Sitecore CMS 6.0

Configure Internet Explorer

Optimize Microsoft Internet Explorer for Use with Sitecore

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Chapter 1

Introduction

This document describes required, recommended, and optional configuration to optimize the Microsoft Internet Explorer Web browser for use with Sitecore, along with instructions to troubleshoot issues with the browser.

This document contains the following chapters:

- Chapter 1 – Introduction

- Chapter 2 – Configuring Internet Explorer

- Chapter 3 – Troubleshooting Internet Explorer

Chapter 2

Configuring Internet Explorer

This chapter provides required, recommended, and optional instructions to configure Microsoft Internet Explorer for use with Sitecore.

This chapter contains the following sections:

- How to Determine the Internet Explorer Version

- Internet Explorer Configuration Summary

- Required Configuration

- Recommended Configuration

- Optional Configuration

2.1 How to Determine the Internet Explorer Version

To determine the version of Internet Explorer installed, in Internet Explorer, click the Help menu or press ALT-H, and then click About Internet Explorer. The About Internet Explorer dialog appears, indicating the Internet Explorer version number.

Note
Sitecore supports Microsoft Internet Explorer 6 and higher. Sitecore recommends Internet Explorer 7 or higher. To update the Internet Explorer version, see the section Patch Windows and Components.

Note
This document does not describe configuration of Internet Explorer 6. Internet Explorer 6 users, apply corresponding configuration wherever possible.

Important
Some of the instructions described in this document may require Windows administrative rights.

2.2 Internet Explorer Configuration Summary

This section summarizes the Internet Explorer configuration described in this document. After you are familiar with the configuration process, you can use this summary as a configuration checklist.

Important
Backup the system before making any changes.

Important
Before performing any Internet Explorer configuration task, close all Internet Explorer windows, and open Internet Explorer only when needed. After any configuration task, close all Internet Explorer windows. Reboot after registry changes.

- Install Adobe Flash (**recommended**) – see Install Adobe Flash.

- Install Windows Web Folders or the Windows Desktop Experience (**recommended**) – see Windows Web Folders or the Windows Desktop Experience.

- Use the Internet Options Security tab to configure the Trusted Sites zone:
    - Add the CMS to the Internet Explorer Trusted Sites zone (**required**) – see Trusted Sites Zone.
    - Disable the Pop-up blocker (**required**) – see Pop-up Blocker.
    - Disable the SmartScreen/Phishing Filter (**recommended**) – see SmartScreen (Phishing) Filter.
    - Allow script-initiated windows without size or position constraints (optional) – see Cosmetic Issues.
    - Allow websites to open windows without address or status bars (optional) – see Cosmetic Issues.
    - Enable Programmatic clipboard access (optional) – see Cosmetic Issues.
    - Enable Launching programs and files in an IFRAME (optional) – see Cosmetic Issues.
    - Display mixed content (optional) – see Cosmetic Issues.

- Using the Internet Options General tab:
    - Select tab preferences (optional) – see New Windows or New Tabs.
    - Configure browser cache (optional) – see Configure Management of Temporary Internet Files.

- Using the Internet Options Advanced tab:
    - Empty temporary internet files folder when browser is closed (optional) – see Configure Management of Temporary Internet Files.
    - Enable script debugging (optional) – see Miscellaneous Settings.
    - Display a notification about every script error (optional) – see Miscellaneous Settings.
    - Disable Reuse windows for launching shortcuts (optional) – see Miscellaneous Settings.
    - Disable Show friendly HTTP error messages (optional) – see Miscellaneous Settings.

- Disable session merging (optional) – see Internet Explorer 8 Session Merging.

- Configure concurrent HTTP request limits (optional) – see Concurrent HTTP Request Limits.

2.3 Required Configuration

This section describes configuration you should apply to all installations of Internet Explorer used to access Sitecore.

2.3.1 Trusted Sites Zone

Add all Sitecore instances to the Trusted Sites zone in Internet Explorer.

To add a Sitecore instance to the Trusted Sites zone in Internet Explorer 7 or 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Security tab.

4. Click the Trusted Sites zone, and then click Sites. The Trusted Sites dialog appears.

5. In the Trusted Sites dialog, in the Add this Website to the zone field, enter the URL of the Sitecore instance, such as `http://localhost`.

6. If the Sitecore instance does not use HTTPS, clear the Require server verification (https:) for all sites in this zone checkbox.

7. Click Add, and then click Close.

2.3.2 Pop-up Blocker

Enable pop-ups for sites in the Internet Explorer Trusted Sites zone.

To enable pop-ups for all sites in the Internet Explorer Trusted Sites zone in Internet Explorer 7 or 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Security tab, then click the Trusted Sites zone, and then click Custom Level. The Security Settings Trusted Sites Zone dialog appears.

4. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Use Pop-up Blocker, select Disable, and then click OK. If a confirmation prompt appears, then click Yes.

Alternatively, to enable pop-ups for an individual Sitecore instance, access that instance of Sitecore. When the Internet Explorer Information Bar appears at the top of the browser window to indicate that Internet Explorer has blocked a pop-up:

1. If an Information Bar alert appears, then click Close.

2. Right-click the Information Bar, then click Pop-Up Blocked, and then click Always Allow Pop-ups from This Site. If a confirmation prompt appears, then click Yes.

Important
Disable any additional pop-up blockers, or configure them to allow pop-ups for Sitecore.

2.4 Recommended Configuration

This section describes optional Internet Explorer configuration that Sitecore recommends.

2.4.1 SmartScreen (Phishing) Filter

The SmartScreen Filter (previously known as the Phishing Filter) may adversely affect the performance of Sitecore clients.

Internet Explorer 7

To disable the Phishing Filter for all sites in the Internet Explorer Trusted Sites zone in Internet Explorer 7:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Security tab, then click the Trusted Sites zone, and then click Custom Level. The Security Settings Trusted Sites Zone dialog appears.

4. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Use Phishing Filter, select Disable, and then click OK. If a confirmation prompt appears, then click Yes.

Internet Explorer 8

To disable the SmartScreen Filter for all sites in the Internet Explorer Trusted Sites zone in Internet Explorer 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Security tab, then click the Trusted Sites zone, and then click Custom Level. The Security Settings Trusted Sites Zone dialog appears.

4. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Use SmartScreen Filter, select Disable, and then click OK. If a confirmation prompt appears, then click Yes.

2.4.2 Install Adobe Flash

The default user interface to upload files into the Sitecore media library uses Adobe Flash.

To install Adobe Flash in Internet Explorer 7 or 8:

1. In Internet Explorer, access http://get.adobe.com/flashplayer/.

2. Clear the Free Google Toolbar (optional) checkbox.

3. Click Agree and install now. The Internet Explorer Information Bar appears at the top of the browser window.

4. Right-click the Information Bar, and then click Install This Add-on for All Users on This Computer… The Internet Explorer Security Warning dialog appears.

5. In the Internet Explorer Security Warning dialog, click Install.

Note

If you cannot install Adobe Flash, you can configure Sitecore to use an HTML user interface to upload media by changing the `Upload.Classic` setting in the `web.config` file on the Sitecore server to `true`.

2.4.3   Cosmetic Issues

This section describes configuration you should apply to avoid various cosmetic issues.

To avoid various cosmetic issues in Internet Explorer 7 and 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Security tab, then click the Trusted Sites zone, and then click Custom Level. The Security Settings Trusted Sites Zone dialog appears.

4. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Allow script-initiated windows without size or position constraints, select Enable.

5. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Allow websites to open windows without address or status bars, select Enable.

6. In the Security Settings Trusted Sites Zone dialog, in the Scripting section, under Allow Programmatic clipboard access, select Enable.

7. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Launching programs and files in an IFRAME, select Enable.

8. In the Security Settings Trusted Sites Zone dialog, in the Miscellaneous section, under Display mixed content, select Enable.

9. Click OK. If a confirmation prompt appears, then click Yes.

2.4.4   Configure Management of Temporary Internet Files

To increase Internet Explorer stability at the cost of performance, you can configure Internet Explorer caching options.

To configure the browser cache in Internet Explorer 7 or 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the General tab.

4. Under Browsing history, click Settings. The Temporary Internet Files and History Settings dialog appears.

5. In the Temporary Internet Files and History Settings dialog, select Automatically or Every time I Start Internet Explorer, and then click OK.

Note

If you select to clear the cache Automatically, you may experience greater performance with Sitecore and other browser-based Web sites and applications. Clear the browser cache manually if you experience any issue. If you select Every Time I Start Internet Explorer, you should rarely need to clear the browser cache manually.

To configure Internet Explorer 7 or 8 to clear the cache when Internet Explorer closes:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the Advanced tab.

4. Under Security, select the Empty Temporary Internet Files Folder when browser is closed checkbox, and then click OK.

Warning
While it may assist with some cases of cache corruption, you cannot rely on this setting to clear the browser cache. For example, if Internet Explorer crashes, it may not clear the cache.

2.4.5 Windows Web Folders or the Windows Desktop Experience

If the client will use Sitecore WebDAV features, install the latest Microsoft Windows Web Folders software.[1] On Windows 2008, install the Windows Desktop Experience.

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[1] http://www.microsoft.com/downloads/details.aspx?FamilyId=17C36612-632E-4C04-9382-987622ED1D64&displaylang=en.

2.5 Optional Configuration

This section describes optional techniques and Internet Explorer configuration that you can apply to achieve specific objectives and address various issues.

2.5.1 New Windows or New Tabs

To control whether Internet Explorer 7 and 8 open pop-ups as new windows or as new tabs:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the General tab, and then under Tabs, click Settings. The Tabbed Browsing Settings dialog appears. The Tabbed Browsing Settings dialog appears.

4. In the Tabbed Browsing Settings dialog, to control how Internet Explorer handles pop-ups, select an option under When a pop-up is encountered.

5. In the Tabbed Browsing Settings dialog, to control how Internet Explorer opens links activated from other applications, such as email clients, select an option under Open links from other programs.

6. In the Tabbed Browsing Settings dialog, click OK.

2.5.2 Internet Explorer 8 Session Merging

Internet Explorer 8 introduced a feature known as Merged Frame Process, or MFP. MFP shares client session data, including authentication and other cookies, between all Internet Explorer tabs and windows. New Internet Explorer processes merge with an existing Internet Explorer process and then terminate. The new browser window uses session data from the pre-existing Internet Explorer process.

MFP presents limitations for users, including Sitecore developers that work in multiple Sitecore modes and security contexts. You can use any of the techniques described in this section to work in multiple Internet Explorer sessions.

The New Session Command

To open a window in a new session, click the File menu or press ALT-F, and then click New Session.

The -NoSessionMerging Command Line Parameter

To open a new browser window with a new session, add the -NoSessionMerging parameter to the command line:

```
iexplore -NoSessionMerging http://localhost/sitecore
```

The SessionMerging Registry Setting

To disable session merging for all new Internet Explorer processes for a Windows user:

Warning
Backup the system before updating the registry, and be cautious when working in the Registry Editor.

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1. While holding down the WINDOWS key, press the R key. The Run dialog appears. In the Run dialog, type `regedit`, and then click OK. The Registry Editor appears.

2. In the Registry Editor, expand `HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Main`.

Note
You may be able to apply this setting for all Windows users by making the corresponding change under `HKEY_LOCAL_MACHINE\Software\Microsoft\Internet Explorer\Main` instead of under `HKEY_CURRENT_USER`.

3. In the Registry Editor, right-click Internet Options, and then select New DWORD (32-bit) Value. Name the new entry `SessionMerging`.

4. In the Registry Editor, right-click SessionMerging. The Edit DWORD (32-bit) Value dialog appears.

5. In the Edit DWORD (32-bit) Value dialog, in the Value data field, enter the value `0`, and then click OK.

6. Reboot.

2.5.3   Concurrent HTTP Request Limits

In some cases, you can improve Internet Explorer performance by configuring the Internet Explorer to allow more than the default number of concurrent HTTP requests to a single Web server.

Warning
Backup the system before updating the registry, and be cautious when working in the Registry Editor.

Important
Do not exceed the concurrent request limits of the Web servers that you access. For example, Windows XP limits IIS to five concurrent HTTP connections from all clients, responding to additional requests with HTTP errors, resulting in unpredictable browser behavior. Three clients configured to allow two concurrent requests can exceed this limit.

Note
This change may apply to other user agents installed on the same machine and used by the same user.

To configure a Windows account to allow more than the default number of HTTP connections to any single Web server:

1. While holding down the WINDOWS key, press the R key. The Run dialog appears. In the Run dialog, type `regedit`, and then click OK. The Registry Editor appears.

2. In the Registry Editor, expand `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings`.

Note
You may be able to apply this setting for all Windows users by making the corresponding change under `HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Internet Settings` instead of under `HKEY_CURRENT_USER`.

3. In the Registry Editor, right-click Internet Settings, and then select New DWORD (32-bit) Value. Name the new entry `MaxConnectionsPer1_0Server`.

4. In the Registry Editor, double-click MaxConnectionsPer1_0Server. The Edit DWORD (32-bit) Value dialog appears.

5. In the Edit DWORD (32-bit) Value dialog, select the Decimal option. In the Value data field, enter the maximum number of concurrent connections to allow for HTTP 1.0 servers, and then click OK.

6. In the Registry Editor, right-click Internet Settings, and then select New DWORD (32-bit) Value. Name the new entry `MaxConnectionsPerServer`.

7. In the Registry Editor, double-click MaxConnectionsPerServer. The Edit DWORD (32-bit) Value dialog appears.

8. In the Edit DWORD (32-bit) Value dialog, select the Decimal option, then in the Value data field, enter the maximum number of concurrent connections to allow for HTTP 1.1 servers, and then click OK.

9. Reboot.

2.5.4   Miscellaneous Settings

You can choose to follow any of the following suggestions:

1. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

2. In the Internet Options dialog, click the Advanced tab.

3. Under Browsing, clear the Disable script debugging (Internet Explorer) checkbox.

4. Under Browsing, select the Display a notification about every script error checkbox.

5. Under Browsing, clear the Reuse windows for launching shortcuts (when tabbed browsing is off) checkbox.

6. Under Browsing, clear the Show friendly HTTP error messages checkbox.

7. Click OK.

Chapter 3

Troubleshooting Internet Explorer

This chapter contains instructions for troubleshooting issues with Internet Explorer.

This chapter contains the following sections:

- The Troubleshooting Process

- Additional Troubleshooting Resources

3.1 The Troubleshooting Process

This section describes steps in the process that you can follow to troubleshoot issues with Internet Explorer. To summarize the troubleshooting process:

- Check Sitecore Client Requirements.
- Check Browser Configuration.
- Disable Browser Plug-ins.
- Clear Browser Temporary Files.
- Patch Windows and Components.
- Check Internet Security Software.
- Reset Internet Explorer Configuration.
- Reproduce the Issue Using another Browser.
- Reproduce the Issue as another User.
- Reproduce the Issue from another Machine.

3.1.1 Check Sitecore Client Requirements

Ensure that the client meets Sitecore client requirements.[2]

3.1.2 Check Browser Configuration

Ensure that you have correctly followed the appropriate steps outlined in this document.

3.1.3 Disable Browser Plug-ins

Uninstall or disable any browser plug-ins such as toolbars, pop-up blockers, and other components.

3.1.4 Clear Browser Temporary Files

Users are unable to reproduce numerous issues after clearing the Internet Explorer cache or all temporary files.

Important
To force Internet Explorer to retrieve any updated resources, you should always clear the browser cache after upgrading Sitecore.

Important
Close all Internet Explorer windows and clear the browser cache after any troubleshooting operation that may have repopulated the cache.

To clear the browser cache in Internet Explorer 7 or 8:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

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[2] For more information about Sitecore client requirements, see
http://sdn.sitecore.net/Products/Sitecore%20V5/Sitecore%20CMS%206/Installation.aspx.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Delete Browsing History. The Delete Browsing History dialog appears.

3. In the Delete Browsing History dialog, ensure that Temporary Internet Files is the only checkbox selected, then click Delete.

4. Close all Internet Explorer windows.

If the issue persists:

Important
To avoid losing personal data, skip this step, and return to this section after exhausting all other troubleshooting options.

Note
In some environments, instead of deleting all of the browser cookies, you may be able to delete only the cookie associated with the Sitecore instance.

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Delete Browsing History. The Delete Browsing History dialog appears.

3. In the Delete Browsing History dialog, clear the Preserve Favorites website data, select all of the other checkboxes, and then click Delete.

4. Close all Internet Explorer windows.

3.1.5 Patch Windows and Components

Use Windows Update to patch Windows, Internet Explorer, MSXML, and other system components.[3] Reboot even if no updates were available.

3.1.6 Check Internet Security Software

Software firewalls, antivirus, and other Internet security software can adversely affect Web applications. To determine if the issue could be a software conflict:

1. Disable software firewalls,

2. Close all Internet Explorer windows

3. Clear the Internet Explorer cache as described in the section Clear Browser Temporary Files.

4. Reboot

5. Attempt the failed operation again.

If you cannot reproduce an issue with the security software disabled, and can reproduce that issue with that software enabled, then contact Sitecore as described in the section Additional Troubleshooting Resources.

3.1.7 Reset Internet Explorer Configuration

If you cannot determine the cause of an issue, you can reset Internet Explorer to its default state, and then apply the configuration described in this document.

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[3] http://update.microsoft.com.

To reset Internet Explorer configuration:

1. Close all Internet Explorer windows, and then open a single Internet Explorer window or tab.

2. In Internet Explorer, click the Tools Menu or press ALT-T, and then click Internet Options. The Internet Options dialog appears.

3. In the Internet Options dialog, click the General tab, and then under Tabs, click Settings. The Tabbed Browsing Settings dialog appears.

4. In the Tabbed Browsing Settings dialog, click Restore Defaults, and then click OK.

5. In the Internet Options dialog, click the Security tab, then click Trusted Sites, and then click Default Level.

6. Click the Advanced tab, and then click Restore Advanced Settings

7. Click Reset, acknowledge the prompt, and then click OK.

8. Close all Internet Explorer windows.

9. Apply configuration as described in this document.

3.1.8 Reproduce the Issue Using another Browser

An issue that you cannot reproduce using another browser likely results from Internet Explorer configuration or cache. If you can reproduce the issue using multiple browsers, the root cause may be something other than Internet Explorer configuration, such as network or server configuration.

3.1.9 Reproduce the Issue as another User

An issue that you cannot reproduce as another user likely results from permissions, browser cookies, profile settings, or other user-specific configuration.

3.1.10 Reproduce the Issue from another Machine

An issue that does not result from browser or user configuration and that you cannot reproduce from another machine is likely to result from machine or network configuration.

3.2 Additional Troubleshooting Resources

If you cannot resolve an issue after applying the instructions in this document, check for proper server configuration.[4] Describe the issue and the troubleshooting steps you have attempted using the General Forum on the Sitecore Developer Network.[5] If you are a certified Sitecore developer, file a case in the Sitecore Support Portal.[6] Otherwise, have a certified Sitecore developer in your organization investigate your configuration and file a case on your behalf.

Tip
You can press `ALT-PRTSCN` to copy an error message to the Windows clipboard, and paste that into a document or email message.

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[4] http://sdn.sitecore.net/Products/Sitecore%20V5/Sitecore%20CMS%206/Installation.aspx and http://sdn.sitecore.net/Products/Sitecore%20V5/Sitecore%20CMS%206/Installation%20Troubleshooting.aspx.
[5] http://sdn.sitecore.net/Forum/ShowForum.aspx?ForumID=10.
[6] http://support.sitecore.net.