

Chapter 13

Configuring Internet Explorer 8

Windows Internet Explorer (IE) has been the web browser for the Microsoft operating systems since its introduction as Internet Explorer version 1 in 1995. As the Internet and the World Wide Web have increased exponentially in both content and features, Microsoft has continually enhanced and added new functionality to their world-class browser up to the current version, Internet Explorer 8 (IE8).

With the increase in functionality and ease of use for the browsers, there has been an increase in the use of websites for providing content for end users in both the public space (Internet browsing) and private corporate browsing of resources. With the introduction of IE8, Microsoft has taken the usability end users desire to new levels, as well as providing a good deal of security enhancements to end users, giving the best and easiest browsing environment to the user sitting in front of their computer as well as providing a balance of security information about the sites and pages being viewed. IE8 tries to inform the user of potential issues through security enhancements while allowing administrators to enforce security with the least amount of inconvenience to the end users.

In this chapter, you'll learn how to:

- ◆ Use IE8 accelerators and Web Slices
- ◆ Configure Pop-up Blocker in IE8
- ◆ Use the InPrivate security feature of IE8
- ◆ Configure security for IE8

Overview of IE8

Windows IE8 is the latest web browser developed and released by Microsoft in the popular Internet Explorer series. IE8 was released in March 2009 and available to download for Windows XP and Server 2003 with at least SP2 in both the 32-bit and 64-bit operating systems. IE8 is available for Windows Vista and Server 2008 in both the 32-bit and 64-bit versions. It is also being shipped with Windows 7 (both 32 bit and 64 bit). IE8 is the successor to IE7, released in 2006. With the explosion of Internet use and even inexperienced end users browsing the Internet for personal reasons as well as browsing the Web for work-related tasks, enhancing the user interface (UI) while providing better levels of security (which include privacy) has been the focus in the development of IE8.

IE8 is loaded with new user features to provide end users with a better and simpler way to get the information they desire from their browsing experience.

Using New IE8 Features

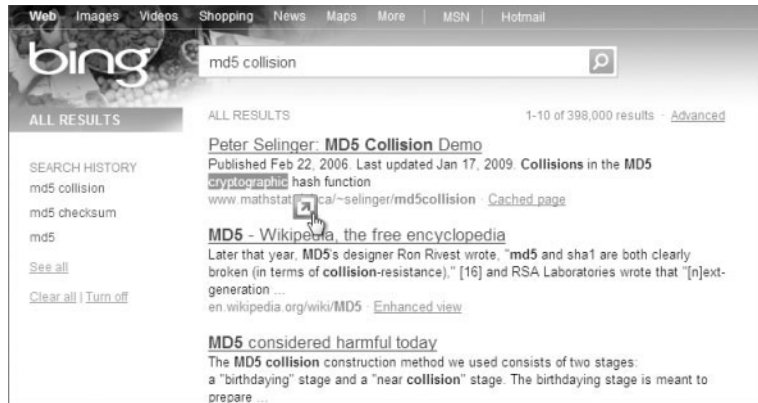
The new features added to IE8 are designed to give the end user an easy way to browse the Internet for the information they're looking for while providing a secure environment for the network by recognizing potentially bad sites (those attempting to sneak viruses or Trojans into the network), phishing sites (those that attempt to steal private information about the user), or invasive sites that users may go to either on purpose or inadvertently. We will explore the security and safety features of IE8 later in this chapter.

Let's look at the user experience additions to IE8 first. Microsoft has added accelerators to give users a faster way to access online services; Web Slices, which let users see if parts of a website have changed that they might be watching, such as a stock quote; and Compatibility View, which ensures older web pages display appropriately in IE8.

Defining IE8 Accelerators

IE8 includes a new feature that allows you to gain access to Internet services with a click. By highlighting a word on a web page and clicking the accelerator icon, you have access to a various range of services by default and can add more accelerators if you desire. In Figure 13.1, you can see the word *cryptographic* highlighted and the accelerator icon selected. Click the accelerator icon to bring up a list of currently available services available.

FIGURE 13.1
Accelerator icon



The default set of accelerator services are shown in Figure 13.2 and are available to launch a web page to provide information about the selected text. In our example, let's search Bing for the term *cryptographic* by choosing Search With Bing.

Figure 13.2 shows the default set of accelerator services installed by default in IE8, but there are several more currently available and more to be available as time goes on. You add more accelerators from the same menu by selecting All Accelerators and then clicking Find More Accelerators, as shown in Figure 13.3.

Adding accelerators to your IE8 will certainly provide a more feature-rich and efficient browsing experience. Most of the time when browsing, a second browser or new tab is opened to do further research about the page you are currently viewing. Sometimes this is just for a

quick look at a new piece of information or to look up something. If you're used to going to a certain page to find the "extra" information, this would be a great candidate to add to your accelerators.

FIGURE 13.2
Choosing the Search
With Bing accelerator

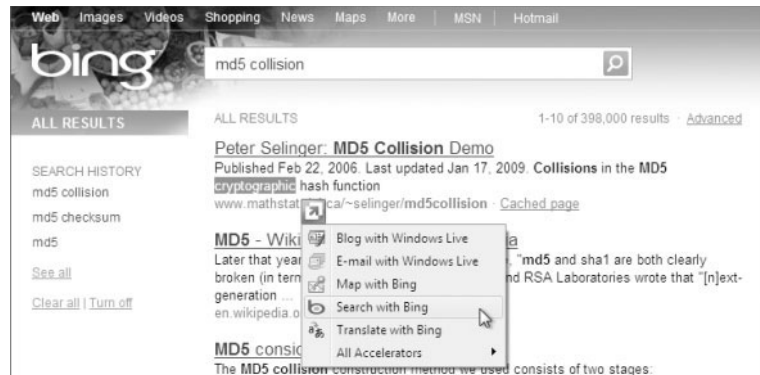
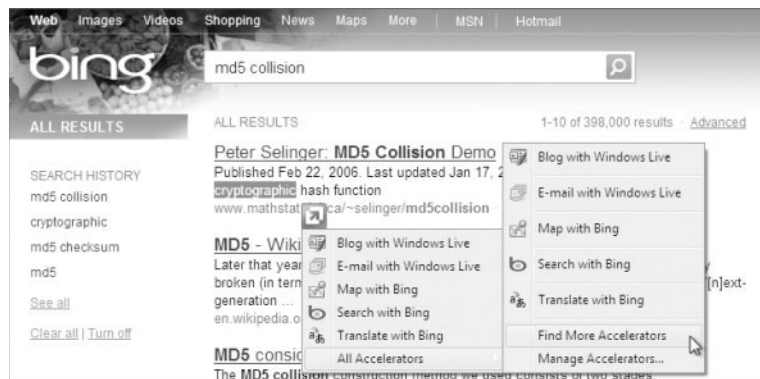


FIGURE 13.3
Clicking Find More
Accelerators

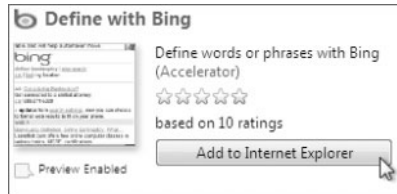


ADDING THE DEFINE WITH BING ACCELERATOR TO IE8

Perform the following steps to add an accelerator to IE8 from a currently open web page:

1. Open IE8 and open a web page.
2. Select a word or phrase and click the accelerator icon.
3. Choose All Accelerators, and then click Find More Accelerators.
4. Review the available accelerators and select the Define With Bing accelerator, as shown in Figure 13.4. (This might not be available on the first page of accelerators.)
5. A confirmation box appears that asks if you're sure you want to add this accelerator and if you want to make it the default for this accelerator category. Select the check box to make it the default and click Add.
6. You can verify the installation of the Define With Bing accelerator by returning to the web page (or going to any web page), highlighting a word or phrase, and clicking the accelerator icon. The Define With Bing option is now available.

FIGURE 13.4
The Define With Bing
accelerator



You can also add the Define With Bing accelerator directly from the IE8 menus, which is also where you can manage any of the accelerators you have installed (which includes deleting them).

MANAGING IE8 ACCELERATORS

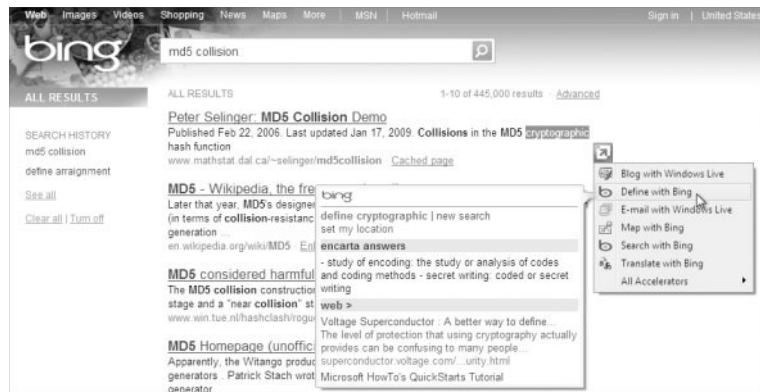
Perform the following steps to manage the installed accelerators or add new accelerators directly from the IE8 program interface:

1. Open IE8.
2. Click Tools > Manage Add-ons.
3. In the Manage Add-ons window, select Accelerators in the Add-on Types section.
4. Select the accelerator in the right pane you would like to manage or click Find More Accelerators in the bottom left of the Manage Add-ons window to add more accelerators to IE8.

HANDLING ACCELERATORS IN IE8

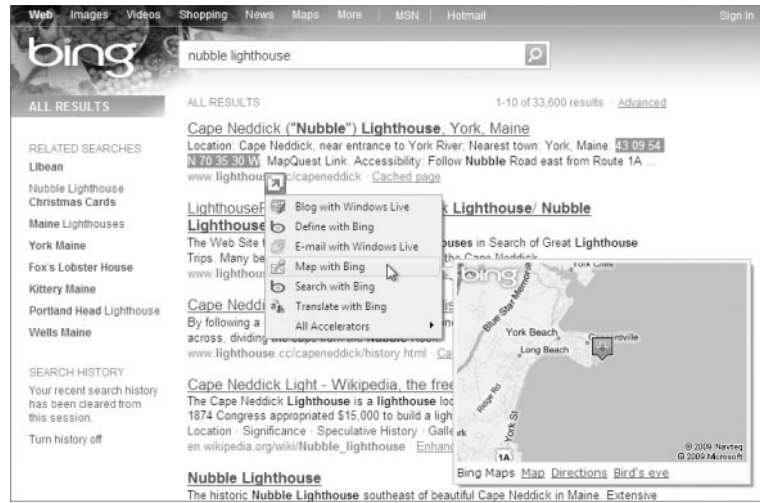
Let's take a look at some of the various capabilities of the accelerators in IE8. In the previous section, we installed the Define With Bing accelerator. We discussed the addition of the Define With Bing accelerator as a quick launch of Bing with a define search functionality implemented in a new tab of IE8. This is true, but the accelerator provides an even more useful function by giving you a "preview" of the search without opening a new tab. If you select a word in a web page you are viewing and would like a definition of the word, you can open the Accelerators menu by clicking the icon and simply pausing over the Define With Bing option. IE8 will use Bing and display a quick definition in the current window, as shown in Figure 13.5.

FIGURE 13.5
Viewing a quick
definition using an
accelerator



If you think this is cool, hold on — it gets even better. The default Map With Bing accelerator works like Define With Bing and will open a new tab in IE8 with a highlighted location address entered and searched with Bing. The Map With Bing accelerator also has the preview capability and will show you an insert in your current page with the map of the address if you hover over the address, as shown in Figure 13.6 (where we searched for the latitude and longitude of a lighthouse in Maine).

FIGURE 13.6
Quick map from an accelerator



WHICH ACCELERATORS SHOULD YOU USE?

The list of accelerators providing Internet services is extensive at this time, with accelerators available for most of your favorite providers. We've used examples from Bing here, but if you prefer other search engines and mapping providers, they already have accelerators available. eBay, Facebook, Hotmail, Google, LinkedIn, Trip Advisor, Currency Converter, Walmart, Tech-Net, MSDN, UPS Tracking, and USPS Tracking are just a short list of accelerators available. As you get used to using the accelerators, the functionality they provide will make the browsing experience so much faster you'll wonder what you did without them.

As with accelerators, there are more new services available in IE8, such as Web Slices, as you'll see in the next section.

Defining IE8 Web Slices

Web Slices in IE8 allows the browser to check for updates to web page content that you may frequently want to have. How many times in the course of the day do you check your local weather or stock quotes or even watch an auction item on eBay? Most of the time you either keep a tab open and refresh it periodically or even return to the website with the content you would like to review. With Web Slices, you can add the piece of the web page with the content you're looking for to the new Favorites toolbar and IE8 will check it for you and give you a visual clue when the content changes. You can control how often IE8 checks for changes as well

as have IE8 play a sound when Web Slice content is found on a page — and even when an update to content is discovered.

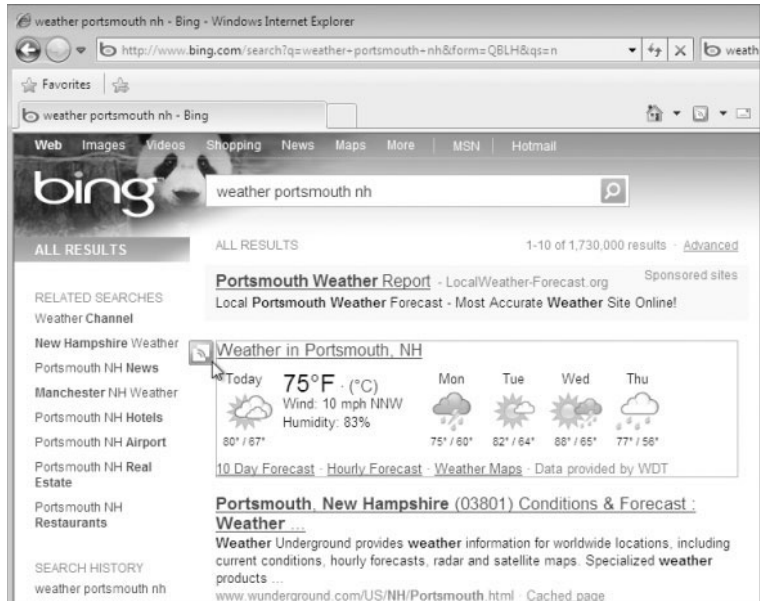
Web Slice content is being added to provider pages continually and its functionality will grow over time. Even at the time Windows 7 and IE8 are being released, the available content makes this new feature a welcome addition. If Web Slice content is available on a web page, the green Web Slice icon becomes active on the Favorites toolbar; it also becomes visible as you hover over the available Web Slice content in the page itself. Figure 13.7 shows the Web Slice icon in the IE8 new Favorites toolbar.

FIGURE 13.7
Web Slice icon in the Favorites toolbar



Figure 13.8 shows a Bing query for a weather forecast for Portsmouth, New Hampshire, and the option icon available to add the forecast content as a Web Slice to the IE8 Favorites toolbar. Click the down arrow associated with the Favorites toolbar's Web Slice icon to display all the Web Slices available on the current web page. In the case of eBay, for example, all the items that match your search will be individual Web Slices you can pick from, allowing you to watch just one (or more if you add more than one Web Slice) item.

FIGURE 13.8
Web Slice icon within a web page



Clicking the Web Slice icon on the web page content presents the user with a confirmation box for adding the Web Slice to the Favorites toolbar. Once accepted, the Web Slice is available to be viewed at any time, even if you browse away from the originating page. Figure 13.9 shows the Web Slice content for the weather forecast added.

FIGURE 13.9
Web Slice content from
the Favorites toolbar



After you add the Web Slice to IE8, the browser periodically checks the source of the content for changes. If there are changes to the content, the Web Slice favorite text changes to bold and the background color flashes a color that indicates an update has been detected. Adding a Web Slice to your browser is a simple task you will find extremely convenient.

ADDING A STOCK QUOTE WEB SLICE TO IE8

You might like to monitor a company's stock prices throughout the course of the day.

Perform the following steps to add Microsoft's stock quote to your IE8 interface:

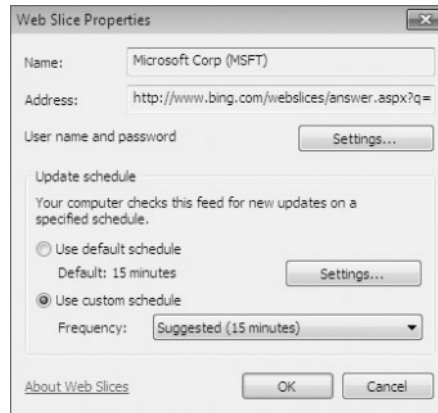
1. Open IE8 and browse to www.bing.com.
2. Enter `msft` into the search box in Bing and click the search button.
3. Choose the drop-down arrow from the Web Slice icon in the IE8 new Favorites toolbar and select Microsoft Corp Web Slice.
4. Select the Add To Favorites Bar button in the Internet Explorer confirmation window.
5. Verify that the Web Slice is available in the IE8 Favorites toolbar.
6. Click the down arrow of the Bing Microsoft Corp Web Slice and you are presented with the current information from the Web Slice of the original page, with updated information if it's available.

You could have also added the Web Slice by clicking the Web Slice icon associated with the content on the page. After you add the Web Slice, you can change certain parameters associated with it, such as how often the content is checked for updates, or to add a sound association with Web Slices.

After you add Web Slices to IE8, you might want to tweak the properties to allow a more frequent update check. The default update interval for a Web Slice is dependent on the web site content developer. The eBay interval shows up as 3,600+ seconds for an item expiring a long time from when the Web Slice was added. The weather Web Slice from Bing defaults to 360 seconds. You can change the properties for the Web Slice timing by adjusting the values from the properties pages of the Web Slice. Right-click (alternate mouse click) the Web Slice

from the Favorites toolbar and select Properties to open the properties dialog box, as shown in Figure 13.10.

FIGURE 13.10
Web Slice Properties dialog box



MANAGING IE8 WEB SLICES

Perform the following steps to change the update time interval for a Web Slice:

1. Perform the tasks in the earlier section “Adding a Stock Quote Web Slice to IE8” if you have not done so.
2. Right-click (alternate mouse click) the Bing Microsoft Corp Web Slice in the Favorites toolbar and select Properties.
3. Click the Use Custom Schedule radio button.
4. Click the down arrow to open the Frequency drop-down list and choose a new interval.
5. Click OK to close the Properties box and save your changes.

You can also set other properties for a Web Slice from the Properties dialog box as well by clicking the Settings button in the Update Schedule section, as shown in Figure 13.11. You can set sound options and display options for the Web Slices from the Feed And Web Slice Settings page.

If you have to enter credentials for a Web Slice, you can add or modify the information on the Web Slice’s Properties dialog box by clicking the Settings button next to the User Name And Password field. You can change the display text as well as the URL for the Web Slice in the Properties dialog box.

After you finish with a Web Slice, remove it from the Favorites toolbar by right-clicking it and selecting Delete from the context menu; you are asked to confirm the deletion. The alternate click context menu also provides shortcuts to Web Slice properties, such as choosing to bold a new entry and modifying the text or icons shown on the Favorites toolbar. You will find Web Slices a fast and convenient way to keep up-to-date with content you review periodically throughout the day or would like to keep track of web content that may need to be addressed as it changes.

As IE continues to advance, content providers can make use of the new features, but there might be older pages that don’t display correctly. IE8 adds Compatibility View, thus allowing IE8 to present older content correctly.

FIGURE 13.11
Feed And Web Slice
Settings



Browsing with IE8's Compatibility View

IE8 is a new release of Microsoft's web browser included in Windows 7 and some websites may not be updated to use the new features of IE8 or display their content correctly. Problems may exist with displaying misaligned images or text. By using Compatibility View, IE8 will display a web page the way it would have been displayed in IE7 (which should correct any display issues). To display a page in Compatibility View, click the Compatibility View button in the IE8 address bar, as shown in Figure 13.12.

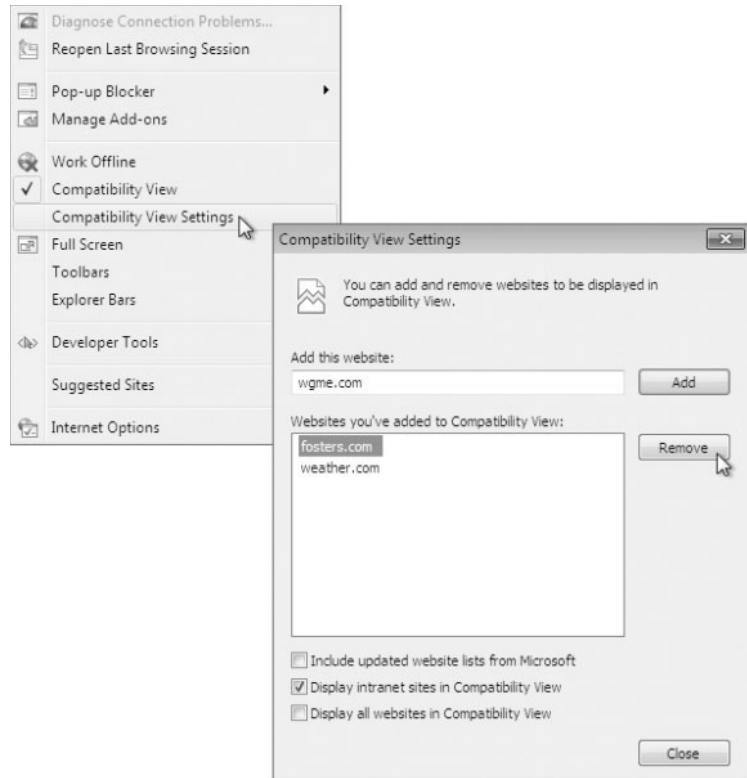
FIGURE 13.12
Compatibility View



Once you choose Compatibility View for a website, you will not need to make the choice again; IE8 displays the site in Compatibility View the next time you browse to the same website. If the website is updated in the future or you decide you would prefer to see it in the native IE8 standard mode, you can simply click the Compatibility View button again to return to the standard view. You can also enable this option by choosing Tools > Compatibility View. In addition, a Compatibility View Settings option in the Tools menu lets you manage the sites currently set to Compatibility View. You can add or delete sites using the Add and Remove buttons, as shown in Figure 13.13. Many companies today have an extensive website for their users who may take time to update to IE8 features. The Compatibility View Settings page has the default setting for all intranet sites to be displayed in Compatibility View. You also have the choice to display all websites in Compatibility View.

Compatibility View helps in the transition to the new IE8 that allows users to view pages in a consistent manner. The new features — accelerators, Web Slices, and Compatibility View — are all a definite plus in the overall browsing experience. IE8 also includes a wide range of enhancements and updated features.

FIGURE 13.13
Compatibility View
Settings



Using Updated Features of IE8

Windows Internet Explorer has included features through all releases that provide users with a simple way to get information from the Internet as well as browse more efficiently. IE8 takes many of the existing functionality and adds to it. Updated features include the Smart Address Bar, enhanced tab browsing, tab grouping, improved boom, and better Find On Page functionality.

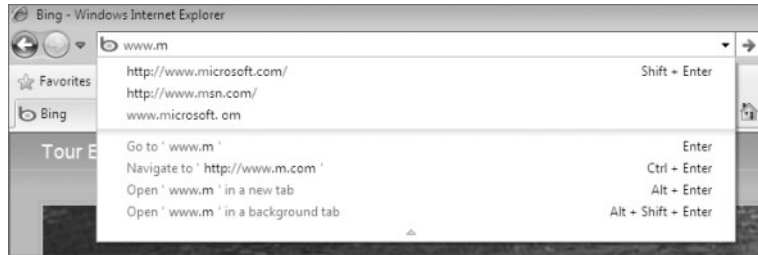
Exploring Address Bar and Tab Updates

The address bar now offers information to the user rather than just waiting for input and processing the data. IE8 adds intelligence to the address bar and refers to it as a Smart Address Bar. Once upon a time, we had to open separate browsers if we wanted to surf to more than one website at a time. Earlier versions of IE added a tab functionality to allow more than one website or multiple pages of the same website to be open at the same time within on browser. This multisite single-browser capability lets users open separate tabs for each session. This is good, but in previous versions of IE, the view was just a tab with a site and didn't offer much information to an end user. Windows IE8 has added enhanced tab browsing and grouping by giving users more information while surfing the Web. Let's start by taking a look at the Smart Address Bar.

BROWSING WITH THE SMART ADDRESS BAR

Windows IE8 shows you options on places to browse as you type the address of the site you are planning to go to. Previous versions of the Internet Explorer address bar have presented the user with history options, but the Smart Address Bar enhances the input by displaying the history with a different color text as you type in a new address. The Smart Address Bar also offers options as you type to open the new page in a new tab as shown in Figure 13.14.

FIGURE 13.14
Smart Address Bar



In previous versions of IE, the address bar would also show you each page you browsed to in a specific site; if you browsed to 20 pages in a news website, you'd have 20 history entries in your address bar. The new IE8 Smart Address Bar only displays the main site address. IE8 populates the Smart Address Bar by searching across your history, favorites, and RSS (Really Simple Syndication) feeds you have subscribed to. If you mistyped a website, it will also show up in the Smart Address Bar, but you can select and delete the unwanted entry.

Another feature enhanced in IE8 is the tabs we open instead of multiple browsers. It's easy to get overwhelmed while browsing if you have too many tabs open. IE8 now gives us enhanced tab browsing, which sets up tab groups. If a second tab is opened from a page in another tab, the second tab is placed next to the originating tab in the tab bar and then color coded so each related tab is the same color. This way, you can quickly see the tabs that have related content. If you close a tab but there are still related tabs, IE8 will open the related tabs rather than just drop you into unrelated content.

IE8 offers improved functionality in the way tabs are managed as well. By right-clicking a tab, you open the context menu shown in Figure 13.15, allowing you to close the individual tab, close the whole tab group, or close the other tabs (except the selected tab). Another nice feature, as shown in Figure 13.15, is the Refresh All option, which refreshes all the available tabs.

Also part of enhanced tab browsing are the options IE8 presents when you open a new tab. IE7 displayed a thumbnail view of your browsing history, but IE8 provides a whole new layer of functionality. When you open a new tab in IE8, you can choose to make it an InPrivate session (which we will discuss in the "Using the New Security and Safety Features of IE8" section later in this chapter). IE8 lets you reopen your last browsing session (maybe you closed the whole session by mistake) or reopen specific previously opened websites. The user can choose to launch an accelerator directly into a new tab as well.

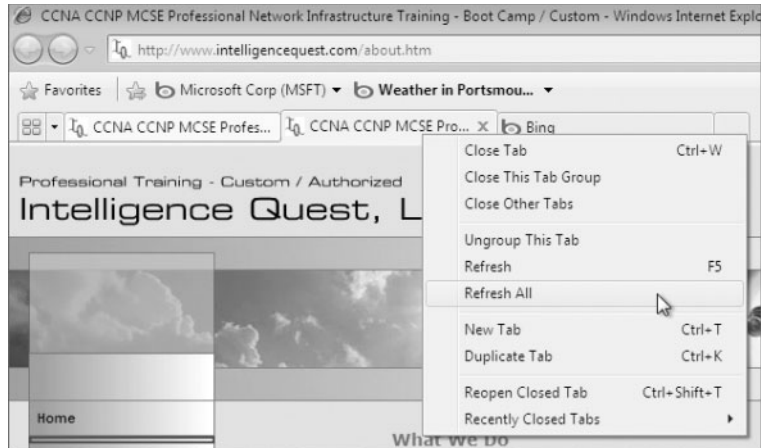
OPENING A NEW TAB AND LAUNCHING THE SEARCH WITH BING PAGE

Perform the following steps to open a new tab and start a search in Bing:

1. Open IE8.
2. Click the New Tab area of the tab bar or press Ctrl+T to open a new tab.

3. In the Use An Accelerator section of the new tab, choose Search With Bing.
4. The Bing page opens and you can enter your search criteria.

FIGURE 13.15
Tab group context menu



Using Find On Page and Improved Zoom

When you view web pages, there are many times when you would like to be able to search for a word or phrase on a page, assuming you can see the small words. You can use the improved Find On Page functionality in IE8 and then use the improved zoom feature to better read or see the information.

THE FIND ON PAGE ANNOYANCE

It has always been a gripe of users and administrators that when we search on the page for some text, a separate dialog box pops up in which we need to enter the search parameter. Once we start the search, text is blocked by the search dialog box, and you have to move it to see content, and sometimes even other occurrences of the search term, on the page. Finally we have a more convenient way of searching web pages for terms.

SEARCHING WITH THE IMPROVED FIND ON PAGE

IE8 has a redesigned Find On Page that adds a new Find On Page toolbar. You can activate the Find On Page toolbar by pressing Ctrl+F or by selecting Edit > Find On Page. The Edit menu itself might be a problem for you as IE8 does not display the classic Windows menus by default. In order to see the Windows menus, you need to press the Alt key.

Perform the following steps to activate the better Find on Page toolbar:

1. Open IE8 and browse to a page with text available for you to search through.
2. Press the Alt key to activate the Windows classic menus, as shown in Figure 13.16.
3. Click Edit > Find On This Page. Alternatively, press the Ctrl+F.

The Find On Page toolbar becomes active, as shown in Figure 13.17.

4. Enter text to search for in the Search box of the Find On Page toolbar. You should notice the matching characters become highlighted as you type them into the search box.

FIGURE 13.16
Legacy menu bar

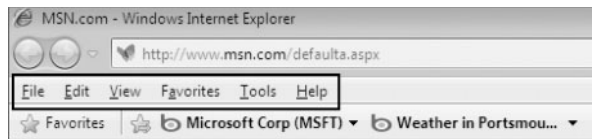


FIGURE 13.17
Find On Page toolbar



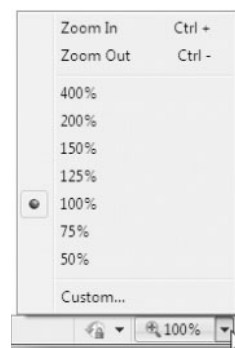
As you type characters into the Find On Page toolbar, you should also notice the next and previous buttons are now part of the toolbar, not located in a dialog box in the page (which has always been an annoyance). The toolbar also shows you a hit count on the number of times the search criteria has been met on the current page. Each instance of a match for the criteria is highlighted for easier location on the web page. You can toggle the highlighting feature on and off by clicking to toggle the highlighting button in the Find On Page toolbar. You also have the option to search on the whole word or to match case using the Options drop-down box.

Say you've searched for text on a web page and found the item you're looking for but would like to zoom in to see it better. This is where the improved zoom functionality of IE8 comes into play.

VIEWING WEB CONTENT WITH IMPROVED ZOOM

Choosing the Zoom button or the Zoom drop-down list box in the lower-right corner of IE8, as shown in Figure 13.18, lets you zoom into or out of a web page. You can also press Ctrl++ (plus sign) or Ctrl+- (minus sign) to zoom in or out, respectively.

FIGURE 13.18
Zoom options in IE8



The IE8 zoom has been enhanced from previous versions with an adaptive Page Zoom feature. In previous versions, the page just zoomed to the upper-left corner of the current page, requiring the user to use the scroll bars to find the data they had centered on their screen. Unless the data you want is in the upper-left corner (not very likely), scrolling is necessary and not friendly or enjoyable. The improved feature zooms around the content you are viewing in

the page, so you may not have to move the content you have zoomed in to but will have to scroll only in order to view more data than you can see initially.

The new and enhanced user features aren't the only great improvements to IE8; there are numerous new and improved security and safety features as well.

Using IE8's New Security and Safety Features

IE8's new security and safety features are designed to help protect users from malicious attacks or attempts to get personal information without their knowledge. Because we all use the Internet and our corporate intranets to provide information every day, online crime has risen dramatically. The new type of criminal we face are known as cybercriminals and are using extremely deceptive and sophisticated methods for getting information from users. Malware is one type of method in which a cybercriminal will try to steal private information through software pretending to be an expected website. This malware could be a program running on your PC that reads everything you type (including login information from a web browser) and reports the information back to a cybercriminal. Phishing is another technique used by cybercriminals to gain personal information from users. Phishing can be perpetrated by the cybercriminal pretending to be a legitimate website, such as the user's banking site or credit card site, and convincing the user to enter information into a fraudulent page.

New features of IE8 help to identify malware and phishing schemes and make it easier for users to quickly identify potential issues. This in turn allows administrators to spend less time "fixing" the network and "fixing" user-compromised data. Domain highlighting, the Cross-Site Scripting (XSS) filter, click-jacking prevention, SmartScreen filters, InPrivate browsing, and InPrivate filtering are new additions to IE8.

Understanding Domain Highlighting

When a user surfs to a website, they normally type in a URL in the form of `www.bing.com`. This URL displays in the address bar of the browser, and the user can see it during the entire browsing session. This may or may not be apparent to the user as it is nondescript text and nothing jumps out at the user. In IE8, the displayed URL is shown to the user with the domain highlighted, such as `www.bing.com`. As the user continues to surf to other pages within Bing, the domain portion, `bing.com`, remains clear (the other text softens to gray). That way, if the user is redirected to another site, there is a visual clue that jumps out at the user.



Real World Scenario

GETTING USERS TO HELP THEMSELVES WITH SECURITY

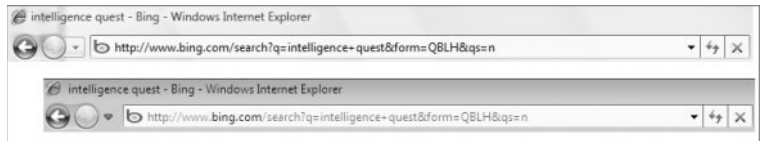
One of the biggest issues we face working with users is getting them to think outside the box while they're using a browser. The main problem is that users often expect the world to be a kind place and that no one is going to try to trick them. How many times have we told users — both well versed in technology and not quite so well versed — that they should not click links in an email? How many times have we told users to make sure they get the lock icon if they're surfing to a secure site and to check the protocol being used (`https:` instead of `http:`)? Educating the user and getting them to "do what you say" are two completely different things.

We have set up phishing websites and had corporate users go to the site (unknown to them it was a fake) and enter company credentials to gain access. The phishing site was not the correct name for the company, and in some cases where the connection was meant to be secure, we did not use https: and the users being tested still entered their credentials.

We have contemplated numerous times just what we can do to help users to see that there is a problem and provide some feedback. Although not a perfect solution (some users just won't look), the domain highlighting feature of IE8 appears to be a step in the right direction. The fact that the link changes as the user surfs and that the domain name appears in bold at least has a few users looking and asking the question, "Is this the right place?" Other features in IE8 as allows us as administrators to control the users, but with domain highlighting users are at least pondering the domain changes and wondering whether the change is good or bad.

If you look at Figure 13.19, you can see the same search string issued in both IE7 and IE8. Notice how much better **bing.com** stands out in the IE8 address bar.

FIGURE 13.19
Domain highlighting
in IE8

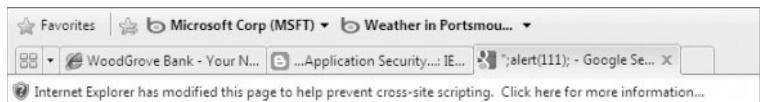


Domain highlighting and user education are a good starting place for security and safety, but are there features that can be added to proactively help the user? The answer is yes. One of the common phishing/malware activities is XSS, where the user inadvertently runs a script in a website link exploiting a flaw in a website, or click-jacking where a user clicks a link that says one thing on the page but sends them somewhere else. IE8 has proactive software to help identify these types of phishing/malware attacks before they can happen.

Defending Against XSS and Click-Jacking

XSS attacks attempt to exploit vulnerabilities that exist in the websites you use. XSS attacks are set up by inserting a malicious website address in a link a user might click in an email. The data in the link direct the browser to a legitimate website that has been compromised to contain malicious code that can capture keystrokes, therefore letting the cybercriminal capture a user's login credentials. IE8 includes an XSS filter that attempts to detect these types of attacks and disable the harmful scripts. Users surfing to a website that has been compromised can be detected and IE8 can modify the request, avoiding the potential risk. A message appears at the top of the IE8 page that indicates to the user "Internet Explorer has modified this page to help prevent cross-site scripting." Figure 13.20 shows the message displayed when issuing a malformed query to a search engine. The user can click the message to get further information about the compromise.

FIGURE 13.20
Cross-site scripting filter
message



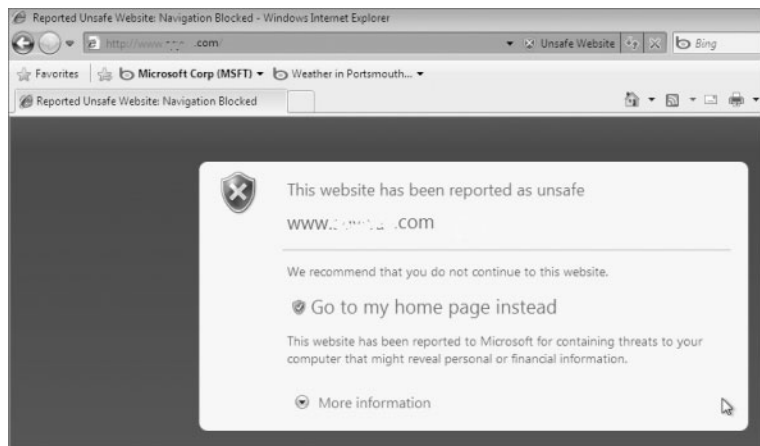
As with all of our technology and cybercrime, it's a cat and mouse game between the administrators and users with the cybercriminals. Every time the good guys find a way to block or mitigate an attack, the bad guys (good/bad, we guess, depends on your point of view . . .) find a different way to perpetrate an exploit. Click-jacking is a growing threat to our online community; a savvy cybercriminal can create a website where a real page is placed in a frame in the attacker's page. Clicking an item in the attacker's page allows the attacker to manipulate your input and have you view an advertisement at best or change your browser parameters at worst. IE8 includes code that allows developers not to let their websites be inserted into a frame in the IE8 interface, helping to mitigate the click-jacking event. The XSS filter and click-jack prevention code offer protection against malicious code in the website.

There is also a set of tools included in IE8 that help prevent the user from visiting a website that has been reported as unsafe or from downloading content that has been reported as unsafe. This protection is known as SmartScreen filtering.

Working with SmartScreen Filters

Microsoft maintains a database of unsafe websites that is checked while a user is browsing through websites. If the user chooses an unsafe website, IE8 blocks the user's request and presents a page that displays that the page has been identified as unsafe, as shown in Figure 13.21, and changes the background color of the address bar to reflect the same. The user can continue to the web page if they are confident of the safety of the website by choosing More Options and continuing to the website. This functionality is part of the IE8 suite of technologies helping to protect users from the deceptive practices of cybercriminals. The SmartScreen filters also have the ability to block malware or phishing from within initially safe sites by including specific pages as unsafe in the Microsoft unsafe website database.

FIGURE 13.21
SmartScreen filter of an
unsafe website



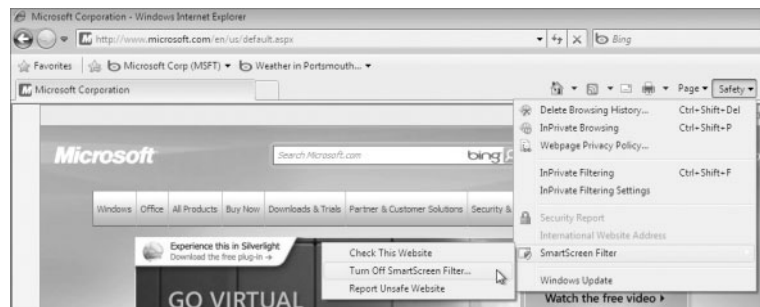
Another new feature related to SmartScreen filters is the ability to protect the user from unsafe downloads. If a user attempts to download a file and the file has been reported as unsafe (and accepted into the Microsoft database as unsafe), an Unsafe Download security warning dialog box is generated and the user is prevented from downloading the file. As with the unsafe website filter, the user can still continue the download if they are confident the file they are requesting is safe, as shown in Figure 13.22.

FIGURE 13.22
SmartScreen filter of an
unsafe download



Administrators do have the option of configuring Group Policy for IE8 to disable the ability of the users to download unsafe files if this is desired. You can manage SmartScreen Filtering functionality from the Safety menu of IE8. Figure 13.23 shows the option Turn Off SmartScreen Filter. Using the SmartScreen filter menu, you can check whether the current site has been reported as unsafe. (for instance, say you turned off SmartScreen filtering but would like to check a specific site).

FIGURE 13.23
SmartScreen Filter
options



The SmartScreen filter feature also gives you the ability to report a website as unsafe. Once your report is submitted, Microsoft will review the site and add it to their database if they determine it meets the criteria they have put in place for an unsafe website.

Microsoft has also added two new features for the safety of users by protecting their personal information: InPrivate browsing and InPrivate filtering.

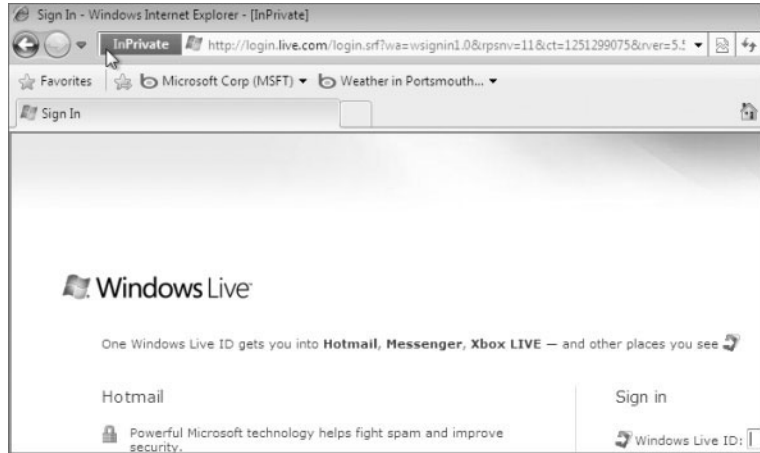
Browsing with InPrivate Browsing and InPrivate Filtering

InPrivate browsing provides a level of privacy to users using IE8. The privacy maintained with InPrivate browsing relates to current browsing where an InPrivate session has been enabled. The InPrivate session prevents the browsing history from being recorded, nor will temporary Internet files be retained. Cookies, usernames, passwords, and form data will not remain in IE8 following the closing of the InPrivate session, as well leaving no footprints or data pertaining to the InPrivate browsing session. This is a good method of protecting user data if you are not surfing from your own machine or are surfing from a public location (always a bad place to leave personal information). InPrivate browsing can also be used if you don't want anyone to be able to see data from your Internet browsing session.

There are several ways to launch an InPrivate IE8 browsing session. One way is to open a new tab and select the Open An InPrivate Browsing Window option from the Browse With

InPrivate section. This opens a new tab, and the tab is an InPrivate session. You can also choose to open IE8 and start an InPrivate session directly by clicking **Safety > InPrivate Browsing**. You can also open a new IE8 browser and press **Ctrl+Shift+P**. Figure 13.24 shows an InPrivate session launched with **Ctrl+Shift+P**; you are taken to login.live.com. This ensures any of your login and browsing information is not saved to this computer.

FIGURE 13.24
InPrivate browsing session



InPrivate browsing keeps information from being saved to the local machine while you're in the session, but don't get lulled into a false sense of security; malware, phishing, and other compromises that send data out of the local machine are still valid and can provide personal information to a cybercriminal.

InPrivate filtering takes a slightly different approach in providing security and safety to the user who is surfing using IE8. Many websites gather content from different sources as they present a web page to you. Some of these sources are websites outside the main location and provide third-party companies with tracking information about where you surf and what you look at. This information can then be used to provide statistics as well as advertisements back to you. InPrivate filtering provides an added layer of control for the user to decide what information third-party websites have access to while browsing, thus limiting the ability for third-party websites to track your browsing usage.

InPrivate filtering is not enabled by default and must be enabled per browsing session. InPrivate filtering is enabled from the **Safety** menu in IE8, as shown in Figure 13.25. You can alternatively use **Ctrl+Shift+F** to enable InPrivate filtering.

After you choose InPrivate Filtering, you are given the option to have IE8 automatically block some third-party content or choose to let the user select which third-party providers receive the user's browsing information, as shown in Figure 13.26. You can always go back and change the options later or turn off InPrivate filtering if you desire.

After you enable InPrivate filtering, you can see which pages have been blocked as third-party queries from the InPrivate Filtering Settings dialog box. The InPrivate Filtering Settings dialog box is an alternate location for enabling (or disabling) InPrivate filtering, as shown in Figure 13.27. You open InPrivate Filtering Settings from IE8's Safety menu.

Along with the new security and safety features of IE8, there are several enhancements to existing features as well, which we'll discuss in the next section.

FIGURE 13.25
Enabling InPrivate filtering

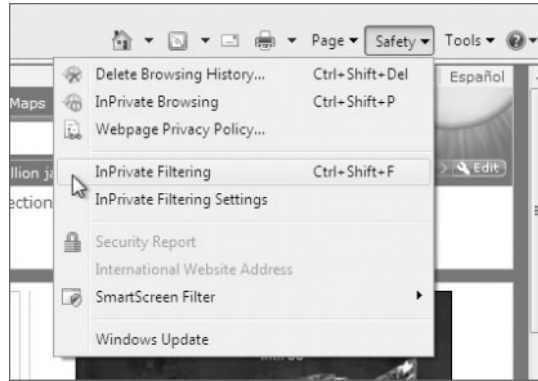


FIGURE 13.26
InPrivate Filtering options

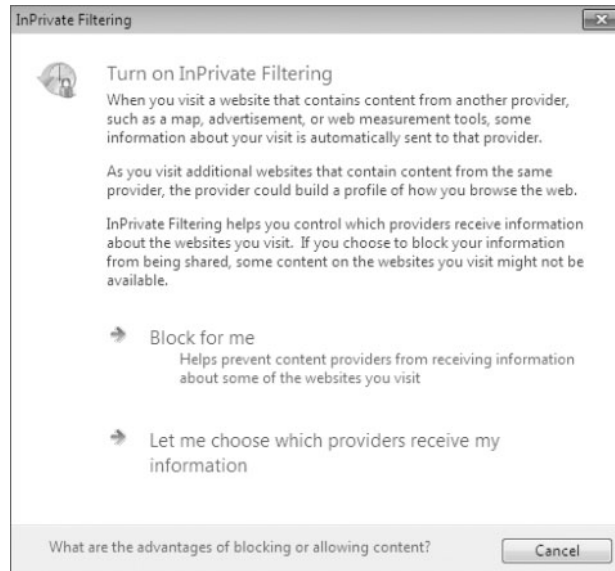
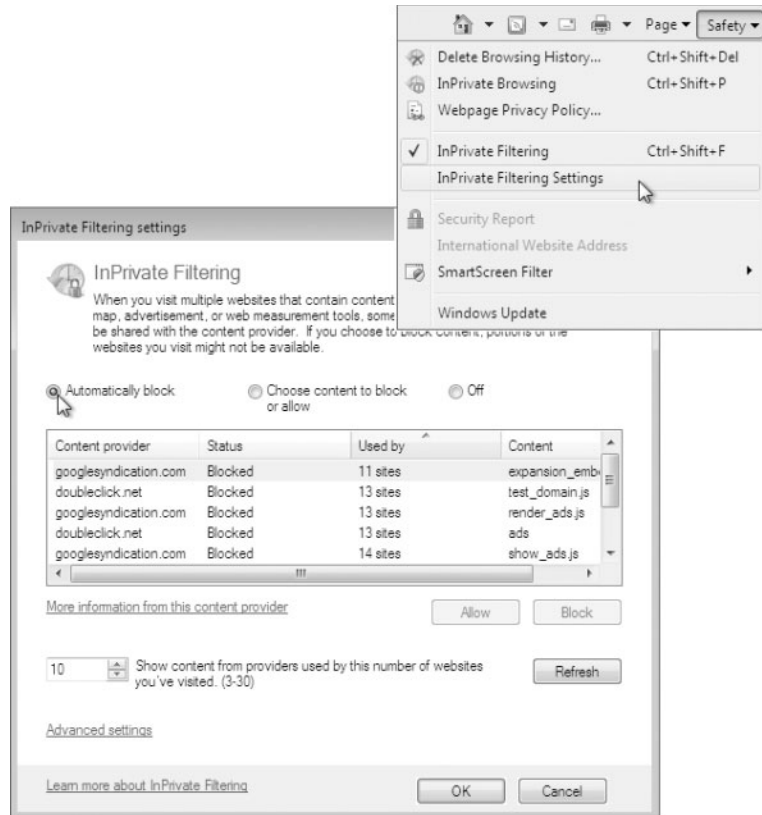


FIGURE 13.27
You can enable
(or disable) InPrivate
filtering here.



Using IE8's Enhanced Security and Safety Features

Among the enhancements to the security and safety features of IE8 are data execution prevention and an updated Automatic Crash Recovery function, as well as an enhanced Delete Browsing History feature.

Protecting the User with Data Execution Prevention

Data execution prevention (DEP) is enabled by default in IE8 and is a security feature of the browser. DEP helps to prevent malicious code from being run (or executed) in memory when it should not. Viruses, Trojans, and other dangerous software might try to execute code when they should not be able to. DEP prevents certain types of applications that are known to be malicious from writing to executable memory space. The various types of malicious code that are prevented are constantly being updated, and IE8 provides the latest information for the best layer of protection.

Along with DEP, IE8 includes an enhanced Automatic Crash Recovery feature to give a user a more seamless surfing experience even when something goes wrong.

Dealing with Automatic Crash Recovery

When dealing with legacy Internet Explorer versions, users would have multiple browsers open at the same time. With our new implementations, we use the same instance of Internet

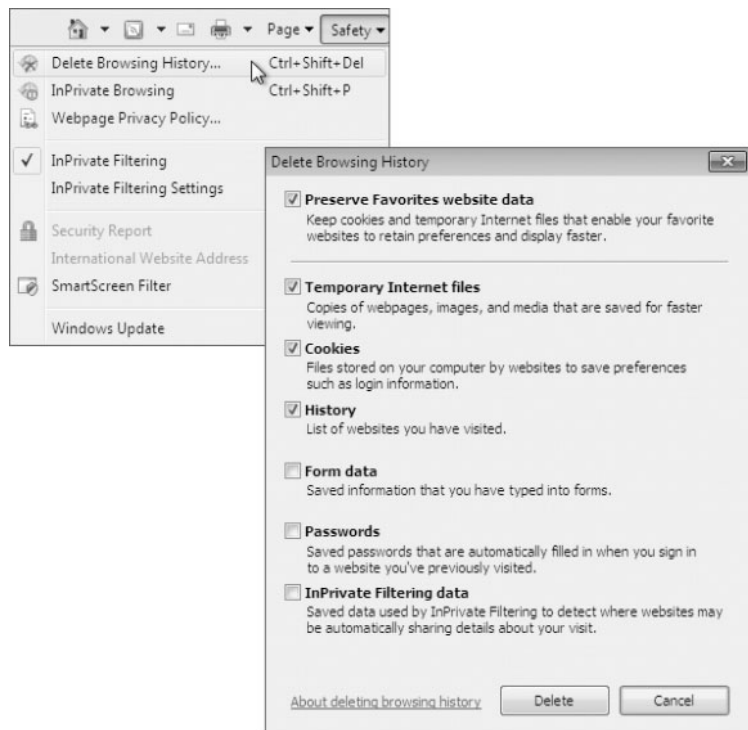
Explorer running with individual tabs open for multiple websites. In the legacy implementation, if one IE crashes due to an application fault, the other browsers would remain active. If all the sites you are browsing to are in one application, the potential for an all-out failure is present. Automatic Crash Recovery uses tab isolation so only a single tab is affected in case of an application or browser add-in failure. If a tab experiences a fault, the main IE8 browser application remains stable as well as the other tabs. IE8 also uses a better crash recovery model; if one (or more) of the tabs closes or crashes unexpectedly, the remaining tabs are automatically reloaded and you are returned to the site(s) you were on before the fault. This provides the user with a cleaner experience and less to think about in times of peril.

Another enhancement to the security and safety functionality of IE8 is the update to the Delete Browsing History functionality.

Controlling Your Browsing with Enhanced Delete Browsing History

With previous versions of Internet Explorer, you had the ability to delete your web browsing history and individual components (such as temporary Internet files, cookies, form data, and passwords) on an individual basis or delete them all at once. IE8 provides better control of what you want to delete (and keep, for that matter) with a check box selection. You access this option on IE8's Safety menu or by pressing Ctrl+Shift+Del. You are then presented with the Delete Browsing History dialog box, as shown in Figure 13.28, where you can decide what to delete and what not to delete.

FIGURE 13.28
Enhanced Delete
Browsing History
dialog box



The IE8 Delete Browsing History dialog box adds two new features that complement the new functionality in IE8 by including InPrivate filtering data as a component and allows you

to delete (or keep) browsing history specific to your Favorites website data. This is a welcome addition to IE8 that gives users better control and an easier experience to keep their personal data out of the eyes of others. With all of the new and enhanced features of IE8, it is still the same browser we have become used to. IE8 should just be more helpful as we continue to use it and configure it as we have done in previous versions.

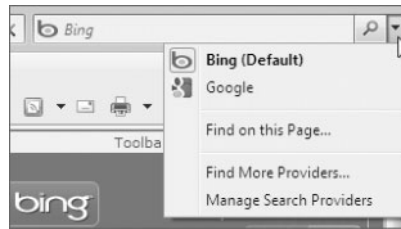
Using IE8

IE8 is used to surf the Internet as well as corporate intranets using HTTP, HTTPS, and FTP on a day-to-day basis. We have become used to surfing, but utilizing the browser's enhancements might not be something we're all familiar with. IE8 includes many features included in legacy Microsoft browsers that you might find useful if you have not discovered them. A search box tied to an Internet search engine, automatic Really Simple Syndication (RSS) feed detection and updating, add-on support providing third-party utilities, and a Pop-up Blocker are available to provide a better surfing experience. IE8 also includes Protected Mode functionality to help shield the user from malicious code.

Taking Advantage of the Instant Search Box

The Instant Search box of IE8 provides quick access to Internet search capabilities without the need to install a third-party toolbar or open more tabs to load a search engine page. The Instant Search box is located in the upper-right corner of IE8 and defaults to Bing as its search provider, as shown in Figure 13.29. By clicking the down arrow associated with the search box, you can configure other search providers as well as choose a different default if you so desire.

FIGURE 13.29
Instant Search box
in IE8



After you have more than one search provider listed, you can simply choose which provider you want to use, enter the search term, and hit Enter. You will also notice that as you add characters and words to the Instant Search box, IE8 will make suggestions and show visuals of potential search responses, allowing you a preview and the ability to select a previewed search result.

ADDING A NEW SEARCH PROVIDER TO THE INSTANT SEARCH BOX

There might be times when you want to have the option to choose between two search providers when you are looking for something on the Internet.

Perform the following steps to add a new search provider to the Instant Search box:

1. Open IE8.
2. Choose the drop-down arrow from the Instant Search box in the upper-right corner of IE8.
3. Click the Find More Providers option.

4. Choose a search provider from the Microsoft Add-ons Gallery: Search Providers page (Wikipedia Visual Search, for example).
5. Click the Add button in the Add Search Provider dialog box.
6. Choose the drop-down arrow from the Instant Search box and note that you can now use the new provider to perform an Internet search.

MANAGING SEARCH PROVIDERS

If you have included more than one search provider, you might want to manage them by changing the search order and having the search providers preview content.

Perform the following steps to change the search order of the search providers:

1. Open IE8 and add a search provider to the Instant Search box if you haven't already done so (see "Adding a New Search Provider to the Instant Search Box" earlier).
2. Click the down arrow associated with the Instant Search box located in the upper-right corner of IE8.
3. Select the Manage Search Providers option.
4. In the Manage Add-ons window, select Search Providers in the Add-on Types section.
5. Select a search provider in the right side of the Manage Add-ons window.
6. Use the Move Up or Move Down text item below the Search Providers box to change the order of the search providers.

You also have the ability in IE8 to use RSS feeds and get a visual when there is updated content for you to read.

Configuring RSS

RSS is a content syndication technology that enables a website to syndicate content via an RSS file formatted in XML (known as a feed). As you visit sites that have an RSS feed available, you can subscribe to the feed and any updates to the content will be automatically downloaded to the host machine. IE8 monitors and downloads the content and makes it available. Microsoft has added RSS support across many of its websites to enable users to automatically get updates and information about Microsoft products whenever new information is published. TechNet and the MSDN Microsoft sites are examples using RSS feed to distribute information to users via RSS.

In IE8, any website that has an RSS feed is indicated by an orange Feeds icon. Clicking the orange icon lets the user pick from any of the feeds available on the page and keeps the content updated by checking periodically to see whether the data has changed. This is similar to the way Web Slices work (described earlier in this chapter). The timing and other options for the RSS feed and Web Slice updates are found in the same configuration pages. Figure 13.30 shows two RSS feeds that are available on the TechNet home page (note that no Web Slices are available in the page).

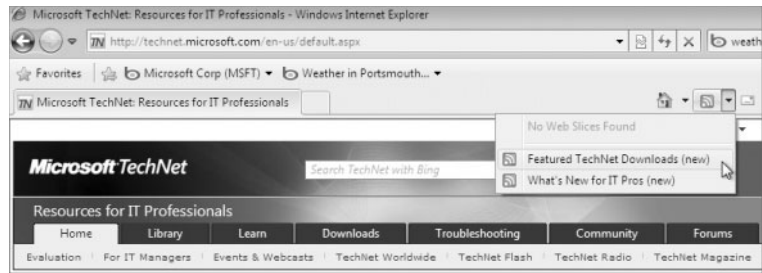
SUBSCRIBING TO AN RSS FEED

Perform the following steps to subscribe to a Microsoft TechNet RSS feed:

1. Open IE8.
2. Enter **technet.microsoft.com** in the address bar and press Enter.

3. Click the down arrow associated with the RSS feed icon in the tab bar.
4. Click the Featured TechNet Downloads RSS Feed option.
5. In the TechNet Featured Download page, you are given the option to subscribe to the feed. Click the subscribe link.
6. Click the Favorites star to open the Favorites window.
7. Select the Feeds tab to see that you have subscribed to the TechNet feed; by selecting the TechNet option, you can view the feed data.

FIGURE 13.30
RSS feed availability in
a website



MANAGING AN RSS FEED

After you subscribe to an RSS feed, you can configure several options for the feed, such as how often the feed is checked for updates, whether attachments associated with the feed are downloaded, or how many updates should be saved.

Perform the following steps to modify the properties of an RSS feed:

1. Open IE8 and click the Favorites star to open the Favorites window.
2. Click the Feeds tab and right-click an RSS feed that you have subscribed to (if you need to subscribe to a feed, see the previous section, “Subscribing to an RSS Feed”).
3. View the properties of the RSS feed and modify as desired.

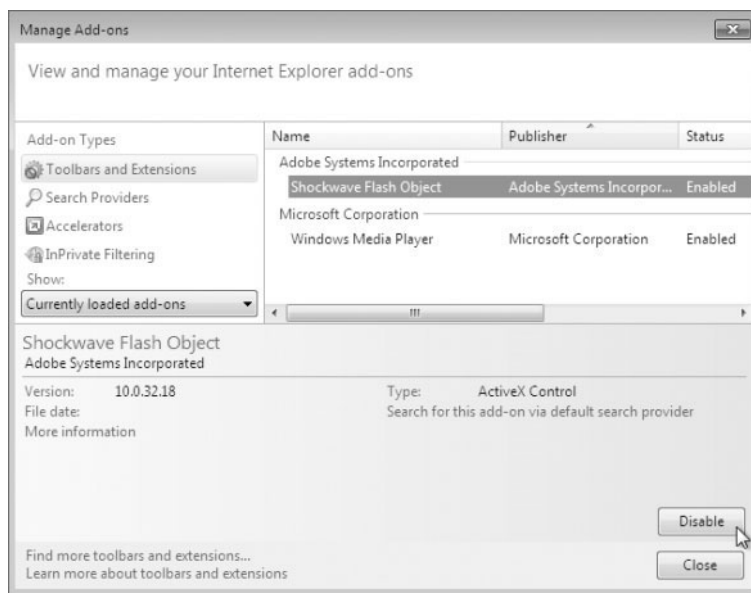
As with the Instant Search box and RSS feeds, there are other features that might enhance your browsing experience but that are not specifically provided by Microsoft. These features might come in the form of an add-on.

Installing Add-ons to IE8

IE8 provides the ability to install add-ons to extend the functionality of the browser. Add-ons can improve the user experience by providing a simpler approach to resources, enhancing security, or simply providing enjoyment (a joke-of-the-day add-on, for example). Add-ons can be created by Microsoft, but many times you will find third party add-ons to be equally as useful.

To enable, disable, or install add-ons, select Tools > Manage Add-ons. This opens the Manage Add-ons dialog box. In the Add-on Types pane, select Toolbars And Extensions, and you can change the properties for installed add-ons in the right pane. By selecting an item, you can toggle it from enable to disabled, or vice versa, by clicking the button in the lower right. In Figure 13.31, you can see that the Shockwave Flash Object add-on is selected and enabled; the button in the lower left would be used to disable this add-on.

FIGURE 13.31
Manage Add-ons
dialog box



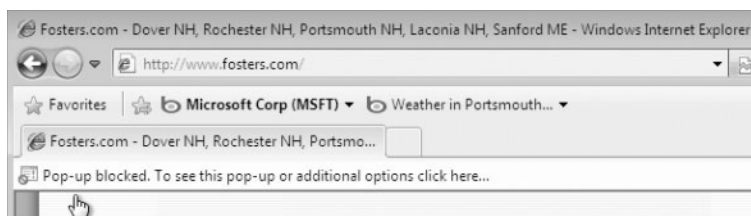
If you were looking for more add-ons for your IE8, you could click Find More Toolbars And Extensions in the lower left of the Manage Add-ons windows. You can install and manage toolbars as well as search providers and Extensions from the Manage Add-ons window.

Another feature of many websites is the pop-up windows the website developers include. IE8 includes functionality to block pop-ups dynamically.

Controlling Pop-ups with IE8's Pop-up Blocker

IE8 includes the Pop-up Blocker feature, which prevents pop-up pages from being displayed. Most of the time advertisers and marketers use these pop-up pages to get users to view content in an attempt to convince them to click and buy. Not all pop-ups are malicious or advertisement-related and may actually provide useful information. IE8's Pop-up Blocker is enabled by default, but does inform the user anytime a pop-up page is blocked. When a pop-up is blocked, the user has the option immediately to allow the pop-up to display. Figure 13.32 shows the message in IE8; as you can see, the user could allow the pop-up to be displayed.

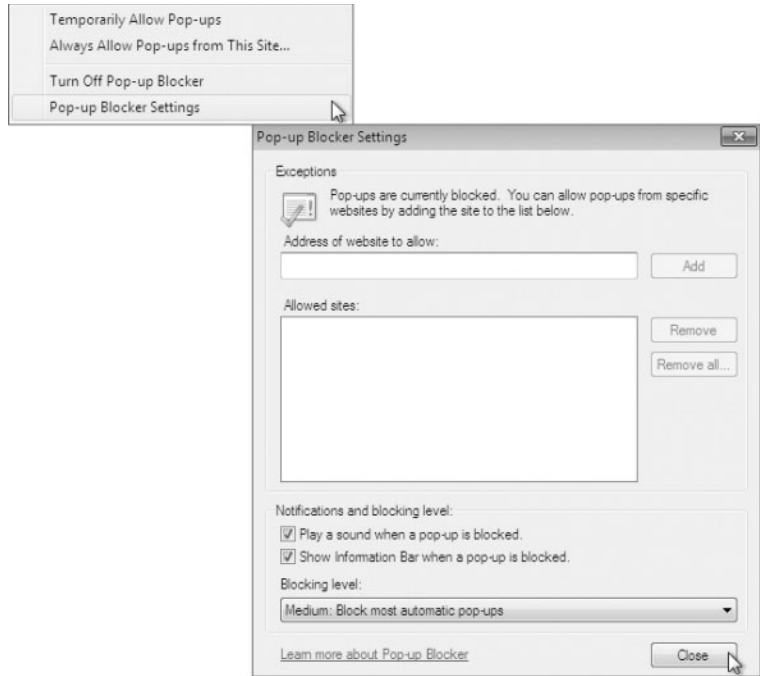
FIGURE 13.32
Pop-up Blocker message



You can also allow a pop-up to be displayed from a website where it was blocked by IE8 by selecting Tools > Pop-up Blocker > Temporarily Allow Pop-ups or from the Pop-up Blocker

selection of the Tools menu. The option Always Allow Pop-ups From This Site is also available, as well as the ability to open the Pop-up Blocker Settings page, as shown in Figure 13.33. The Pop-up Blocker Settings dialog box allows you to manage which sites will not have pop-ups blocked.

FIGURE 13.33
Pop-up Blocker Settings
dialog box



In addition to providing the ability to create and maintain a list of approved sites for pop-ups, the Pop-up Blocker Settings dialog box lets you configure notification options. You can enable or disable the playing of a sound when a pop-up is blocked or control whether or not the information bar is displayed. The Blocking Level drop-down list gives you better control of which pop-ups are blocked and provides three levels of control:

- ◆ High: Block All Pop-ups (press Ctrl+Alt to override)
- ◆ Medium: Block Most Automatic Pop-ups
- ◆ Low: Allow Pop-ups from Secure Sites

By default, IE8 has the Blocking Level set to Medium.

CHANGING THE BLOCKING LEVEL FOR POP-UP BLOCKER

Perform the following steps to change the Blocking Level to Low for Pop-up Blocker:

1. Open IE8..
2. Select Tools ➤ Pop-up Blocker Settings.
3. Click the down arrow next to the Blocking Level drop-down list box.

4. Click the Low: Allow Pop-ups From Secure Sites option.
5. Click the Close button to exit the Pop-up Blocker Settings dialog box.

ADDING A WEBSITE TO THE ALLOWED SITES FOR POP-UP BLOCKER

Perform the following steps to manually add a site for IE8 to allow pop-ups:

1. Open IE8.
2. Select Tools ➤ Pop-up Blocker Settings.
3. Enter a website for which you want to allow pop-ups to be displayed in the Address Of Website To Allow text box.
4. Click the Add button to include the desired website in the Allowed Sites text box.
5. Click the Close button to exit the Pop-up Blocker Settings dialog box.

Using Protected Mode for IE8

Protected Mode is a feature of Windows 7 for IE8 that forces IE8 to run in a protected, isolated memory space, thus preventing malicious code from writing data outside the Temporary Internet Files directly unless the program trying to write the information is specifically granted access by the user. Protected Mode is enabled by default and displayed in the lower-right corner of the IE8 window. You can install software through IE8, but you will need to explicitly allow the modification of the file structure of Windows 7 if the software is going to install outside the protected directory. You can switch out of Protected Mode using the Security tab of IE8's Internet Options dialog box. To access this dialog box, select Tools ➤ Internet Options; or type **internet options** in the Start menu's search box in Windows 7. You also have the option of double-clicking Protected Mode: On at the bottom right of the IE8 interface to open just the Security tab of Internet Options, as shown in Figure 13.34.

To change the Protected Mode settings, click to select or deselect the Enable Protected Mode (Requires Restarting Internet Explorer) check box. Microsoft recommends that Protected Mode remain active as it provides a greater level of security and safety for the user and does not prohibit an action (installing a program from IE8); it just requires interaction from the user to allow the modification.

Configuring IE8 Options

In addition to security and usability options that you can configure in IE8, you can configure other options for managing the browser. Many of the configurations we have discussed in this chapter have used the Safety or Tools options to quickly change individual parameters. The ability to change the individual parameters is also available from within the Internet Properties tabbed dialog box. This dialog box offers general parameters, security parameters, privacy configurations, content control, connection settings, program options, and advanced settings available for Internet options.

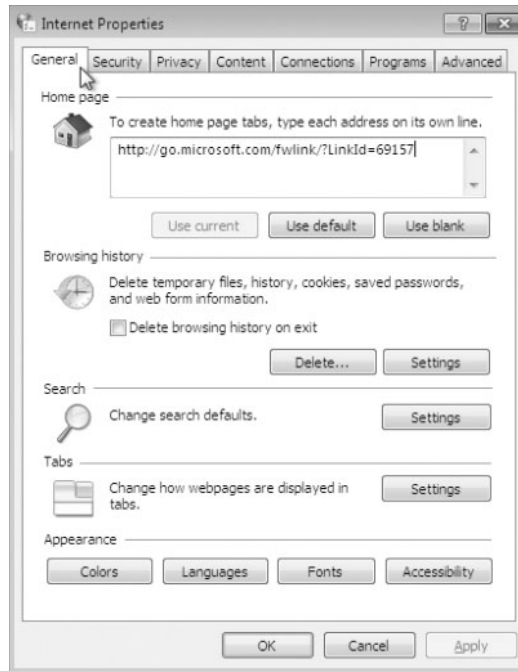
GENERAL PARAMETERS IN INTERNET PROPERTIES

You can open the Internet Properties dialog box by selecting Tools ➤ Internet Properties or by typing **internet options** in the Start menu's search box Windows 7. The General tab, as shown in Figure 13.35, allows you to change the default home page that displays when IE8 is launched. An interesting feature here is that you can have more than one default home page. By entering more than one page in the Home Page text box, every time IE8 is launched each of these pages will open in its own tab.

FIGURE 13.34
Security tab of IE8's
Internet Options



FIGURE 13.35
General tab of IE8's
Internet Properties



The General tab also allows you to control your browsing history settings, search settings, tabs, and the appearance (including accessibility options) of the IE8 interface.

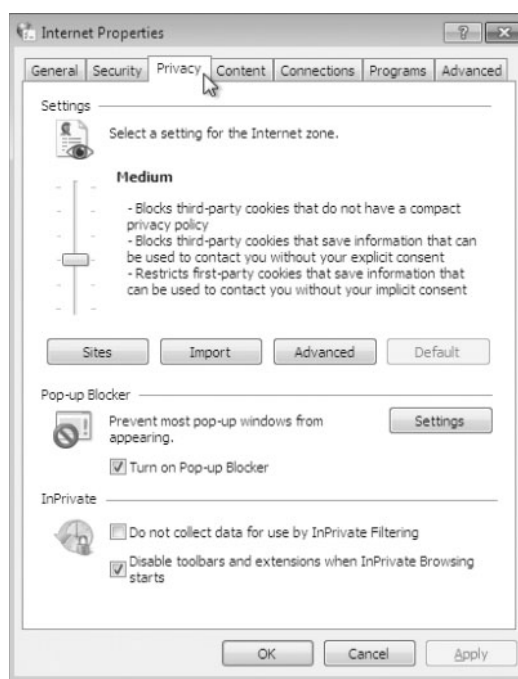
SECURITY PARAMETERS IN INTERNET PROPERTIES

The Security tab of IE8's Internet Properties dialog box not only gives you access to control Protected Mode (as seen earlier in this section), but also gives you the ability to set security settings on the specific zones you may browse to. The zones are the Internet, Local Intranet, Trusted Sites, and Restricted Sites. You can set the behavior of IE8 individually for each zone and even individual sites within each zone.

PRIVACY CONFIGURATIONS IN INTERNET PROPERTIES

The Privacy tab, as shown in Figure 13.36, allows you to manage privacy settings for the Internet zone; this is the cookie management for specific sites.

FIGURE 13.36
Privacy tab of Internet
Properties

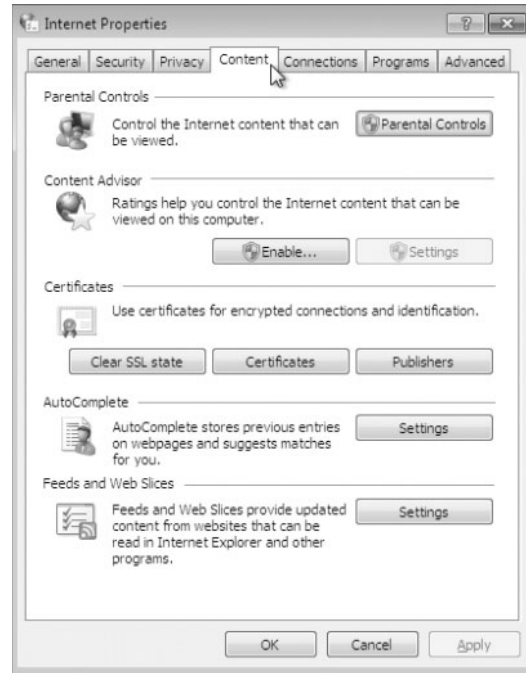


You can also control the settings for Pop-up Blocker and your InPrivate filtering and InPrivate browsing here.

CONTENT CONTROL IN INTERNET PROPERTIES

Figure 13.37 shows the Content tab of IE8's Internet Properties. Parental controls let you manage which sites are available through web filtering and monitoring of website access using the Activity Monitor. There has to be a privileged account with a password set to enforce parental controls. InPrivate browsing is also not allowed when parental controls are in place.

FIGURE 13.37
Content tab of Internet
Properties



You can enable Content Advisor settings on the Content tab. Content Advisor displays rated sites as users browse to different locations. Certificate management for secure browsing is managed through the Content tab as well. You have the ability to manage AutoComplete functionality and manage RSS feeds and Web Slice data here too.

CONNECTION SETTINGS IN INTERNET PROPERTIES

The Connections tab of IE8's Internet Properties dialog box allows you to manage the way IE8 gains access to the network. You can initiate the Connect To The Internet Wizard on this tab as well as set up a virtual private network. If you are using dial-up networking, you can also configure this connection from the Connections tab. Local area network (LAN) general settings are configured on this tab. You can specify a proxy server if you need to use one (this is typical across many corporate sites as well as to provide a better level of anonymity for Internet surfing).

PROGRAM OPTIONS IN INTERNET PROPERTIES

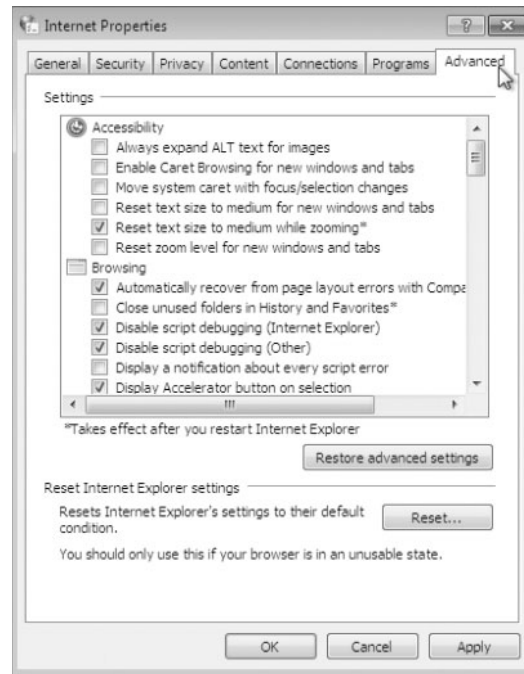
The Programs tab of the IE8 Internet Properties dialog box allows you to control which browser you are using as your default web browser. You can manage add-ons specific to IE8 on the Programs tab as well. You can set up an application to allow for HTML editing and set up default programs to be used for Internet services such as email.

ADVANCED SETTINGS IN INTERNET PROPERTIES

The Advanced tab, as shown in Figure 13.38, of the IE8 Internet Properties dialog box allows you to configure advanced configuration settings for IE8. Some of the advanced configuration

items include accessibility settings, browsing settings, international browsing settings, encoding settings, multimedia parameters, printing parameters, and general security settings. You can control whether links are underlined, whether pictures should be displayed, which versions of the secure communication protocols or SSL are used, background colors, and many other parameters.

FIGURE 13.38
Advanced tab of Internet
Properties



In addition to being able to change the advanced settings, you also have the option to restore advanced settings to their original configurations or to even reset the Internet Explorer settings (clicking this option resets all IE8 settings, not just the advanced settings, to the default configuration).

IE8, with all of its new and exciting features for user browsing, safety, and security, provides a solid foundation for users to enjoy Internet surfing and gives administrators comfort with the knowledge that their users will be on the network safely. Many of the enhancements provide administrators with more peace of mind about the integrity of the network as well as being able to suppress the intentions of cybercriminals without dramatically affecting the surfers. Kudos to Microsoft and Windows IE8!

The Bottom Line

Use IE8 accelerators and web slices. IE8 has added accelerators and Web Slices to its arsenal of features available to users to make browsing more efficient. Accelerators add a quick launch feature to services such as searching, while Web Slices add the ability to receive updates to content that changes dynamically.

Master It You would like to add the ability to see Microsoft's stock price reflected in your browser throughout the course of the day. It seems as though adding a Web Slice would be the most efficient way of getting this information. You have been told that Microsoft belongs to NASDAQ and would like to see a quick definition of the term. You know that there's an accelerator that provides a definition. How can you accomplish these tasks using IE8?

Configure Pop-up Blocker in IE8. Pop-ups are used within websites to launch a separate window with additional content from the site. Most of the time this is an advertisement or some other unwanted content, and it is blocked by default in IE8. However, there are some sites that use pop-ups to present information that you would like to see, but IE8 still blocks it.

Master It You routinely browse to your local newspaper's website to see what's happening in the local area as well as the world. It is extremely annoying that they use a pop-up for breaking news. You know the pop-up gives you good information and would like to see the content any time you surf to the site. How will you disable pop-ups from occurring anywhere within the local newspaper website?

Use the InPrivate security feature of IE8. InPrivate browsing is a new addition that allows a separate browsing session to be initiated where none of the browsing history, cookies, or other data pertaining to the session are retained on the local machine.

Master It You have entered an Internet cafe and are going to use one of the local machines to surf around the Internet for a bit. You would like to make sure that nothing you do is recorded on the Internet cafe computer. You notice that the Internet cafe is using Windows 7 and realize you can feel confident that your browsing history, cookies, and other data will not be kept on the local machine. How will you surf privately?

Configure security for IE8. IE8 allows you to change the security settings for different zones or areas where you will be browsing. The default settings are Medium for both the Internet and Intranet zones.

Master It You have decided that you would like to increase the security settings for sites you browse to in both the Internet and Intranet zones. You would like to set the security to the highest available level. How will you accomplish this task?