the audio clip sound1.au will be loaded from the .cab file (assuming that they are in the .cab). If an image or audio clip file is not within the .cab file, Internet Explorer will look for them on the server.

```
Image img = getImage(getCodeBase(),"picture1.gif");  
AudioClip clip = getAudioClip(getCodeBase(),"sound1.au");
```

### **Why doesn't Internet Explorer display the certificate from a signed .cab file on some machines?**

The two most common reasons for this behavior are the following:

If the .cab file was signed using a test certificate, you must enable test certificates for the local machine. Otherwise, the signature is not considered valid. You can do this by running the Wvtston.reg file included with the code signing kit.

You have accepted a software publisher as Always Trusted. To verify this, in Internet Explorer, on the **View** menu, click **Internet Options**. Click the **Content** tab, then click the **Publishers** button to ensure the publisher does not appear in the list box. If so, you can use this dialog box to remove it.

## A P P E N D I X I

# Internet Client SDK FAQs

This appendix covers some of the most Frequently Asked Questions (FAQs) about developing with the *Microsoft Internet Client Software Development Kit (SDK)* for Microsoft® Internet Explorer 4. These FAQs are also available on the Microsoft Web site at <http://www.microsoft.com/support/inetsdk/content/faq/>.

## Setup

### What are the system requirements for installing the SDK?

To download and use the *Microsoft Internet Client SDK*, you need the following:

- Internet Explorer 4.
- Windows NT® 4 or Windows® 95.

## Active Channels

For more information about Active Channels™ and CDF files, see Part 4, “Information Delivery: Webcasting.”

### What MIME type do I specify in my dynamically generated CDF file?

A CDF file that is dynamically generated through Active Server Pages (ASP) should insert the following line at the top of the file (before any CDF lines):

```
<% Response.ContentType = "application/x-cdf" %>
```

This ensures that servers return the correct MIME (Multipurpose Internet Mail Extensions) /content type “application/x-cdf.”

Problems with CDF files being displayed as HTML text inside the Internet Explorer browser, instead of invoking the Subscription Wizard, may be caused by the server returning the incorrect MIME type of “text/html” instead of the desired “application/x-cdf.”

**When dynamically generating a CDF file from an Active Server Pages (ASP) page, is the ASP file the one to which the user needs to subscribe?**

Yes. Assuming that the correct CDF MIME type is specified in the ASP page, as illustrated in the FAQ above, double-clicking on a link to the ASP file should bring up the CDF Subscription Wizard appropriately.

**I cannot use the ampersand character in my CDF file title. Do I have to specially treat certain characters when working with CDF files?**

CDF supports encoding of ASCII characters with the format `&#nnn`. The ampersand character, therefore, could be encoded with its ASCII decimal value of 38 by using the string `&#038`.

To specify "Peaches & Cream," for example, your `<TITLE>` tag would look like this:

```
<TITLE>Peaches&#038;Cream</TITLE>
```

**Is it necessary to specify the `<!DOCTYPE>` tag in my CDF file?**

No. Internet Explorer 4 does not use the `<!DOCTYPE>` tag.

**Is `http://www.w3c.org/channel.dtd` a valid URL for a `<!DOCTYPE>` tag?**

No. This URL (Uniform Resource Locator) is only an example, does not actually exist, and is best not used in actual CDF files.

**Is there a difference between the subscription cache and the regular cache that Internet Explorer maintains?**

All subscription information goes into the same cache maintained by Internet Explorer. The subscription content in the cache, however, is specially marked so that it does not get deleted when a user clears the cache.

**If the user is browsing a subscribed channel while connected to the Internet, is content pulled from the cache, or does Internet Explorer query the server again?**

Internet Explorer looks at the Expires HTTP header returned by the server when the page was retrieved and checks to see if the cached page is still valid. If it is, content is pulled from the cache; otherwise, Internet Explorer queries the server again for the content. Note that with the latter, when Internet Explorer re-queries the server for content, in most cases, Internet Explorer will issue an HTTP GET request with an If\_Modified\_Since header, which helps reduce the server load.

**Does the actual download of the HTML page occur upon subscription to the site or only during a subscription update?**

Actual download occurs during subscription update. However, users can manually update a subscription any time they want.

**From a CDF file, is there a way to specify items to be cached, without having the items appear in the Channel bar's item list? For example, can I specify a WAV file to be downloaded as part of the subscription update, so that it gets cached and is available when the user browses offline?**

Yes, here's the correct way to do this:

```
<ITEM HREF="http://example.microsoft.com/sound.wav">
<USAGE VALUE="NONE"></USAGE>
</ITEM>
```

Note that in XML, an element that does not have child elements can be represented in a more compact format. For example, the above <USAGE> line could be written more compactly in the manner shown below. (Note the final / at the end of the tag.)

```
<USAGE VALUE="NONE" />
```

Also, when listing multiple items that are to be cached but not viewed in the Channel bar, instead of marking each one with a <USAGE VALUE="NONE" />, it is better to place them all in one subchannel that is marked with a usage tag, as illustrated in the example below:

```
<CHANNEL>
<USAGE VALUE="NONE" />
<ITEM HREF="http://example.microsoft.com/sound1.wav"/>
<ITEM HREF="http://example.microsoft.com/sound2.wav"/>
<ITEM HREF="http://example.microsoft.com/sound3.wav"/>
</CHANNEL>
```

**Is it possible to specify multiple schedules for updates in one CDF file?**

No. Only one schedule can be specified per CDF file in Internet Explorer. Also, a desktop item cannot be bundled with a channel in one CDF file. They have to be two separate CDF files to work correctly.

**Is it possible to specify a global time for the <SCHEDULE> tag, so that my channel updates occur between certain times, regardless of the time zone?**

Currently there is no way to specify local or global time in a CDF file. Information specified in the <EARLIESTTIME> and <LATESTTIME> tags is considered local and ignores any time zone information specified in the <STARTDATE> and <ENDDATE> tags.

**How do I keep Internet Explorer from opening a new window when a user clicks on a link from a desktop item?**

The way to do this is to specify a TARGET="\_top" with the <A HREF> tag.

**I haven't been able to get my desktop item to work unless I put it on a separate CDF file from the rest of my channel. Is this how it's designed to work?**

Yes. Desktop items have to be in a separate CDF file from the rest of the channel.

## HTML

For more information about HTML and Internet Explorer 4, see Part 6, "Authoring for Internet Explorer 4."

**Why are my HTML pages with frames not showing up in Internet Explorer 4? They used to work fine in Internet Explorer 3.**

Unlike Internet Explorer 3, Internet Explorer 4 does not support <FRAMESET> tags embedded within <BODY> tags. This was done in Internet Explorer 4 to ensure compatibility with Netscape Navigator. To work around the problem, move the <FRAMESET> outside the <BODY> tags.

In some cases, a <NOFRAMES> element is specified within the <FRAMESET> tags, as in the example below:

```
<BODY>
<FRAMESET>
<NOFRAMES>Sorry, your browser does not support frames! </NOFRAMES>
</FRAMESET>
</BODY>
```

Although Internet Explorer 4 supports frames, when the above HTML code is displayed in Internet Explorer, the content specified within the <NOFRAMES> tag is displayed. Moving the <FRAMESET> outside the <BODY> tags causes the page to display correctly.

### **Why doesn't Internet Explorer 4 close the <PLAINTEXT> container as Internet Explorer 3 did?**

The <PLAINTEXT> tag is designed to render all of a Web page's subsequent text without parsing any tags, including its own </PLAINTEXT> tag. Internet Explorer 4 supports this tag as it is defined by the HTML DTD. This element is not recommended, as different browsers may not support it consistently. Instead, use the <PRE> tag, and display all reserved characters (such as brackets) with their corresponding HTML character entities.

## **Dynamic HTML**

For more information about Dynamic HTML and Internet Explorer 4, see Part 6, "Authoring for Internet Explorer 4."

### **Is there a way to implement a custom ToolTip over anchors in Internet Explorer 4 (the same way you can use the ALT attribute in an <IMG> tag)?**

By default, Internet Explorer renders the URL of the HREF attribute as a ToolTip, which may not always be the desired behavior. Yes, the way to do this is to specify the ToolTip in the TITLE attribute of the <A> tag, as in this example:

```
<a href="file.htm" TITLE="ToolTip goes here">some text</a>
```

### **How can I change the HTML or text associated with an element? I used to be able to do this using the rangeFromElement method, but now I keep getting the error "Object does not support this property or method." Have things changed?**

Yes, the `rangeFromElement` method has been removed. Use `innerHTML/outerHTML` and `innerText/outerText` to manipulate text or HTML.

### **How do I determine the client width and height?**

There are new properties on the body object, `clientWidth`, and `clientHeight`, which can be used for this purpose.

### **How do I change the current cursor being used as mouse pointer?**

There is a cursor Cascading Style Sheet (CSS) attribute that can be used. Refer to the *Microsoft Internet Client SDK* documentation under the Dynamic HTML\HTML and CSS Reference section for more information.

**Why do I get the error “Wrong number of arguments” in my event handlers?**

Events do not have parameters (arguments). All information can be retrieved using the `window.event` object.

**I'm finding that IFRAMES within a relatively positioned <DIV> tag causes Internet Explorer 4 to crash every time. This makes it difficult to relatively position IFRAMES. Is this a known problem, and is there a workaround?**

Yes, the workaround is to put the positioning on the <IFRAME> directly.

## WebBrowser Control

For more information about the WebBrowser Control, see Part 2, “Configuring the Browser.”

**In the Web browser documentation for developers of Visual Basic, the Navigate and Navigate2 methods look identical. Is there a difference?**

The only difference is that the URL parameter is packaged as a VARIANT in Navigate2 instead of a BSTR. (You could verify this in the Web browser documentation for developers of C and Visual C++®.) Unlike a C++ application, a Visual Basic® application is not able to use the WebBrowser Control to navigate into special folders in the shell namespace like “My Computer.” Currently, the shell does not expose an object that provides a PIDL, which a Visual Basic application can then use in a Navigate2 call.

**I have an application that uses the WebBrowser Control. Is it possible to install just the WebBrowser Control without installing Internet Explorer 4?**

No, there is no way to do this. The minimal installation will install the browser. Also, note that Internet Explorer 3 and 4 cannot coexist on the same machine. More information on redistributing Internet Explorer can be found on the IEAK page at <http://www.microsoft.com/ie/ieak/>.

## Component Packaging

**What version of the MFC .dll files will come with Internet Explorer 4? I'd like to know so I don't have to worry about packaging the MFC .dll files with my ActiveX® control.**

Any component should be careful not to rely on the presence of any MFC .dll files with the currently installed browser, because Internet Explorer 4 and future versions of Internet Explorer may include alternative versions or may not include any MFC .dll files at all. A component that uses the MFC .dll files as dependencies should package the MFC .dll files accordingly.

**I've written an ActiveX control that I've marked as Safe for Scripting, and I'm having trouble getting it to work when running off a page on a local hard disk. What am I doing wrong?**

The problem may be due to any of the following reasons:

- A missing dependent .dll file
- Necessary security level set on the wrong zone
- A control that is not marked as "safe for scripting and initialization" will not be loaded if the page that references the control is being accessed from the local hard drive.

For more information on marking ActiveX controls as "safe for scripting and initialization," please refer to the *Microsoft Internet Client SDK* documents on "Safe Initialization and Scripting for ActiveX Controls" in the Component Development/ActiveX Controls section.

## Control Development

**How can I improve performance in my ActiveX control?**

For better performance, make your control an apartment-model control. Internet Explorer 4 uses multiple threads and may host the control in a secondary thread. If the control is not created as apartment-model aware and marked as such, it is created and executed in the context of the calling application's primary thread, requiring calls on the control's methods to be marshaled between threads. This can cause a performance hit and can be very prominent if there are many non-apartment-model controls in an HTML page. To make a control apartment model, the control needs to be marked as such in the registry and has to be written so that it is apartment-model safe.

## Scripting

### **How do I determine from a script if the Internet Explorer browser is running offline or not?**

Currently, there is no way to determine this from a script. Although the `IWebBrowser2` interface provides a `get/put_Offline` method that indicates whether the WebBrowser is reading from the cache, there is no way to get this information from the WebBrowser object model up to the script level. If desired, you could write an ActiveX control that gets this information from the WebBrowser object model and expose it as a property or method, which can then be accessed from a script.

### **Why do I get a Permission Denied error whenever I try to access a frame's document from a script written in another frame's document? The same code runs fine in Internet Explorer 3.**

This is due to a cross-frame security feature that is implemented in Internet Explorer 4, but not in Internet Explorer 3. A frame running on one server is not able to access another frame's document running on another server. Similarly, with the introduction of security zones in Internet Explorer 4, a script cannot access pages across zones.

### **Why do I get a Permission Denied error whenever I try to access a frame on a different first-tier domain, but on the same second-tier domain?**

This is another side effect of the Internet Explorer 4 cross-frame security feature described above. A frame running on `example1.microsoft.com` cannot access a frame on `example2.microsoft.com`.

The correct way to do this is to set the domain property on both pages to the common substring domain. In this case, set the domain to `microsoft.com`, as illustrated below:

```
<SCRIPT>  
document.domain = "microsoft.com"  
</SCRIPT>
```

### **From a client-side script, how do I check for the browser version so my application can degrade gracefully if the browser does not support the new Internet Explorer 4 features?**

You can use the JScript™ function below, from a client-side script, to determine the version of the browser on which it is running. The function returns the major version number for any Microsoft Internet Explorer browser, and zero (0) for others. Use of this function ensures that the script is compatible with future versions of Internet Explorer.

```
// This function returns Internet Explorer's major version number,
// or 0 for others. It works by finding the "MSIE " string and
// extracting the version number following the space, up to the
// decimal point, ignoring the minor version number.
<SCRIPT LANGUAGE="JavaScript">
function msieversion()
{
var ua = window.navigator.userAgent
var msie = ua.indexOf ( "MSIE " )

if ( msie > 0 ) // If IE, return version number
return parseInt (ua:substring (msie+5, ua:indexOf (".", msie )))
else // If another browser, return 0
return 0
}
</SCRIPT>
```

### **Is there a way to detect the browser's support for the new Internet Explorer 4 features from a server-side script?**

The Browser Capability component that comes with ASP provides your scripts with a description of the capabilities of the client's Web browser by comparing the User-Agent HTTP Header with the entries in the Browscap.ini file. In order for an ASP application to detect the browser's support for the new Internet Explorer features, copy the latest Browscap.ini from <http://www.microsoft.com/iis/usingiis/developing/updates.htm> to your \\Windows\System32\Inetsrv\Asp\Cmpnts directory and execute a server-side script similar to the example described in article Q167820 in the Microsoft Knowledge Base.

## Miscellaneous

### **Is it possible to have Internet Explorer 3 and Internet Explorer 4 coexist on the same machine?**

No. There are no plans to support the coexistence of these two Internet Explorer versions at this time. Internet Explorer 3 and Internet Explorer 4 share system components that cannot exist in multiple copies on the same machine.

### **What is the difference between ADO and ADOR, and which should I be using on my Web pages?**

The Active Data Object (ADO) components ship in two forms—one for a Web server and another for the client. The ADO component installed with Internet Explorer 4 is the ADO Recordset (ADOR). ADOR provides an object model for script access to data supplied by a data source object (DSO) embedded in a Web page. It does not, however, provide ADO Connection or Command objects. These are provided only as part of the server installation.

Included with the *Microsoft Internet Client SDK*, in self-extracting archives, is the full set of ADO components. When building applications using ADO for Internet Explorer, your client-side scripts should depend only on the availability of the **Recordset** object. The full ADO interfaces are intended for use with ASPs and custom business objects that run on a Web server. Refer to *Mdac.txt* in the *Inetsdk\Bin* folder for more details.

## APPENDIX J

# Custom-Build Checklist

The following tables are designed to help administrators prepare for the Microsoft® Internet Explorer Administration Kit (IEAK) Configuration Wizard. The information below outlines all the configuration options that will be presented in the IEAK. By preparing this information in advance, you can speed up your custom package generation. It is also recommended that you run through the IEAK Configuration Wizard yourself, in order to get acquainted with its features.

<b>Stage 1—Gathering Information</b>	
<b>Enter Company Name and Customization Keycode</b>	
Company Name	
IEAK Keycode	
Automatic Version Synchronization Support	Yes No
<b>Select a Language</b>	
Target Language	
<b>Select Media to Distribute Your Browser</b>	
Path of Destination Folder	
Select Media	
CD-ROM	Yes No
Multiple Floppy Disks	Yes No

<b>Stage 2—Specifying Active Setup Parameters</b>	
<b>Select a Microsoft Download Site</b>	
Download Site	
<b>Automatic Version Synchronization (AVS)</b>	
Microsoft Internet Explorer 4 Web Browser	
Microsoft Internet Explorer Core Fonts	
Microsoft NetMeeting™	
Microsoft Outlook™ Express	
Microsoft Chat 2.0	
Microsoft NetShow™	
Intel® Indeo™5	
VDOLive Player	
Microsoft Interactive Music Control	
Microsoft Internet Explorer Sound Pack	
Macromedia Shockwave Director	
Macromedia Shockwave Flash	
RealPlayer by Progressive Networks	
Microsoft FrontPage® Express	
Microsoft Web Publishing Wizard	
Microsoft Visual Basic® Run Time	
Microsoft Wallet	
Task Scheduler	
Microsoft Internet Explorer Supplemental Fonts	
<b>Specify Custom Active Setup Components (up to 10)</b>	
Components	
Locations	
Commands	
Global Universal Identifiers (GUIDs)	
Parameters	
Versions	
Sizes	
Uninstall Keys	
<b>Specify Trusted Publishers</b>	
Specify Trusted Publishers	

<b>Stage 3—Customizing Active Setup</b>	
<b>Customize the Autorun Screen for CD-ROM Installations</b>	
Title Bar Text	
Custom Background Bitmap Location	
Text Colors	
Button Styles	Standard 3-D Custom
<b>Customize the Active Setup Wizard</b>	
Active Setup Wizard Title Bar Text	
Active Setup Wizard Bitmap Path	
<b>Custom Components Install Section</b>	
Custom Components Installation Title	
<b>Select Silent Install</b>	Yes No
<b>Select Installation Options (up to 10)</b>	
Option Names	Minimal Standard Full Custom
Option Descriptions	
Component Combinations	
<b>Specify Download URLs</b>	
Site Names	
Site URLs	
Site Regions	
<b>Select Version Number</b>	
Version Number	
Configuration Identifier	
Product Update URL	
<b>Specify Where You Want to Install the Browser</b>	Windows Program Files Custom
<b>Integrating the Web Desktop Update</b>	Yes No User Choice

<b>Stage 4—Customizing the Browser</b>	
<b>Customize the Window Title and Toolbar Background</b>	
Title Bar Text	
Toolbar Background Bitmap Path	
<b>Customize the Start and Search Pages</b>	
Start Page URL	
Search Page URL	
<b>Specify an Online Support Page for Your Browser</b>	
Online Support Page URL	
<b>Favorites Folder and Links Customization</b>	
Add URLs	
Test URLs	
Import URLs	
<b>Customize the Welcome Message and Desktop Wallpaper</b>	
Display Welcome Page	Default Page No Page Custom Page
Disable Internet Explorer 4 Welcome Window	Yes No
Path of Custom Desktop Wallpaper File	
<b>Customize the Active Channel Bar</b>	
Delete Channels	
Add Channels	
Import Channels	
Do Not Customize Channels	
Import Current Channel Configuration	
Delete Existing Internet Explorer 4 Channels	Yes No
Show Channel Bar by default (Windows NT® only)	Yes No

<b>Stage 4—Customizing the Browser (continued)</b>	
<b>Customize Software Update Channels</b>	
Do Not Customize Software Distribution Channels	
Import the Current Software Distribution Channel Configuration	
Schedule	None Auto Daily Weekly Monthly
<b>Specify Active Desktop Components</b>	
Do Not Customize the Active Desktop™	
Import the Current Active Desktop Components	
Background HTML Settings	
Web (Desktop Item Settings)	
<b>Customize Desktop Toolbars</b>	
Don't Customize	
Import the Current Desktop Toolbar Settings	
<b>My Computer and Control Panel Web View Customization</b>	
Path of My Computer (Mycomp.htm)	
Path of Control Panel (Controlp.htm)	
<b>User Agent String Customization</b>	
Custom String to Be Appended to User Agent	
<b>Automatic Browser Configuration</b>	
Enable automatic browser configuration	Yes No
Auto-configure URL (.ins file)	
Auto-proxy URL (.js or .pac file)	
Auto-configure Every <i>n</i> Minutes	

**Stage 4—Customizing the Browser** *(continued)***Specify Proxy Settings**

Enable Proxy Settings	Yes No
HTTP	
Secure	
FTP	
Gopher	
Socks	
Use Same Proxy for All Addresses?	Yes No
Exceptions to Proxy Server	
Do Not Use Proxy Server for Local (intranet) Addresses	Yes No

**Site Certificate and Authenticode Settings**

Import Certificate Authorities	
Import Authenticode™ Security	
Add New Root Certificate	

**Security Zones and Content Ratings Customization**

Security Zone Modifications	
Zones	
Local Intranet Zone Setting	High Medium Low Custom
Trusted Sites Zone Setting	High Medium Low Custom Add Sites
Internet Zone Setting	High Medium Low Custom

**Stage 4—Customizing the Browser** *(continued)*

Restricted Sites Zone Setting	High Medium Low Custom Add Sites
Settings	
High	
Medium	
Low	
Custom Security	
ActiveX® Controls and Plug-ins	
Java	
Scripting	
Downloads	
User Authentication	
Miscellaneous	
PICS Content Advisor	
Ratings	
Language	0 (none) to 4 (explicit)
Nudity	0 (none) to 4 (explicit)
Sex	0 (none) to 4 (explicit)
Violence	0 (none) to 4 (explicit)
General	
User Options	
Users Can See Sites That Have No Rating	Yes No
Supervisor Can Type a Password to Allow Users to View Restricted Content	Yes No
Supervisor Password	
Advanced	
Rating Systems	
Ratings Bureau	

<b>Stage 5—Component Customization</b>	
<b>Specify Internet Mail Servers, Domain, and News Server</b>	
Incoming (POP3 or IMAP) Server	
Outgoing Mail (SMTP) Server	
Internet News Server	
Make Outlook Express the Default Mail Client	Yes No
Make Outlook Express the Default News Client	Yes No
Use Secure Password Authentication	Yes No
<b>Specify LDAP Server Settings</b>	
Friendly Name	
Directory Service	
Home Page	
Search Base	
Service Bitmap	
Check Names Against This Server When Sending Mail	Yes No
Authentication Type	Anonymous Secure Password Password
<b>Outlook Express Customizations</b>	
Customize InfoPane	
URL	
Local File Path	
Custom Welcome Message	
HTML Path	
Sender	
Reply-to	
<b>Include a Signature</b>	
Append to Mail Messages	Yes No
Append to News Postings	Yes No

## Stage 6—System Policies and Restrictions

### Microsoft NetMeeting Settings

Restrict the Use of File Transfer	
Prevent the User from Sending Files	Yes No
Prevent the User from Receiving Files	Yes No
Restrict the Use of Application Sharing	
Disable All Application Sharing Features	Yes No
Prevent the User from Sharing the Clipboard	Yes No
Prevent the User from Sharing MS-DOS® windows	Yes No
Prevent the User from Sharing Explorer windows	Yes No
Prevent the User from Collaborating	Yes No
Restrict the Use of the Options Dialog	
Disable the General Options Page	Yes No
Disable the My Information Options Page	Yes No
Disable the Calling Options Page	Yes No
Disable the Audio Options Page	Yes No
Disable the Video Options Page	Yes No
Disable the Protocols Options Page	Yes No
Prevent the User from Answering Calls	Yes No
Prevent the User from Using Audio Features	Yes No

<b>Stage 6—System Policies and Restrictions</b> <i>(continued)</i>	
<b>Restrict the Use of Video</b>	
Prevent the User from Sending Video	Yes No
Prevent the User from Receiving Video	Yes No
Prevent the User from Using Directory Services	Yes No
Set the Default Directory Server	
Set Exchange Server Property for NetMeeting Address	
Preset User Information Category	
<b>Microsoft NetMeeting Protocols</b>	
Disable TCP/IP	Yes No
Disable null modem	Yes No
<b>Web Desktop Settings</b>	
<b>Desktop</b>	
Disable Active Desktop	Yes No
Do not allow changes to Active Desktop	Yes No
Hide Internet Explorer icon	Yes No
Hide Network Neighborhood icon	Yes No
Hide all items on Active Desktop	Yes No
<b>Active Desktop Items</b>	
Disable All Desktop Items	Yes No
Disable Adding Any Desktop Items	Yes No
Disable Deleting Any Desktop Items	Yes No
Disable Editing Any Desktop Items	Yes No
Disable Closing Any Desktop Items	Yes No

<b>Stage 6—System Policies and Restrictions (continued)</b>	
<b>Desktop Wallpaper</b>	
No HTML Wallpaper	Yes No
Disable Changing Wallpaper	Yes No
<b>Desktop Toolbars Settings</b>	
Disable Dragging, Dropping and Closing All Toolbars	Yes No
Disable Resizing All Toolbars	Yes No
<b>Start Menu</b>	
Remove Favorites from Start Menu	Yes No
Remove Find from Start Menu	Yes No
Remove Run from Start Menu	Yes No
Remove Documents from Start Menu	Yes No
Do Not Keep History of Recently Opened Documents	Yes No
Clear History of Recently Opened Documents	Yes No
Disable Logoff	Yes No
Disable Shut Down	Yes No
Disable Changes to Printers and Control Panel Settings	Yes No
Disable Changes to Taskbar and Start Menu Settings	Yes No
Disable Context Menu (right-click) for Taskbar	Yes No
Hide Custom Programs Folders	Yes No
Hide Common Program Groups in Start Menu (Windows NT only)	Yes No

<b>Stage 6—System Policies and Restrictions</b> <i>(continued)</i>	
<b>Shell Settings</b>	
Enable Classic Shell	Yes No
Disable File Menu in Shell Folders	Yes No
Do Not Allow Customization of Folders in Web View	Yes No
Disable Context Menu in Shell Folders	Yes No
Only Allow Approved Shell Extensions	Yes No
Do Not Track Shell Shortcuts During Roaming	Yes No
Hide Floppy Drives in My Computer	Yes No
Disable Net Connections/Disconnections	Yes No
<b>Printer Settings</b>	
Hide General and Details Tabs in Printer Properties	Yes No
Disable Deletion of Printers	Yes No
Disable Addition of Printers	Yes No
<b>System</b>	
Run only specified Windows applications	
Do not allow computer to restart in MS-DOS mode	Yes No
<b>Internet Settings</b>	
<b>Colors</b>	
<b>General Colors</b>	
Background Color (0,0,0 through 255,255,255)	
Text Color (0,0,0 through 255,255,255)	
Use Windows Colors	Yes No

**Stage 6—System Policies and Restrictions** *(continued)*

Link Colors	
Link Color (0,0,0 through 255,255,255)	
Visited Link Color (0,0,0 through 255,255,255)	
Use Hover Color	Yes No
Hover Color (0,0,0 through 255,255,255)	
Fonts	
Font Size (0 smallest – 4 largest)	
Languages	
Choose the Default Language Preferences	
Modem Settings	
Dial-up Networking Connection	
Enable Autodialing	Yes No
Number of Times to Attempt Connection	
Number of Seconds to Wait Between Attempts	
Connect Without User Intervention	Yes No
Disconnect If Idle After Specified Number of Minutes	Yes No
Minutes to Wait Before Disconnecting	
Perform System Security Check Before Dialing	Yes No
Programs	
Program to use for Calendar	
Program to use for Contacts	
Program to use for Internet Call	
Browsing	
Disable Script Debugger	Yes No
Launch Channels in Full Screen Mode	Yes No
Launch Browser in Full Screen Mode	Yes No

<b>Stage 6—System Policies and Restrictions (continued)</b>	
Use Autocomplete	Yes No
Show Friendly URLs in Status Bar	Yes No
Enable Smooth Scrolling	Yes No
Enable Page Transitions	Yes No
Browse in a New Process	Yes No
Enable Page Hit Counting	Yes No
Enable Scheduled Subscription Updates	Yes No
Underline Links	Always Never Hover
<b>Multimedia</b>	
Show Pictures	Yes No
Play Animations	Yes No
Play Videos	Yes No
Play Sounds	Yes No
Smart Image Dithering	Yes No
<b>Security</b>	
Enable Profile Assistant	Yes No
Delete Saved Pages When Browser Is Closed	Yes No
Do Not Save Encrypted Pages to Disk	Yes No
Warn If Forms Submit is being Redirected	Yes No

<b>Stage 6—System Policies and Restrictions</b> <i>(continued)</i>	
Warn If Changing Between Secure and Insecure Mode	Yes No
Cookies	Always accept Prompt Disable
<b>Java VM</b>	
JIT Compiler Enabled	Yes No
Java Logging Enabled	Yes No
<b>Printing</b>	
Print Background Colors and Images	Yes No
<b>Searching</b>	
Autoscan Common Root Domains	Yes No
Search When URL Fails	Always Search Always Ask Never Search
<b>Toolbars</b>	
Show Font Button	Yes No
Small Icons	Yes No
<b>HTTP 1.1 Settings</b>	
Use HTTP 1.1	Yes No
Use HTTP 1.1 Through Proxy Connections	Yes No
<b>Outlook Express Settings</b>	
<b>General Settings</b>	
<b>Mail and News Security Zones</b>	
Put Mail and News in the Restricted Sites Zone (instead of the Internet Zone)	Yes No

<b>Stage 6—System Policies and Restrictions</b> <i>(continued)</i>	
<b>HTML Mail and News Composition Settings</b>	
Mail: Make Plain Text Message Composition the Default for Mail Messages (instead of HTML mail)	Yes No
News: Make HTML Message Composition the Default for News Posts (instead of plain text)	Yes No
<b>View Customization</b>	
<b>Folder and Message Navigational Elements</b>	
Turn On Outlook Bar	Yes No
Turn Off Folder List (tree view of folders)	Yes No
Turn On Folder Bar (horizontal line displaying folder names)	Yes No
Turn Off the Tip of the Day	Yes No
<b>Channels and Subscriptions Settings</b>	
Maximum KB of Site Subscriptions (zero disables restriction)	
Maximum KB of Channel Subscriptions (zero disables restriction)	
Maximum Number of Site Subscriptions That Can Be Installed (zero disables restriction)	
Minimum Number of Minutes Between Scheduled Subscription Updates (zero disables restriction)	
Beginning of Range in Which to Exclude Scheduled Subscription Updates. Minutes from Midnight (zero disables restriction)	
End of Range in Which to Exclude Scheduled Subscription Updates. Minutes from Midnight (zero disables restriction)	
Maximum Site Subscription Crawl Depth	
<b>Internet Explorer Properties</b>	
<b>General Tab Settings</b>	
Disable Changing Home Page Settings	Yes No
Disable Changing Cache Settings	Yes No
Disable Changing History Settings	Yes No

**Stage 6—System Policies and Restrictions** *(continued)*

Disable Changing Color Settings	Yes No
Disable Changing Link Color Settings	Yes No
Disable Changing Font Settings	Yes No
Disable Changing Language Settings	Yes No
Disable Changing Accessibility Settings	Yes No
<b>Security Tab Settings</b>	
Use Only Machine Settings for Security Zones	Yes No
Do Not Allow Users to Change Policies for Any Security Zone	Yes No
Do Not Allow Users to Add/Delete Sites from a Security Zone	Yes No
<b>Content Tab Settings</b>	
Disable Changing Ratings Settings	Yes No
Disable Changing Certificate Settings	Yes No
Disable Changing Profile Assistant Settings	Yes No
Disable Changing Microsoft Wallet Settings	Yes No
<b>Connection Tab Settings</b>	
Disable Calling Connection Wizard	Yes No
Disable Changing Connection Settings	Yes No
Disable Changing Proxy Settings	Yes No
Disable Changing Automatic Configuration Settings	Yes No

**Stage 6—System Policies and Restrictions** *(continued)*

<b>Programs Tab Settings</b>	
Disable Changing Messaging Settings	Yes No
Disable Changing Calendar and Contact Settings	Yes No
Disable Changing Internet Explorer Default Browser Settings	Yes No
<b>Advanced Tab Settings</b>	
Disable Changing Settings on Advanced Tab	Yes No
<b>Code Download</b>	
Internet Search Path*	

\* This is the CodeBaseSearchPath. The default is CODEBASE; <http://activex.microsoft.com/objects/ocget.dll>

When Internet Component Download is called to download code, it traverses the Internet Search Path to look for the desired component. This is a list of Object Store servers that will be queried every time components are downloaded using GoGetClassObjectFromURL. This way, even if an <OBJECT> tag in an HTML document does not specify a CODEBASE location to download code for an embedded OLE control, the Internet Component Download will still use the Internet Search Path to find the necessary code.

**Stage 6—System Policies and Restrictions** *(continued)*

<b>Channels Settings</b>	
Disable Channel User Interface	Yes No
Disable Adding and Subscribing to Channels	Yes No
Disable Editing Channel Properties and Channel Subscriptions	Yes No
Disable Removing Channels and Subscriptions to Channels	Yes No
Disable Adding Site Subscriptions	Yes No
Disable Editing Site Subscriptions	Yes No
Disable Removing Site Subscriptions	Yes No

<b>Stage 6—System Policies and Restrictions</b> <i>(continued)</i>	
Disable Channel Logging	Yes No
Disable Update Now and Update All for Channels and Subscriptions	Yes No
Disable All Scheduled Channel and Site Subscriptions	Yes No
Disable Unattended Dialing by Subscriptions	Yes No
Disable password caching for all channel or site subscriptions	Yes No
Disable Downloading of Channel Subscription Content (change notification will still function)	Yes No
Disable Downloading of Site Subscription Content (change notification will still function)	Yes No
Disable Editing and Creating of Schedule Groups	Yes No
<b>Microsoft Chat Settings</b>	
Chat Server List (separated by semicolons)	
Default Chat Server	
Default Chat Room	
Default Character	
Default Backdrop	
User Profile String	
Show Only Registered Rooms in Room List	Yes No



## A P P E N D I X K

# Internet Explorer Administration Kit (IEAK) FAQs

This appendix covers some of the most Frequently Asked Questions (FAQs) about the Microsoft® Internet Explorer Administration Kit (IEAK) 4. For more information about using the IEAK, see Part 9.

## **What are some of the new features in the IEAK 4?**

### **Brand the setup as well as the browser**

The IEAK 4 now allows you to brand the entire user experience. With the IEAK 4, you can specify title elements and graphics to be used during the setup process. With the IEAK 3.2a, you could only brand the browser.

### **Create and/or delete channels in the Internet Explorer 4 Channel Guide**

With the IEAK 4, you can add your own Active Channel™ to the Internet Explorer Channel bar. You can also use the IEAK 4 to delete competitors' channels. Please note that the IEAK 4 license agreement limits you to deleting only channels of competing Internet access providers.

### **Import Active Desktop items**

The IEAK 4 enables you to specify which Active Desktop™ items appear on your end users' computers. You can add desktop views of Web pages, or you can display custom controls that link directly to your Web site.

### **Import Desktop toolbar settings**

With the IEAK 4, you can import toolbar settings that will be applied when your end users install Internet Explorer 4. These settings are taken directly from the settings specified on the machine you used to build your Internet Explorer installation packages.

### **Specify more than five links on the Internet Explorer Links toolbar**

Now you can specify more than five links to appear on the Internet Explorer 4 Links toolbar.

**Create a package with up to 10 different installation options**

With previous versions of the IEAK, you could only build a package with one installation option. Using the IEAK 4, you can build a package with up to 10 different installation options from which the user can choose.

**Customize user agent string**

Now you can customize the user agent string of your browser packages, so you can track the number of hits that are generated by your customized browser and distinguish between various distribution programs. Here's an example of a user agent string that would appear in your Web server log:

```
Mozilla/4.0 (compatible; MSInternet Explorer 4.0; Windows NT); your  
custom string
```

**Create a custom welcome page**

Present end users with your own custom page when they start up Internet Explorer for the first time.

**Customize the Internet Explorer 4 Search bar**

With IEAK 4, you can fully customize the new Internet Explorer Search bar.

**Change toolbar background bitmap**

Now you can customize the look of Internet Explorer by changing the background bitmap on the Internet Explorer toolbar. Use this feature with caution, however; using background bitmaps with dark colors can make the toolbar unreadable.

**10 user-specified components**

You can now build installation packages to include up to 10 user-specified components. The IEAK 3.2 allowed you to add just 2 user-specified components.

**Specify up to 10 download sites**

You can specify up to 10 download sites for each installation package you build with the IEAK 4.

**Security zones and other security enhancements**

Internet Explorer 4 adds a new security feature called security zones. Security zones break up the Internet and intranet sites to allow for greater manageability. Internet Explorer includes four default zones: Local Intranet, Trusted Sites, Internet, and Restricted Sites. As the system administrator, you can preset these settings. You can apply different security settings (high, medium, low, or custom) to each of these.

### **System policies and restrictions management**

As the system administrator, you can manage system policies and restrictions with an easy-to-use interface in both the IEAK Configuration Wizard and the Profile Manager. Some of these restrictions include Active Desktop and shell feature lock-downs, as well as component settings (such as not allowing users to place calls from NetMeeting).

### **Improved Profile Manager**

The improved Profile Manager (formerly known as the INS Editor) includes a tree-view pane that gives you easy access to all the options available in the IEAK Configuration Wizard. You can reach each option quickly, and the interface for making changes is as simple to use as the IEAK. The Profile Manager also has incorporated the System Policies and Restrictions management capabilities that are available at the end of the IEAK Configuration Wizard.

### **What optional components are available in the Internet Explorer 4 suite?**

Here is a quick overview of the components included with the IEAK 4.

#### **Microsoft Outlook™ Express**

Outlook Express is a highly versatile tool for exchanging e-mail and newsgroup messages with individuals and groups. You can use the new HTML functionality to add graphics, animation, and even multimedia files to your e-mail messages.

#### **Microsoft NetMeeting™**

With NetMeeting, the Internet's premier conferencing tool, you can hold video and voice conversations and collaborate with groups of people in real time by sharing software applications, chatting, and sharing a whiteboard.

#### **Microsoft Chat 2.0**

Get online and communicate with others, using Microsoft Chat. This new kind of chat program lets you decide how to display your message—choose text only or a combination of text and graphical features.

#### **Microsoft Web Publishing Wizard**

This wizard steps you through the process of posting your Web site to almost any Web server available.

#### **Microsoft FrontPage® Express**

FrontPage Express makes it easy to create and edit Web pages that you can post on the Internet or intranet.

**Microsoft Interactive Music Control**

Internet Explorer 4 introduces the new Interactive Music control, an ActiveX® control that composes and plays music in response to a user's actions. The Interactive Music Control thus creates a soundtrack of the user's actions—for instance, in a computer game or guided tour of a Web site—all without using WAV or MIDI files that require time to download.

**Microsoft Interactive Music Control with Synthesizer**

The Microsoft Interactive Music Control with Synthesizer adds the Microsoft Synthesizer and support for DLS. DLS is an industry standard format for packaging instrument sounds in a way that can be recognized and used by hardware (like a soundcard) or software synthesizers.

**Microsoft VRML 2.0 Viewer**

With the Microsoft VRML 2.0 Viewer, Internet Explorer users can view engaging virtual 3-D worlds.

**Microsoft Agent**

Microsoft Agent is a set of software services that supports the presentation of software agents as interactive personalities within the Microsoft Windows interface. These agents can be developed to provide assistance to users by speaking to them as they use your applications of Web sites.

**Macromedia Shockwave Director**

With Director, you can create a variety of multimedia productions, including business presentations, Web content, interactive advertising pieces, kiosk productions, and CD-ROM titles.

**Macromedia Shockwave Flash**

Flash brings Web pages to life without the wait. Vector-based Flash movies offer compact, interactive Web interfaces, animations, buttons, advertising banners, logos, maps, cartoons, and more.

**Microsoft Script Debugger**

Microsoft Script Debugger for Internet Explorer is a debugging environment that extends Internet Explorer by allowing Web developers to browse, edit, and debug HTML pages that contain Visual Basic® Scripting Edition (VBScript) or JScript™ (the Microsoft implementation of JavaScript). The Microsoft Script Debugger is the first environment that allows users to debug scripted HTML. This tool gives developers a seamless way to combine HTML and script development.

**Microsoft NetShow™**

NetShow broadcasts high-impact, low-bandwidth video and more to computer desktops for entertainment, training, sales, event coverage, and more.

### **Microsoft Internet Explorer Supplemental Fonts**

The IEAK provides a set of TrueType® fonts that can be used with Internet Explorer. If users install these, they will be able to read Web-page text that was designed to be viewed with the following TrueType fonts: Arial, Comic, Courier, Impact, and Times New Roman.

### **Microsoft Visual Basic Run Time**

Microsoft Visual Basic Run Time makes it possible for you to distribute ActiveX controls with your Internet Explorer 4 installation packages.

### **Intel® Indeo™5**

Indeo video is the Intel digital video capture, compression, and decompression codec—a software driver used to compress digital video data for storage and to decompress it for playback on a multimedia computer. The latest version of Indeo video, designed for Intel MMX technology, allows software-only playback of high-quality video on desktop multimedia computers.

### **VDOLive Player**

The VDOLive Player takes advantage of streaming technology to deliver high audio and video quality over limited bandwidth.

### **Microsoft Internet Explorer Sound Pack**

The Internet Explorer Sound Pack provides a collection of sounds for use with the Internet Explorer to help users know when pages have started and finished loading. It also alerts users when a site has been found.

### **RealPlayer by Progressive Networks**

You can use RealPlayer to play different media types, including animation, audio, video, 3-D images, MIDI, presentations, and text.

### **Can an IEAK 3 .ins file be used in the IEAK 4?**

The .ins files are backwards compatible. Sections and entries that existed in the IEAK 3 .ins files have not changed, but there are new sections and entries for the new features added to the IEAK 4. To take advantage of all the new features included in the IEAK 4, it's recommended that you create a new .ins file with the IEAK Configuration Wizard.

### **What are the requirements for running the IEAK Configuration Wizard?**

Internet Explorer 4 must be installed on the build machine before the IEAK Wizard can be used. Before starting the wizard, calculate how much disk space is required for the components you want to install. If you plan to install all the components of the Internet Explorer suite, you will need approximately 50 MB in the Program Files folder and 50 MB on the destination drive.

**What type of distribution media will the IEAK 4 support?**

The IEAK 4 will support download from an intranet or the Internet, compact disc, and single and multiple floppy disks.

**How can I offer a customized browser that takes advantage of 128-bit encryption?**

U.S. regulations regarding encryption technology require a separate licensing process for users who wish to redistribute 128-bit encryption with Internet Explorer 4. According to federal regulations, licensees must be located in the U.S. or Canada only and must agree to distribution restrictions described in an addendum to the IEAK Licensing Agreement.

For more information, see the "Server Gated Cryptography" section of Chapter 28, "Digital Certificates," or see the Microsoft IEAK Licensing Agreement Web page at [www.microsoft.com/ie/ieak/license.htm](http://www.microsoft.com/ie/ieak/license.htm).

**How can I uninstall components that were installed with Internet Explorer 3?**

To remove the components installed with Internet Explorer 3, select the **Add/Remove Programs** icon in Control Panel, and then uninstall the appropriate component.

**What are the bitmap dimensions for the Active Setup bitmap, and are there any sample bitmaps?**

The dimensions for the Active Setup bitmap are 120 pixels wide by 239 pixels high. It needs to be a BMP file, and it must be 256 colors or fewer. No sample bitmaps are included with the IEAK.

**What are the dimensions for the toolbar bitmap?**

The toolbar bitmap can use any dimensions. It must be a BMP file, and it must be 256 colors or fewer. When creating a toolbar bitmap, however, be careful not to use colors that are too dark, or text will be difficult to read and graphics hard to see.

**Is there a way to control the order of the channels in the IEAK?**

There is no way to preset a custom channel order.

**Can existing channels be removed?**

Yes, you can remove channels in the IEAK. You can also use the Profile Manager to prevent users from adding or deleting the channels that you have pre-configured.

### **Are there any technical specs on how the Channel Definition Format (CDF) file is created and where it resides?**

The CDF specification is located at <http://www.microsoft.com/standards/cdf.htm> and can also be found in the *Microsoft Internet Client SDK* at <http://www.microsoft.com/workshop/prog/inetsdk/>.

### **How does a CDF file get pushed to customers when they visit a Web site?**

The CDF file itself does not get pushed to users who visit your Web site. The file resides on the server, and you must provide an HTML link to it. When the visitor clicks that link, it will activate the Channel Subscription Wizard that steps the user through the process of subscribing to a channel. Of course, you can pre-configure your own custom CDF files to be built into Internet Explorer using the IEAK. In that case, users won't have to do anything since the channels will already be present in their Channel bar. For more information about creating CDF files, see Chapter 16, "Managed Webcasting."

### **How do you configure Outlook Express to support multiple user scenarios?**

Outlook Express uses Windows profiles to address the multiple user scenarios. Users can log into their respective profiles and access their mail. To switch from one user profile to another, users select the **Log Off** option from the **File** menu in Outlook Express or from the **Start** button on the Windows taskbar. Alternatively, they can restart Windows if they already have a profile set up. If users don't have a profile set up on their computer, the **Enable Multi-user Settings** dialog box will appear and guide users through the steps to set up a profile. Once the new profile is set up and new users log into Windows and then Outlook Express, they can set up their own account and use their own mail store. For more information about user profiles, see Chapter 5, "User Profiles."

### **What importing options does Outlook Express support?**

Outlook Express ships with migration tools to convert mail messages, address books, and account settings from the following mail packages: Eudora Light and Eudora Pro, Netscape Mail, Communicator, Windows Messaging, Outlook, Exchange, and Internet Mail and News. In addition, Outlook Express offers conversion of LDIF-LDAP and comma-separated address books. For more information about Outlook Express, see Chapter 18.

**Can I configure the Outlook Express AutoReply option with the IEAK?**

By default, Outlook Express replies to messages in the format in which they were sent. For example, if a user sends you a message in plain text, you will respond in plain text, even though your default is HTML. This cannot be configured through the IEAK, but users have the option to turn it off. In addition, the IEAK does allow you to designate the default message format for users. You can write an .adm file that will turn this feature off by default in your users' version of Outlook Express. For more information about Outlook Express, see Chapter 18.

**What is the "InfoPane" in Outlook Express?**

You can use the IEAK to customize a 50-pixel-high HTML pane across the bottom of the Outlook Express screen. You have two options for customizing the InfoPane. First, you can download a local HTML file to your users' computers and have the InfoPane display this file. You can use this file to provide links to account information, support sites, training information, your home page, and other sites or images. The second option is to point the InfoPane to any URL on the Web. When users are online, they will see the contents of that site inside the InfoPane. When they are not online, the InfoPane will be blank. Note that users will always have an option to turn the InfoPane off.

Whichever option you choose, we suggest that you design your HTML content for 640 pixels wide by 50 pixels high.

**Does the installer wait for custom components to finish?**

Yes, Active Setup will not proceed until your custom components have finished installing. For more information about Active Setup, see Chapter 2.

**Is there an installation option that allows users to select the individual components they want to install?**

Yes, the IEAK does not offer a check box for each component, but there is an option for users to choose from 10 possible installation options. It is up to the IEAK administrator to create applicable packages. If you do not wish to include these components in your distribution package, you can provide them by a component add-on Web site.

**Will there be a way to customize the Readme.txt?**

No.

**How do I create versions of Internet Explorer for Windows 3.1?**

The IEAK 4 currently does not build packages for 16-bit platforms. Once Internet Explorer 4 for Windows 3.1 has been released, Microsoft will make available an IEAK that will generate packages for the 16-bit platform.

**How do I import a collection of favorites arranged inside folders?**

When you import a collection of favorites, the IEAK imports the contents of the folder but not the folder itself. To import an entire directory structure, select the top-level folder that contains all of the subdirectories you want to import. This will import all favorites and their folders.

**Does the IEAK 4 support the creation of a single self-installing, executable (.exe) file (vs. the .cab files used by Active Setup)?**

No.

**What is Active Setup?**

Active Setup is new in Internet Explorer 4. Active Setup is a small, Web-based setup package that enables your users to install the latest Internet Explorer components directly from your Web site or intranet. Active Setup can be run from a single floppy disk and over the Internet.

The Active Setup engine provides significant advantages in usability for both download and floppy-disk installations. For a download installation, it divides the download into several smaller segments, making it possible to restart in the event of a failure. For a floppy-disk installation, it enables Internet Service Providers (ISPs) to produce and distribute packages with a single floppy disk.

You can specify up to 10 download sites when you build your package(s), making it easy for your users to download and install Internet Explorer and its components.

Active Setup also detects which installed components need to be updated, so your users don't have to download an entirely new package just to update one of the components. For more information about Active Setup, see Chapter 2.

**Are there any Setup switches for Internet Explorer 4?**

There are two .exe files that actually run: IE4Setup.exe and IE4wzd.exe.

The IE4Setup.exe is just an application that wraps around Internet Express (IExpress), and most of the installation wizard code is in IE4wzd.exe. Since IE4Setup.exe is just the IExpress wrapper, typing `/?` does not reveal all the correct command-line switches. (For more information about IExpress, see Appendix L.)

This is the command line you can use to run IE4Setup.exe in batch mode (hands-free mode—so you don't need to click Next or press the ENTER key) to go to the next wizard page.

```
IE4Setup.exe /c:"ie4wzd.exe /q /u:""http://webserver/  
directory/cab"" /s:#e"
```

–Or–

```
IE4Setup.exe /c:"ie4wzd.exe /q /u:""file://\netlocation\  
directory\cab"" /s:#e"
```

Other switches of interest in IE4wzd.exe are:

- /S:#e—Location of calling .exe (Usually will be IE4Setup.exe, not required but helps softboot work)
- /U—Location for installation .cab files (not used on CD-ROM)
- /M:1,2,3—0 = standard install(default), 1 = enhanced, 2 = full
- /I:Y,N—Whether you want integrated desktop or not. Default is “Y”
- /R:N—To disable hardboot/softboot

For more information about Active Setup and ACME Setup, see Chapters 2 and 3, respectively. For more information about Setup command-line switches, see Appendix A.

### **Where can I get more information about Internet Explorer 4?**

For more information, see the following Web sites.

- For information about Internet Explorer 4:  
<http://www.microsoft.com/ie/ie40/>
- For information about the IEAK, including licensing:  
<http://www.microsoft.com/ie/ieak/>
- For Microsoft Internet Explorer Press (for news regarding Internet Explorer and the IEAK):  
<http://www.microsoft.com/ie/press/>
- For CDF specification:  
<http://www.microsoft.com/standards/cdf.htm>
- For information about developing content for Internet Explorer 4, such as Dynamic HTML and Active Channels:  
<http://www.microsoft.com/workshop/>

## A P P E N D I X L

# IEExpress Configuration Wizard

If you want to include custom components inside the Internet Explorer installation process, such as a custom FTP client or communication software, the Microsoft® Internet Explorer Administration Kit (IEAK) includes a utility called Internet Express (IEExpress) for this purpose. IEExpress is a tool that creates custom, self-installing, self-extracting packages (or .cab files) of applications. The IEExpress program resides in the directory C:\Program Files\ieak\tools\iexpress.

## Using the IEExpress Configuration Wizard

You can use the step-by-step IEExpress Configuration Wizard to package applications so that they can be installed by Active Setup along with Internet Explorer. This can make the rollout of multiple applications much easier, as they can all be done at the same time.

## Starting the IEExpress Configuration Wizard

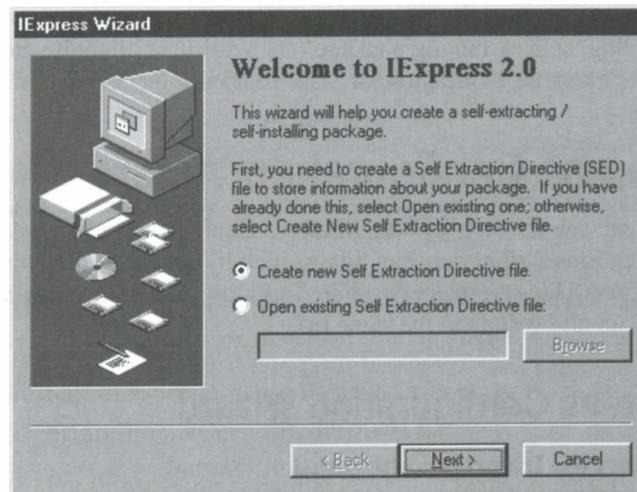
- ▶ **To start the IEExpress Configuration Wizard**
  1. On the **Start** menu, click **Run**.
    - The **Run** dialog box opens.
  2. Enter **IEExpress.exe**.
  3. Click **OK**.

## Navigating in the IExpress Configuration Wizard

To	Click
<b>Display the next page</b> , and accept the values on the current page	<b>Next</b>
<b>Display any previous page</b> You may have to retype some of the values you've entered.	<b>Back</b>
<b>Exit this package</b>	<b>Cancel</b>

The following section displays all of the IExpress Configuration Wizard pages you need to navigate to specify packages. Each page is followed by a table that describes the features and options available on that wizard page.

## Creating the Package



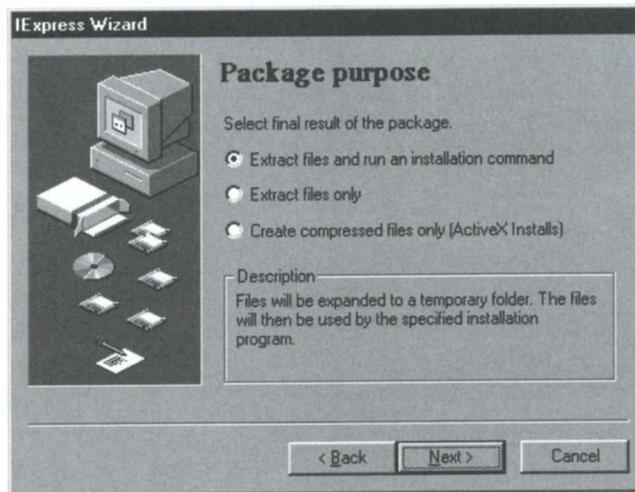
You can create a Self Extraction Directive (SED) file to store information about this application package.

Option	Description
<b>Create new Self Extraction Directive file</b>	To create a completely new SED file for an application, click this option.
<b>Open existing Self Extraction Directive file</b>	To modify an existing SED file or to use an SED file to create another, click this option. Then enter the path and file name, or click <b>Browse</b> to locate it.

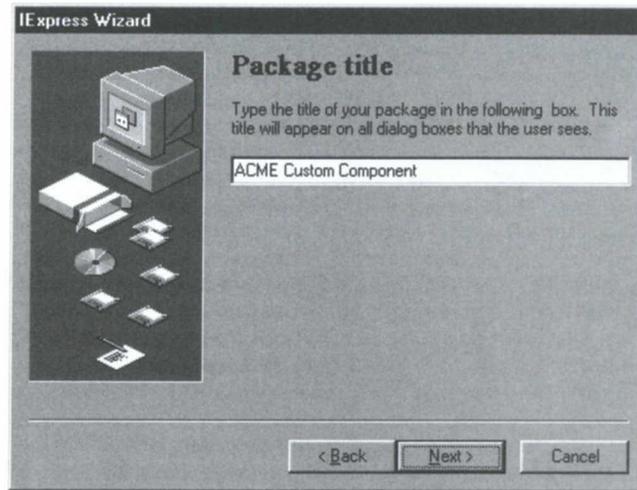


This page appears only when you open an existing SED file from the Welcome page.

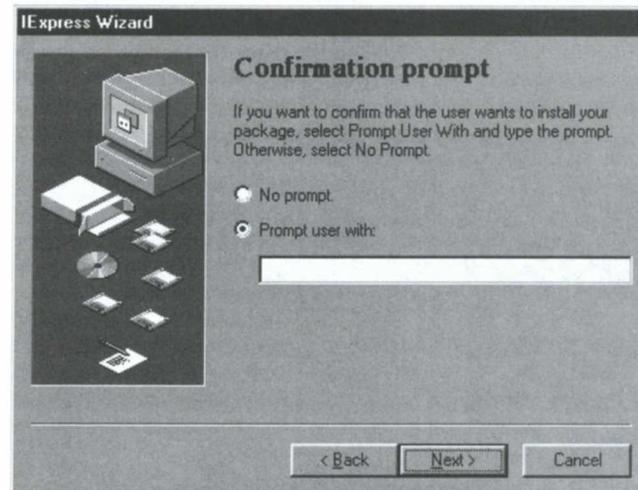
<b>Option</b>	<b>Description</b>
<b>Create Package</b>	Select this option to create a package, just as you would at the end of this process.
<b>Modify Self Extraction Directive file</b>	Select this option to modify the SED.



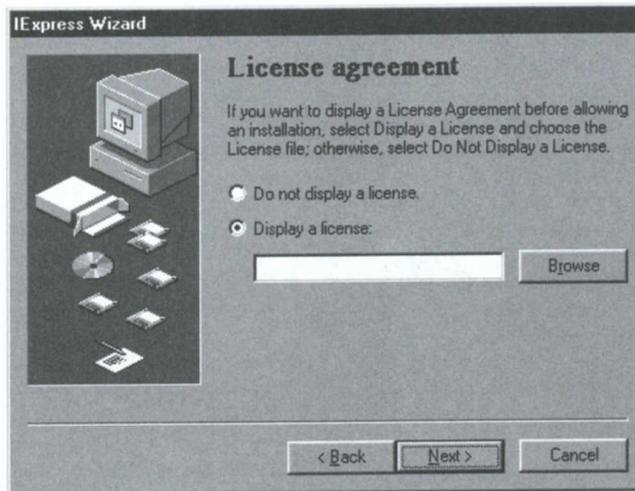
Option	Description
<b>Extract files and run an installation command</b>	Select this option if you want the package to consist of compressed files and an installation program.
<b>Extract files only</b>	Select this option if you want only files compressed.
<b>Create compressed files only (ActiveX® installs)</b>	Select this option if you want the files to be compressed into a .cab file.



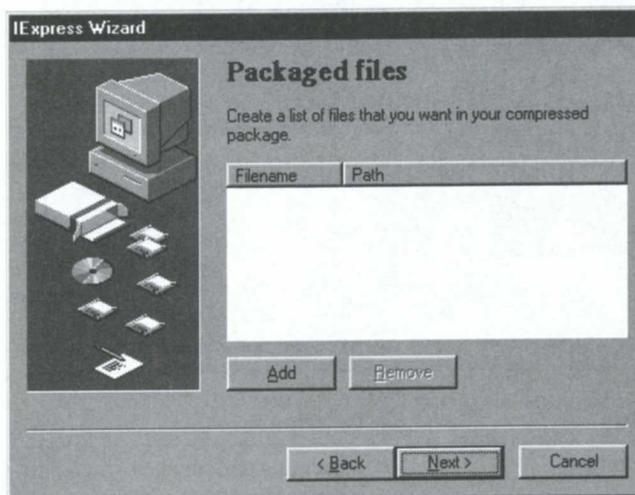
Option	Description
<i>Type Package title</i>	Type the title that you want to appear on all of the dialog boxes.



Option	Description
<b>No prompt</b>	Select this option when you do not want end users to see a confirmation prompt.
<b>Prompt user with</b>	Select this option to display a confirmation prompt, then enter the text you want the end user to see.



Option	Description
<b>Do not display a license</b>	If the software in this package does not need to be licensed to the end user, select this option.
<b>Display a license</b>	When the software in the package needs to be licensed to the end user, select this option. Then, enter the full path and file name for the license agreement, or click <b>Browse</b> to locate it.

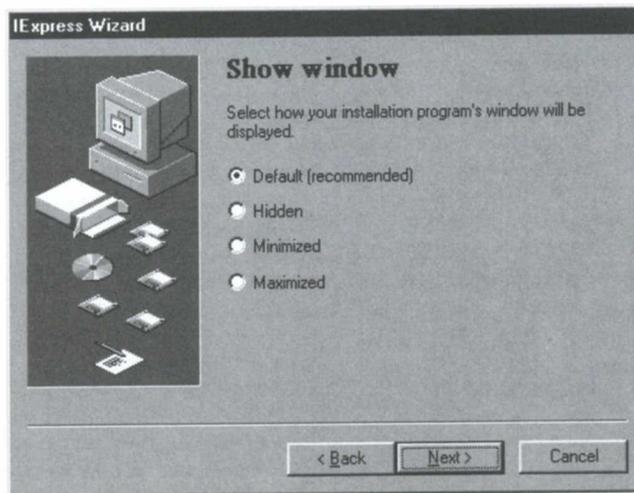


Option	Description
<b>Enter filename and path</b>	Click <b>Add</b> , then select the files you want in the package. To remove a file from the package, click <b>Remove</b> .

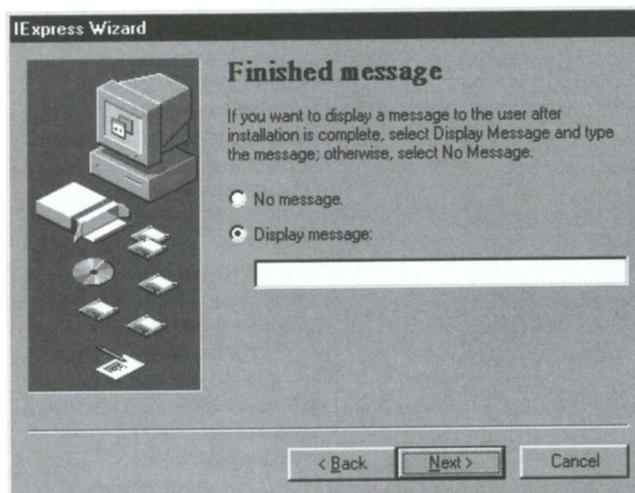


This page appears only if you have chosen **Extract files** and then run an installation command on the second screen of this wizard (**Package Purpose**).

Option	Description
<b>Install Program</b>	Select the program or .inf file that you want this package to launch.
<b>Post Install Command</b>	If you want to execute a command after this package's launch is complete, enter the command or select it.



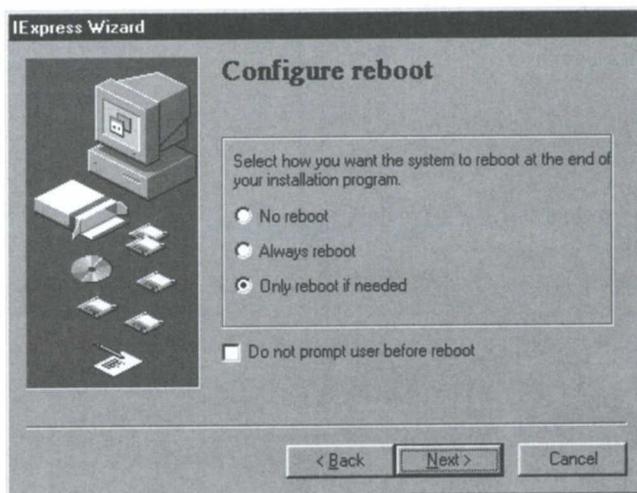
Option	Description
<b>Default</b>	Click this option to display the installation's window to the end user.
<b>Hidden</b>	Click this option to hide the installation's window from the end user.
<b>Minimized</b>	Click this option to display a minimized window to the end user.
<b>Maximized</b>	Click this option to display a maximized window to the end user.



Option	Description
No message	Click this option if you do not want to display a message that tells the end user that the installation is finished.
Display message	Enter a message that you want displayed to the end user after the installation is finished.



Option	Description
<i>Enter target path and filename</i>	Enter the path and file name of the file to which the application should be installed on the end-user's computer, or click <b>Browse</b> to locate the path and file.
<b>Hide File Extracting Progress Animation from User</b>	If you do not want to display progress indications to the end user, select this check box.
<b>Store files using Long File Name inside Package</b>	If you want to use long file names in this package, select this check box.

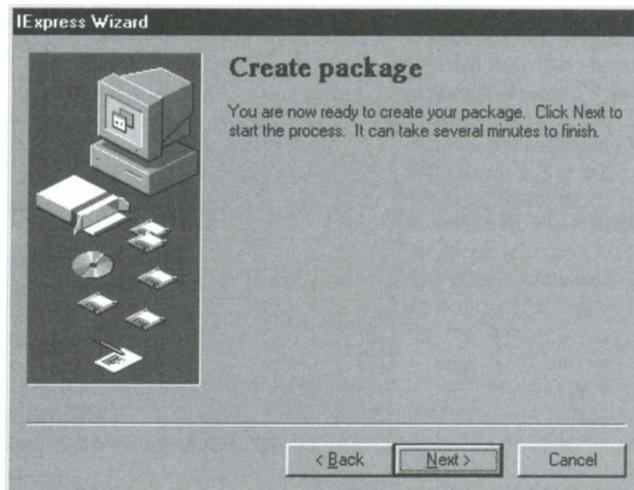


This page appears only if you have chosen **Extract files** and then run an installation command on the second screen of this wizard (**Package Purpose**).

Option	Description
<b>No reboot</b>	Click this option if you do not want the computer to be restarted after the installation.
<b>Always reboot</b>	Click this option if the computer must be restarted after the installation.
<b>Only reboot if needed</b>	Click this option if the computer may or may not need to be restarted after the installation.
<b>Do not prompt user before reboot</b>	Select this check box if you do not want to inform the user that the computer will be restarted.
	You should select this option whenever the end-user's installation is silent.



Option	Description
<b>Save Self Extraction Directive (SED) file</b>	To save the SED file, click this option. Then enter the full path and file name, or click <b>Browse</b> to locate it.
<b>Don't save</b>	To abandon this SED file, click this option.



The IExpress Configuration Wizard displays this page to give you a last chance to save the package you've created. Once you click **Next**, the IExpress Configuration Wizard creates the package files as you specified.

## Signing Package Files

Digital signatures identify the source of programs and guarantee that the code hasn't changed since it was signed. Depending on how users' browser-security levels are configured, users could be warned not to download files that aren't signed, or could be prevented from downloading them. Therefore, you should digitally sign the .cab files created by the IEAK Configuration Wizard and any custom components you include.

Signing .cab files and custom programs requires two steps: obtaining a digital certificate—from a Certificate Authority (CA) such as VeriSign or GTE—and signing the code.

Now that you have created the package, you must sign it; otherwise, Active Setup will not install it. For more information about signing your files, please see the "Signing Your Programs" section of the IEAK Help.

# Index

/# switch (ACME Setup) 713  
 /## switch (ACME Setup) 713  
 ./? switch (ACME Setup) 713  
 + operator (JScript 3.0) 437  
 == operator (JScript 3.0) 437  
 128-bit Server Gated Cryptography, installing 721, 798  
 304 (not modified) response 192  
 3-D borders, customizing (WebBrowser Control) 141  
 3-D effects, Dynamic HTML 405  
 8004004 error code (Active Setup) 15  
 800bxxxx error code (Active Setup) 15  
 800Cxxxx error code (Active Setup) 15  
 80100003 error code (Active Setup) 15

## A

/a switch (ACME Setup) 714  
 <A> HTML tag 767  
 absolute positions, of HTML elements 405  
 Abstract Windows Toolkit (AWT) 423  
 <ABSTRACT> XML tag 217  
 Access to all network addresses (Java permission) 500  
 Access to all files (Java permission) 500  
 accessibility
 

- blind users 549–550
- cognitive impairments 553–554
- hearing impairments 551–552
- hearing impairments 578
- Internet Explorer 3 features 547
- Internet Explorer 4
  - enhancements 546–547
  - enhancements xvii
  - upgrading to 548–549
  - version 4.0 vs. version 4.01 544
- language impairments 553–554
- low-vision users 550–551
- Microsoft NetMeeting 579
- Microsoft Windows Keyboard Guide Web site 559
- physical impairments 552
- resources 554–556
- seizure disorders, users with 553
- system caret movement 576

Accessibility dialog box
 

- High Contrast color scheme, selecting 574
- style sheet usage, specifying 569
- style sheet usage, specifying 570
- Web-page formatting, overriding 567

Accessibility Options icon, Windows Control Panel 574

Accessibility Properties dialog box, Windows Control Panel 551–552

ACME Setup engine
 

- command-line switches 711–714
- core files, uninstalling 76–77
- Destination Folder dialog box 36
- IE4 Setup Log file 42–43
- installation, completing 40–41
- interrupted during OLE file update 39
- item installation phase 37–39
- launching 36
- maintenance mode uninstall 78
- signed .cab files 32

activatePrivilege method 493–495

Active Channel Properties dialog box 230–233

Active Channel Selection dialog box, Setup Wizard 22

Active Channels
 

- See also* Active Desktop; CDF (Channel Definition Format) files; Channel bar; software distribution channels
- ActiveX controls 219, 223, 232
- channel screen savers 214, 225
- connection time, minimizing 228
- deleting from Channel bar 793
- design guidelines 221, 228–229
- download options 230–232
- downloadable file size, limiting 232, 236
- full screen display 576
- interface, disabling 237–238
- Internet Explorer 4, Software Updates channel 70–71
- language, selecting 22
- link-crawl architecture 215–216
- on deployed browsers
  - locking down 235–238
  - managing 239–240
  - pre-configuring 234, 646–647
- overview 187–188, 210–211, 212–213
- personalized channels 225–229
- red gleam 213, 697
- Software Updates channel 70–71
- subscribing to 229
- support content 219, 223
- ToolTips 217
- updating
  - e-mail updates 213, 219, 223, 746–747
  - publisher's update schedule 217, 223–224, 233
  - schedules, specifying in CDF files 217, 223, 765
  - update notification 213, 746–747
  - usage statistics 219

- Active Data Object (ADO) components 772
- Active Data Object Recordset (ADOR) components 772
- Active Desktop
  - See also* Active Channels;
  - Windows Desktop Update
  - accessing from Start menu 151
  - Active Desktop gallery Web site 180
  - applications of 213–214
  - channel screen saver, adding 179
  - Custom-Build Checklist 782
  - design guidelines 182–185
  - expiration dates 184
  - historical background 174
  - items
    - adding to desktop 180
    - development process 182
    - disabling or deleting 181
    - in CDF files 185–186, 224
  - keyboard navigation 562
  - layered architecture 175–176
  - linked objects, caching 182, 185
  - making available to users 186
  - offline browsing 182–183
  - on deployed browsers
    - locking down 181
    - managing 239–240
    - pre-configuring 234–235
  - overview xxx–xxx, 143–144, 174–175, 213–214
  - registry entry 175
  - relation to Webcasting 176–177
  - representation in Desktop.htm file 175
  - resetting using Safemode.htt file 170
  - security settings 458, 462
  - silent installation 633
  - subscribing to 180, 229–230
  - troubleshooting
    - during offline browsing 742–743
    - image downloads 748
    - images 741
    - not found by Internet Explorer 4 744
    - wallpaper 744
  - wallpaper
    - customizing 178
    - overview 174
    - samples on CD 178–179
    - troubleshooting 744
- Active Desktop gallery Web site 180
- Active Desktop item Subscription Wizard 186
- Active Desktop Properties dialog box 178
- Active Document servers 174
- Active scripting (security option) 450, 460
- Active Scripting xlii, 396
  - See also* ECMAScript; Microsoft JScript 3.0; VBScript
- Active Setup
  - See also* ACME Setup engine; Active Setup log file; Active Setup Wizard
  - Add/Remove dialog box 62–63, 69, 74
  - Autorun screen, configuring 630, 775
  - custom components, adding 626–627, 774
  - custom packages 617, 634
  - customizing 628–638, 774–775
  - disk-space check 24, 28
  - download sites, configuring 624, 635, 775
  - installation folder, specifying 637
  - Internet Explorer 4 components, synchronizing 625
  - latest version, ensuring installation of 636
  - overview xviii–xix, 8–9
  - parameters, specifying 622–627, 774
  - running 669
  - running 5
  - silent installation, configuring 633
  - software distribution packages 700
  - specifying for software distribution channels 699
  - troubleshooting 669
  - Windows Desktop Update installation, configuring 638
- Active Setup log file
  - Active Channel language entry 22
  - destination folder path entry 23
  - Download Options entry 18
  - error codes 15
  - installation option entry 20
  - selected download region entry 27
  - Windows Desktop Update installation entry 21
- Active Setup Wizard
  - Active Channel Selection dialog box 22
  - .cab files downloaded 31–32
  - .cab files, downloading 30
  - .cab information file, downloading 28–29
  - command-line switches 16
  - custom icon 615
  - customizing 631, 775
  - Destination Folder dialog box 23–24
  - Download Options dialog box 18
  - Download Sites dialog box 26–27
  - errors
    - .cab files, downloading 31
    - download phase 28–29
    - insufficient disk space 24
    - proxy errors 25–26
    - trust errors 31
  - Installation Option dialog box 19–20
  - launching 10–11, 16–17
  - License agreement dialog box 17
  - manual installation 33
  - Setup folder, preparing 29–30
  - Smart Recovery 34
  - system configuration 40

- Active Setup Wizard bitmap path
  - (Configuration Wizard setting) 631
- Active Setup Wizard title bar text
  - (Configuration Wizard setting) 630
- Active Stream Redirector *See* .asx files
- ActiveX conferencing platform, NetMeeting 342
- ActiveX controls
  - adding scriptlets to 412
  - adding to Web pages 378, 382, 416
  - apartment-model controls 415, 769
  - controlling downloads 198, 232
  - damaged controls 418
  - data source objects 408–409
  - dependencies 418
  - digital signatures 419, 458
  - in Active Channels 219, 223
  - in Active Desktop items 175, 224
  - informational Web site 183
  - Java Bean integration 423
  - location of 416
  - MFC .dll files 769
  - multimedia controls 419–420
  - NetMeeting control 369
  - NetShow file-transfer control (nsfile.ocx) 311
  - NetShow Player 288, 325–326
  - object safety 459
  - offline functionality 182–183
  - overview xli, 395, 414–415
  - performance 415, 769
  - properties, viewing 416–418
  - referencing in Web pages 416
  - removing 418
  - Safe for Scripting, troubleshooting 769
  - scriptlet security 412
  - security settings 449
  - signing 183
  - uninstalling 737
  - updating 418
  - version information, displaying 418
- ActiveX Controls and Java applets
  - (site subscription setting) 196–198
- ActiveX Data Objects (ADO) 386
- ActiveX files
  - checked by Setup Wizard 17
  - download location, changing 738
- Activity log, Personal Web Server 390
- Actsetup.exe 710–711
- Add Active Channel dialog box 229
- Add Favorite dialog box 193
- Add folder (Configuration Wizard setting) 644
- Add New Root (Configuration Wizard setting) 657
- Add URL (Configuration Wizard setting) 644
- Add/Remove Programs applet, Control Panel 62–63
- adding
  - channel screen savers 179
  - components from CD-ROM 66–67
  - components from the Internet 64–66
  - custom components 626, 774
  - Windows Desktop Update 69–70
- Address (proxy server setting) 94
- Address bar
  - accessibility benefits 547
  - adding to desktop 158
  - AutoComplete feature 100–102
  - AutoDomain Searching feature 102–103
  - displaying 559
  - implementing in custom browser 139
  - keyboard navigation 562
  - overview 153, 650
- Address Book, Outlook Express
  - See also* LDAP
  - adding digital IDs 277
  - importing data from other mail
    - applications 262–263, 751
  - LDAP directories, configuring and maintaining 264–266
  - overview 256, 260
- Address Options dialog box, Microsoft Wallet 538–540
- addresses *See* personal information, Address Book, Outlook Express
- .adm files 685, 686, 687
- Admin quiet mode 708
- ADO (Active Data Object) components 772
- ADO (ActiveX Data Objects) 386
- ADOR (Active Data Object Recordset) components 772
- Advanced Add/Remove dialog box 74–75, 81
- Advanced Data Connector (ADC) *See* Remote Data Service
- Advanced Download Options dialog box 197–198, 231–232
- advanced Java permissions editor dialog boxes 503–505
- Advanced Options page, Personal Web Manager 389–391
- Advanced tab
  - Content Advisor dialog box 525–527
  - Internet Options dialog box
    - accessibility settings 575, 576
    - advanced browser options 121–125
    - blind users, accessibility settings 550
    - cognitive and language impairments, accessibility settings 554
    - Font button, displaying 568
    - HTTP 1.1, enabling 130
    - Java VM options, configuring 426
    - keyboard navigation 575
    - low-vision users, accessibility settings 551
    - physical impairments, accessibility settings 552
    - privacy security options, configuring 541–542
    - users with seizure disorders, accessibility settings 553
- advertising, using NetShow 292

- Advpack.dll file 11, 14, 79
- AFC (application foundation classes) 423
- AFC Enterprise Libraries 423
- AINF0000 files 76
- AlignLeft/AlignRight parameters, FileList control 169
- alt text (alternate text) display settings 576, 578
- ALT+C (Help tool navigation) 562, 563
- ALT+D (Help tool navigation) 565, 566
- ALT+F4 (Help tool navigation) 564
- ALT+I (Help tool navigation) 562, 563, 564, 565
- ALT+K (Help tool navigation) 566
- ALT+L (Help tool navigation) 565
- ALT+LEFT ARROW (Internet Explorer 4 navigation) 558
- ALT+S (Help tool navigation) 562, 565
- ALT+T (Help tool navigation) 566
- ALT+TAB (NetMeeting navigation) 580
- Always accept cookies (privacy setting) 542
- Always On Top (toolbar option) 154
- ambient properties, WebBrowser control 137
- Amount of disk space to use (cache setting) 133
- animation 578
- animations, browser performance 134
- announcements, NetShow 300–301, 307, 309
- anonymous logon, enabling 461
- apartment-model controls 415, 769
- <APPLET> tag 428
- applets *See* Java applets
- application foundation classes (AFC) 423
- applications, adding scriptlets to 411–412
- application sharing, NetMeeting
  - keyboard shortcuts 580
  - overview 331
  - version 2.1 support 336
- application testing, using Personal Web Server 392
- application/x-cdf MIME/content type 225, 226
- architecture
  - Active Desktop interface 174–176
  - browser architecture 136–138
  - LDAP 351
  - link-crawl architecture 191–192, 215–216
  - NetMeeting 339–342
  - Outlook Express 258
  - security zones 450
  - True Web Integration 145
  - Web View 164
- array handling (JScript) 432, 434
- arrow keys 565
  - See also* DOWN ARROW key; LEFT ARROW key; RIGHT ARROW key; UP ARROW key
- .asc files 303
- ASCII characters, encoding in CDF files 764
- .asd files 305
- ASF (Active Streaming Format) 295, 303
  - See also* .asf files; ASF streams
- ASFChop editor, NetShow 320
- .asf files
  - See also* ASF (Active Streaming Format); NetShow Player
  - ASF Editor tool 319–320, 321
  - ASFChop editor 320
  - bandwidth, selecting 317–318
  - bit rates 295
  - building 318
  - generated by Real-Time Encoder 305–306
  - HTTP streaming 311
  - including script commands in 317
  - including URLs in 317
  - local, opening 324
  - locating on NetShow Server 300
  - making available to users 322
  - Microsoft PowerPoint presentations 320
  - playing 300
  - remote, opening 324
  - requesting using .asx files 300–301
  - seekable files, creating 320
  - streaming protocols 301–302, 311–313
- ASF streams
  - distribution servers 309–310
  - generated by Real-Time Encoder 305
  - live streams 304–307
  - stored content, creating 315–322
  - stored streams 306–309
- ASP (Active Server Pages)
  - Browser Capability component 771
  - dynamically generated CDF files 225–228
  - ILS customization 358
  - redirect pages, Personal Web Server 390–391
  - scriptlets 410
  - subscribing to 764
- assignments (JScript) 432
- .asx files
  - for distribution servers 310
  - links in Web pages 300–301
  - overview 300
  - playing .asf files 322–324
  - stored ASF streams 306–309
- attachments, troubleshooting 752–753
- .au files 762
- audio conferencing, NetMeeting
  - H.323 standards 348–349
  - overview 330, 356
  - restricting 365–366, 368
  - through firewalls 360
- audio content, NetShow
  - ASF Editor tool 319, 321
  - bandwidth 313–314, 317–318
  - codecs 282, 293–294, 321–322
  - data rate (bit rate) of files 293
  - editing 318
  - in .asf files 316

- audio content, NetShow (*continued*)
    - including in .cab files 762
    - live content, multicasting 314
    - masking 296
    - Real-Time Encoder 290
    - WavToAsf tool 318–319, 321
  - Audio tab, Options dialog box 366
  - audio/video throughput limit, Average (NetMeeting setting) 367
  - authentication
    - See also* digital certificates
    - client/server communications 474
    - overview 441
    - Secure Password Authentication, configuring for
      - deployed browsers 661
    - user authentication settings, security zones 450, 461, 532
    - Windows NT Challenge Response 461, 477
  - Authentication type (Configuration Wizard setting) 662
  - Authenticode
    - Authenticode 1.0 442
    - Authenticode 2.0 442, 473–474
    - configuring for deployed browsers 657
    - Java security 442–443
    - overview 471–473
    - Web site 12
  - Authenticode Security Technology dialog box 482, 484, 487
  - authorities, configuring for deployed browsers 657
  - Auto (software distribution channel schedule setting) 703
  - Auto-Add feature, Outlook Express 256
  - AutoArrange parameter, FileList control 169
  - AutoComplete feature
    - accessibility benefits 546
    - enabling 577
    - keyboard shortcuts 102, 560
    - overview xx–xxi, 100–102
  - auto-configuration files
    - creating 677
    - install.ins file, using as template 687
    - managing using Profile Manager 688
  - auto-configuration servers 679
  - Auto-configure every \_\_ minutes (Configuration Wizard setting) 654, 674–675
  - Auto-configure URL (Configuration Wizard setting) 654, 674–675
  - AutoDomain Searching feature 102–103
  - AutoHide (toolbar option) 154
  - AUTOINSTALL element, CDF files 698
  - automated installation 46
  - automatic browser configuration
    - after browser deployment 673, 679–681
    - auto-configuration interval 654, 674, 675
    - auto-configuration servers 678–679
    - auto-proxy files 678
    - before browser deployment 673–679
    - automatic browser configuration (*continued*)
      - .cab files 676–677
      - custom packages 674–675
      - deployment planning 599
      - distribution files, updating 681
      - Favorites folder, editing 115
      - for deployed browsers 654–655
      - .inf files 677
      - .ins files 676–677
      - locking down 675–676, 686
      - overview 582, 672–673
      - software distribution channels 694, 705–706
  - Automatic Browser Configuration (Wizard Settings option) 684
  - Automatic Browser Configuration page (Configuration Wizard) 653–655, 777
  - Automatic Configuration URL 47–48
  - automatic logon, enabling 461
  - automatic setup option, (Internet Connection Wizard) 89–92
  - Automatic Version Synchronization (AVS) 597, 620, 624, 774
  - auto-proxy files, creating 678
  - Auto-proxy URL (Configuration Wizard setting) 654, 674, 675
  - AutoReply option, Outlook Express 800
  - Autorun screen, customizing 597, 615, 629–630, 774
  - Autoscan common root domains (search setting) 125
  - AutoSize parameter, FileList control 169
  - AutoSizePercentage parameter, FileList control 169
  - Average audio/video throughput limit (NetMeeting setting) 367
  - .avi files 315–316
  - AVS (Automatic Version Synchronization) 597, 620, 624, 774
  - AWT (Abstract Windows Toolkit) 423
- ## B
- /b switch, (ACME Setup) 711
  - Back button
    - Configuration Wizard 618
    - drop-down menus xx1, 103
  - backgrounds
    - bitmaps
      - Autorun screen 615, 630
      - toolbar background 615, 794, 798
    - color
      - formatting in style sheet 568
      - printing 579
      - selecting 571–572
    - custom, in deployed browsers 615–616, 630
    - images, troubleshooting 756

backup files  
   deleting, effect on Internet Explorer 4  
   uninstallation 75–77  
   required to run IERemove.exe 83  
   System.1st backup 39

bandwidth  
   ASF Editor tool 319–320  
   audio content 318  
   channel hierarchy design 221  
   distribution strategy planning 595  
   for .asf files, selecting 317  
   for NetMeeting, limiting 367, 368  
   Intranet bandwidth 317  
   multicasting 296–299  
   NetShow content, adjusting 320–322  
   overview 293  
   specialized networks 317–318  
   unicasting 296–297

BASE attribute, <CHANNEL> tag 217

base URLs, for channels and subchannels 217

basic Webcasting  
   *See also* Web site subscriptions  
   features 190  
   link-crawl architecture 191–192  
   overview xxxiii, 187–188

Behaviors control (DirectAnimation) 420

billing addresses, storing 535, 538–539

bind addresses (Java applet permission) 511

Bind List Log.text file 40

bitmaps, custom  
   Active Setup bitmap, dimensions 798  
   Autorun screen 615, 630  
   for custom packages 615–616  
   toolbar bitmap 794, 798

bit rate 293, 295

blend filters 406

blind-access utilities  
   alt text display settings 576, 577, 578  
   audio clips 578  
   browser options 577  
   system caret movement 575  
   Windows Desktop Update, interaction with 549

blind users 549–550  
   *See also* accessibility; low-vision users

.bmp files 316  
   *See also* bitmaps, custom

boolean values (JavaScript) 432

branding options, browsers 598, 793

bridges, NetMeeting compatibility 356

broadcasting 283–286, 296  
   *See also* multicasting, NetShow; unicasting, NetShow

Browse in a new process (browser setting) 123

Browser Capability component 771

Browser Channel bar icon, customizing 696–697

browser controls *See* WebBrowser Control, browsers

Browser Only (Setup Wizard installation option) 19

browsers  
   *See also* Active Desktop; Internet Explorer 4;  
   WebBrowser Control  
   architecture 136–138  
   branding options 598, 793  
   capabilities, determining 771  
   custom, creating using WebBrowser control 139–140  
   customizing using Configuration Wizard 639–660,  
   776–780  
   full screen display 577  
   language conflicts with operating system 9, 720–721  
   optimizing 130–134  
   redirecting 756  
   version number, determining 771

Browser Title (Wizard Settings option) 684

Browsing options, Internet Options  
   dialog box 122–123, 576–577

Business tab, Profile Assistant 538

buttons, custom 615–616

Button style color (Configuration Wizard setting) 630

Bypass proxy server for local (intranet) addresses  
   (proxy setting) 95

## C

/c switch  
   ACME Setup 711  
   Actsetup.exe 710  
   WExtract utility 13, 707, 708

Cabarc.exe 759, 760, 762

CAB Developers Kit (Web site) 759

.cab files  
   *See also* trust-based security, Java  
   adding components from the Internet 66–67  
   auto-configuration files, signing 496, 678  
   automatic browser configuration 677  
   certificate display, troubleshooting 762  
   compression and packaging 425  
   configuring for Active Setup 626  
   created by Configuration Wizard, signing 814  
   digital signatures 10, 760–761  
   for custom browser packages 666  
   Frequently Asked Questions (FAQs) 759–762  
   Internet Explorer 4 support for 422  
   missing, for local reinstallation 68  
   OSD files, packaging 701  
   overview 10  
   Package Manager 424  
   permission signing 492–493, 496  
   policies and restrictions settings 685  
   referencing in Web pages 428  
   reinstalling components 67–68  
   trust-based security 428

- .cab files (*continued*)
  - used in Setup process
    - corrupted, troubleshooting 6
    - downloaded for Windows Desktop Update 21
    - downloading during Active Setup 30–32
    - IE4Setup.exe, files extracted from 10–11
    - version number, inserting 761
    - WExtract utility 10
  - Cabinet files *See* .cab files
  - .cab information file, downloading 30–31
  - CAB Resource Kit 759
  - Cache Container Tool 120
  - cached resources
    - Active Desktop items 742–743
    - cache settings 132–133
    - CD caching 120
    - file history 116
    - Java applets, pre-caching 182
    - manually updating 133
    - not visible in Channel bar 765
    - storage of 120
    - subscription content 764
    - updating during online sessions 764
  - calendar program, selecting default 126
  - call stack, Java permission scoping 494
  - call windows, NetMeeting 333
  - Calling tab, Options dialog box 365
  - Cancel button (Configuration Wizard) 618
  - CANRESIZE attribute, <USAGE> tag 224
  - capability signing 443
  - CAs (Certificate Authorities)
    - See also* certificate servers; digital certificates
    - Certification Practices Statement (CPS) 470
    - configuring for deployed browsers 657–658
    - issuer types 480
    - overview 468
    - root certificates, configuring 479–480, 484, 487
    - selection of 470
    - services provided 469
    - trusted CAs
      - designating 481, 484, 487
      - removing 482, 484, 487
    - types of certificates 469
  - cascaded topology *See* topologies
  - Cascading Style Sheets
    - background images, troubleshooting 755–756
    - .css files 569
    - cursor attribute 767
    - external style sheets 402
    - font embedding 403–405
    - overview 401–402
    - STYLE attribute 402
    - STYLE blocks 402
  - cdcache.exe 120
  - CD Caching utility 120
  - CDF (Channel Definition Format) files
    - See also* Active Channels
    - Active Desktop items 185, 224
    - ASCII character encoding 764
    - channel hierarchy 212
    - channel screen savers, designating 225
    - creating 216–229
    - desktop items 766
    - dynamically generated 225–228
    - e-mail notification, specifying 746
    - examples of 186, 220–222
    - expiration date, defining 184–185
    - format of 215
    - generating using ASP 226–228
    - items, pointing to 218
    - logo for channel 218
    - MIME type 763
    - MIME/content type 225
    - personalized channels 225–228
    - referencing from Web pages 186
    - software distribution channels 690, 697–699
    - statistics, logging 219, 238
    - subchannels, creating 216
    - ToolTip text 217
    - update schedules 217, 223, 765
    - updating content not visible in Channel bar 765
    - URLs, referencing 218
    - usage types, specifying 219, 221, 223
    - user access to 799
  - CDF link-crawl architecture 215–216
  - CDF specification, Web site 691, 799, 802
  - Cdfview.dll 216
  - CD-ROM installation, custom packages
    - Autorun screen, customizing 629–630, 774
    - Autorun screen, customizing
    - custom buttons 615
    - distribution files 668
    - distribution strategy planning 594–596, 597
    - installation options 19–20, 36–40
    - installation process 36
  - CD-ROM, Internet Explorer 4 Resource Kit
    - HTML wallpaper samples 178–179
    - Web View sample applications 163
  - Certificate Authorities *See* CAs (Certificate Authorities)
  - certificate servers 471
  - Certification Practices Statement (CPS) 469
  - Change Supervisor Password dialog box 525
  - Channel bar
    - custom graphics and icons 615
    - deployed browsers, configuring 118
    - icons, customizing 696–697
    - keyboard navigation 562
    - offline browsing 121
    - overview 118

- Channel bar (*continued*)
  - software distribution channels 693–694
  - <USAGE> tag 222
- Channel Definition Format files *See* CDF (Channel Definition Format) files
- Channel Guide 22
- Channel Manager, NetShow Administrator 300–304
- channel screen savers
  - adding to Active Desktop 179
  - designating in CDF files 225
  - overview 214
  - support content, downloading 225
- Channel Settings object
  - Active Channel subscription options, locking down 236–238
  - subscription options, locking down 203–206
- <CHANNEL> tag 185, 216–217, 221, 698
- channels
  - See also* Active Channels; Channel bar; NetShow channels; software distribution channels
  - base URLs 217
  - e-mail delivery 254
  - hierarchy 212
  - order of 798
  - removing 798
  - secure channels 474–477
- Channels and Subscriptions Settings (Custom-Build Checklist) 788
- Channels folder, Favorites bar 113
- channels.htm resource, IE4tour.dll 138
- channels, NetShow *See* NetShow channels
- Channels Settings (Custom-Build Checklist) 790
- Chat feature, NetMeeting 332, 580
- Check for certificate revocation (security setting) 124, 542
- Check names against this server... (Configuration Wizard setting) 662
- checklists
  - Custom-Build Checklist 614, 773–791
  - deployment testing 604
- Checksum, installing .cab files 38
- CLASSID (ActiveX controls) 416, 417
- class libraries *See* Package Manager, Java
- Client Authentication dialog box 480–481
- client certificates, importing 480–481
- clientHeight property 767
- client programs 126–128
- client/server communications
  - CryptoAPI 2.0 477
  - firewall support 477
  - overview 474
  - secure channels 474
  - Server Gated Cryptography (SGC) 475–477, 721
  - Windows NT Server Challenge Response 477
- client/server configurations, deployment planning 590
- client services (Java applet permissions) 512–513
- Client Services tab, Edit Custom Permissions dialog box 511–513
- Client storage settings (Java permissions) 512
- clientWidth property 767
- Clipboard, Windows
  - applet access to 513
  - sharing, in NetMeeting 332
- clock synchronization 192
- CLSID (ActiveX controls) 416, 417
- CODEBASE attribute, Nsplayer.ocx control 326
- CODEBASE element, packaging OSD files 701
- codecs
  - adjusting content for bandwidth 320–322
  - codec independence 294
  - included with NetShow 282–283, 294
  - informational Web site 294, 322
  - overview 293
- code signing
  - See also* Authenticode
  - auto-configuration files 677
  - .cab files 10, 759, 760–761
  - CryptoAPI 2.0 477
  - custom packages 626, 813–814
  - software distribution packages 701
- Code Sign Kit, obtaining 759
- cognitive impairments
  - accessibility settings 553–554
  - Browsing options 576, 577
  - multimedia settings 552
- collaboration, using NetMeeting 337, 371–372
  - See also* Microsoft NetMeeting
- color blindness *See* vision impairments
- Color dialog box 572, 573
- color palettes, Active Desktop items 184
- colors
  - custom colors, creating 573
  - formatting in style sheet 568–570
  - high-contrast color scheme, selecting 573–574
  - hover color, selecting 573
  - hyperlinks, selecting 572
  - overriding Web-page formatting 567
  - text and background colors, selecting 571–572
- Colors dialog box 571–574
- Colors options, Internet Options dialog box
  - cognitive and language impairments, settings for 554
  - low-vision users, accessibility settings 551
- COM (component object model)
  - and ActiveX controls 414
  - and Java 414
  - Internet Explorer 4 support for 422
  - Java integration of 425
- Command (Configuration Wizard setting) 626
- comments (JScript) 432
- commercial CAs 469–470
- communications, corporate, using NetShow 292

- Compact Disc *See* Internet Explorer 4 Resource Kit CD
- Company name (Configuration Wizard setting) 620
- compatibility issues
  - deployment planning 591, 593
  - Web pages 593
- Completions option (Address bar shortcut menu) 100–102
- Component (Configuration Wizard setting) 626
- component installation options 588, 598, 775, 800
- components
  - See also* components, Internet Explorer 4
  - ADO components 772
  - custom
    - adding to Active Setup installation 625–627, 774
    - allowing uninstallation 627
    - including in custom packages 617
    - MFC .dll files 768
  - installed with Internet Explorer 3, uninstalling 798
  - installing during ACME Setup 37–39
  - Personal Web Server, optional components 386–387
  - WebBot components 381–382
- Components Download page 65–66
- components, Internet Explorer 4
  - See also* components
  - adding 64–66, 66–67
  - configuring for deployed browsers 660–665
  - extracting using IExtract.exe 69
  - included in standard installation suites 588
  - installation options 588, 598, 775, 800
  - not included in installation options 65–66
  - optional components 795–797
  - reinstalling 67–68
  - removing 63
  - troubleshooting
    - installation of 38–39, 724
    - reinstallation of 68
  - uninstalling 74–75
  - updating 70–72, 624
  - version requirements 75, 735
  - Windows Desktop Update, adding and removing 69–70
- Components to install (Configuration Wizard setting) 634
- compression/decompression algorithms *See* codecs
- conditional compilation (JScript) 434
- conferencing *See* Microsoft NetMeeting
- conferencing servers, NetMeeting compatibility 355–356
- conferencing standards, NetMeeting
  - H.323 standard 348–349
  - LDAP 350–353
  - overview 335, 343
  - standards organizations 344
  - T.120 standard 344–347
- configuration, automatic
  - See also* automatic browser configuration
  - Active Channels, managing 239–240
  - Active Desktop items, managing 239–240
  - deployment planning 599
- Configuration identifier (Configuration Wizard setting) 636
- Configuration Wizard *See* IEAK Configuration Wizard
- Configure reboot page (IEExpress Wizard) 812
- Confirmation prompt page (IEExpress Wizard) 807
- connect addresses (Java permission) 511
- Connection object, Profile Manager 676
- connections *See* Internet connections
- Connection tab
  - Internet Options dialog box
    - automatic browser configuration settings, locked down 676
    - Automatic Configuration URL, selecting manually 48
    - Internet Connection Wizard, launching 87
    - proxy bypass settings 95–96
    - proxy servers, configuring 93–95
    - setting up browser for automatic configuration 679–681
  - Options dialog box 452
- constants (JScript) 432
- content *See* Webcasting; support content
- Content Advisor
  - See also* rating systems
  - content rating systems 520–521
  - enabling and disabling 522–523
  - in deployed browsers
    - locking down settings 528
    - pre-configuring 526–527
    - updating settings 529–530
  - overview 520
  - PICS rating standards 520, 521
  - rating systems, importing 525–526, 527
  - ratings categories, configuring 523
  - restricted content, configuring access to 522, 524–525
  - restricted content, configuring access to RSACi content rating system 520–521
  - supervisor password 522, 524–525
  - unrated sites, configuring access to 524
- Content Advisor dialog box
  - Advanced tab 525–526, 527
  - General tab 524–525, 527
  - Ratings tab 523, 527
- content, NetShow
  - adjusting for bandwidth 320–322
  - .asf files, building 318
  - audio content, creating 316
  - bandwidth selection 317–318
  - content-creation tools 318–320
  - distributed delivery 286
  - images, creating 316
  - overview 315
  - script commands 317
  - URLs 316
  - video content, creating 315–316

- Content object, System Policies and Restrictions hierarchy 528
- content pane 108
- content rating tags 184
- content ratings xliv, 440
  - See also* Content Advisor
- Content tab, Internet Options dialog box
  - Certificate Authorities dialog box 479–480
  - Client Authentication dialog box 480–481
  - Content Advisor 522–523
  - digital certificates, configuring 478
  - Microsoft Wallet, configuring 538–541
  - Profile Assistant, configuring 537–538
  - trusted publishers and CAs, removing 482, 484, 487
- Content.inf file 11
- Contents list, Help tool 563–564
- context menus, customizing in WebBrowser Control 141
- contrast sensitivity impairment *See* vision impairments
- control flow (JavaScript) 432, 434
- Control Panel
  - Accessibility Properties dialog box 551
  - Add/Remove Programs applet 63
  - Services dialog box 312
  - sound events 107
  - Sounds Properties dialog box 550, 551
  - Users icon 55–57
  - Web View, configuring for deployed browsers 651
- Control Panel folder, customizing 170–171
- controlled information delivery
  - See also* Microsoft NetShow managed Webcasting 210–211
  - true Webcasting 241
  - vs. Web site subscriptions 207
- Controlp.htm file 164, 170, 651
- controls *See* ActiveX controls
- cookies 124, 225, 532–533, 542
- cookies (security settings) 124, 542
- copy and paste activities (security settings) 450, 462
- Corporate Administrator role 596
- corporate communications, using NetShow 292
- corporate information delivery, using NetMeeting 372–373
- CPS (Certification Practices Statement) 469
- crawl depth 197, 204, 206
- credit card information, storing 536, 540
- Cryptographic Service Provider (CSP) 477
- .css files 569
  - See also* Cascading Style Sheets
- CTRL key (AutoComplete feature) 560
- CTRL+D (NetMeeting navigation) 580
- CTRL+ENTER (AutoComplete feature) 102, 560
- CTRL+F (NetMeeting navigation) 580
- CTRL+F10 (Help tool navigation) 564, 565, 566
- CTRL+L (NetMeeting navigation) 580
- CTRL+LEFT ARROW (AutoComplete feature) 102
- CTRL+N (Internet Explorer 4 navigation) 559
- CTRL+N (NetMeeting navigation) 580
- CTRL+P (Internet Explorer 4 navigation) 559
- CTRL+Q (Internet Explorer 4 navigation) 558
- CTRL+RIGHT ARROW (AutoComplete feature) 102
- CTRL+S (Internet Explorer 4 navigation) 559
- CTRL+SPACEBAR (desktop icon navigation) 562
- CTRL+T (NetMeeting navigation) 580
- CTRL+TAB (Internet Explorer 4 navigation) 558
- CTRL+TAB (NetMeeting navigation) 580
- CTRL+W (NetMeeting navigation) 580
- Current Call list, NetMeeting 580
- current record binding (data presentation) 409
- cursor attribute, Dynamic HTML 767
- Custom background bitmap location
  - (Configuration Wizard setting) 630
- Custom-Build Checklist 614, 773–791
- Custom button bitmap
  - (Configuration Wizard setting) 630
- custom colors, creating 573
- Custom Component Install page
  - (Configuration Wizard) 632, 775
- Custom Components Installation Title
  - (Configuration Wizard setting) 631
- Custom Java Security dialog box 459, 498, 499–501
- custom packages
  - See also* automatic browser configuration; deployed browsers; IEAK Configuration Wizard
  - automatic browser configuration, setting up 673–675
  - Automatic Version Synchronization (AVS) 593, 620, 624, 774
  - bitmaps, custom 615–616, 798
  - building 608, 614–617
  - configuration 596–601
  - Configuration Wizard 617–637
  - custom components, including in 616
  - deploying 608
  - distributing 614–615
  - distribution files 667–668
  - distribution servers 615
  - generating 666
  - installation packages, configuring 633–634
  - Online Support option (Help menu), default Web page 613
  - signing package files 666, 813–814
  - software distribution channels 702–704
- custom permissions, Java applets 517
- Custom Security Settings dialog box 404
- Custom string to be appended to user agent string
  - (Configuration Wizard setting) 652, 794
- Custom tab, Edit Custom Permissions dialog box 516–517
- custom templates
  - See also* template files
  - FrontPage Express 381
  - stationery templates 255, 271–274

- custom toolbars
  - background bitmaps 615, 794, 798
  - creating 158–159
  - design guidelines 157, 794
  - keyboard navigation 562
  - New Toolbar command 154
  - pre-configuring in deployed browsers 159–160
- customer service, using NetMeeting 337
- Customization code (Configuration Wizard setting) 620
- customization key, IEAK 614
- Customize Desktop Toolbars page (Configuration Wizard) 159, 650, 777
- Customize Software Update Channels page (Configuration Wizard) 648, 703, 777
- Customize the Active Channel bar page (Configuration Wizard) 234, 646–647, 776
- Customize the Active Setup Wizard page (Configuration Wizard) 630, 775
- Customize the Autorun Screen for CD-ROM Installations page (Configuration Wizard) 629–630, 775
- Customize the Start and Search Pages page (Configuration Wizard) 642, 776
- Customize the Welcome Message and Desktop Wallpaper page (Configuration Wizard) 645–646, 776
- Customize the Window Title and Toolbar Background page (Configuration Wizard) 641, 776
- Customize Title Bars (Configuration Wizard setting) 640
- Customizing the Browser (Configuration Wizard) 639–660, 776–779

## D

- /d switch (WExtract utility) 707
- Daily (software distribution channel schedule setting) 704
- daily updates to subscribed sites 201
- daisy-chain topology *See* topologies
- damaged controls 417
- .dat files, Outlook Express 259
- Data Access Components, Microsoft 386
- databases
  - data binding, Dynamic HTML 407–409
  - LDAP databases 351
- data binding 407, 409
- data conferencing 343–350, 355–357, 360
  - See also* Microsoft NetMeeting
- Data Form Wizard, troubleshooting 755–756
- data rate 293
  - See also* bit rate
- Data Source Object Gallery 408
- data source objects 407–409
- date handling (JScript) 432, 434, 436–437
- DCOM (Distributed COM) 422
- deaf users, accessibility settings 551–552
- debug install 47
- declarations (JScript) 433
- Declared member reflection (Java permissions) 516
- decompression *See* codecs
- Delete access (Java applets) 508–510
- Delete existing Internet Explorer 4.0 channels (Configuration Wizard setting) 647
- delete operator (JScript) 437
- Delete saved pages when browser closed (security setting) 124, 542
- delimited text files, data source 408
- demographic information,
  - Profile Assistant 533–535, 536–538
- DEPENDENCY element, CDF files 699
- Dependency Tab, Properties dialog box 418
- deployed browsers
  - See also* automatic browser configuration; custom packages
  - Active Channels
    - locking down 235–238
    - managing 238–240
    - pre-configuring 233–234
  - Active Desktop
    - locking down 181
    - managing 239–240
    - pre-configuring 234–235
  - automatic browser configuration 653–655
  - browser title bar, configuring 640
  - Content Advisor
    - locking down 527–528
    - pre-configuring 526–527
    - updating 528–530
  - custom toolbars, pre-configuring 159–160
  - digital certificates
    - locking down 485
    - pre-configuring 483–487
    - updating 486–487
  - Favorites, configuring 644
  - Java permissions, customizing 502–517
  - LDAP, configuring 662
  - Online Support option, customizing 616, 643
  - Outlook Express, configuring 661, 663, 664
  - proxy settings, configuring 655–656
  - root certificates, configuring 657
  - Search page, customizing 616
  - Search Pane, configuring 642
  - Secure Password Authentication, configuring 661
  - security zones, pre-configuring 463–466
  - signatures, configuring 664
  - software distribution channels
    - configuring 647–648
    - locking down 704
  - start page, customizing 616
  - technical support during installation 670
  - trust-based security for Java, customizing 502–517
  - user agent string, customizing 652–653, 794

- deployed browsers (*continued*)
  - Web site subscription options, locking down 203–206
  - Welcome page, configuring 645–646
- Deployed browsers, SMTP server, configuring 661
- deployment planning
  - See also* validating deployment
  - announcing deployment 612
  - branding options 598, 793
  - browser security 599
  - browser settings, pre-configuring 599
  - client/server configurations 590
  - compatibility issues 591–593
  - component installation options 588, 598, 775, 800
  - custom package configuration 596–600
  - distribution media 597, 622, 773, 798
  - distribution strategies 594–596
  - e-mail and news programs, configuring 593
  - e-mail options 600
  - finalizing 609
  - migration issues 590–592
  - news options 600
  - overview xviii, 581–583, 586
  - pilot programs 607–608
  - plug-ins and add-ins 592
  - project plan, developing 601
  - project teams 586–587
  - roles 596–597
  - security issues 599
  - setup appearance 598
  - system policies and restrictions 600
  - technical requirements 587–588
  - testing deployment 604–605
  - user needs 590
  - user support and training 606–607
  - validating deployment 604–609
  - version synchronization 597, 620, 624
- Description (Configuration Wizard setting) 634
- design guidelines
  - Active Channels 228–229
  - Active Desktop 182–185
  - custom toolbars 157, 794
  - folder display, Web View 168–169
  - taskbar 157
- Deskmovr.htt file 164
- Desktop bar 153
- Desktop Channel bar logo, customizing 696–697
- Desktop folder, optimizing roaming profiles 52
- Desktop.htm file 175
- desktop icon layer, Active Desktop interface 175
- desktop icons, keyboard navigation 562
- Desktop.ini file 165
- Desktop object, custom toolbar options,
  - locking down 159–160
- desktop settings, (Custom-Build Checklist) 782–784
- Desktop toolbar
  - configuring for deployed browsers 650
  - customizing 158, 793
  - keyboard navigation 561–562
  - overview 650
- Desktop Wallpaper (Wizard Settings option) 684
  - See also* wallpaper, Active Desktop
- Destination folder (Configuration Wizard setting) 622
- Destination Folder dialog box 23–26, 36
- Dialogs (Java permission) 500, 501
- dial-up connections
  - for site and channel updates, disabling 205, 238
  - unattended, troubleshooting 745–746
- .dib files 316
- digital cash *See* Microsoft Wallet
- digital certificates
  - Authenticode 471–474
  - Certificate Authorities 468–470
  - client certificates, importing 480–481
  - client/server communications 474–477
  - configuring 478
  - contents of 468
  - lifetime of 473
  - overview xliii, 439, 441–442, 468–469
  - pre-configuring in deployed browsers 483–487
  - privacy security settings 541–542
  - root certificates, configuring 478–480, 484, 486–487
  - server certificates, SGC 476
  - Server Gated Cryptography (SGC) 475–477
  - SGC certificates 477
  - test certificates 762
  - uses of 468–469
  - validity, verifying 472–473
- digital IDs, Outlook Express
  - associating with e-mail accounts 275
  - encrypted mail, sending and receiving 276–277
  - Microsoft Internet Explorer Digital ID Web site 275
  - obtaining 275
  - overview 274
  - signed mail, sending and receiving 276
  - storing in Address Book 276–277
  - trust status 277
- digital signatures
  - See also* code signing; digital IDs, Outlook Express
  - ActiveX controls 419, 458
  - Authenticode 471–474
  - .cab files 10, 760–761
  - custom packages 814
  - for custom browser packages 666
  - in jar files 422
  - overview 441
  - software distribution packages 701
  - verifying 471–472
- DirectAnimation multimedia controls 419–420

- directories
  - See also* directory services; folders
  - created during installation 42
  - installed with Personal Web Server 387
- directory browsing, Personal Web Server 390
- Directory list, NetMeeting 580
- Directory Server (NetMeeting setting) 366
- directory servers, ILS compatibility 357
- Directory Service (Configuration Wizard setting) 662
- directory services
  - See also* LDAP (Lightweight Directory Access Protocol)
  - configuring in Outlook Express 264–265
  - ILS (Internet Locator Service) 332–333, 353
  - ports required 361
  - profiles installed with Outlook Express 264
  - registry data 266
  - updating 266
- Directory Services Order dialog box 265
- Directory Services tab, Internet Accounts dialog box 266
- DirectX
  - DirectSound, NetMeeting support 336
  - multimedia class libraries 423
- Disable all cookie use (privacy setting) 542
- Disable Internet Explorer 4.0 Welcome window (Configuration Wizard setting) 645
- disablePrivilege method 493
- Disable script debugging (browser setting) 122
- Disables... (site subscription settings, locking down) 205–206
- disclaimers, in Outlook Express messages 270
- discussion groups, using NetMeeting 373
- diskless workstations, Internet Explorer 4 installation 5
- disk-space checks, Active Setup 23, 24, 28
- Display default...welcome page (Configuration Wizard setting) 645
- Display tab, Accessibility Options dialog box 573–574
- distance learning, using NetMeeting 338
- distribution of custom packages
  - See also* custom packages; software distribution channels
  - automatic browser configuration 681
  - deployment planning 594–596
  - distribution files 667–668
  - distribution media 597, 621–622, 773, 798
  - distribution methods 589, 668–669
  - preparation for 614–615
- distribution servers 309–310
- DIV element 405
- .dll registration problems, troubleshooting 44
- DNS names 452
- Do not customize channels (Configuration Wizard setting) 647
- Do not customize Software Distribution Channels (Configuration Wizard setting) 648
- Do not display a welcome page (Configuration Wizard setting) 645
- Do not save encrypted pages... (security setting) 124, 542
- Do not use proxy server for local (intranet) addresses (Configuration Wizard setting) 656
- <!DOCTYPE> tag 764
- document collaboration, NetMeeting 337
- Document Object Model
  - ActiveX controls 415
  - dynamic content in Web pages 406
  - dynamic styles 403
  - Java exposure 423
  - overview 400
  - scriptlets 410–411
  - W3C Document Object Model Web page 400
- documents, keyboard navigation 558
- Documents menu, optimizing roaming profiles 52
- Don't update this subscription when I'm using my computer (site subscription setting) 202
- DontUseDNSLoadBalancing entry, adding to registry 736
- DOWN ARROW key
  - Advanced tab, Internet Options dialog box 575
  - AutoComplete feature 102, 560
  - Contents list (Help tool) navigation 563
  - Internet Explorer 4 navigation 558
  - Search tab (Help tool) navigation 565–566
- Downloaded Web page folder 53
- Download linked pages within a depth of \_\_ (site subscription setting) 197
- download options
  - Active Channel subscriptions 230–232
  - Web site subscriptions 196–198
- Download Options dialog box, Setup Wizard 18
- Download Program Files folder 737–738
- Download signed ActiveX controls (security option) 449, 458
- Download site (Configuration Wizard setting) 624
- download sites
  - Active Setup, configuring 624, 634, 775
  - Internet Explorer 4 Web site 544
  - registry entries 27
  - silent installation 633
- Download Sites dialog box, Setup Wizard 24–27
- downloads, security settings 450, 459–460
- Download unsigned ActiveX controls (security option) 449, 458
- Draft folder, Outlook Express 256
- Drag and drop or copy and paste files (security option) 450, 462
- dual-boot computers 5, 591
- DVMRP (Distance Vector Multicast Routing Protocol) 298
- dynamically generated CDF files 225–228
- dynamic content, in Web pages 403, 406–407
  - See also* Dynamic HTML
- dynamic directory services 350
  - See also* ILS (Internet Locator Service)

## Dynamic HTML

*See also* DirectAnimation multimedia controls;

HTML (Hypertext Markup Language)  
 cross-frame security 757–758, 770  
 cursor attribute 767  
 data binding 407–409  
 Document Object Model 400, 415  
 dynamic content 403, 406–407  
 dynamic styles 401–403  
 event handlers, troubleshooting 768  
 filters 406  
 Frequently Asked Questions (FAQs) 767–768  
 graceful degradation 400, 771  
 HTML standards 399–400  
 in Active Desktop items 182  
 overview xli, 395, 398  
 positioning HTML elements 405  
 reflowing pages for offline browsing 228  
 resources 398–399, 401  
 scriptlets 409–412  
 text associated with elements, changing 767  
 TextRange objects 407  
 ToolTips over anchors, customizing 767  
 transitions 405–406  
 Web site 178

Dynamic HTML Object Model 141

dynamic objects, ILS 352

dynamic styles

and Document Object Model 403  
 Cascading Style Sheets 401–402  
 font embedding 403–404  
 inline script events 403  
 overview 401  
 STYLE attribute 402  
 STYLE blocks 402

## E

<EARLIESTTIME> XML tag 217, 698

ECMA-262 specification *See* ECMAScript

ECMAScript

ECMA-262 specification 431, 432–433  
 Internet Explorer 4 vs. Netscape Navigator 4  
 support 436–437  
 overview 431  
 Public\_Description object 411

Edit Custom Permissions dialog box 505–507

Client Services tab 512–513

Custom tab 517

File tab 508–509

Network tab 510–511

Reflection tab 516

Registry tab 509–510

System tab 514–515

Edit Permissions tab, Custom Java Security  
 dialog box 499–501

editable setting, embedded fonts 404

Effects control, DirectAnimation 420

electronic checks *See* Microsoft Wallet

elements, HTML *See* HTML elements

e-mail accounts 256

E-mail address (site subscription setting) 198

e-mail delivery of site subscriptions 254

e-mail messages, importing from other mail applications 264

e-mail messaging, NetMeeting 334

e-mail notification

for Active Channels 219, 223

setting e-mail address 198

software distribution channels 695

troubleshooting 746–747

e-mail programs, in deployment planning 593

E-mail server name (SMTP) (site subscription setting) 198

e-mail servers, configuring for deployed browsers 661

Email UsageType value 219, 223

Emergency Repair Disk (ERD), Windows NT 41, 77

Enable automatic browser configuration

(Configuration Wizard setting) 654

enabled permissions 493

Enable page hit counting (browser setting) 123

Enable page transitions (browser setting) 123

Enable Profile Assistant (security setting) 124, 542

Enable proxy settings

(Configuration Wizard setting) 655–656

Enable scheduled subscription updates (browser setting) 123

encrypted .asx files 300

encrypted mail, sending and receiving 276–277

encrypted Web content, saving to disk 542

encryption 474, 721

encryption check (IE4Setup.exe) 14

END key

Contents list (Help tool) navigation 563

Index tab (Help tool) navigation 564

Internet Explorer 4 navigation 558

Search tab (Help tool) navigation 565

End of range ... (site subscription setting) 204

End-User License agreement dialog box, Setup Wizard 17

enhanced installation 589

Enter Company Name and Customization Code page  
 (Configuration Wizard) 620

ENTER key

Active Desktop items navigation 562

Channel bar navigation 562

Contents list (Help tool) navigation 563, 564

desktop icon navigation 562

Help tool navigation 562, 563

hyperlink navigation 562

Index tab (Help tool) navigation 565

Internet Explorer 4 navigation 558

QuickLaunch toolbar navigation 561

- ENTER key (*continued*)
    - Search tab (Help tool) navigation 565, 566
    - taskbar navigation 561
    - Web page navigation 559
  - entertainment, using NetShow 292
  - Enumeration (JScript) 434
  - error codes
    - Active Setup error codes 15
    - HResult error codes (Active Setup log file) 15
  - error correction
    - ASF packets 296
    - multicast file transfer 310
  - error messages
    - in Active Desktop items 184
    - Permission Denied 770
    - shdocvw.dll 138, 140–141
    - The command failed to execute 753
    - Unable to sign the program <.cab file> 760–761
    - Wrong number of arguments 768
  - errors
    - See also* troubleshooting
    - item installation, ACME Setup engine 38–39
    - Setup Wizard
      - .cab files, downloading 31
      - download phase 28–29
      - insufficient disk space 24
      - proxy errors 25–26
      - trust errors 31
    - SoftBoot 44
    - uninstalling Internet Explorer 4 79
  - ESC key
    - animation, turning off 553
    - Internet Explorer 4 navigation 558
    - NetMeeting navigation 580
  - European Computer Manufacturers Association
    - See* ECMA Script
  - Eval method (JScript) 437
  - event handlers, Dynamic HTML 768
  - Every time you start Internet Explorer (cache setting) 133
  - Every visit to the page (cache setting) 133
  - Exceptions (Configuration Wizard setting) 656
  - Exceptions section, Proxy Settings dialog box 95–96
  - Exchange mail clients, and NetMeeting mail extension 334
  - Exchange Server Property (NetMeeting setting) 367
  - .exe files 627, 801
    - See also* names of specific .exe files
  - Execute (Java permission) 500, 501
  - Execution access (Java permissions) 515
  - expiration dates, Active Desktop items 184
  - Explorer bars
    - accessibility benefits 546
    - Channel bar 118
    - displaying 559
    - Favorites bar 113–115
    - History bar 116–118
  - Explorer bars (*continued*)
    - new, creating 119
    - overview xxii, 104, 108
    - Search bar 108–112
  - Explorer.exe
    - troubleshooting Explorer uninstallation 79
    - updated version, Windows Desktop Update installation 145
  - Explorer toolbar, Search button 108
  - Extensible Markup Language *See* XML
  - extraction, installing .cab files 38
- ## F
- /f switch (ACME Setup) 711
  - F5 key
    - Internet Explorer 4 navigation 558
    - NetMeeting navigation 580
  - F6 key, NetMeeting navigation 580
  - fail-over, intelligent (NetShow) 285
  - Favorites (Wizard Settings option) 684
  - Favorites bar
    - default contents 113
    - editing using Profile Manager 114–115
    - Organize Favorites dialog box 114
  - Favorites folder
    - adding folders 115
    - configuring for deployed browsers 644
    - folder location, registry entry 155
    - importing folders 801
    - roaming profiles, optimizing 53
  - Favorites Folder and Links Customization page (Configuration Wizard) 644, 776
  - Favorites menu
    - customizing 155
    - editing contents of 156
    - item arrangement information, registry entry 156
    - overview 105–106
    - reordering items on 156
    - Start menu integration 148–149
  - file access (Java permissions) 508–509
  - file dialog boxes (Java permissions) 513
  - File download (security option) 450, 460
  - file names
    - in user profile registry entries 59
    - Web View, customizing 168
  - file properties, left folder pane display 167
  - file sharing, and Internet connections 88–90
  - file size, limiting downloads 198, 204, 232, 236
  - File tab, Edit Custom Permissions dialog box 508–509
  - file transfer, NetMeeting 332
  - file transfer streams 284, 310–313
  - file URLs, allowing applet access to 509, 511
  - FileList control 169

## files

- See also* names of specific file types
- backup files 39, 76–77, 83
- distribution files, custom packages 667–668
- IE4bak.dat file, extracting from 69
- IE4Setup.exe
  - copied to system folder 14
  - extracted from 10–11
  - loaded into memory 14
- left in system after uninstallation 714–718
- making accessible using Personal Web Server 390
- Outlook Express, used by 258, 753–754
- replaced during Windows Desktop Update installation 145
- required for ACME Setup uninstall 76
- required for uninstallation 79–80
- Web Publishing Wizard, publishing using 393–394
- Web View Wizard, created by 165

## filters

- Dynamic HTML 406
- NetMeeting directory entries 333
- financial transactions, Microsoft Wallet 535
- Find command, Start menu 150–742
- Find People dialog box
  - updating directory services 266
  - Windows Address Book 260

## FindResource function 142

## FindX PowerToy 742

## Finished message page, IExpress Wizard 810–811

## firewalls

- HTTP streaming 311
- NetMeeting 360–362
- NetShow 287
- overview 359
- security zones, configuring 452
- socks protocol 477

## flat file directory, Outlook Express 258–259

## floating frames 175

## floppy disk installation, custom packages

- distribution files 668
- distribution strategy planning 594, 597

## Folder bar, Outlook Express, configuring 270

## Folder.htt file

- customizing 167–168
- overview 165
- replacing with custom HTML file 168–169
- Web View functionality 164

## Folder list

- NetMeeting 580
- Outlook Express 270

## Folder Options dialog box 151

## Folder Properties dialog box 171

## folders

- See also* Web View
- adding to Favorites folder 115

folders (*continued*)

- applying InBox Assistant rules to 267–268
- custom toolbars, creating 158
- customizing using Web View Wizard 166
- displaying contents of 169
- Folder.htt file 167–169
- header graphics, customizing 168
- installation folder, specifying 637
- left pane display, customizing 167
- My Documents folder, customizing 168
- per-user folders 59–60
- roaming folders 59–60
- Thumbnail view, selecting 171–172
- user profile settings 60
- virtual folders, customizing 170

## Follow links outside of this page's Web site (site subscription setting) 197

## Font button, displaying 568, 579

## Font download (security option) 450, 460

## font embedding

- font download, controlling 404, 450, 460
- levels of embedding 404
- Open Type Font Embedding technology, Microsoft 403
- overview 403
- STYLE blocks 404
- WEFT (Web Embedding Fonts Tool, Microsoft) 405

## &lt;FONT FACE=&gt; tag 403

## font sizes

- changing default size 567, 571, 574–575
- changing in current session 568, 574–575, 734
- factors affecting 574–575
- overriding Web-page formatting 567–568, 571, 734
- scaling factor 574–575
- specifying in <FONT> tag 575

## font styles, overriding Web-page

formatting 567–568, 571, 734

## formatting of Web pages,

overriding 567–568, 571, 734

## forms

- creating using FrontPage Express 377
- publishing using Personal Web Server 392
- redirection warning 542
- security settings 450, 461

## forms, HTML

- in offline browsing 191
- personalized Active Channels 226–228
- using stationery templates 271–273

## Forward button xxi, 103

## frames

- cross-frame security 757–758, 770
- HTML syntax, Web site 757
- in desktop wallpaper 744
- keyboard navigation 558
- troubleshooting 757–758, 766, 770

## &lt;FRAMESET&gt; tag 757, 766

Friendly Name (Configuration Wizard setting) 662  
 friendly names, third-party clients 128  
 FrontPage Express *See* Microsoft FrontPage Express  
 FTP (Configuration Wizard setting) 656  
 Full installation option  
   components included 588  
   customizing 634  
   IEAK Configuration Wizard requirements 589  
   NetShow Player 288–289  
   Setup Wizard 19  
   system requirements 587  
 Full Screen mode 105  
 full screen window 576–577  
 Function Creation (JScript) 433, 434  
 FX libraries 423

## G

/g switch (ACME Setup) 711–712  
 gatekeepers, H.323 protocol 349, 357  
 gateways, H.323 protocol 349, 357  
 General tab  
   Content Advisor dialog box 524–525, 527  
   Internet Options dialog box  
     Accessibility options 549  
     blind users, settings for 549  
     cache settings 132–133  
     cognitive and language impairments, settings for 553  
     colors, selecting 571–572  
     custom colors, creating 573  
     default fonts, changing 569–570  
     History list, setting item lifetime 117  
     hover color, setting 573  
     low-vision users 550, 551  
     page formatting, overriding 734  
     physical impairments 552  
     Web page formatting options 566–567  
   Options dialog box 365  
   Properties dialog box 417–418  
 GET method 192  
 .gif files  
   Channel bar logos, customizing 696–697  
   including in .cab files 762  
   using as NetShow content 316  
 Global Methods (JScript) 433  
 Global Ports (Java applet permission) 511  
 Globe.ani file 11  
 Go menu, NetMeeting 334  
 Gopher (Configuration Wizard setting) 656  
 graceful degradation, Dynamic HTML 400, 771  
 granted permissions 493  
 graphics  
   *See also* images  
   browser performance 134

graphics (*continued*)  
   folder header graphic, customizing 168  
   sample graphics files, IEAK 616  
 group collaboration, using NetMeeting 371–372  
 Grplist.dat file, Outlook Express 259  
 GUI libraries 423  
 GUID (Configuration Wizard setting) 626

## H

/h switch (ACME Setup) 712  
 H.323 protocol  
   audio conferencing, NetMeeting 330  
   compatible products and services 356–357  
   gatekeepers 349  
   gateways 349  
   in NetMeeting 341, 349  
   interaction with T.120 protocol 349  
   interoperability 349, 355  
   NetMeeting support 335, 336  
   overview 348  
   ports required 361  
   video conferencing, NetMeeting 330–331  
 hard drive, increasing amount of free space 752  
 hard-of-hearing users, accessibility settings  
   *See* hearing impairments  
 hearing impairments  
   overview 551–552  
 HEIGHT attribute, <USAGE> tag 224  
 height of HTML client, determining 767  
 help *See* technical support  
 help desk, using NetMeeting 370  
 helper applications 591, 592  
 Help tool  
   Contents list, keyboard navigation 563–564  
   Index tab, keyboard navigation 564–565  
   keyword searching, keyboard navigation 565–566  
   left pane, hiding and showing 563  
 help topics, displaying shortcut menus 564, 565  
 Hexadecimal Constants (JScript) 436  
 high-contrast display 568–570, 573–574  
 Highlight links when clicked (browser setting) 123  
 Highlight text color (Configuration Wizard setting) 630  
 High Safety, default capabilities 492  
 High security level  
   changing 456  
   default settings 449–450  
   Restricted Sites zone 448, 454  
   users with Authenticode 1.0 473  
 History bar  
   clearing contents of 117  
   configuring 117–118  
   offline browsing 121  
   overview 116–117

- History folder
    - AutoComplete feature 100, 102, 560
    - Back and Forward buttons 103
    - registry entry 117
  - History list (NetMeeting) 580
  - hive synchronization 51
  - HKEY\_CURRENT\_CONFIG hive 50
  - HKEY\_CURRENT\_USER hive 50, 58–59
  - HKEY\_LOCAL\_MACHINE hive 50
  - home directories, roaming profiles 53
  - HOME key
    - Contents list (Help tool) navigation 564
    - Index tab (Help tool) navigation 565
    - Internet Explorer 4 navigation 558
    - Search tab (Help tool) navigation 566
  - Home Page (Configuration Wizard setting) 662
  - home page, configuring for deployed browsers 616
  - Homepage.inf file 11
  - Home Pages, Active Channels 232
  - Home page URL (Configuration Wizard setting) 642
  - Home Page Wizard 385
  - Home tab, Profile Assistant 537–538
  - Host Meeting option (Call menu, NetMeeting) 346
  - hosts, allowing applet access to 511
  - Hot spot control, DirectAnimation 420
  - hourly updates to subscribed sites 202
  - hover color, selecting 573
  - HREF attribute
    - <CHANNEL> tag 217, 221
    - in custom Web View HTML files 169
    - <ITEM> XML tag 218, 221
  - HResult error codes 15
  - HTML (Hypertext Markup Language)
    - See also* Dynamic HTML
    - Frequently Asked Questions (FAQs) 766
    - variable substitution strings 168
  - HTML 4 standards
    - accessibility benefits 546
    - Dynamic HTML 399–400
  - HTML authoring, troubleshooting 755–758
  - HTML Data Source Objects 408
  - HTML editor, default, setting 380
  - HTML elements
    - See also* names of specific elements
    - binding data to 408–409
    - changing text associated with 767
    - innerHTML, innerText properties 406, 767
    - outerHTML, outerText properties 406, 767
    - positioning 405
  - HTML Help, customizing display 566
    - See also* Help tool
  - HTML layer, Active Desktop interface 175–176
  - HTML mail
    - See also* e-mail
    - formatting tags, adding to 272
  - HTML mail (*continued*)
    - Outlook Express support 251
    - overview 248
    - security zones 278
    - source code, visibility of 259
    - stationery templates, Outlook Express 255, 271–273
  - HTML pages
    - See also* Web pages
    - and zone security 450
    - replacing Folder.htt file 168–169
    - scriptlets 410
    - setting as Active Desktop wallpaper 178
    - stationery files 272
  - HTML path (Configuration Wizard settings) 663
  - HTML resources
    - adding to WebBrowser Control 141–142
    - IE4tour.dll information tour resources 138
    - overview 138
    - Shdocvw.dll error messages 138
  - HTML tags, adding to HTML mail 272
    - See also* individual tag names
  - HTML wallpaper, Active Desktop 178–179, 744
  - HTTP (Configuration Wizard setting) 656
  - HTTP 1.1 130
  - HTTP 1.1 settings, Internet Options dialog box 125
  - HTTP cookies
    - overview 533
    - personalized Webcasts 225
    - security settings 542
  - HTTPS (Hypertext Transport Protocol Secure)
    - proxy settings 95
    - server verification 454, 455
  - HTTP servers, MIME types, setting 313
  - HTTP streaming
    - enabling 311–312
    - MIME types, setting 312–313
    - overview 311
    - registry setting 312
  - Hummingbird Communications 477
  - hyperlinks
    - See also* links
    - adding to left folder pane 167
    - colors, selecting 572
    - in Help tool, keyboard navigation 562
    - in user profile registry entries 59
    - in-place hyperlinking 136
    - shortcut menus, displaying 558, 559
- I**
- /i switch (Cabarc.exe) 761
  - ACME Setup 712
  - IE4Setup.exe 46

- /i* switch (Cabarc.exe) 761 (*continued*)
  - IERemove.exe 83
  - WExtract utility 708
- /I* switch
  - Actsetup.exe 710, 711
  - IE4wzd.exe 710, 711
  - WExtract utility 16
- I/O, user-directed (Java applet permissions) 513
- Icmp.dll 191, 215
- icons
  - customizing 615–616, 696–697
  - disappearing, troubleshooting 740
- .idx files, Outlook Express 259
- IE4bak.dat file
  - deleted, effect on Explorer reinstallation 81
  - extracting files from 69
  - required for ACME Setup uninstall 76
  - required to run IERemove.exe 82–83
  - uninstalling Internet Explorer 4 79
- IE4bak.ini file
  - uninstalling Internet Explorer 4 79
- IE4data.cab file 80
- IE4data.inf file 80
- IE4.dll file 79
- IE4.inf file 79
- IE4Setup.exe
  - ACME Setup engine, launching 36
  - command-line switches 801–802
  - debug install 47
  - distributing Internet Explorer 668–669
  - downloading 9, 12–13
  - extracting 9
  - files
    - copied to system folder 14
    - extracted from 10–11
    - loaded into memory 14
  - maintenance mode 67
  - network installation 46
  - quiet mode 46, 708
  - reinstalling components 67–68
  - Setup Wizard, launching 16–17
  - silent installation 46
  - system checks 13–14
  - target folder, specifying 708
  - Web site 12
  - WExtract utility 10, 707–708
  - Windows Desktop Update installation 20–21
- IE4Setup.hlp file 11
- IE4Setup.inf file 11
- IE4 Setup Log.txt file 42–43
- IE4shell.cab file 79
- IE4shell.inf file 80
- IE4Sites.dat file 25
- IE4tour.dll 138
- IE4 Uninstall Log.txt file 82
- IE4wzd.exe 11, 802
- IEAK (Internet Explorer Administration Kit)
  - See also* IEAK Configuration Wizard; IEAK Profile Manager
  - Configuration Wizard, system requirements 797
  - distribution media supported 798
  - license agreement limits 793
  - new features 793–795
  - obtaining 614
  - on 16-bit platforms 800
  - optional components 795–797
  - overview xvi–xviii, 581
  - self-installing .exe file 801
  - using IEAK 3 .ins files 797
  - Web site 802
- IEAK (Internet Explorer Administration Kit), overview 581
- IEAK Configuration Wizard
  - See also* names of specific pages
  - Active Channels
    - locking down settings 235–238
    - pre-configuring 230–233
  - Active Desktop items
    - locking down settings 181
    - pre-configuring 230–233
  - Active Setup
    - customizing 628–638
    - customizing 775
    - parameters, specifying 622–627
  - advanced Java permissions editor dialog boxes 502–504
  - automatic browser configuration, locking down 675–676
  - Automatic Version Synchronization 597, 620, 624
  - browser, customizing 639–659, 776–779
  - components, customizing 660–666
  - Content Advisor
    - locking down settings 527–528
    - pre-configuring 526–527
  - custom toolbars, pre-configuring 159
  - Custom-Build Checklist 773–791
  - customization key, IEAK 614
  - .inf files 677
  - Java permissions, customizing 502–517
  - navigating 618
  - Outlook Express settings, pre-configuring 262
  - overview 617
  - publisher's update schedule, locking down 223–224
  - security options, locking down 464–465
  - silent installation, configuring 633
  - software distribution channels
    - importing 703–704
    - locking down 704
  - Stage 1 619–622, 773
  - Stage 2 622–627, 774
  - Stage 3 628–638, 775
  - Stage 4 639–659, 776–779
  - Stage 5 660–666, 780

- IEAK Configuration Wizard (*continued*)
  - Stage 6 781–791
  - starting 218
  - system requirements 588–589, 797
  - Web site subscription options, locking down 203–206
  - Wizard Settings, changing in
    - Profile Manager 683–684, 705
- IEAK Profile Manager
  - See also* names of specific pages
  - Active Channels
    - managing 239–240
    - subscription options, locking down 118, 236–238
  - Active Desktop items
    - locking down 181
    - managing 239–240
  - advanced Java permissions editor
    - dialog boxes 502, 503–504
  - auto-configuration files, managing 672, 688
  - automatic browser configuration, locking down 675–676
  - Channel bar, customizing 118
  - Content Advisor
    - locking down settings 528
    - pre-configuring 526–527
    - updating settings 529–530
  - custom toolbars, pre-configuring 160
  - Java permissions, customizing 502–517
  - locking down features in deployed browsers 686
  - NetMeeting settings, customizing 364–368
  - Outlook Express settings, pre-configuring 261
  - overview 682–683, 795
  - publisher's update schedule, locking down 223
  - Search bar page, customizing 110
  - security options, locking down 464–465
  - Security Zones, customizing 465–466
  - software distribution channels 694, 704
  - System Policies and Restrictions object 685–686
  - Web site subscription options, locking down 203–206
  - Wizard Settings object 683–684
- IERemove utility
  - emergency uninstall 82–83
- Internet Explorer 4
  - removing from Windows 95 system 727–729
  - removing from Windows NT system 729–731
  - Windows Desktop Update, uninstalling 730–731
- IETF (Internet Engineering Task Force) 344
- IETF protocols
  - LDAP 335
  - RTP/RTCP protocol 330, 335, 347
- Iexplore.exe
  - IE4Setup.exe system check 13–14
  - in browser architecture 136–138
  - True Web Integration architecture 145
- IExpress Configuration Wizard
  - navigating 804
  - overview 617
- IExpress Configuration Wizard (*continued*)
  - Self Extraction Directive (SED) file, creating 804
  - starting 803
- IExpress Wizard
  - Configure reboot page 812
  - Confirmation prompt page 807
  - Create package page 813
  - Finished message page 810–811
  - Installation Program to page 809
  - License agreement page 808
  - Modify or create page 805
  - Package Name and Options page 811
  - Package purpose page 806
  - Package title page 807
  - Packaged files page 808
  - Save Self Extraction Directive page 813
  - Show window page 810
- IExtract.exe 69
- If\_Modified\_Since header 192
- IFRAME options 450, 461–462
- <IFRAME> HTML tag 175
- IFRAMES, relative positioning, troubleshooting 768
- IIS (Internet Information Server) 312
- iissamples directory 387
- ILS (Internet Locator Service)
  - administration 358
  - conferencing servers 357
  - customization 358
  - directory servers 357
  - entry lifetime, NetMeeting 352
  - non-NetMeeting client access 358
  - overview 332, 358–359
  - Web site 332, 359
- image masking, NetShow 296
- images
  - adjusting file size 321
  - alternate text (alt text) display settings 576, 578
  - ASF Editor tool 319, 321
  - background, troubleshooting 756
  - codecs, associating with source files 321
  - copied to desktop, troubleshooting 741
  - downloads, controlling 197, 232
  - in Active Desktop items, troubleshooting 748
  - including in .cab files 762
  - people with disabilities, settings for 576–578
  - using as NetShow content 316
- Images (site subscription setting) 197
- IMAP server, configuring 661
- IMAP4 (Internet Mail Access Protocol) 251
- <IMG> HTML tag 175
- IMPLEMENTATION element, CDF files 699
- Import (Configuration Wizard setting) 644
- Import Channels (Wizard Settings option) 684
- Import current channel configuration
  - (Configuration Wizard setting) 647

- Import current Software Distribution Channel configuration (Configuration Wizard setting) 648
- Import option (File menu) 262–264, 751
- Import Software Updates (Wizard Settings option) 684, 705
- IMTC (International Multimedia Teleconferencing Consortium) 344
- InBox Assistant dialog box 267
- InBox Assistant, Outlook Express
  - applying rules to folders 267–268
  - overview 253, 267
  - registry entry 268
  - rules, adding 267–268
- Include a Signature page (Configuration Wizard) 270, 663, 780
- Include WebBot component 381
- Incoming mail (POP3 or IMAP) server (Configuration Wizard setting) 661
- Index tab (Help tool navigation) 564–565
- Inetcomm.dll file, Outlook Express 258
- Inetctl.cpl file, incorrect version, troubleshooting 726
- .inf files
  - automatic browser configuration 677
  - Content.inf file 11
  - Homepage.inf file 11
  - IE4data.inf file 80
  - IE4.inf file 79
  - IE4Setup.inf file 11
  - IE4shell.inf file 80
  - policies and restrictions settings 685
  - softBoot.inf file 714
  - using custom policy templates 687
- InfoPane, Outlook Express
  - configuring for deployed browsers 663
  - customizing 269
  - overview 268, 800
  - registry entry 269
- information delivery
  - See also* Microsoft NetShow
  - managed Webcasting 210–211
  - true Webcasting 241
- information exchange, using Personal Web Server 392
- Initialize and script ActiveX controls... (security option) 449, 458–459
- inline script events 403
- innerHTML property, HTML elements 406, 767
- innerText property, HTML elements 406, 767
- Inseng.dll file 11, 14
- insertAdjacentHTML method 406
- insertAdjacentText method 406
- .ins files
  - automatic browser configuration 676–677
  - configuring for deployed browsers 654
  - using as template 687
  - using IEAK 3 .ins files 797
- Install in the specified folder... (Configuration Wizard settings) 637
- Install package silently (Configuration Wizard setting) 633
- Installation of desktop items (security option) 450, 462
- Installation Option dialog box, Setup Wizard 19–20
- installation options
  - See also* Full installation option; Minimal installation option; Standard installation option
  - components available for reinstallation 67
  - in custom packages 800
  - software distribution channels 695
  - specifying in IE4Setup.exe 708
  - standard installation suites 588
- installation packages
  - configuring 633–634
  - silent installation 633
- Installation Program to page, IExpress Wizard 809
- installing
  - See also* ACME Setup engine; Active Setup; IE4Setup.exe; uninstalling
  - 128-bit Server Gated Cryptography 721, 798
  - Internet Explorer 3 after running IERemove.exe 83
  - Internet Explorer 4
    - debug install 46–47
    - from network share using IE4Setup.exe 46
    - manual installation 33, 36
    - Stepping Mode 47
    - troubleshooting 720–725
  - Java packages on user's machine 761
  - Windows Desktop Update 21, 39–44, 720
- Integrated Browser *See* Windows Desktop Update
- Integrated Browser.dat file
  - removing Windows Desktop Update 70
  - required to run IERemove.exe 83
  - uninstalling Internet Explorer 4 79–79
- Integrated Browser.ini file
  - deleted, effect on Explorer reinstallation 80
  - removing Windows Desktop Update 70
  - uninstalling Internet Explorer 4 78–79
- Integrated Shell 21
  - See also* Windows Desktop Update
- integrated shell mode, specifying in IE4Setup.exe 708
- Integrating the Web Desktop Update page (Configuration Wizard) 638, 775
- Intel Indeo 5 797
- intelligent fail-over, NetShow 285
- International Telecommunications Union *See* ITU (International Telecommunications Union)
- internationalization 424
- Internet Accounts dialog box 265, 266
- Internet bandwidth 317
- Internet call program, selecting default 126

- Internet Client SDK
  - Frequently Asked Questions (FAQs) 763–772
  - system requirements 763
  - Web site 398, 691
- Internet connections
  - See also* Internet Connection Wizard
  - dial-up connections 205, 238, 745–746
  - proxy bypass settings 95–96
  - proxy servers 93–95
- Internet Connection Services for Remote Access Systems 387
- Internet Connection Wizard
  - automatic setup option 89–92
  - ensuring installation of 20
  - ISP selection 92
  - launching 86
  - Location Information dialog box 91
  - manual setup option 88–89
  - registry setting 86
  - Setup Options dialog box 87
- Internet Explorer 3
  - accessibility features 547
  - coexisting with Internet Explorer 4 5, 591, 727, 772
  - installing after running IERemove.exe 82–83
  - migrating from 591
  - returning to, after Internet Explorer 4 installation 727
  - using Internet Explorer 4 roaming profile 53
- Internet Explorer 4
  - See also* browsers
  - actions requiring previous uninstallation of
    - Internet Explorer 77
  - coexisting with Internet Explorer 3 5, 591, 727, 771
  - coexisting with Netscape browsers 5, 591
  - core, removing with IERemove.exe 82–83
  - installation
    - debug install 46–47
    - from network share using IE4Setup.exe 46
    - installation issues 5–6, 76–77
    - manual installation 33, 36
    - Stepping mode 47
    - troubleshooting 719–725
  - integration with Windows Explorer 144
  - Microsoft Plus!, troubleshooting 743
  - multiple installations of 5
  - new features xvi–xviii
  - Outlook Express integration 257
  - reinstalling Windows 95 721–724
  - returning to earlier version 727
  - system requirements 4, 587–588
  - tour, loading 138
  - uninstallation
    - Add/Remove Programs, troubleshooting 726
    - after backup files removed 77
    - core files, removing 74–75
    - emergency uninstall 82–83
- Internet Explorer 4 (*continued*)
  - uninstallation (*continued*)
    - errors 79
    - files left in system 714
    - files required 76
    - maintenance mode, ACME Setup 78
    - manual uninstall 77
    - registry entries 76, 80
    - situations not supported 77
    - system state following uninstall 77
    - troubleshooting 726–731
    - uninstall log 82
    - using IERemove.exe 727–731
  - updating 70–71, 637
  - Web sites xv, 802
- Internet Explorer 4 Resource Kit CD-ROM
  - HTML wallpaper samples 178–179
  - Web View sample applications 162–163
- Internet Explorer 4.01, Java security 496, 502
- Internet Explorer Administration Kit *See* IEAK (Internet Explorer Administration Kit)
- Internet Explorer Properties (Custom-Build Checklist) 788
- Internet Explorer Software Distribution Channel Receive property page 695
- Internet Explorer Sound Pack component 66, 107
- Internet Explorer toolbar 103, 104
- Internet Information Server (IIS) 312
- Internet Mail, setting default mail program 750
- Internet news server (Configuration Wizard setting) 661
- Internet Options dialog box
  - Accessibility options
    - blind users, settings for 549–550
    - cognitive and language impairments, settings 553
    - deaf or hard-of-hearing users, settings for 551–552
    - low-vision users, settings for 550–551
    - physical impairments, settings 552
  - Advanced tab
    - advanced browser options 121–125
    - HTTP 1.1, enabling 130
    - Java options, configuring 425–426
    - privacy security options, configuring 541–542
  - Browsing options 121–125
  - Colors options 553–554
  - Connection tab
    - automatic browser configuration settings, locked down 675–676
    - Automatic Configuration URL, selecting 47–48
    - Internet Connection Wizard, launching 86
    - setting up browser for automatic configuration 680
  - Content tab
    - Content Advisor, configuring 522–523
    - digital certificates, configuring 478
    - Microsoft Wallet, configuring 538–540
    - Profile Assistant, configuring 536–538

Internet Options dialog box (*continued*)

- General tab
  - Accessibility options 549
  - cache settings 132–133
  - History list, setting item lifetime 117
  - low-vision users, settings for 550–551
  - overriding Web-page formatting 567
  - page formatting, overriding 734
  - physical impairments, settings 552
- HTTP 1.1 settings 125
- Java Virtual Machine (VM) options 125
- Multimedia options 123
- Searching options 125
- Security options 124
- Security tab
  - font downloads, controlling 404
  - Java permissions, customizing 496–507
  - security zones, setting up 451, 457
- Toolbar options 125

Internet Restrictions folder, System Policies and Restrictions hierarchy

- Active Channel subscription options, locking down 236–238
- Web site subscription options, locking down 203–206

Internet Settings

- Custom-Build Checklist 784–787

Internet virtual white pages 149

Internet zone 448

interoperability

- H.323 protocol 348
- LDAP 351
- overview 335, 353–354
- T.120 protocol 345

interoperability of communications products

- directory servers 357
- H.323-based products 356–357
- ILS-based products 358–359
- in NetMeeting 354–355
- LDAP-based products 357
- overview 353–354
- T.120-based products 355–356

<INTERVALTIME> XML tag 217, 698

Intranets

- See also* Local Intranet zone
- bandwidth 317
- NetMeeting 368–369, 370–373
- proxy bypass settings 95–96
- proxy servers, configuring 92–95
- trusted applets, distributing 762

invalid page fault, troubleshooting during component installation 724

IP (Internet Protocol), multicast support 241

IP addresses, configuring security zones 452

IP multicast *See* multicasting, NetShow

IP ports, required for NetMeeting connections 361

IPX/SPX protocol, troubleshooting 745

ISDN modems 317

IShellView interface 163

ISPs (Internet Service Providers)

- selecting in Internet Connection Wizard 91–92
- software, installing and configuring 92
- supported by Web Publishing Wizard 393

<ITEM> XML tag

- Active Desktop items 185, 224
- Active Desktop items 185
- usage and attributes 218, 221
- within <CHANNEL> tag 221
- within <CHANNEL> tag 216

items

- displayed in Channel bar 222–223
- downloads of, controlling 231
- in channel hierarchy 212
- specifying in CDF files 218

ITU (International Telecommunications Union)

- H.323 protocol 335, 336, 341
- overview 344
- T.120 protocol 335, 341
- T.126, T.127, T.128 standards 347

Ixp000.tmp folder 10–11

## J

/j switch (Actsetup.exe) 710

J/Direct 422, 427

.jar (Java Archive) files 422

Java

- See also* Java applets
- accessing Win32 API 427
- Authenticode 2.0 security 442–443
- capability signing 443
- development environment 424–425
- Internet Explorer 4 support for 422–424
- Java Virtual Machine (JVM) 131, 137, 425
- JIT (Just In Time compiler) 130, 425–426
- logging, enabling 426
- Microsoft Java Technologies Web page 422
- overview xlii, 422–423
- security 428, 449, 459–460
- trust-based security
  - High Safety, default capabilities 492
  - Internet Explorer 4.0 vs. Internet Explorer 4.01 496, 502
  - Low Safety, default capabilities 492–493
  - Medium Safety, default capabilities 492
  - overview 424, 428, 439, 490
  - Package Manager 495
  - permission model 491–492
  - permissions 496
  - permission scoping 493–495

Java (*continued*)

- trust-based security (*continued*)
  - permission signing 492–493, 496
  - security zones, permission options 491
  - Trust User Interface 492, 496

## Java applets

- client services permissions 512–513
- controlling downloads of 198, 232
- custom permissions 517
- data source objects 407–409
- file access permissions 508–509
- in Active Channels 219, 223
- in Active Desktop items 224
- in Web pages, using FrontPage Express 378
- network connection permissions 510–511
- performance 130
- pre-caching for offline functionality 182
- referencing in Web pages 428
- Reflection API permissions 516
- registry key permissions 509–510
- scripting, security settings 460
- signing 182
- system permissions 514–515
- system properties, readable by default 515
- trusted, distributing in intranets 762
- Web site 183

## Java Beans 423, 495

## Java Data Base Connectivity (JDBC) data source objects 408

## Java JIT compiler enabled (Java setting) 125

## Java Just In Time (JIT) compiler 130–131, 425–426

## Java logging enabled (Java setting) 125

## Java Native Interface (JNI) 422

## Java permissions

- client services 512–513
- custom 517
- customizing 496–501
- file access 508–509
- network connection 510–511
- Reflection API 516
- registry key 509–510
- system 514–515

## Java permissions (security option) 449, 459–460

## Java programs, offline browsing 742–743

## Java Virtual Machine (VM)

- browser architecture 136–137
- Just In Time (JIT) compiler 130–131, 425–426
- Microsoft Virtual Machine 425
- True Web Integration architecture 145

## Java Virtual Machine (VM) options,

- Internet Options dialog box 122

## java.lang.security classes 513

## JavaScript 1.2, compared to JScript 3.0 435–437

## JavaScript, in Web pages 378

## JDBC Data Source Object 408

## JDK (Java Development Kit) 422

## JDK security classes 513

## JIT (Just In Time) Java compiler 130–131, 425–426

## Jobexec.dll file 11, 14, 21

## .jpg files

- including in .cab files 762
- using as NetShow content 316

## .js files 654

JScript 3.0 *See* Microsoft JScript 3.0JVM (Java Virtual Machine) *See* Java Virtual Machine (VM)

## K

## /k switch (ACME Setup) 712

## keyboard focus 548, 569

## keyboard navigation

- Active Desktop items 562
- Channel bar 562
- Contents list, Help tool 563–564
- desktop icons 562
- Help tool 548, 562–566
- Index tab, Help tool 564–565
- Microsoft Windows Keyboard Guide Web site 559
- Quick Launch toolbar 561
- taskbar 561
- Web pages 559–560
- Windows Desktop Update 560–562

## keyboard shortcuts

- See also* individual keys

## AutoComplete feature 560

## Internet Explorer 4 558–559

## Microsoft NetMeeting 580

keycode *See* Customization code

## keyword searching (Help tool) 565–566

## L

## -l switch (Cabarc.exe) 762

## /l switch

- ACME Setup 712
- IExtract.exe utility 69

## lab testing of deployment process 605

## language impairments, accessibility settings 553–554

## Language ratings category (RSACI)

- configuring acceptable content level 523
- content allowed, by level 521
- default setting 521

## languages

- building custom packages for several 597
- for Active Channels, selecting 22
- Multi Language Support component 66
- selecting for custom packages 621

## LASTMOD attribute, &lt;ITEM&gt; XML tag 218, 221

## &lt;LATESTTIME&gt; XML tag 217, 697–698

## Launch browser in full screen window (browser setting) 122

- Launch Channel Guide (Configuration Wizard setting) 647
  - Launch Channels in full screen window (browser setting) 122
  - Launching applications...from an IFrame (security option) 450, 462
  - LDAP (Lightweight Directory Access Protocol)
    - access to ILS 358
    - additional services, specifying 266
    - architecture 351
    - conferencing servers 357
    - configuring for deployed browsers 662
    - custom icon 615
    - directory services 264–265
    - dynamic directory services 350
    - in NetMeeting 333, 341, 349–353
    - in Outlook Express 250, 251, 264–266
    - interoperability 351, 357
    - LDAP servers 351
    - overview 250, 349–350
    - registry data 266
    - topologies 351
    - version 2 vs. version 3 350
    - Web site 351
  - LDAP Settings (Wizard Settings option) 684
  - LDAP Settings page (Profile Manager) 266
  - LEFT ARROW key (AutoComplete feature) 560
  - left folder pane display, customizing 167
  - left pane, Help tool, hiding and showing 563
  - LEVEL attribute
    - <CHANNEL> tag 217
    - <ITEM> tag 218, 221
  - libraries *See* Package Manager, Java
  - License agreement dialog box, Setup Wizard 17
  - License agreement page, IExpress Wizard 808
  - License.txt file 11
  - <LINK> tag, Cascading Style Sheets 402
  - link-crawl architecture 191–192, 215–216
  - links
    - See also* hyperlinks
    - .asx files 301
    - downloads from subscribed sites, controlling 197
    - following on subscribed sites 197
    - from Search page to main browser window, implementing 112
    - keyboard navigation 558, 559–560
    - underlining, specifying 577
  - Links bar 106–107, 559–560
    - See also* QuickLinks
  - Links folder, Favorites bar 113
  - Links toolbar 650
    - See also* QuickLinks toolbar
  - LoadResource function 142
  - Local file (Configuration Wizard setting) 663
  - Local Intranet zone 448, 452
  - Local Intranet zone dialog box 452–454
  - Local Machine zone 449
  - local path, user profile registry entries 59
  - Location (Configuration Wizard setting) 626
  - Location Information dialog box, Internet Connection Wizard 91
  - Location parameter, FileList control 169
  - lock icon, status bar 532
  - log files
    - Active Setup Log.txt file 15, 669
    - Activity log, Personal Web Server 390
    - IE4 Setup Log file 42–43
    - IE4 Uninstall Log file 81
    - Monitor Events Log file, NetShow 287
    - registry entries 80
    - Server Event Log file, NetShow 287
    - SoftBoot Log file 40
    - system configuration, Setup Wizard 40
    - uninstall log 82
  - <LOG> tag 219
  - logging, Active Channel user activity 219, 238
  - Login Options dialog box 199
  - <LOGO> tag 218
  - Logon (security option) 450, 461
  - <LOGTARGET> XML tag 219
  - Low Safety, default capabilities 492–493
  - Low security level 449–450, 454, 456
  - low-vision users, settings for 550–551, 568–570, 573–575
  - luring attacks, preventing 494
- ## M
- /m switch
    - ACME Setup 712
    - IE4Setup.exe 46
    - WExtract utility 16, 708
  - /M switch (IE4wzd.exe) 802
  - Macromedia Shockwave Director component 65
  - Macromedia Shockwave Flash component 66
  - mail attachments, troubleshooting 752–753
  - mail clients, default, changing 749–750
  - Mail data directory, Outlook Express 259
  - Mail Options dialog box 198
  - mail program
    - default, selecting 126
    - registry keys 127–128
  - mail server, configuring in Outlook Express 261
  - MailTo URLs
    - selecting program to open 750–751
    - third-party clients, registry entries 128
  - Main window, Personal Web Manager 388
  - managed Webcasting
    - See also* Active Channels
    - applications of 210–211
    - link-crawl architecture 215–216
    - overview xxxiv, 187–188, 210–211

- Manage Subscriptions dialog box 230, 233  
 manual setup option, Internet Connection Wizard 87–89  
 manual updates to subscribed sites 202, 205  
 masking ASF packets 295–296  
 Math.atan2 method (JScript) 437  
 Math methods (JScript) 433  
 Maximum KB of site subscription  
   (site subscription setting) 204  
 Maximum number of minutes ...  
   (site subscription setting) 204  
 Maximum number of site subscriptions ...  
   (site subscription setting) 204  
 Maximum site subscription crawl depth  
   (site subscription setting) 204  
 MBONE-compatible applications, NetShow support for 285  
   .mbx files 259  
 MCUs (Multipoint Conferencing Units) 336  
 MCUs (multipoint control units) 356  
 media, selecting for package distribution 597, 622, 773, 798  
 Medium Safety, default capabilities 492  
 Medium security level  
   changing level 456  
   default settings 449–450  
   Internet zone 448  
   Local Intranet zone 448  
   users with Authenticode 1.0 473  
 MeetingPlace object, ILS 352  
 Menu bar 106  
 Message Queue Server, Microsoft 386  
 <META> tag, troubleshooting 756  
 MFC .dll files, packaging with components 768  
 MHTML (MIME HTML), Outlook Express support 251  
 Microsoft ActiveX SDK, Web site 759  
 Microsoft Agent 65, 796  
 Microsoft Chat Settings, Custom-Build Checklist 791  
 Microsoft Chat 686, 795  
 Microsoft Client for NetWare Networks 745  
 Microsoft Data Access Components 386  
 Microsoft Developer Network Web site 414  
 Microsoft Fast SGC key usage extension 476  
 Microsoft Font Properties Extension Web site 405  
 Microsoft FrontPage Express  
   ActiveX controls, adding to pages 382  
   existing pages, editing 379–380  
   features 376–378  
   new page, creating 379  
   overview xl, 245, 795  
   saving pages 380  
   scripts, adding to pages 382  
   templates, creating 381  
   WebBots, adding to pages 381–382  
 Microsoft Interactive Music Control 796  
 Microsoft Internet Explorer Digital ID Web site 275  
 Microsoft Internet Explorer Press Web site 802  
 Microsoft Internet Explorer Sound Pack 797  
 Microsoft Internet Explorer Supplemental Fonts 797  
 Microsoft Java Technologies Web page 422  
 Microsoft JScript 3.0  
   availability 435  
   ECMA-262-compliant features 431–433  
   features not included in ECMA-262 434  
   JavaScript 1.2 compared to 435–437  
   licensing 435  
   Web site 435  
 Microsoft Knowledge Base Web site 6  
 Microsoft Message Queue Server 386  
 Microsoft NetMeeting  
   *See also* audio conferencing, NetMeeting;  
   video conferencing, NetMeeting  
   accessibility features 579–580  
   ActiveX control 369  
   adding to intranet Web pages 368–369  
   application sharing 331  
   architecture 339–343  
   calling options 334  
   call windows 333  
   chat feature 332  
   client/server architecture 352  
   Clipboard, sharing 332  
   conferencing standards  
     H.323 standard 348–349  
     LDAP 350–353  
     overview 343  
     standards organizations 344  
     T.120 standard 344–347  
   conferencing topologies 345–347  
   data conferencing 343–347, 360  
   directory entries, filtering 333  
   e-mail messaging 334  
   file transfer 332  
   firewalls 359–362  
   Go menu 334  
   H.323 gateway calling option 334  
   H.323 protocol 335, 336, 341, 348–349  
   home page URL, setting 367  
   ILS (Internet Locator Service) 332, 352–353, 357–359  
   intelligent stream control 331  
   interoperability 336, 345, 347, 351, 353–359  
   IP port requirements 361  
   LDAP (Lightweight Directory Access  
   Protocol) 332, 341, 349–353  
   limitations across firewalls 362  
   mail extension 334  
   multipoint data conferencing 331–332  
   Outlook bar integration 336  
   overview xxxviii, 245, 795  
   protocols (Configuration Wizard) 782  
   protocols supported 335  
   security and firewalls 362  
   settings (Configuration Wizard) 780

- Microsoft NetMeeting (*continued*)
  - server compatibility 353
  - system policies and restrictions 333, 363–368, 686
  - T.120 protocol 335, 341, 344–347, 355–356
  - toolbars 334
  - top provider 346
  - user information category, presetting 367
  - user interface features 333–334
  - uses for 337–338, 369–373
  - version 2.1 features 336
  - Web site 355, 579
  - whiteboard feature 332
  - Windows NT Workstation support 333
- Microsoft NetShow
  - See also* .asx files; ASF (Active Streaming Format); content, NetShow; individual NetShow components
  - access control 289
  - announcement files 300–301, 306–307
  - ASFChop editor 320
  - ASF Editor tool 319, 321
  - ASF streams
    - multicasting 303–307
    - unicasting 303, 307, 308
  - bandwidth 296–297, 317–318, 320–322
  - broadcasting 283, 284, 296
  - channels 302–303
  - Client SDK 290
  - codec independence 294, 314
  - codexes 282–283, 293–294, 321–322
  - content-creation tools 289–290, 305, 318–320
  - content types 315–317
  - distributed streams 286, 303
  - error correction 296
  - fault tolerance 285
  - features 282
  - file transfer streams 284, 304, 310–311
  - firewalls 287, 302
  - HTTP streaming 311–313
  - live content, developing 314–315
  - logging events 287
  - masking 296
  - Microsoft PowerPoint presentations 320
  - monitoring events 287
  - multimedia content, multicasting 296–297
  - NetShow Content-Creation Authoring Guide 290
  - NetShow How-To Web page 313
  - network transport protocols 285
  - overview xxxix, 244, 281–282, 796
  - Real-Time Encoder SDK 290
  - RTP Live Audio 304
  - RTP WAV Audio 304
  - scalability 286
  - SDKs 290
  - stored content, developing 315–322
  - streaming content 282, 283, 293, 300–313
- Microsoft NetShow (*continued*)
  - streaming technologies supported 283
  - streams vs. programs 303
  - stream types 303–304
  - true Webcasting 241, 291–292
  - VidToAsf tool 319, 321
  - WavToAsf tool 318, 321
  - Web site 241
  - Windows NT Server integration 285
- Microsoft Open Type Font Embedding 403
- Microsoft Outlook 97 750
- Microsoft Outlook Express
  - Address Book 256, 260, 262–263
  - architecture 258
  - Auto-Add feature 256
  - AutoReply option 800
  - configuration options 261
  - configuring for deployed browsers 661–664
  - Custom-Build Checklist 787–788
  - digital IDs 275
  - Draft folder 256
  - encrypted mail 276–277
  - encryption 532
  - features 248
  - files used by 258, 753–754
  - flat file directory structure 258–259
  - HTML integration 249
  - HTML mail 251
  - IMAP4 support 251
  - importing
    - address information 262–263
    - existing e-mail folders 593
    - messages from other applications 264
    - options 799
  - InBox Assistant 253, 267–268
  - InfoPane 268–269, 663, 800
  - Internet Explorer 4 integration 257
  - Internet standards support 251
  - LDAP (Lightweight Directory Access Protocol) 250, 264–266
  - Mail data directory 259
  - mail server, configuring 261
  - MHTML (MIME HTML) support 251
  - multiple users 799
  - newsgroup filters 254
  - news server, configuring 261–262
  - NNTP support 251
  - online accounts, multiple 256
  - POP3 support 251
  - preview pane, troubleshooting 752
  - productivity features 256
  - saving mail attachments, troubleshooting 753
  - security 250, 274–278, 532
  - security zone settings 278
  - settings adopted by Internet Explorer 4 Setup 592

- Microsoft Outlook Express (*continued*)
  - setup 249
  - signature, default 270, 664
  - signed mail 276
  - site subscriptions, e-mail delivery 254
  - Smart Reply feature 254
  - S/MIME support 251
  - SMTP support 251
  - specifying to open MailTo URLs 751
  - stationery templates 255, 270–273
  - System Policies and Restrictions object,
    - Profile Manager 685–686
  - toolbars, customizing 270
  - troubleshooting 749–754
  - welcome message, creating 270
  - word processor-like features 256
- Microsoft Personal Web Server xxxviii, 380
- Microsoft Plus! 743
- Microsoft Press Web site 613
- Microsoft Referral Server 91–92
- Microsoft Remote Data Service (RDS) 386
- Microsoft Sales Information Center 554, 555
- Microsoft Script Debugger 66, 796
- Microsoft Security Advisor Web page 428
- Microsoft Shockwave Director 796
- Microsoft Shockwave Flash 796
- Microsoft Site Builder Network (SBN) 398
- Microsoft Specifications and Standards Web site 400
- Microsoft Support Web page 613
- Microsoft Transaction Server (MTS) 386
- Microsoft Virtual Machine (VM)
  - J/Direct 427
  - JIT (Just In Time compiler) 425–426
  - overview 425
- Microsoft Visual Basic Run time 797
- Microsoft VRML 2.0 Viewer 796
- Microsoft Wallet
  - addresses, configuring 538–539
  - overview 535–536
  - payment methods, configuring 540
- Microsoft Web Embedding Fonts Tool (WEFT) 404
- Microsoft Web Publishing Wizard 795
- Microsoft Windows Keyboard Guide Web site 559
- migration issues, deployment planning 590–592
- migration tools, Outlook Express 799
- MIME/content types
  - application/x-cdf type 225
  - for dynamically generated CDF files 225–226
- MIME types
  - CDF files 763
  - setting 312–313
- Minimal installation option
  - CD-ROM installation option 19–20
  - components included 588
- Minimal installation option (*continued*)
  - customizing 634
  - system requirements 587–588
- Mixer control, DirectAnimation 420
- MMS streaming protocol 301
- modal dialog boxes 183
- modems 317
- modification dates 192, 218, 221
- Modify or create page, IExpress Wizard 805
- Modify Settings (Configuration Wizard setting) 649
- Monthly (software distribution channel schedule setting) 704
- monthly updates to subscribed sites 201–202
- MOSPF (Multicast Open Shortest Path First) protocol 298
- mouse-over ToolTips
  - in channel items 217
  - over HTML anchors, customizing 767
  - site summary, Search bar 109
- .mov files 315–316
- MPEG video streams 291
- MS PowerPoint, synchronizing presentations into ASF
  - streams 320
- Mshtml.dll file
  - basic link-crawl architecture 191–192
  - browser architecture 137
  - in Outlook Express architecture 258
  - style sheets and 569
  - True Web Integration architecture 145
- MSICD 698, 701
- Msimn.exe file 258
- Msimnimp.dll file 258
- Msimnui.dll file 258
- Msmml.dll file 215
- Msoeacct.dll file 258
- Msoemapi.dll file 258
- Msoert.dll file 258
- MTS (Microsoft Transaction Server) 386
- multicast connections (Java permission) 511
- multicasting, NetShow
  - See also* broadcasting
  - announcing with .asx files 300–301, 306–307
  - ASF streams 303
  - bidirectional communication 299
  - delivery paths 299
  - file transfer streams 284, 304, 310–311
  - live ASF streams 304–305
  - NetShow channels 302–303
  - overview 283, 296–299
  - routing protocols 298
  - RTP Live Audio 303
  - RTP WAV Audio 304
  - stored ASF streams 306–307
- Multi Language Support component 66
- multimedia content, NetShow
  - ASF (Active Streaming Format) 295
  - bandwidth, controlling 313

- multimedia content, NetShow (*continued*)
  - H.323 standards 348
  - multicasting 296
  - multimedia objects 295
  - performance 134
  - streaming media 293
  - true Webcasting 291–292
- multimedia libraries 423, 513
- Multimedia options, Internet Options
  - dialog box 122–123, 578
- multiple users, Outlook Express 799
- Multipoint Conferencing Units (MCUs) 336
- multipoint control units (MCUs) 356
- multipoint data conferencing 331–332
  - See also* Microsoft NetMeeting
- mycomp.htt file 164, 170, 651
- My Computer and Control Panel Webview Customization (Wizard Settings option) 684
- My Computer and Control Panel Webview Customization page (Configuration Wizard) 651, 777
- My Computer folder, customizing 170, 651
- My Documents folder
  - customizing 168
  - Favorites bar 113
  - roaming profiles, optimizing 53
- My Information tab, Options dialog box 365
  
- N**
- /n switch
  - ACME Setup 712
  - IERemove.exe 82–83
  - WExtract utility 708
- Name (Configuration Wizard setting) 644
- NaN dates (JScript) 436
- National Information System 556
- navcancel.htm resource, Shdocvw.dll 138
- Navigate method, WebBrowser Control 768
- Navigate2 method, WebBrowser Control 768
- navigation controls 183
- navigation history xxi, 103
- navigation pane 108
- .nch files, Outlook Express 259
- Negative Zero (JScript) 436
- nested <CHANNEL> tags 185, 216
- NetMeeting 2.1 SDK
  - See also* Microsoft NetMeeting
  - overview 335, 368–369
  - Web site 335, 369
- NetMeeting *See* Microsoft NetMeeting
- Netscape Navigator 3
  - coexisting with Internet Explorer 4 5, 591–592
  - migrating from 591–592
- Netscape Navigator 4, ECMAScript support 435–437
- Netscape, Sever Gated Cryptography (SGC)
  - implementation 476–477
- NetShow Administrator
  - See also* Microsoft NetShow
  - Channel Manager 300, 302, 303, 304
  - overview 286–287, 289
  - Program Manager 307, 311
- NetShow channels
  - See also* Microsoft NetShow
  - ASF streams 303
  - distribution servers 309–310
  - file transfer streams 304
  - overview 302–303
  - RTP Live Audio 304
  - RTP WAV Audio 304
  - stored ASF streams, multicasting 306–307
- NetShow Client SDK 290
- NetShow Content-Creation Authoring Guide 290
- NetShow Encoder with Real Video 290
- NetShow Player
  - ActiveX control, Web site 325
  - embedding in Web page 325–326
  - launching from Web page 324
  - opening 323–324
  - overview 288–289, 323
  - platforms supported 284
  - Stand-Alone player 323–324
- NetShow Presenter 320
- NetShow Real-Time Encoder
  - live ASF streams, multicasting 304–305
  - live content, developing 314–315
  - overview 290
  - Real-Time Encoder SDK 290
- NetShow Server 289, 302, 309–310
- NetShow Server SDK 290
- NetShow Theater Server 291
- NetShow *See* Microsoft NetShow
- NetWare servers, troubleshooting 745–746
- network bandwidth 293, 317
- network connections (Java permissions) 510–511
- network installation, custom packages
  - distribution files 667
  - distribution servers 614–615
  - distribution strategy planning 594–596
  - running IE4Setup.exe 46
- Network tab, Edit Custom Permissions dialog box 510–511
- network transport protocols, NetShow 284–285
- Never (cache setting) 133
- Never download more than \_\_\_ Kb per update (site subscription setting) 198
- New operator (JScript) 437
- New Toolbar command 154
- news
  - URLs, third-party clients 128

- news accounts, multiple 256
  - news messages in Outlook Express, troubleshooting 752
  - news programs
    - default, selecting 126
    - deployment planning 592
    - registry keys 127–128
  - news server
    - configuring for deployed browsers 661
    - configuring in Outlook Express 261–262
  - Next button (Configuration Wizard) 618
  - NNTP (Network News Transfer Protocol) 251
  - NoClientEdge parameter, FileList control 169
  - no-embedding (embedded fonts setting) 404
  - <NOFRAMES> tag 766
  - nonencrypted .asx files 300
  - None UsageType value 219, 221, 223
  - non-file URLs, allowing applet access to 511
  - Notify me of updates and download the page for
    - offline viewing (site subscription setting) 195
  - .nsc files 306–307, 309
  - nsfile.ocx control 311
  - .nsp files 303
  - nsplay.ocx control (NetShow Player) 324–326
  - NTLM authentication 477
  - Nudity ratings category (RSACi)
    - configuring acceptable content level 523
    - content allowed, by level 521
    - default setting 521
  - Number formatting (JScript) 437
  - Numbers (JScript) 433
- O**
- /o switch (ACME Setup) 712
  - Object Creation (JScript) 433
  - OBJECT element 325–326
  - Object numbers, uninstall log 82
  - object safety, enforcing 458–459
  - <OBJECT> tag
    - adding ActiveX controls to Web pages 416
    - adding scriptlets to Web pages 411–412
    - data source object, specifying 409
    - DirectAnimation controls, adding to Web pages 420
    - Java packages, installing on user's machine 761
    - referencing .cab files 428
  - Objects (JScript) 433, 434
  - OC96 specification 415
  - Octal constants (JScript) 436
  - .ocx controls *See* ActiveX controls
  - ODBC (Open Database Connectivity)-compliant
    - databases 408
  - OEM installation, Windows 95 720–724
  - offcancl.htm resource, Shdocvw.dll 138
  - offline browsing
    - See also* cached resources; Web site subscriptions
    - Active Desktop items 182, 742–743
    - ActiveX controls 182–183
    - CD caching 120
    - Channel bar 121
    - Dynamic HTML, reflowing pages 228
    - enabling 121
    - History bar 121
    - HTML forms 191
    - Java programs 183, 742–743
    - noncached resources 138, 191, 228
    - opening sites while offline 121
    - overview xxiii, 119
    - recognizing from scripts 770
    - secure content 542
    - usage statistics, Active Channels 219
    - viewing list of available sites 121
    - Web content, saving to hard disk 120
  - OLE check (IE4Setup.exe) 13
  - OLE Controls 1996 specification 415
  - OLE controls *See* ActiveX controls
  - OLE files
    - mismatch, troubleshooting 69
    - update interrupted during browser installation 39
  - on-demand NetShow content *See* stored ASF streams
  - On the Internet option (Find menu)
    - appearing twice, troubleshooting 742
    - overview 150
    - Search page, customizing 111
  - online accounts, multiple 256
  - online banking *See* SGC (Server Gated Cryptography)
  - online purchases
    - credit card information, storing 535, 540–541
    - shipping and billing addresses, storing 535, 538–539
  - Online Support option (Help menu)
    - customizing in deployed browsers 616, 643
    - default Web page 613
  - Online support page URL (Configuration Wizard setting) 643
  - Only tell me when this page is updated
    - (site subscription setting) 195
  - operating system check (IE4Setup.exe) 13
  - operating system resources,
    - allowing applets access to 514–515
  - Operators (JScript) 433, 434
  - optimization
    - cache settings 131–133
    - HTTP 1.1 130
    - Java JIT compiler 130
    - multimedia settings 133–134
  - Option dialog box, NetMeeting 365–366
  - Options option (View menu), troubleshooting 726
  - Organize Favorites dialog box 113–114
  - OS VALUE element, CDF files 699

- OSD (Open Software Distribution)
    - creating files 699–700
    - packaging files 701
    - specifications, Web site 691
  - OSR2
    - reinstalling over Internet Explorer 4 6
    - System.lst backup 39
  - Other tab, Profile Assistant 538
  - outerHTML property, HTML elements 406–407
  - outerText property, HTML elements 406–407
  - Outgoing mail (SMTP) server
    - (Configuration Wizard setting) 661
  - Outlook bar, Outlook Express
    - configuring 270
    - NetMeeting integration 336
    - overview 252
  - Outlook Express (Wizard Settings option) 684
  - Outlook Express Customization page
    - (Profile Manager) 269, 663, 780
  - Outlook Express Customizations page
    - (Configuration Wizard) 269
  - Outlook Express Customizations
    - (Wizard Settings option) 684
  - Outlook Express page (Profile Manager) 261
  - Outlook Express Settings (Custom-Build Checklist) 787–788
  - Outlook Express *See* Microsoft Outlook Express
  - Outlook mail clients, and NetMeeting mail extension 334
- P**
- p switch (Cabarc.exe) 762
  - /p switch (ACME Setup) 712
  - P3 (Platform for Privacy Preferences) model 533
  - .pac files 654
  - Package Manager, Java 424, 443, 495
  - Package Name and Options page, IExpress Wizard 811
  - Package purpose page, IExpress Wizard 806
  - Package title page, IExpress Wizard 807
  - Packaged files page, IExpress Wizard 808
  - packets, ASF 295
  - PAGE DOWN key 558
  - PAGE UP key 558
  - PARAM elements, <OBJECT> tag 416
  - <PARAM> tag 458
  - Parameter (Configuration Wizard setting) 627
  - parameters
    - Active Setup 622–627, 774
    - custom Java permissions, specifying 517
    - FileList control 169
  - password caching 198–199, 206, 238
  - passwords
    - credit card information, storing 540
    - Secure Password Authentication, configuring 661
    - security zones 532
    - passwords (*continued*)
      - storing for subscribed sites 198–199
      - supervisor password, Content Advisor 522, 525
  - Passwords Properties dialog box, User Profiles tab 54
  - Path control, DirectAnimation 420
  - Path of Control Panel custom HTML file
    - (Configuration Wizard setting) 651
  - Path of custom desktop wallpaper file
    - (Configuration Wizard setting) 645
  - Path of My Computer custom HTML file
    - (Configuration Wizard setting) 651
  - paths, in user profile registry entries 58–59
  - Pattern Matching (JScript) 434
  - Payment Options dialog box, Microsoft Wallet 540
  - PCT (Private Communications Technology) 474, 532
  - PCT 1.0 (security setting) 124, 542
  - People option, Find command 150
  - people with disabilities
    - accessibility resources 554–556
    - accessibility settings
      - blind users 549–550
      - cognitive impairments 553–554
      - hearing impairments 551–552, 578
      - language impairments 553–554
      - low-vision users 550–551, 573–574
      - physical impairments 552
      - seizure disorders, users with 553
    - Microsoft customer service 554
    - Microsoft Press books, downloading 555, 613
    - Microsoft Technical Support 554–555
    - National Information System 556
    - Recordings for the Blind and Dyslexic 555
    - Trace R&D Center 556
    - upgrading to Internet Explorer 4 548–549
  - performance
    - See also* bandwidth
    - ActiveX controls 416, 769
    - cache settings 132–133
    - distribution strategy planning 595
    - download times, minimizing 228
    - HTTP 1.1 130
    - Java applets 131
    - Java JIT compiler 131
    - multimedia settings 133–134
    - personalized channels 226–228
    - roaming profiles 52–53
  - Permission Denied (error message) 770
  - permission model, trust-based security 491–492
  - permissions, Java
    - client services permissions 512–513
    - custom permissions 517
    - file access permissions 508–509
    - for security zones, customizing 496–501
    - in deployed browsers, customizing 502–517
    - network connection permissions 511

- permissions, Java (*continued*)
  - overview 459–460
  - reflection API permissions 516
  - registry key permissions 510
  - security zones 490–491
  - system permissions 514–515
- permission scoping 493–495
- permission signing 492–493
- PersistMoniker line, Desktop.ini file 165, 168
- personal information 533–535, 536–538
- Personal tab, Profile Assistant 538
- Personal Web Manager 385, 388–391
- Personal Web Server
  - Activity log 390
  - administration 388–390
  - applications of 391–392
  - application-testing scenario 392
  - ASP redirect pages 390–391
  - default documents, setting 390
  - directory browsing 390
  - document-sharing scenario 391
  - files and directories installed 387
  - files, adding 390
  - Home Page Wizard 385
  - information-exchange scenario 392
  - Internet Connection Services for
    - Remote Access Systems 387
  - Microsoft Data Access Components 386
  - Microsoft Message Queue Server 386
  - Microsoft Transaction Server (MTS) 386
  - optional components 386
  - overview 245, 384
  - Personal Web Manager 385, 388–391
  - Publishing Wizard 385, 390
  - security 385
  - standards supported 386
  - virtual directories 389
  - Web pages, adding 390
  - Windows 95 integration 384–385
- personalized channels
  - MIME/content type, CDF files 225–226
  - overview 225
  - performance 228
- Personalized Item Settings dialog box 52–53, 57
- per-user folders 59–60
- physical impairments, accessibility settings 552
- PICS (Platform for Internet Content Selection) 520–521
- pilot program, for deployment planning 606–608
- PIM (Protocol-Independent Multicast) 298
- <PLAINTEXT> tag 767
- Platform for Privacy Preferences (P3) model 533
- Play animations (browser setting) 123
- Play sounds (browser setting) 123
- Play videos (browser setting) 123
- plug-ins, deployment planning 591, 592
- policy template (.adm) files 685, 686
- POP3 (Post Office Protocol 3) 251
- POP3 server, configuring for deployed browsers 661
- ports
  - allowing applet access to 511
  - proxy server setting 93
  - required for NetMeeting connections 360–361
- Port setting, proxy server configuration 93
- positioning HTML elements 405
- PowerToys add-on utilities
  - accessibility benefits 546
  - troubleshooting 742
- <PRE> tag 767
- PRECACHE attribute, <ITEM> tag
  - content, downloading 218, 221, 223
  - software distribution channels 699
  - support content, channel screen savers 225
- preview pane, Outlook Express 752
- PreviousIESysFile registry value 735
- print and preview (embedded fonts setting) 404
- Print background colors and images (browser setting) 125
- printer sharing, and Internet connections 90
- Printers folder, customizing Web View 170
- Printers.htt file
  - customizing 170
  - Web View functionality 164
- printing
  - background colors and images 579
  - frames 559
  - Internet Explorer 4 enhancements 107
  - Web pages 559
- Printing (Java permission) 500, 501
- printing services, allowing applets access to 513
- privacy
  - See also* security
  - client/server communications 474
  - cookies 124, 225, 532–533, 542
  - information requested by Web sites 535
  - Microsoft Wallet 535, 536, 538–540
  - overview xvii, xlv, 532
  - personal information,
    - making available 533–535, 536–538
  - privacy security options, configuring 541–542
  - Profile Assistant 533–535, 536–538
  - secure communications 532
- Private Communications Technology (PCT) 474
- private keys *See* digital IDs, Outlook Express
- Product Update option (Help menu) 65, 72, 636
- Profile Assistant 533–535, 537–538
- Profile Assistant dialog box 534–535
- Profile Manager *See* IEAK Profile Manager
- profile supervisor, specifying 58
- Program folders, optimizing roaming profiles 52
- Program Manager, NetShow Administrator 307, 311
- programmed pull *See* managed Webcasting

Programs menu  
   customizing 154–155  
   editing contents of 156  
   Internet Explorer 4 extensions 148  
   item arrangement information, registry entry 156  
   reordering items on 156  
 programs, NetShow 303–304  
   *See also* Microsoft NetShow  
 Programs tab, Internet Options dialog box 592  
 Progressive Networks (RealPlayer) 797  
 project plan, for deployment 601  
 project teams, assembling 586–587  
 Prompt before accepting cookies (privacy setting) 542  
 Properties dialog box, ActiveX controls 417–418  
 Property access (Java permissions) 514–515  
 Protected scratch space (Java permission) 500, 501  
 Protocols tab, Options dialog box 366  
 protocol types, proxy configuration 95  
 proxy names 95  
 proxy servers  
   configuring 93–95  
   errors 96  
   HTTP 1.1, enabling 130  
   overview 93  
   proxy bypass settings 95–96  
   security zones, configuring 452–453  
   troubleshooting 96  
   using directory services 266  
 proxy settings  
   auto-proxy files 678  
   configuring for deployed browsers 655–656  
   errors during Active Setup 25–26  
 Proxy Settings (Wizard Settings option) 684  
 Proxy Settings dialog box 94–96, 452  
 Public\_Description object, ECMAScript 411  
 public keys *See* root certificates;  
   digital IDs, Outlook Express  
 Public member reflection (Java permissions) 516  
 public\_ prefix, exposing scriptlet names 411  
 Publisher list (Configuration Wizard setting) 627  
 publisher's update schedule, locking down 223  
 Publishing Wizard 385, 390

## Q

/q switch  
   ACME Setup 712–713, 714  
   Actsetup.exe 710  
   IE4Setup.exe 46  
 QI Dance 415  
 Quick Activation, ActiveX controls 415  
 Quick Launch toolbar  
   customizing 157, 158  
   design guidelines 157

Quick Launch toolbar (*continued*)  
   keyboard navigation 561  
   overview 153, 650  
 QuickLinks 106  
   *See also* QuickLinks toolbar  
 QuickLinks toolbar 153, 158, 546, 562  
 quiet mode 46–47, 708, 812  
   *See also* silent installation  
 QuietUninstall registry key 80

## R

-r switch (Cabarc.exe) 762  
 /r switch  
   ACME Setup 713, 714  
   IE4Setup.exe 46  
   WExtract utility 16  
 /R switch (IE4wzd.exe) 802  
 rangeFromElement method 767  
 range-request header 192  
 ratings categories  
   acceptable content level, configuring 523  
   default settings 523  
   unrated Web sites, configuring access to 524  
 rating systems  
   overview 520  
   PICS ratings 520, 521  
   RSACi content rating system 520–521  
 Raw Native Interface (RNI) 422  
 RDS (Remote Data Service) 386  
 Read access (Java applets)  
   file permissions 508–509  
   registry keys 509–510  
   user-directed I/O permissions 513  
 Readme.txt, customizing 800  
 RealAudio 96, 578  
 RealPlayer (Progressive Networks) 797  
 Real-Time Encoder SDK, NetShow 290  
 Real-Time Encoder *See* Microsoft NetShow  
   Real-Time Encoder  
 reboot options, specifying  
   in IE4Setup.exe 708  
   in IExpress Wizard 812  
 reboot, simulating with SoftBoot 43–44  
 Receiving tab  
   Active Channel Properties dialog box 230–232  
   Properties dialog box 196–199  
 Recordings for the Blind and Dyslexic 555  
 red gleam  
   channel update notification 213  
   software distribution channel notification 693  
   troubleshooting 747  
   with customized Channel bar logos 697  
 redirect pages, Personal Web Server 390–391

- redirection
  - of forms, warning 542
  - Web pages, troubleshooting 756
- redistributing components in custom applications 142, 768
- Referral Server, Microsoft 91–92
- Reflection API (Java permissions) 516
- Reflection tab, Edit Custom Properties dialog box 516
- RegCloseKey() function 58
- RegDeleteValue() function 58
- .reg file, creating 740–741
- registry
  - DontUseDNSLoadBalancing entry, adding 736
  - hive synchronization 51
  - information required for ACME Setup uninstall 76
  - MIME types, setting 312–313
  - removing Internet Explorer 4 using
    - IERemove.exe 728–729
  - Search bar page, customizing 111
  - setting Exchange attribute 367
  - Shdocvw.dll error messages, changing 140–141
  - single-click mode, configuring 740–741
  - updating using SoftBoot 43–44
- registry (Java permissions) 509–510
- Registry Editor, incorrect use of 110, 140
- registry entries
  - Active Desktop items 175
  - ActiveX support files 17
  - ActiveXCache value, changing 738
  - auto-configuration changes 672
  - Automatic Configuration URL 47
  - backup file locations 83
  - backup registry information 80
  - component installation information 75
  - Control Panel folder, Web View 170
  - debug install, initiating 47
  - default HTML editor 379
  - digital signature of installation files 18
  - directory services data 266
  - duplicate entries 687
  - History folder 117
  - home directories, roaming profiles 53
  - HTTP streaming, enabling 311–312
  - HTTP streaming setting 312–313
  - hyperlinks 59
  - IE4Bak.dat information 80
  - IE4Sites.dat file location 25
  - IE4tour.dll information tour resources 138
  - InBox Assistant rules data 268
  - installation folder 37
  - Integrated Browser information 80
  - Internet Connection Wizard setting 86
  - job name, Actsetup.exe 710
  - log file information 80
  - mail program, default 127–128
  - \*.map keys 80
  - registry entries (*continued*)
    - MIME types 313
    - My Computer folder, Web View 170–171
    - news program, default 127–128
    - Outlook Express data 259
    - Package Manager, Java 424
    - per-user base paths 59
    - previous browser information 80, 735
    - profile supervisor 58
    - proxy server settings 94
    - proxy settings 25
    - QuietUninstall keys 80
    - relative paths 59
    - Search bar page 111
    - Search page, Windows Find menu 111
    - Setup folder 23
    - setup phase data 34
    - Shdocvw.dll error messages 138
    - Start menu folder location 155
    - Stepping mode, initiating 46
    - suffixes for AutoDomain searching 103
    - System.lst backup 39
    - third-party client programs 127
    - trust check, disabling 6
    - Trust files 17
    - uninstalling components 627
    - uninstalling using maintenance mode, ACME Setup 78
    - URLs of add-on pages 64
    - used by Setup during download phase 709–710
    - used by uninstall 80
    - user profile entries 50–51
    - Web site subscriptions 192
    - Windows Desktop Update installation entry 21
    - Windows NT SP3 installation 4
    - zone security settings 449–450
  - registry keys, in .adm files 687
  - Registry tab, Edit Custom Permissions dialog box 510
  - RegOpenKeyEx() function 58
  - RegQueryValueEx() function 58
  - Regular Expressions (JScript) 434
  - relative paths, in user profile registry entries 59
  - relative positions
    - of HTML elements 405
    - of IFRAMES 768
  - relative URLs, in CDF files 217
  - Remote Data Service (RDS), Microsoft 386, 408
  - Remote Method Invocation (RMI) 422
  - removing
    - See also* uninstalling
    - Internet Explorer 4 components 63
    - Windows Desktop Update 6, 69–70
  - repeated tables data presentation 409
  - reset object 170
  - Reset Sharing button, Content tab 535
  - Restrict the use of ... (NetMeeting settings) 365–366

- Restricted Sites zone 448, 454–455
  - result pages 112
  - retailing
    - using NetMeeting 372–373
    - using NetShow 292
  - reveal filters 406
  - revertPrivilege method 493–494
  - RIGHT ARROW key
    - AutoComplete feature 102, 560
    - Quick Launch toolbar navigation 561
    - taskbar navigation 561
  - .rle files 316
  - roaming files 512
  - roaming folders 52, 53, 59–60
  - roaming profiles
    - home directories 53
    - local paths and per-user folders 59–60
    - optimizing 52–53
    - overview 50
    - platform dependence 53
  - roles (Configuration Wizard setting) 620
  - root certificates 479–480, 484, 486–487, 657
  - routers, multicast delivery paths 299
  - routing protocols, multicasting 298
  - roving profiles *See* roaming profiles
  - RSAC (Recreational Software Advisory Council) 520–521
  - RTCP (real-time control protocol) 330, 348
  - RTP (real-time protocol) 330, 348
  - RTP Live Audio 303
  - rules, InBox Assistant 267–268
  - Run ActiveX controls and plugins (security option) 449, 458
  - run command line, using Address bar as 153
  - RunOnceEx Log.txt file 40
  - Run Signed Content (Java permission) 500
  - Run Unsigned Content (Java permission) 499
- S**
- s switch (Cabarc.exe) 761
  - /s switch
    - ACME Setup 713
    - Actsetup.exe 710, 711
    - IE4Setup.exe 46
  - /S switch (IE4wzd.exe) 802
  - S/MIME (Secure MIME), Outlook Express support 251
  - Safe for Scripting ActiveX controls, troubleshooting 769
  - safe-for-initialization controls 459
  - Safemode.htt file 164, 170
  - sales, using NetMeeting 372–373
  - Save Self Extraction Directive page, IExpress Wizard 813
  - Savepack folder 12
  - SBindHost service, ActiveX controls 415
  - SBN Workshop 399, 407, 409
  - scalability, NetShow 286
  - scaling factor, font sizes 574–575
  - Schannel.dll file
    - 128-bit vs. 40-bit encryption 14
    - Server Gated Cryptography 475
  - scheduled updates
    - for software distribution channels 694
    - independent of time zone 766
    - limited usefulness of 207
    - randomizing 223–224, 694
    - specifying in CDF files 217, 223–224
    - to subscribed sites 201–202
    - to subscribed sites, disabling 206
  - schedule groups, disabling creation of 206
  - Schedule Options (software distribution channel settings) 648
  - Schedule tab
    - Active Channel Properties dialog box 233
    - Properties dialog box 199–202
  - <SCHEDULE> tag 184–185, 217, 693, 694, 766
  - Scheduling Agent 192
  - scheduling NetShow broadcasts 284
  - scope *See* permission scoping
  - scratch space (Java settings) 512
  - screen readers
    - audio clips and 578
    - system caret movement 576
  - ScreenSaver UsageType value 219, 225
  - Script ActiveX controls... (security option) 449, 458
  - script commands, including in .asf files 317
  - Script Debugger, Microsoft 66
  - scripting
    - cross-frame security 757–758, 770
    - in Outlook Express messages 271
    - security settings 449–450, 460
    - within .asf files 315
  - Scripting of Java applets (security option) 450, 460
  - scriptlet container object control 412
  - scriptlets
    - adding to applications 411–412
    - creating 410–411
    - interface, defining 411
    - overview 409–410
    - security 412
  - scripts
    - adding to Web pages using FrontPage Express 382
    - ASF Editor tool 319–321
    - browser information, determining 770, 771
    - Document Object Model 400
    - inline script events 403
    - offline mode, recognizing 769
  - scripts directory 387
  - scrolling menus 548
  - SDK for Java 2.0 Beta 759
  - SDKs (Software Development Kits)
    - Client SDK 290
    - Microsoft NetMeeting 2.1 SDK, overview 335, 368–369

- SDKs (Software Development Kits) *(continued)*
  - Real-Time Encoder SDK 290
  - SDK for Java 2.0 Beta 759
  - Server SDK 290
- Search bar
  - customizing 112
  - navigation controls 112
  - overview 108–109, 642
  - Search site, configuring 109–111
- Search Base (Configuration Wizard setting) 662
- search engine, launching from start menu 150
- Search page
  - custom, creating 111–112
  - customizing in deployed browsers 616
  - links to main browser window, implementing 112
  - specifying using Profile Manager 109–110
  - specifying using Registry 110–111
- Search Pane, configuring for deployed browsers 642
- Search Pane URL (Configuration Wizard setting) 642
- Search tab (Help tool) 565–566
- Search WebBot component 382
- Search when URL fails: (search settings) 125
- Searching options, Internet Options dialog box 125
- Secure (Configuration Wizard setting) 656
- Secure (proxy server setting) 95
- secure channels 474
- secure containers 412
- Secure Password Authentication, configuring for
  - deployed browsers 661
- Secure Sockets Layer *See* SSL (Secure Sockets Layer protocol)
- secure Web content, saving to disk 542
- security
  - See also* privacy; trust-based security, Java authentication 441
  - Authenticode 471–474
  - class libraries, Java 495
  - client/server communications 474–477
  - cross-frame security 757–758, 770
  - deployment planning 599
  - digital certificates 441–442
  - digital signature 441
  - distribution strategy planning 596
  - font downloading 404, 450, 460
  - Internet Explorer 3.0 settings 451
  - Internet Explorer 4 enhancements xvii
  - Java 427–428, 442–443
  - Microsoft Security Advisor Web page 428
  - NetShow, access control 289
  - Outlook Express 250, 274–278
  - Personal Web Server 385
  - scriptlets 412
  - secure channels 474–477
  - secure communications 532
  - security *(continued)*
    - trust management 440–441
    - Web content issues 443–445
  - security classes, allowing applets access to 513
  - Security dialog box 466
  - security levels
    - changing for security zones 456
    - default settings 449–450
  - Security object 464
  - Security options, Internet Options dialog box 124
  - Security Settings dialog box 466, 497
  - security settings, overriding in
    - WebBrowser Control 141
  - Security tab
    - font downloads, controlling 404, 450, 460
    - Internet Options dialog box
      - security zones, setting up 451, 457
    - Java permissions, customizing 496
    - Local Intranet zone, adding sites to 452–454
    - mail account Properties dialog box 275
    - Restricted Sites zone, adding sites to 455
    - security options, customizing 457–462
    - Trusted Sites zone, adding sites to 454–455
  - Security Warning dialog box 481, 484, 487
  - security zones
    - architecture 450
    - assigning Web sites to 452–455
    - changing security levels 456
    - customizing security settings 456–462, 463, 465–466
    - deployed browsers, configuring 463–466, 659
    - for Outlook Express 278
    - Internet zone 448
    - Java permissions
      - client services permissions 512–513
      - custom permissions 517
      - customizing 496–501
      - file access permissions 508–509
      - network connection permissions 511
      - Reflection API permissions 516
      - registry key permissions 509–510
      - system permissions 514–515
    - Local Intranet zone 448, 452–454
    - Local Machine 448
    - overview xliii, 439, 444–445, 448–450
    - password protection 532
    - permission options, Java applets 490–491
    - predefined zones 448
    - Restricted Sites zone 448, 454–455
    - scripts, accessing pages across zones 770
    - Trusted Sites zone 448, 454–455
    - user authentication settings 461
  - Security Zones and Content Ratings Customization (Wizard Settings option) 684

- Security Zones and Content Ratings Customization page (Configuration Wizard) 658–659, 778–779
  - advanced Java permissions editor dialog boxes 503–505
  - security zones, pre-configuring 463
- Security Zones and Content Ratings Customization page (Profile Manager)
  - advanced Java permissions editor dialog boxes 503–504
  - Content Advisor, updating settings in deployed browsers 529–530
- SED (Self Extraction Directive) file, creating 804
- seekable .asf files, creating 320
- seizure disorders, users with
  - accessibility settings 553
  - multimedia settings 553
- Select a Language page (Configuration Wizard) 621
- Select a Microsoft Download Site page (Configuration Wizard) 624, 774
- Select Installation Options page (Configuration Wizard) 634, 775
- Select Media to Distribute Your Browser page (Configuration Wizard) 622, 773
- Select Payment Methods dialog box, Microsoft Wallet 540
- Select Silent Install page (Configuration Wizard) 633, 775
- Select Version Number page (Configuration Wizard) 636–637, 775
- SELF attribute, <CHANNEL> tag 217
- Self Extraction Directive (SED) file, creating 804
- self-installing .exe file 801
- Sequencer control, DirectAnimation 420
- server certificates, SGC 476
- Server Gated Cryptography *See* SGC (Server Gated Cryptography)
- Service Bitmap (Configuration Wizard setting) 662
- Services dialog box, Control Panel 312
- SET (Secure Electronic Transaction) protocol 535
- Settings command, Start menu 151–152
- setup appearance, deployment planning 598, 793
- Setup folder
  - hard drive, increasing amount of free space 753
  - network installation 46
  - preparing 29–30
  - removing 63
- Setup Options dialog box, Internet Connection Wizard 87
- Setup program 591–592
- Setup Wizard *See* Active Setup Wizard
- Setup.exe 78, 79
- Setup.stf file 79
- Setupapi.dll file 79
- Setupwbv.dll file 79
- Sex ratings category (RSACi) 521, 523
- SGC (Server Gated Cryptography)
  - 128-bit encryption, installing 721, 798
  - enabling 475
  - Microsoft's implementation 476
  - Netscape's implementation 476
- SGC (Server Gated Cryptography) (*continued*)
  - overview 475
  - Schannel.dll support 14
- sglobal object (JScript) 437
- Shadocvw.dll 14
- shared applications *See* application sharing
- Shdocvw.dll
  - See also* WebBrowser Control
  - basic link-crawl architecture 191–192
  - CDF link-crawl architecture 215–216
  - error messages 138, 140–141
  - IE4Setup.exe system check 13–14
  - in browser architecture 136–138
  - including in custom applications 139–140
  - location of 145
  - True Web Integration architecture 145
- Shell check (IE4Setup.exe) 13
- shell files 69, 82–83
- Shell32.dll
  - troubleshooting Explorer uninstallation 79–80
  - updated version, Windows Desktop Update installation 145
- SHIFT+CTRL+TAB key 558
- SHIFT+F10 key
  - desktop icon navigation 562
  - Internet Explorer 4 navigation 558
  - Quick Launch toolbar navigation 561
  - taskbar navigation 561
  - Web page navigation 559
- SHIFT+SPACEBAR key,
  - Internet Explorer 4 navigation 558
- SHIFT+TAB key
  - Channel bar navigation 562
  - Internet Explorer 4 navigation 558
  - Web page navigation 560
  - Windows Desktop Update navigation 561
- shipping addresses, storing 535, 538–539
- Shlwapi.dll 58, 79
- Show channel bar by default (Configuration Wizard setting) 647
- Show Desktop button 153
- Show font button (toolbar setting) 125
- Show friendly URLs (browser setting) 123
- ShowHTMLDialog function 141
- Show Internet Explorer on the Desktop setting 122
- Show pictures (browser setting) 123
- ShowSounds setting 552
- Show window page, IExpress Wizard 810
- SHRegCloseUSKey() function 58
- SHRegDeleteUSValue() function 58
- SHRegGetUSValue() function 58
- SHRegOpenUSKey() function 58
- SHRegQueryUSValue() function 58
- Signature (Wizard Settings option) 684
- Signature page (Profile Manager) 270

## signatures

- See also* digital signatures; signed files
- configuring for deployed browsers 270, 664, 780
- default, Outlook Express 270, 664

Signcode.exe utility 760

## signed applets

- See also* Trusted Signed Permissions; Untrusted Signed Permissions
- customizing permissions 500–501
- resetting permissions 501
- viewing permissions 498
- zone security, customizing 506, 507–517

## signed files

- See also* .cab files; digital signatures
- Authenticode 471
- .cab files, in ACME Setup 31–32
- custom browser packages 666, 814

signed mail, sending and receiving 276

## silent installation

- configuring for Active Setup 633
- configuring in IExpress Wizard 812
- running from IE4Setup.exe 46, 708

single-click mode, configuring 740–741

Single Explorer xxiv, 144

Site Builder Magazine 399

Site Certificate and Authenticode Settings page  
(Configuration Wizard) 483–484, 657, 778

Site Certificates and Authenticode Settings  
(Wizard Settings option) 684

Site Certificates and Authenticode Settings object 486

Site Certificates dialog box, trusted certificates,  
customizing 484, 487

Site Name (Configuration Wizard setting) 635

## Site Properties dialog box

- editing site subscriptions, disabling 205
- Receiving tab 196–199
- Schedule tab 199–202

Site Region (Configuration Wizard setting) 635

site subscriptions *See* Web site subscriptions

Site URL (Configuration Wizard setting) 635

sitecrawler 192, 206–207

Size (KB) (Configuration Wizard setting) 627

size guidelines, Active Desktop items 183

Small Icons (toolbar setting) 125

small icons, displaying 579

Smart image dithering (browser setting) 123

Smart Recovery 34

Smart Recovery check (IE4Setup.exe) 14

Smart Reply feature, Outlook Express 254

smooth scrolling, enabling 577

SMTP (Simple Mail Transfer Protocol) 251

SMTP server, configuring for deployed browsers 661

snws: (secure news) URLs 128

Socks (Configuration Wizard setting) 656

socks protocol 477

SoftBoot 43–44

softBoot.inf file 714

SoftBoot Log file 40

## SOFTPKG items

icons, specifying in CDF files 696–697

in CDF files 697

in Channel bar 693–694

in Software Updates folder 693

Software channel permissions (security option) 450, 462

## software distribution channels

CDF files, creating 697–699

configuration 696

current computer, configuring 702

custom packages, pre-configuring 702–704

distribution schedules 695

distribution strategy 692

implementing 691–692

importing 703–704

installation methods 695

managing with automatic browser  
configuration 705–706

notification methods 695

number of sites 692

on deployed browsers 648, 704

OSD files, creating 699–700

overview 582, 690

requirements, identifying 691–692

security settings 450, 462

software distribution packages 700–701

subscribing to 702

summary pages 694

types of channels 692–694

version number, specifying 698

Web servers, configuring 702

software distribution packages 700–701

Software Update Available dialog box 71

Software Updates folder, Favorites bar 113

Software Updates folder, Favorites menu 693

SoftwareUpdate UsageType value 219, 698

Sound and video (site subscription setting) 198

## sound events, Control Panel

accessibility benefits 547

Start Navigation and Complete Navigation 107, 547

sound files, controlling downloads of 198, 232

Sound Pack component, Internet Explorer 65–66

## sounds

*See also* audio content, NetShow

browser performance 134

settings for people with disabilities 578

Sounds Properties dialog box, Control Panel 550, 552

SoundSentry 551

## SPACEBAR key

Advanced tab, Internet Options dialog box 575

Internet Explorer 4 navigation 558

NetMeeting navigation 580

- Specify Active Desktop Components
  - (Wizard Settings option) 684
- Specify Active Desktop Components page
  - (Configuration Wizard) 235, 649, 777
- Specify an Online Support Page for Your Browser page
  - (Configuration Wizard) 643, 776
- Specify Custom Active Setup Components page
  - (Configuration Wizard) 626–627, 774
- Specify Download URLs page
  - (Configuration Wizard) 635, 775
- Specify Internet Mail Servers, Domain, and News Server page (Configuration Wizard) 261, 661, 780
- Specify LDAP Server Settings page
  - (Configuration Wizard) 266, 662, 780
- Specify Proxy Settings page
  - (Configuration Wizard) 655–656, 778
- Specify the full path of a custom folder
  - (Configuration Wizard setting) 637
- Specify Trusted Publishers page
  - (Configuration Wizard) 627, 774
- Specify Where You Want to Install Your Browser page
  - (Configuration Wizard) 637, 775
- SpeedDial list, NetMeeting 580
- Sprite Buttons control, DirectAnimation 420
- Sprite control, DirectAnimation 420
- SSL (Secure Sockets Layer protocol)
  - Internet Explorer 4 support 532
  - Microsoft Wallet support 535
  - troubleshooting 96
- SSL 2.0 (security setting) 124, 542
- SSL 3.0 (security setting) 124, 542
- Stage 1, Configuration Wizard 619–622, 773
- Stage 2, Configuration Wizard 622–627, 774
- Stage 3, Configuration Wizard 627–638, 775
- Stage 4, Configuration Wizard 639–660, 776–779
- Stage 5, Configuration Wizard 660–666, 780
- Stage 6, Configuration Wizard 781–791
- Standard installation option
  - components included 588
  - customizing 633–634
  - IEAK Configuration Wizard requirements 588–589
  - Setup Wizard 19–20
  - system requirements 588
- standard installation suites
  - components included 588
  - system requirements 587
- Standard text color (Configuration Wizard setting) 630
- standards
  - See also* LDAP (Lightweight Directory Access Protocol)
  - H.323 protocols 348–349
  - Personal Web Server support 385
  - T.120 protocol 344–347
- standards organizations 344
- star topology *See* topologies
- Start and Search Page (Wizard Settings option) 684
- Start and Search Page object, (Profile Manager) 110
- Start menu
  - customizing 155
  - editing contents of 155–156
  - Find command 150
  - folder location, registry entry 155
  - Internet Explorer 4 extensions xxiv–xxv, 144, 148–151
  - roaming profiles, optimizing 52–53
  - Settings command 151–152
- Start Navigation sound event 107
- start page, customizing in deployed browsers 616
- stationery templates, Outlook Express 271–273
- statistics
  - Active Channels usage 219
  - tracking with user agent string 653, 794
- Status bar 107, 577
- Stepping mode 47
- stored ASF streams
  - content, creating 315–322
  - multicasting 307–309
- streaming
  - See also* Microsoft NetMeeting; Microsoft NetShow
  - distributed streams 302
  - HTTP streaming 311–313
  - intelligent stream control 331
  - NetShow 303
  - overview 282–283, 293
  - streaming protocols 301, 311–313
  - technologies supported by NetShow 283
- Strings (JScript) 433, 434
- Structured Graphics control, DirectAnimation 420
- STYLE attribute
  - dynamic styles 402
  - positioning HTML elements 405
  - software distribution channels 698
- STYLE blocks
  - dynamic styles 402
  - embedded fonts 404
- style sheets
  - See also* Cascading Style Sheets
  - customizing Web page display 566
  - file name extension 569
  - font sizes, specifying 574–575
  - for high-visibility display 568–570
  - in Outlook Express messages 271
  - overriding Web-page formatting 567
  - testing 570
- Style Tag button, Outlook Express toolbar 272
- subchannels
  - in channel hierarchy 212
  - nested <CHANNEL> tags 185, 216
- subfolders, adding to Favorites folder 115
- Sublist.dat file, Outlook Express 259
- Submit nonencrypted form data (security option) 450, 461
- Subscribe Favorite dialog box 195

- subscribing
    - to Active Channels 229
    - to Active Desktop items 230
    - to software distribution channels 702
    - to Web sites 193–202
  - subscription options
    - Active Channel subscriptions 229
    - Add Favorite dialog box 193
    - Subscribe Favorite dialog box 195
  - Subscription tab, Press Properties dialog box 194
  - Subscription Wizard
    - Active Channel subscriptions 229–230
    - Active Desktop items 186, 230
  - subscriptions
    - See also* Active Channels; Web site subscriptions
    - e-mail delivery 254
    - e-mail notification, troubleshooting 746–747
  - Subscriptions object 203–204
  - substitution strings, HTML variables 168
  - supervisor password, Content Advisor
    - options, configuring 524–525
    - overview 522
  - Supplemental Web Fonts component 66
  - support content
    - for Active Channels 219, 223
    - for Active Desktop items 224
    - for channel screen savers 225
  - Support Page (Wizard Settings option) 684
  - support *See* technical support
  - synchronization
    - clock synchronization 192
    - hive synchronization 51
    - version synchronization 597, 620, 624
  - Synchronize (Configuration Wizard setting) 625
  - Synchronize All (Configuration Wizard setting) 625
  - system caret, movement of 576
  - system checks, IE4Setup.exe 13–14
  - System.getProperty method 515
  - System information (Java permission) 500, 501
  - System.lst backup 39, 70
  - system permissions, Java applets 514–515
  - system policies and restrictions
    - deployment planning 600
    - NetMeeting 333
  - System Policies and Restrictions page (Configuration Wizard)
    - Active Channel subscription options, locking down 236
    - Active Desktop items, locking down 181
    - automatic browser configuration, locking down 676
    - Content Advisor settings, locking down 528
    - custom toolbars, pre-configuring 159
    - Custom-Build Checklist 781–790
    - digital certificate options, locking down 485
    - NetMeeting settings, customizing 365–368
    - System Policies and Restrictions page
      - (Configuration Wizard)
        - Outlook Express toolbars, customizing 270
        - security options, locking down 464–465
        - Web site subscription options, locking down 203–206
    - System Policies and Restrictions page (Profile Manager)
      - Active Channels subscription options, locking down 236–238
      - custom toolbars, pre-configuring 159–160
      - Outlook Express toolbars, customizing 270
      - overview 685–686
    - system properties, allowing applet access to 514–515
    - system requirements
      - custom package distribution methods 589
      - IEAK Configuration Wizard 588–589, 797
      - Internet Client SDK 763
      - Internet Explorer 4 4, 587–588
      - standard installation suites 587
    - system state, after running IERemove.exe 82
    - System stream redirection access 515
    - System tab, Edit Custom Properties dialog box 514–515
- ## T
- /t switch
    - ACME Setup 713
  - T.120 protocol
    - compatible products and services 355–356
    - in NetMeeting 335, 341, 347, 367
    - interaction with H.323 protocol 349
    - interoperability 345, 354–355
    - overview 344–345
    - topologies 345–347
  - T.126 standard 347
  - T.127 standard 347
  - T.128 standard 347
  - TAB key
    - Active Desktop items navigation 562
    - Advanced tab, Internet Options dialog box 575
    - Channel bar navigation 562
    - Help tool navigation 562
    - hyperlink navigation 562
    - Internet Explorer 4 navigation 558
    - Internet Explorer 4 vs. Internet Explorer 3 548
    - keyboard focus, losing 548
    - Web page navigation 559
    - Windows Desktop Update navigation 561
  - Table of Contents, Active Channels 232
  - tables, using FrontPage Express 377
  - Tabular Data Control 408
  - Target language (Configuration Wizard setting) 621
  - taskbar
    - customizing 157
    - design guidelines 157

- taskbar (*continued*)
  - Internet Explorer 4 integration 153–154
  - keyboard navigation 561
- Taskbar Properties dialog box, Start Menu Programs tab 156
- Task Scheduler component 66
- TCP, in NetMeeting architecture 340
- technical requirements, deployment planning 587–588
- technical support
  - during browser deployment 606, 613
  - for users of Internet Explorer 613
  - text telephone (TTD) support
    - Microsoft 554, 555
    - National Information System 556
  - using NetMeeting 338, 370
- telecommuting, using NetMeeting 338
- Telephon.ini file 43
- template files
  - install.ins files 687
  - policy template (.adm) files 686
- %TEMPLATEDIR% substitution string 168
- templates
  - for Web pages 378, 381
  - stationery templates 271–273
- Temporary Internet Files folder
  - cached resource storage 120
  - roaming profiles, optimizing 52–53
- 'test' certificates 761
- Test URL (Configuration Wizard setting) 644
- testing deployment
  - lab testing 605
  - pilot programs 606–608
  - test plan 604
- text, associated with HTML elements, changing 767
- text color
  - formatting in style sheet 568
  - selecting 571–572
- Text Labels, displaying 579
- TextRange objects 407
- text reader, preparing text for 578
- text telephone (TTD) support
  - Microsoft 554, 555
  - National Information System 556
- text wrapping, troubleshooting 755
- <TEXTAREA> tag, troubleshooting 755
- The command failed to execute (error message) 753
- third-party programs 126–128
- This.txt file 11
- %THISDIRNAME% substitution string 168
- %THISDIRPATH% substitution string 168
- Thread access (Java permissions) 514
- Thumbnail view 171–172
- time handling (JavaScript) 432, 434, 436, 437
- Time Stamp WebBot component 382
- Tip of the Day, Outlook Express 270
- TITLE attribute, <A> tag 767
- Title bar text (Configuration Wizard setting) 630, 641
- title bar, configuring for deployed browsers 641
- <TITLE> XML tag 217
- Toolbar background bitmap
  - (Configuration Wizard setting) 641, 794, 798
- Toolbar options, Internet Options dialog box 126
- toolbars
  - desktop toolbars 158, 562, 650, 795
  - Internet Explorer toolbar 104
  - NetMeeting 334
  - Outlook Express, customizing 270
  - overview 148–154
  - Toolbar options, Internet Options dialog box 125
- ToolTips
  - in channel items 217
  - over HTML anchors, customizing 767
  - site summary, Search bar 109
- top provider, NetMeeting 346
- top level windows (Java permissions) 513
- topologies
  - LDAP 351
  - T.120 protocol 345–347
- tour.htm resource, IE4tour.dll 138
- Trace R&D Center 556
- training
  - deployment implementation 613
  - deployment planning 607
  - using NetShow 291–292
- Transitions control, DirectAnimation 420
- transitions, Dynamic HTML 406
- transport layer, NetMeeting architecture 340
- transport protocols, supported by NetShow 285
- Trigger.exe *See* Actsetup.exe
- troubleshooting
  - See also* errors
  - 128-bit Server Gated Cryptography, installing 721
  - Active Desktop 742–743, 744, 748
  - Active Setup 669
  - ActiveX controls 769
  - address book, importing 751
  - ASCII characters, encoding in CDF files 764
  - background images 756
  - browser redirection 756
  - browser version, determining 770
  - .cab files 760–761, 762
  - component installation errors 38–39
  - cross-frame security 770
  - Data Form Wizard 756
  - desktop icons, disappearing 740
  - desktop wallpaper 744
  - .dll registration problems 44
  - downloads, inconsistent 737
  - e-mail notification 746–747
  - event handlers, Dynamic HTML 767
  - font size changes, saving 734

- troubleshooting (*continued*)
- frames 757–758, 766, 770
  - <FRAMESET> tag 757
  - HTML authoring 755–758
  - IFRAMES, relative positioning 768
  - image downloads, Active Desktop items 748
  - images copied to desktop 741
  - Internet Explorer 4
    - browser installation 720–725
    - components, installation 724
    - uninstallation using Add/Remove Programs 726
  - Internet Properties dialog box access 726
  - mail attachments, saving 752–753
  - <META> tag 756
  - Microsoft Plus! 743
  - MIME types, CDF files 763
  - news display in Outlook Express 752
  - no-boot situation 82
  - non-Microsoft sites, unviewable 736–737
  - Novell NetWare 32-bit client 736–737
  - OLE files, mismatch 69
  - On The Internet option (Find menu) 742
  - Outlook Express 749–754
  - <PLAINTEXT> tag 767
  - PowerToys 742
  - proxy servers 95–96
  - RealAudio 96
  - red gleam 747
  - reinstalling Windows 95 after Internet Explorer 4
    - installation 721–724
  - returning to earlier version of Internet Explorer 4 727
  - Secure Sockets Layer (SSL) 96
  - Service Pack 3 installation, Windows NT 724–725
  - Setup and installation, trust check failure 6
  - shell files, mismatch 69
  - slow connections 736–737
  - SoftBoot 44
  - <TEXTAREA> tag 755
  - ToolTips over HTML anchors 767
  - unattended dial-up 745–746
  - uninstallation 81–83
  - WebBrowser Control 768
  - Webcasting 745–748
  - Windows Desktop Update installation 720–721
- true Webcasting xxxvi, 188, 241, 291–292
- See also* Microsoft NetShow
- True Web Integration xxiv, 143, 145
- TrueType fonts *See* font embedding
- trust-based security, Java
- enabled permissions 493–494
  - granted permissions 493–494
  - High Safety, default capabilities 492
  - Internet Explorer 4.0 vs. Internet Explorer 4.01 496, 502
  - Low Safety, default capabilities 492–493
  - Medium Safety, default capabilities 492
- trust-based security, Java (*continued*)
- overview xlv, 424, 428, 439, 490
  - Package Manager 495
  - permission model 491
  - permission scoping 493–495
  - permission signing 492–493, 496
  - permissions, customizing 496–501, 502–517
  - security zones, permission options 491
  - Trust User Interface 492, 496
- trust check
- .cab files, installing 38
  - failed during installation 6
- trusted CAs
- designating 481, 484, 487
  - removing 482, 484, 487
- trusted certificates, customizing 484, 487
- trusted publishers
- configuring for Active Setup 627
  - configuring for deployed browsers 657
  - designating 481, 484, 487
  - removing 482, 484, 487
- Trusted Signed Permissions 502, 506, 507–517
- See also* signed applets
- Trusted Sites zone 448, 455
- trust files, checked by Setup Wizard 18
- trust management 440–441
- See also* security
- trust status, of digital IDs 277
- Trust User Interface 492, 496
- TTD *See* text telephone (TTD) support
- ## U
- /u switch
- ACME Setup 713, 714
  - Actsetup.exe 710
- /U switch (IE4wzd.exe) 802
- UDP (user datagram protocol) 340
- ULS (User Location Service) 357
- See also* ILS (Internet Locator Service)
- Unable to sign the program <.cab file>  
(error message) 760–761
- unattended dial-up, troubleshooting 745–746
- uncached resources, links to, cursor indicator 120
- Underline links (browser settings) 123
- unicasting, NetShow
- See also* broadcasting
- announcing with .asx files 300–301, 307, 309
  - ASF streams 303
  - live ASF streams 307
  - NetShow channels 302–303
  - overview 283, 296
  - stored ASF streams 307–309
- unicode characters (JScript) 436

- uninstall files, deleted,
  - effect on Explorer reinstallation 81
- uninstall information, deleting,
  - effect on reinstallation 75, 77
- uninstalling
  - See also* removing
  - ActiveX controls 737
  - Internet Explorer 4
    - Add/Remove Programs, troubleshooting 726
    - after backup files removed 78
    - core files, removing 74–75
    - emergency uninstall 82–83
    - errors 79
    - files left in system 714
    - files required 76
    - maintenance mode, ACME Setup 78
    - manual uninstall 78
    - registry entries required 80
    - registry information 76
    - situations not supported 77
    - system state following uninstall 77
    - troubleshooting 726–731
    - uninstall log 82
  - Windows Desktop Update 69–70, 730–731
  - Uninstall Key (Configuration Wizard setting) 627
  - uninstall log 82
  - Universal Naming Convention (UNC) paths 453
  - unplugged controls 418
  - unsigned applets
    - See also* Unsigned Permissions
    - customizing permissions 499–500
    - resetting permissions 501
    - viewing permissions 498
    - zone security, customizing 506, 507–517
  - Unsigned Permissions
    - See also* unsigned applets
    - Edit Custom Permissions dialog box 505–506, 507–517
    - overview 502
  - Untrusted Signed Permissions 502–503, 506, 507–517
    - See also* signed applets
- UP ARROW key
  - Advanced tab, Internet Options dialog box 575
  - AutoComplete feature 560
  - Contents list (Help tool) navigation 563
  - Internet Explorer 4 navigation 558
  - Search tab (Help tool) navigation 566
- Update All option, disabling 205, 238
- Update Now option, disabling 205, 238
- update schedules
  - in CDF files 217, 223, 765
  - publisher's update schedule 217, 223–224, 233
  - randomizing, for Active Channels 223
  - Web site subscriptions 201–202, 204
- updates *See* Web site subscriptions
- updating subscribed sites
  - during online sessions 765
  - manual updates 202
  - scheduling 201–202
- Upgrade All button, Components Download page 65
- URL (Configuration Wizard setting) 644, 663
- URL of Add-on Component page
  - (Configuration Wizard setting) 636
- URL:MailToProtocol registered file type,
  - changing 750–751
- Urlmon.dll file 11, 14
  - browser architecture 137
  - extracted during setup 14
  - proxy settings used by 25
  - True Web Integration architecture 145
- URLs
  - See also* Web sites
  - AutoComplete feature 560
  - editing in Favorites folder 115
  - including in .asf files 316
  - partial, suggested completions 100–102
  - Personal Web Server 387
  - prefix and suffix
    - adding automatically 101–102
    - AutoDomain searching 102–103
  - referencing, in CDF files 216–218
  - relative, in CDF files 217
  - <USAGE> tag 218, 219, 221–223
  - Active Desktop items 185, 224
  - channel screen savers 225
  - default value 223
  - e-mail notification 746
  - software distribution channels 698
  - usage types 219
- UsageType values 219, 221, 222–223
- Use a custom welcome page
  - (Configuration Wizard setting) 645
- Use AutoComplete (browser setting) 122
- Use HTTP 1.1 (HTTP setting) 125
- Use HTTP 1.1 through proxy connections
  - (HTTP setting) 125, 130
- Use Secure Password Authentication
  - (Configuration Wizard setting) 661
- Use smooth scrolling (browser setting) 123
- Use the same proxy server for all addresses
  - (Configuration Wizard setting) 656
- User Agent (Wizard Settings option) 684, 794
- User Agent String Customization page
  - (Configuration Wizard) 652–653, 777, 794
- user agent string, customizing for
  - deployed browsers 652–653, 794
- User Authentication - Logon (security option) 450, 460–461
- user authentication, security settings 450, 460–461
- user feedback, in Status bar 107

- user information
    - making available to Web sites 533–535
    - Profile Assistant, configuring 537–538
  - user interface (Java permissions) 513
  - user interface, NetMeeting 334
  - user needs
    - See also* technical support
    - deployment planning 590
    - distribution strategy, custom packages 594
    - support and training 606–607, 612–613, 670
  - User object, ILS 352
  - user privacy *See* privacy
  - User Profile Wizard
    - profile supervisor, specifying 58
    - user profiles, creating 54–57
  - user profiles
    - See also* Profile Assistant
    - advanced functionality 58–60
    - creating 53–57
    - folder settings 60
    - hive synchronization 51
    - Links folder, default path 107
    - overview 50–51
    - per-user settings 59–60
    - profile structure 52
    - profile supervisor, specifying 58
    - registry entries 51, 58–59
    - roaming profiles 52–53, 59–60
    - uninstalling Internet Explorer 4 78
    - User.dat file 50–51
  - User Profiles feature
    - Address Book files, location of 260
    - Outlook Express files, location of 258
  - User Profiles tab, Passwords Properties dialog box 54
  - User quiet mode 708
  - User.dat file 50–51
  - User-directed I/O (Java permissions) 513
  - Username.wab file 754
  - User-selected file access (Java permission) 500, 501
  - Users icon, Control Panel 55
- V**
- /v switch
    - ACME Setup 713
    - WExtract utility 16
  - validating deployment 581, 583, 604–609
  - variable substitution strings, HTML 168
  - VBScript 226, 378
    - See also* ECMAScript; Microsoft JScript 3.0
  - VBScript.dll 145
  - VDOLive Player 797
  - verification *See* Authenticode
  - VeriSign CA, SGC certificates 477
  - Version (Configuration Wizard setting) 627
  - version check (IE4Setup.exe) 13, 14
  - version number
    - of ActiveX controls 416, 418
    - specifying for software distribution channels 698
  - Version number (Configuration Wizard setting) 636
  - version of Windows 95, determining 722
  - version synchronization 597, 620, 624, 774
  - Version Tab, controls Properties dialog box 418
  - video clips, settings for people with disabilities 578
  - video conferencing, NetMeeting
    - See also* Microsoft NetMeeting
    - H.323 standards 348–349
    - NetMeeting compatibility 356
    - overview 330–331
    - restricting 366
    - through firewalls 360
  - video content, NetShow
    - adjusting image or video file size 321
    - bandwidth, controlling 313
    - codecs 282–283, 293–294, 321–322
    - converting to .asf format 315–316
    - data rate (bit rate) of files 293
    - masking 296
    - MPEG video streams 291
    - Real-Time Encoder, NetShow 290
    - VidToAsf tool 319, 321
  - video files, controlling downloads of 197, 232
  - Video tab, Options dialog box 366
  - videos, and browser performance 134
  - VidToAsf tool, NetShow 319, 321
  - View Customization object
    - (Configuration Wizard) 270
  - View Permissions tab,
    - Custom Java Security dialog box 498
  - ViewMode parameter, FileList control 169
  - Violence ratings category (RSACi) 521, 523
  - virtual directories, in Personal Web Server 389
  - virtual folders, customizing 170
  - Virtual Machine (VM) *See* Microsoft Virtual Machine, Java Virtual Machine
  - virtual meetings, using NetMeeting 337, 371
  - virtual white pages, Internet 150
  - vision impairments
    - accessibility options 575, 576
    - blind users 549–550
    - Browsing options 576, 577
    - larger buttons, displaying 579
    - low-vision users 550–551, 568–570, 574
    - multimedia options 578
  - Visual Basic 5 139–140
  - VM (Virtual Machine) *See* Microsoft Virtual Machine
  - VRML component 65

## W

- /w switch
  - ACME Setup 713
  - IExtract.exe utility 69
- W3C (World Wide Web Consortium)
  - Document Object Model Web page 400
  - Dynamic HTML, and HTML 4.0 standards 399–400
  - P3 (Platform for Privacy Preferences) model 533
  - Web Style Sheets site 401
- W95inf16.dll file 11, 14
- W95inf32.dll file 11, 14
- Wab32.dll 258, 753
- Wab.exe 258, 754
- Wab.exe program 260
- Wabfind.dll 258, 265, 753
- .wab files 260
- Wabimp.dll 258, 753
- Wabmig.exe 258, 751, 754
- wallpaper, Active Desktop 174, 178–179, 744
- Warn about invalid site certificates (security setting) 124, 542
- Warn if changing between secure and insecure mode (security setting) 124, 542
- Warn if forms submit is being redirected (security setting) 124, 542
- WavToAsf tool, NetShow 318, 321
- Web content
  - See also* audio content, NetShow; video content, NetShow
  - Active Channels 212–213
  - Active Desktop items 213–214
  - CDF-based channels 215
  - channel screen savers 214
  - controlling downloads in WebBrowser Control 141
  - customizing based on user agent string 652–653, 794
  - <ITEM> XML tags 218
  - secure content, saving to disk 542
  - security issues 443–445
  - software distribution channels
    - notification pages 696–698
- Web crawls
  - disabled by Web sites 190, 207
  - link-crawling process 191–192
  - on subscribed sites 191
- Web pages
  - See also* HTML pages; style sheets
  - adding scriptlets to 412
  - .asx links 300–301
  - compatibility issues 593
  - creating using FrontPage Express 376–382
  - custom toolbars, creating 159
  - formatting, overriding 567–570
  - keyboard navigation
    - between pages 558
    - SHIFT+TAB key 558, 559–560
  - Web pages (*continued*)
    - keyboard navigation (*continued*)
      - TAB key 558–559
      - through pages 558
    - making accessible using Personal Web Server 390
    - NetMeeting, adding to 368–369
    - NetShow Player 324–326
    - posting using Web Publishing Wizard 393–394
    - printing 559
    - publishing xli
    - redirection, troubleshooting 756
    - referencing Java applets 428
    - saving 559
    - software distribution channels
      - notification pages 696–697, 698
  - Web Publishing Wizard 380, 393–394, 592
  - Web Review (Style Sheets Reference Guide Web site) 401
  - Web site subscriptions
    - See also* Active Channels
    - ActiveX controls, downloading 198
    - controlled information delivery 206–207
    - crawl depth 197, 204
    - daily updates 201
    - disabling 205
    - download options, customizing 196–198
    - file size, limiting downloads 198, 204
    - hit-or-miss nature of 207
    - Java applets, downloading 198
    - links, following and downloading 197
    - login options, customizing 199
    - mail address options, customizing 198
    - manual updates 202, 205, 764
    - monthly updates 201–202
    - number of subscriptions, restricting 204
    - on deployed browsers, locking down 191, 203–206
    - overview 190–191
    - password caching 198–199, 206
    - registry key 192
    - scheduled updates 201–202
    - scheduled updates, disabling 204–205
    - scheduling options, customizing 199–202
    - subscribing 193–195
    - unsubscribing 195
    - usefulness, limitations to 206–207
    - Web crawls, disabled by Web sites 190, 207
    - weekly updates 201
- Web sites
  - See also* URLs
  - personal information requested by 533–535
  - security zones, specifying 451–456
- Web sites (URLs)
  - 128-bit Server Gated Cryptography 721, 798
  - Active Channel content development 802
  - Active Desktop gallery 180
  - Active Streaming Format (ASF) white paper 295

Web sites (URLs) (*continued*)

ActiveX controls 183  
 Authenticode 2.0 download 12  
 Browser Capability component 771  
 CAB Developers Kit 759  
 CAs supporting Microsoft products 469  
 CDF specification 691, 799, 802  
 Data Source Object Gallery 408  
 DirectSound component, DirectX 5 336  
 Dynamic HTML 178, 802  
 ECMA-262 specification 431  
 firewalls, NetShow integration 287  
 frames, HTML syntax 757  
 HTML 3.2 Specification Reference 756  
 IE4Setup.exe download 12  
 IEAK (Internet Explorer Administration Kit) 614  
 IEAK information 802  
 IETF (Internet Engineering Task Force) 344  
 ILS 332, 359  
 IMTC (International Multimedia Teleconferencing Consortium) 344  
 Inside Dynamic HTML 398  
 Internet Client SDK 398, 412, 691  
 Internet Explorer 4  
   add-on pages 64  
   content development 802  
   download site 544  
   information 802  
 Internet Explorer Customer Support Center 587  
 Internet Explorer Digital ID Web site 275  
 ITU (International Telecommunications Union) 344  
 Java applets 183  
 JScript 3.0 432, 435  
 LDAP architecture 351  
 Microsoft ActiveX SDK 759  
 Microsoft Developer Network 414  
 Microsoft Font Properties Extension 405  
 Microsoft Internet Explorer Press 802  
 Microsoft Internet Explorer Support Center 591  
 Microsoft Internet Explorer Web site xv, 613  
 Microsoft Java Technologies Web page 422  
 Microsoft Knowledge Base 6  
 Microsoft Message Queue Server 386  
 Microsoft NetMeeting 2.1 SDK 335, 369  
 Microsoft NetMeeting 355, 579  
 Microsoft NetShow 241  
 Microsoft NetShow codec information 294, 322  
 Microsoft NetShow How-To Web page 313  
 Microsoft NetShow Player ActiveX control 325  
 Microsoft Press 613  
 Microsoft products, accessibility 554  
 Microsoft Remote Data Service (RDS) 386  
 Microsoft Security Advisor 428  
 Microsoft Site Builder Network (SBN) 398

Web sites (URLs) (*continued*)

Microsoft Specifications and Standards page 400  
 Microsoft Support Web page 613  
 Microsoft Transaction Server (MTS) 386  
 Microsoft WEFT (Web Embedding Fonts Tool) 404  
 Microsoft Windows Keyboard Guide 559  
 OSF specifications 691  
 PICS (Platform for Internet Content Selection) 520  
 Recordings for the Blind and Dyslexic 555  
 SBN Workshop 399, 412  
 SDK for Java 2.0 Beta 759  
 Site Builder Magazine 399  
 Trace R&D Center 556  
 W3C Document Object Model Web page 400  
 W3C Web Style Sheets site 401  
 Web Review Style Sheets Reference Guide 401  
 WebPost Provider .dll file, distributing 393  
 Web tab, Active Desktop Properties dialog box 178  
 Web View  
   *See also* Web View Wizard  
   and Thumbnail view 172  
   architecture 164  
   Control Panel folder, customizing 170  
   Desktop.ini file 165  
   FileList control 169  
   Folder.htt file 165, 166–169  
   folders, customizing 165–169  
   header graphic, customizing 168  
   HTML file, replacing Folder.htt file 168–169  
   left folder pane, customizing 167  
   My Computer folder, customizing 170–171  
   My Documents folder, customizing 168  
   overview xxvii–xxviii, 144, 162  
   Printers.htt folder, customizing 169, 170  
   Safemode.htt file, customizing 170  
   sample applications 163  
 Web View Wizard  
   changing default Web View 166  
   customizing folders 165–166  
   files created by 164, 165  
   overview xxix  
   removing customization 166  
 WebBot components 381–382  
 WebBrowser Control  
   *See also* Shdocvw.dll  
   customizing functionality 141  
   distributing in custom applications 142, 768  
   error messages, changing 140–141  
   Explorer bars 108  
   Frequently Asked Questions (FAQs) 768  
   HTML resources 138, 141–142  
   overview 136–137  
   reusing 139–140  
   vs. Mshtml.dll 137

- Webcasting
  - accessibility benefits 547
  - basic Webcasting xxxiii, 190, 191–192, 206–207
  - managed Webcasting xxxiv–xxxv, 188, 210–211, 215
  - overview xxxii–xxxvi, 187–188
  - personalized Webcasts 225–229
  - relation to Active Desktop items 176–177
  - troubleshooting 745–748
  - true Webcasting xxxvi, 241
- Webcheck.dll 191, 215
- WebPost Provider .dll 393
- Webpub directory 387
- Weekly (software distribution channel schedule setting) 704
- weekly updates to subscribed sites 201
- WEFT (Web Embedding Fonts Tool, Microsoft) 403, 404
- welcome.htm resource, IE4tour.dll 138
- welcome message, Outlook Express 270
- Welcome page, configuring for deployed browsers 645
- Welcome screen 41
- whisper feature, NetMeeting chat 332
- whiteboard feature, NetMeeting 332, 580
- WIDTH attribute, <USAGE> tag 224
- width of HTML client, determining 767
- wildcard characters
  - AutoDomain searching 103
  - Proxy Settings dialog box 96
- Win32 API, accessing from Java code 427
- Win32 platform 424
- windowless controls 415
- Windows 3.1, using IEAK 800
- Windows 95
  - See also* Windows NT
  - Internet Explorer 4
    - removing using IERemove.exe 727–729
    - system requirements 587
  - OEM installation, determining 722
  - Personal Web Server integration 384
  - reinstalling after Internet Explorer 4
    - installation 6, 77, 721–724
  - roaming profiles 53
  - System.lst backup 39
  - version, determining 722
- Windows Address Book
  - See* Address Book, Outlook Express
- Windows Desktop Update
  - See also* Active Desktop
  - accessibility benefits 547
  - Active Setup installation, configuring 638
  - adding 69–70
  - adding 6
  - blind-access utilities, interaction with 549
  - copying images to desktop, troubleshooting 741
  - disappearing icons, troubleshooting 740
  - files replaced during installation 145
- Windows Desktop Update (*continued*)
  - installing
    - from Setup Wizard 20–21
    - registry backup 39
    - separately from browser 21
    - SoftBoot process 43–44
    - troubleshooting 720
  - keyboard navigation 560–566
  - language conflicts with operating system 9, 720
  - overview 143
  - registry information, Integrated Browser 80
  - removing 69–70
  - removing 6
  - scrolling menus 548
  - single-click mode, changing to 740–741
  - uninstalling from Windows NT using IERemove.exe 730–731
  - User.dat file, updating 50–51
  - Windows 95 reinstallation, troubleshooting 723
- Windows Explorer integration 145
- Windows Messaging, setting default
  - mail program 750
- Windows NT
  - See also* Windows 95
  - Emergency Repair Disk (ERD) 41, 77
  - Internet Explorer 4
    - installation, completing 40–41
    - removing using IERemove.exe 729–731
    - system requirements 4, 587
  - NetMeeting support 333
  - NetShow, NT Server integration 285
  - reinstalling operating system 77
  - roaming profiles 53
  - Service Pack 3 installation,
    - troubleshooting 724–725
- Windows NT Challenge Response 461, 477
- Wininet.dll 11, 14, 137, 145
- Wininit.ini 43
- Winsock 340
- wizards *See* names of individual wizards
- Wizard Settings object
  - (Profile Manager) 683–684, 705
- Wldap32.dll file, Outlook Express 258
- working offline *See* offline browsing
- Work Offline option (File menu) 121
- World Wide Web Consortium *See* W3C
- WRAP attribute, <TEXTAREA> tag 755
- Write access (Java applets)
  - file permissions 509
  - registry keys 509–510
  - user-directed I/O permissions 513
- Wrong number of arguments (error message) 768
- Wwwroot directory 387

**X**

/x switch (ACME Setup) 713  
XML (Extensible Markup Language)  
    Data Source Objects 408  
XML tags *See* individual tag names  
<XML VERSION=> tag 216

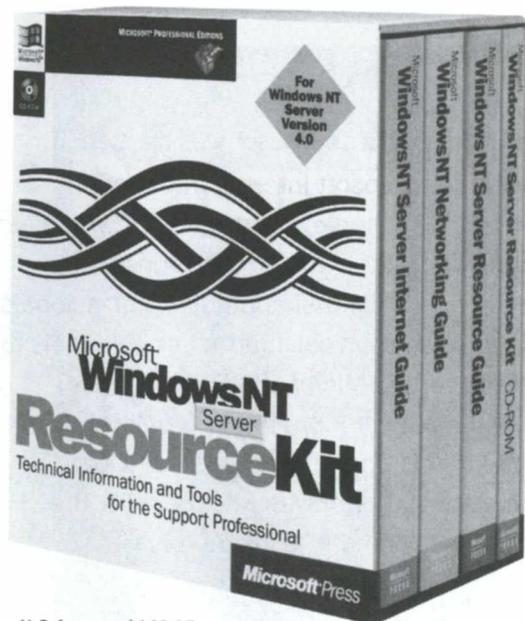
**Y**

/y switch (ACME Setup) 713  
Yes, but only tell me when this page is updated  
    (site subscription setting) 193  
Yes, notify me of updates and download the page for  
    offline viewing (site subscription setting) 193

**Z**

/z switch (ACME Setup) 713  
z-index property 405  
zones *See* security zones  
zone security *See* security zones

**This is how**  
*Microsoft*  
**Windows NT**  
**pros** *become*  
**incredibly**  
**resourceful.**



This three-volume kit provides the valuable technical and performance information and the tools you need for handling rollout and support issues surrounding Microsoft® Windows NT® Server 4.0. You get a full 2500 pages—plus a CD-ROM—loaded with essential information not available anywhere else. For support professionals, MICROSOFT WINDOWS NT SERVER RESOURCE KIT is more than a guide. It's a natural resource.

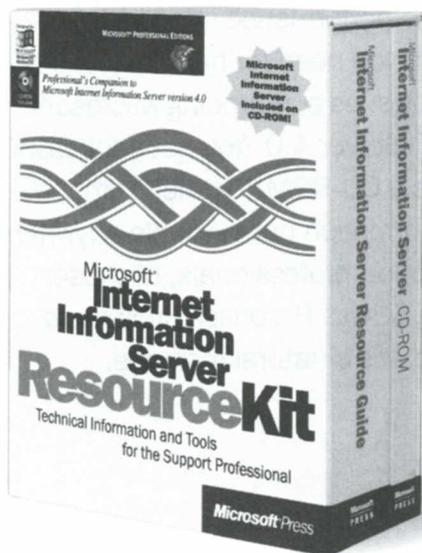
**U.S.A.**      **\$149.95**  
U.K.        £140.99 [V.A.T. included]  
Canada    \$199.95  
ISBN 1-57231-344-7

Microsoft Press® products are available worldwide wherever quality computer books are sold. For more information, contact your book or computer retailer, software reseller, or local Microsoft Sales Office, or visit our Web site at [mspress.microsoft.com](http://mspress.microsoft.com). To locate your nearest source for Microsoft Press products, or to order directly, call 1-800-MSPRESS in the U.S. (in Canada, call 1-800-268-2222).

Prices and availability dates are subject to change.

**Microsoft® Press**

The definitive  
**resource**  
for Microsoft  
**Internet  
Information  
Server.**



**T**his exclusive Microsoft® resource kit was created in cooperation with the Microsoft Internet Information Server (IIS) development and support teams. That makes it comprehensive, authoritative, and indispensable for system administrators and other computer professionals who demand the best technical information and tools for rolling out and supporting Microsoft IIS within their organizations. Plus, you get more than 40 utilities, ISAPI filters, and components on the enclosed CD-ROMs. For the top performance you want with Microsoft IIS, the essential information you need is inside this kit.

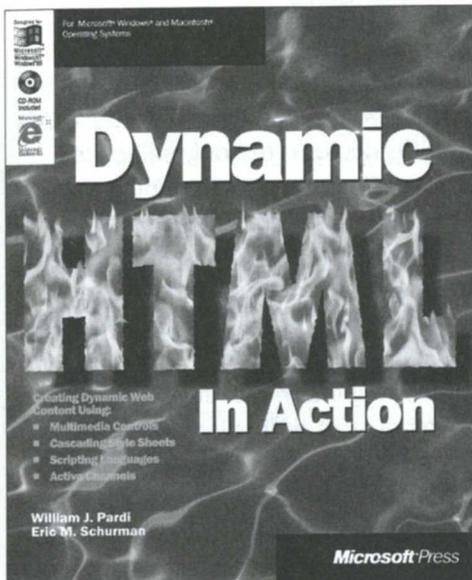
U.S.A.           **\$49.99**  
U.K.             £46.99 [V.A.T. included]  
Canada         \$71.99  
ISBN 1-57231-638-1

Microsoft Press® products are available worldwide wherever quality computer books are sold. For more information, contact your book or computer retailer, software reseller, or local Microsoft Sales Office, or visit our Web site at [mspress.microsoft.com](http://mspress.microsoft.com). To locate your nearest source for Microsoft Press products, or to order directly, call 1-800-MSPRESS in the U.S. (in Canada, call 1-800-268-2222).

Prices and availability dates are subject to change.

**Microsoft® Press**

# Create **vivid,** **interactive** **Web content** with Microsoft **Internet Explorer 4!**



Here's the indispensable volume for site builders, Webmasters, multimedia authors, and anyone else who wants to discover all the technologies that make Microsoft® Internet Explorer 4 a major breakthrough. Inside is a rich exploration of Dynamic HTML, Cascading Style Sheets, the Internet Explorer 4 object model, scripting, multimedia effects and controls, and data binding. You'll discover Dynamic HTML as a multimedia authoring tool for Web, network, or CD-ROM-based productions. And you'll work with plenty of helpful examples on the enclosed CD-ROM. In short, if you want to do great things with Dynamic HTML, you want DYNAMIC HTML IN ACTION.

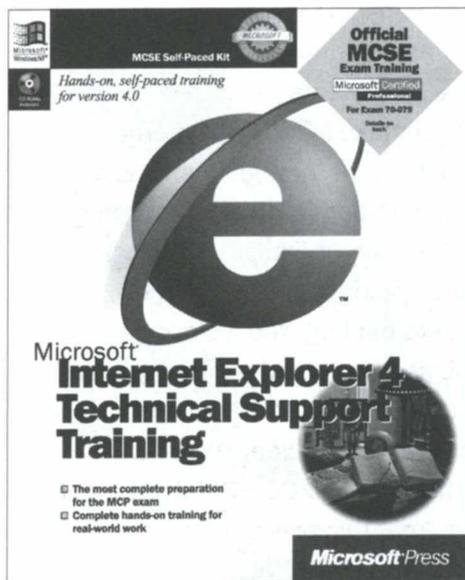
**U.S.A.**        **\$39.99**  
**U.K.**        **£37.49** [V.A.T. included]  
**Canada**    **\$57.99**  
ISBN 1-57231-820-1

Microsoft Press® products are available worldwide wherever quality computer books are sold. For more information, contact your book or computer retailer, software reseller, or local Microsoft Sales Office, or visit our Web site at [mypress.microsoft.com](http://mypress.microsoft.com). To locate your nearest source for Microsoft Press products, or to order directly, call 1-800-MSPRESS in the U.S. (in Canada, call 1-800-268-2222).

Prices and availability dates are subject to change.

**Microsoft® Press**

Hands-on,  
**self-paced**  
**training**  
for **supporting**  
**Internet Explorer 4!**



**H**ere's the ideal way for support professionals to prepare for success on the job *and* on the Microsoft® Certified Professional (MCP) exam. That's because this is Microsoft Official Curriculum—the only self-paced training that's adapted from the corresponding Microsoft-authorized instructor-led course. Here you'll master, at your own pace, the architecture and key features of the Microsoft Internet Explorer 4 suite of products. Through the accompanying labs, you'll gain hands-on experience installing, configuring, using, deploying, and supporting Internet Explorer 4 in a networked environment, with particular emphasis on intranet use. And as you prepare for the real world, you'll also get specific preparation for success on the MCP exam. All of which makes MICROSOFT INTERNET EXPLORER 4 TECHNICAL SUPPORT TRAINING the smart way to advance your career now and well into the future.

U.S.A.        **\$49.99**  
U.K.         £46.99 [V.A.T. included]  
Canada      \$71.99  
ISBN 1-57231-828-7

Microsoft Press® products are available worldwide wherever quality computer books are sold. For more information, contact your book or computer retailer, software reseller, or local Microsoft Sales Office, or visit our Web site at [mspress.microsoft.com](http://mspress.microsoft.com). To locate your nearest source for Microsoft Press products, or to order directly, call 1-800-MSPRESS in the U.S. (in Canada, call 1-800-268-2222).

Prices and availability dates are subject to change.

**Microsoft® Press**

## Microsoft Internet Explorer Resource Kit

(Book Companion CD-ROM)

### ***END-USER LICENSE AGREEMENT FOR MICROSOFT SOFTWARE***

**IMPORTANT—READ CAREFULLY:** This Microsoft End-User License Agreement (“EULA”) is a legal agreement between you (either an individual or a single entity) and Microsoft Corporation for the Microsoft software product identified above, which includes computer software and may include associated media, printed materials, and “online” or electronic documentation (“SOFTWARE PRODUCT”). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install or use the SOFTWARE PRODUCT; you may, however, return it to your place of purchase for a full refund.

### ***SOFTWARE PRODUCT LICENSE***

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

**1. GRANT OF LICENSE.** This EULA grants you the following rights:

- **Installation and Use.** You may install and use an unlimited number of copies of the SOFTWARE PRODUCT on computers physically residing at a single geographic location.

**2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.**

- **Limitations on Reverse Engineering, Decompilation, and Disassembly.** You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation.
- **Rental.** You may not rent, lease or lend the SOFTWARE PRODUCT.
- **Support Services.** Microsoft may provide you with support services related to the SOFTWARE PRODUCT (“Support Services”). Use of Support Services is governed by the Microsoft policies and programs described in the user manual, in “online” documentation and/or other Microsoft-provided materials. Any supplemental software code provided to you as part of the Support Services shall be considered part of the SOFTWARE PRODUCT and subject to the terms and conditions of this EULA. With respect to technical information you provide to Microsoft as part of the Support Services, Microsoft may use such information for its business purposes, including for product support and development. Microsoft will not utilize such technical information in a form that personally identifies you.
- **Software Transfer.** You may permanently transfer all of your rights under this EULA, provided you retain no copies, you transfer all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades, this EULA, and, if applicable, the Certificate of Authenticity), and the recipient agrees to the terms of this EULA. If the SOFTWARE PRODUCT is an upgrade, any transfer must include all prior versions of the SOFTWARE PRODUCT.
- **Termination.** Without prejudice to any other rights, Microsoft may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

**3. UPGRADES.** If the SOFTWARE PRODUCT is labeled as an upgrade, you must be properly licensed to use a product identified by Microsoft as being eligible for the upgrade in order to use the SOFTWARE PRODUCT. A SOFTWARE PRODUCT labeled as an upgrade replaces and/or supplements the product that formed the basis for your eligibility for the upgrade. You may use the resulting upgraded product only in accordance with the terms of this EULA. If the SOFTWARE PRODUCT is an upgrade of a component of a package of software programs that you licensed as a single product, the SOFTWARE PRODUCT may be used and transferred only as part of that single product package and may not be separated for use on more than one computer.

**4. COPYRIGHT.** All title and copyrights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, animations, video, audio, music, text, and “applets” incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by Microsoft or its suppliers. The SOFTWARE PRODUCT is protected by copyright laws and international treaty provisions. Therefore, you must treat the SOFTWARE PRODUCT like any other copyrighted material **except** that you may either (a) make one copy of the SOFTWARE PRODUCT solely for backup or archival purposes or (b) install the SOFTWARE PRODUCT on a single computer provided you keep the original solely for backup or archival purposes. You may not copy the printed materials accompanying the SOFTWARE PRODUCT.

**5. DUAL-MEDIA SOFTWARE.** You may receive the SOFTWARE PRODUCT in more than one medium. Regardless of the type or size of medium you receive, you may use only one medium that is appropriate for your single computer. You may not use or install the other medium on another computer. You may not loan, rent, lease, or otherwise transfer the other medium to another user, except as part of the permanent transfer (as provided above) of the SOFTWARE PRODUCT.

- 6. U.S. GOVERNMENT RESTRICTED RIGHTS.** The SOFTWARE PRODUCT and documentation are provided with RESTRICTED RIGHTS. Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software—Restricted Rights at 48 CFR 52.227-19, as applicable. Manufacturer is Microsoft Corporation/One Microsoft Way/Redmond, WA 98052-6399.
- 7. NOTE ON JAVA SUPPORT.** The SOFTWARE PRODUCT may contain support for programs written in Java. Java technology is not fault tolerant and is not designed, manufactured, or intended for use or resale as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of Java technology could lead directly to death, personal injury, or severe physical or environmental damage.

---

## MISCELLANEOUS

If you acquired this product in the United States, this EULA is governed by the laws of the State of Washington.

If you acquired this product in Canada, this EULA is governed by the laws of the Province of Ontario, Canada. In such case, each of the parties hereto irrevocably attorns to the jurisdiction of the courts of the Province of Ontario and further agrees to commence any litigation which may arise hereunder in the courts located in the Judicial District of York, Province of Ontario.

If this product was acquired outside the United States, then local law may apply.

Should you have any questions concerning this EULA, or if you desire to contact Microsoft for any reason, please contact the Microsoft subsidiary serving your country, or write: Microsoft Sales Information Center/One Microsoft Way/Redmond, WA 98052-6399.

---

## LIMITED WARRANTY

**NO WARRANTIES.** Microsoft expressly disclaims any warranty for the SOFTWARE PRODUCT. The SOFTWARE PRODUCT and any related documentation is provided "as is" without warranty or condition of any kind, either express or implied, including, without limitation, the implied warranties or conditions of merchantability, fitness for a particular purpose, or noninfringement. The entire risk arising out of use or performance of the SOFTWARE PRODUCT remains with you.

**NO LIABILITY FOR DAMAGES.** In no event shall Microsoft or its suppliers be liable for any damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use this Microsoft product, even if Microsoft has been advised of the possibility of such damages. Because some states/jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

Si vous avez acquis votre produit Microsoft au CANADA, la garantie limitée suivante vous concerne :

### GARANTIE LIMITÉE

**EXCLUSION DE GARANTIES.** Microsoft renonce entièrement à toute garantie pour le LOGICIEL. Le LOGICIEL et toute autre documentation s'y rapportant sont fournis « comme tels » sans aucune garantie quelle qu'elle soit, expresse ou implicite, y compris, mais ne se limitant pas aux garanties implicites de la qualité marchande, d'adaptation à un usage particulier ou d'absence de violation des droits des tiers. Le risque total découlant de l'utilisation ou de la performance du LOGICIEL est entre vos mains.

**ABSENCE DE RESPONSABILITÉ POUR LES DOMMAGES.** Microsoft ou ses fournisseurs ne pourront être tenus responsables en aucune circonstance de tout dommage quel qu'il soit (y compris mais non de façon limitative les dommages directs ou indirects causés par la perte de bénéfices commerciaux, l'interruption des affaires, la perte d'information commerciale ou toute autre perte pécuniaire) résultant de l'utilisation ou de l'impossibilité d'utilisation de ce produit, et ce, même si la société Microsoft a été avisée de l'éventualité de tels dommages. Parce que certains états/jurisdictions ne permettent pas l'exclusion ou la limitation de responsabilité relative aux dommages indirects ou consécutifs, la limitation ci-dessus peut ne pas s'appliquer à votre égard.

La présente Convention est régie par les lois de la province d'Ontario, Canada. Chacune des parties à la présente reconnaît irrévocablement la compétence des tribunaux de la province d'Ontario et consent à instituer tout litige qui pourrait découler de la présente auprès des tribunaux situés dans le district judiciaire de York, province d'Ontario.

Au cas où vous auriez des questions concernant cette licence ou que vous désiriez vous mettre en rapport avec Microsoft pour quelque raison que ce soit, veuillez contacter la succursale Microsoft desservant votre pays, dont l'adresse est fournie dans ce produit, ou écrire à : Microsoft Customer Sales and Service, One Microsoft Way, Redmond, Washington 98052-6399.

# *Register Today!*

Return this  
*Microsoft® Internet Explorer Resource Kit*  
registration card for  
a Microsoft Press® catalog

U.S. and Canada addresses only. Fill in information below and mail postage-free. Please mail only the bottom half of this page.

1-57231-842-2

***MICROSOFT® INTERNET EXPLORER  
RESOURCE KIT***

*Owner Registration Card*

---

NAME

---

INSTITUTION OR COMPANY NAME

---

ADDRESS

---

---

CITY

STATE

ZIP

Petitioner Microsoft - Ex. 1007

828-310

# **Microsoft® Press** *Quality Computer Books*

For a free catalog of  
Microsoft Press® products, call  
**1-800-MSPRESS**

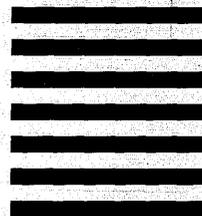


NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

## **BUSINESS REPLY MAIL**

FIRST-CLASS MAIL PERMIT NO. 53 BOTHELL, WA

POSTAGE WILL BE PAID BY ADDRESSEE



**MICROSOFT PRESS REGISTRATION**  
**MICROSOFT® INTERNET EXPLORER**  
**RESOURCE KIT**  
**PO BOX 3019**  
**BOTHELL WA 98041-9946**



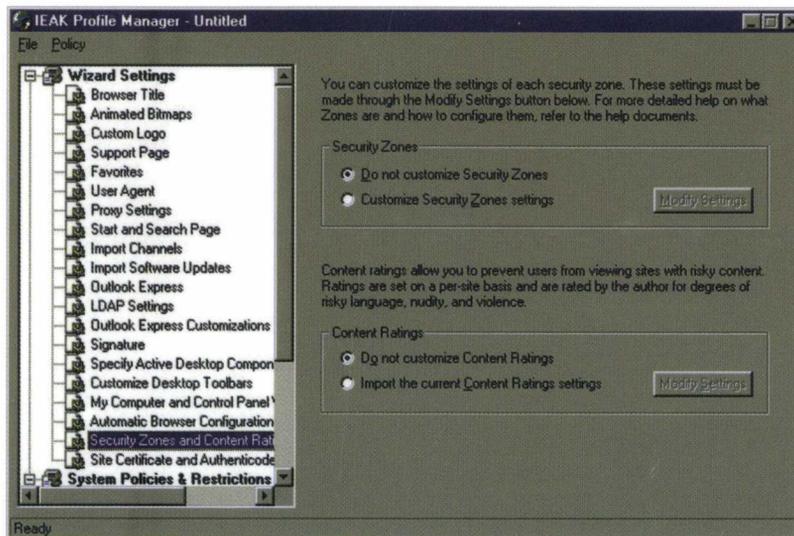
By breaking the seal on this disk pack,  
you accept the terms of the *Microsoft License*  
Agreement included in this book.

If you do not agree to these terms, please  
return the book and all the disk packs, unopened,  
along with the rest of the package contents,  
to Microsoft Press.

The enclosed version of the Internet Explorer Administration Kit (IEAK) is for English language versions of Windows 95 or Windows NT 4.0 only. For other language versions, visit the IEAK Web site at <http://ieak.microsoft.com>.

# Software on CD-ROM—power tools that help you lower your Total Cost of Ownership (TCO).

- Microsoft® Internet Explorer 4 is included, along with all of its components such as Microsoft Outlook™ Express and Microsoft NetMeeting™, giving you easy access to the software and eliminating the need for Internet downloading.
- The Microsoft Internet Explorer Administration Kit lets you customize and lock down all the key features of Internet Explorer 4, including the Active Desktop™, for easy deployment in the enterprise—and it helps you to distribute Internet Explorer through your intranet, on your Web site, on CD-ROM, or on floppy disks.
- Microsoft Profile Manager lets administrators maintain all browser options centrally—even changing settings remotely. And on Microsoft Windows® 95 and Microsoft Windows NT® platforms, administrators can use the Profile Manager to manage Windows desktop settings and system policies.
- The Microsoft Internet Explorer 4 Author's Toolkit (Microsoft Internet Client SDK) is the reference guide that provides everything you need to know about building pages with Dynamic HTML, Channels, Active Desktop components, ActiveX®, Java, and Active Scripting.
- Microsoft Channel (CDF) Generator makes it easy for anyone to create an Internet Explorer Active Channel—step by step, without the need to know any programming languages. Authors can actually drag and drop their existing Web pages into the Channel Generator to make development go even faster.
- The MICROSOFT INTERNET EXPLORER RESOURCE KIT, in a complete online version, makes it easy to find all the information you need.



Valuable extras such as the Microsoft Profile Manager simplify network management—and that lowers Total Cost of Ownership.



# Microsoft® Internet Explorer Resource Kit

## The professional's companion to Microsoft Internet Explorer 4.

This exclusive Microsoft collection provides complete technical information on Microsoft Internet Explorer version 4 for the network administrator, the support professional, and the Internet service provider. The MICROSOFT INTERNET EXPLORER RESOURCE KIT gives you a technical resource guide packed with authoritative information and an indispensable CD-ROM containing Microsoft Internet Explorer 4 and the Microsoft Internet Explorer Administration Kit—all of which makes it easier for you to deploy and support customized versions of Internet Explorer in your organization. The CD-ROM also offers valuable utilities, accessory programs, and source code that help you save time and accomplish more.

### Topics covered include:

- **Architecture and Configuration.** Internet Explorer 4, Microsoft Outlook™ Express, Microsoft NetMeeting™, Microsoft NetShow™, Microsoft FrontPage® Express, Microsoft Windows® Desktop Update, Security, and Accessibility
- **Authoring.** Dynamic HTML, Webcasting with CDF, ActiveX®, Java, ECMA Script, and Scriptlets
- **Deployment.** Planning Migration, Deployment with the Internet Explorer Administration Kit, Using the Profile Manager, Software Updates, Sizing, Scaling, and Traffic Management
- **Support.** Troubleshooting, Frequently Asked Questions, and the Internet Explorer Administration Kit Master Checklist



#### Included on CD-ROM!

- Microsoft Internet Explorer 4
- Microsoft Internet Explorer Administration Kit
- Microsoft Profile Manager
- Microsoft Channel (CDF) Generator
- Microsoft Internet Client SDK
- MICROSOFT INTERNET EXPLORER RESOURCE KIT on line (see flap for full details)

#### This kit also includes:

- Microsoft NetMeeting 2.0 Resource Kit
- Microsoft Internet Explorer Deployment Guide

[mspress.microsoft.com](http://mspress.microsoft.com)



7 90145 18422 1

ISBN 1-57231-842-2



9 781572 318427

90000



**U.S.A. \$49.99**  
 U.K. £46.99 [V.A.T. included]  
 Canada \$71.99  
 (Recommended)

Internet/Internet Explorer

**Microsoft Press**