Developer guidance for websites with content for Adobe Flash Player in Windows 8 (Internet Explorer)

This topic provides information about websites that have content for Adobe Flash Player for Windows 8. It provides guidelines for developers, designers, and content publishers to help with their websites that use Flash Player.

Overview

On Windows 8, Internet Explorer for the desktop and Internet Explorer in the new Windows UI use the same integrated Flash Player, removing the need to download or install an additional player. Internet Explorer for the desktop provides the same full Flash support as previous versions of Windows Internet Explorer that relied on the Flash Player plug-in from Adobe, and continues to support other third party plug-ins. When viewed in the Windows Store experience, Internet Explorer in the Windows UI continues to provide no support for third party Microsoft ActiveX controls or plug-ins.

The purpose of this document is to:

- Provide guidance and guidelines from Adobe and Microsoft for designers, developers, and content publishers for their sites that contain Flash content.
- Describe the Compatibility View (CV) list to block content for Flash Player from executing inside the Internet Explorer 10 browser, and the process for developers to request that sites be removed from the CV list.
- Enable developers to test their sites that require Flash Player in Internet Explorer 10 before they request removal from the list.

Controlling the site experience

Developers control the content they serve to browsers. Developers can send HTML5 content to Internet Explorer 10, or ensure that Internet Explorer 10 prompts users to run their site in Internet Explorer for the desktop. Developers with sites that need plug-ins in addition to (or instead of) Flash can use an HTTP header or META tag to signal Internet Explorer 10 to prompt the user to switch to Internet Explorer for the desktop.

HTTP header

HTML
```
X-UA-Compatible: requiresActiveX=true
```
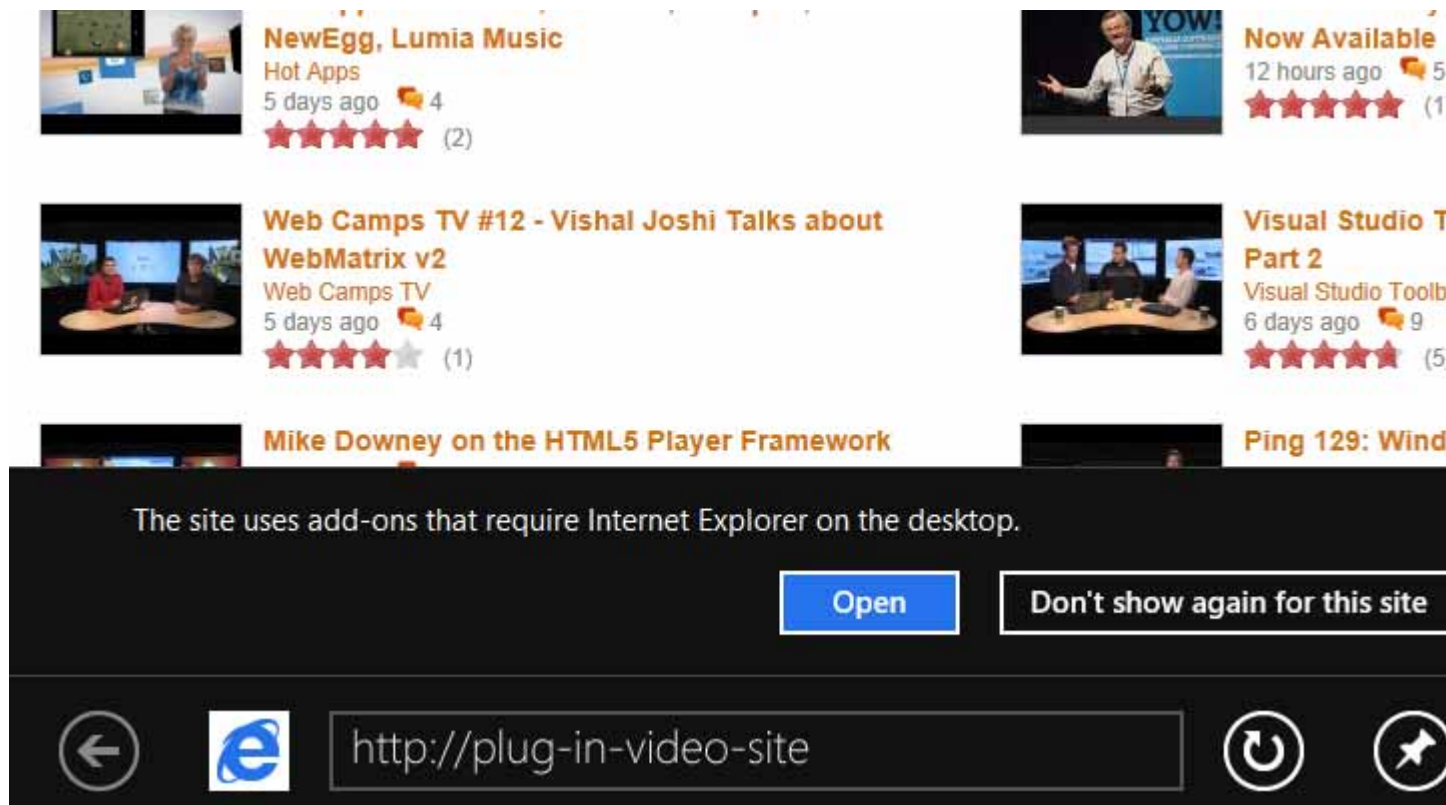
META tag

HTML
```
<meta http-equiv="X-UA-Compatible" content="requiresActiveX=true" />
```

Internet Explorer 10 detects these flags, and provides a one-touch option to switch to Internet

Explorer for the desktop:

In addition to respecting these X-UA-Compatible flags specified by the developer, the Compatibility View list can also specify a site that needs to run in the desktop causing Internet Explorer 10 to prompt the user in the same way.

About Compatibility View list

For Windows 8 running on a Windows PC, any site can play Flash content in Internet Explorer 10 for the desktop; however, sites that are on the Compatibility View (CV) list for Flash won't play Flash content within Internet Explorer 10 in new Windows UI. For Windows RT, sites that are on the CV list for Flash cannot play Flash content in either Internet Explorer for the desktop or Internet Explorer in the Windows UI.

Note When first released, Internet Explorer 10 used the CV List for Flash to identify sites that were allowed to run Flash content. As of March 2013, Internet Explorer 10 uses the CV List for Flash to block Flash content for specific websites. This behavior change requires Internet Explorer 10 to be fully patched with all available security updates.

Internet Explorer 10 uses the CV list to block specific sites from running the Flash Player functionality supported in Internet Explorer in the Windows UI. Microsoft manages and distributes the CV list and determines which sites go on the list. Decisions are based on security and reliability concerns.

Guidelines for Flash content in Internet Explorer 10

Keep the following guidelines in mind when developing content that targets the Flash Player in Internet Explorer 10. Failure to do so may lead to an undesirable experience for the end user:

- The primary experience of the site should be HTML. Flash should be used to provide additional, non-primary experience on the site, so that it can meet performance standards and provide compatibility with other best practices and standards.

- Sites where primary experiences depend on ActiveX controls (other than Flash) should use the RequiresActiveX header described earlier. This notifies users to open the website in Internet Explorer for the desktop.
- The site's functional experience should be consistent across all Windows 8 platforms (x86, x64, and ARM – when available).
- Sites should not have issues with Flash content, including:
  - Missing or inaccurate localization.
  - Poor performance or battery life based upon reasonable consumer expectations and compared to the HTML5 experiences that run within Internet Explorer 10.
  - Missing functionality in the experience of the website due to Flash content that's not compatible with Internet Explorer 10 (see below).
- Content should work well with touch (for example, it is should not rely on Flash touch events including pan, zoom, double-click, swipe, and so on) based upon reasonable consumer expectations and compared to the HTML experiences that run within Internet Explorer 10.
- Content should interact well with the onscreen keyboard, based upon reasonable consumer expectations and compared to the HTML experiences that are permitted to run within Internet Explorer 10.

In addition, the following Flash capabilities are not initially compatible with Internet Explorer 10 and may not provide an effective overall experience with a Flash-enabled website:

- Camera
- Microphone
- Printing
- Feature bookmark (for example, Flash Anchors)
- Relying on double-click (double-click is consumed by the player, for zoom to fit, and not propagated to the Flash content as a double-click event)
- Use of rollover and rollout event
- Relying on P2P (Windows UX guidelines for Windows Store apps disallows the creation of a socket server)
- Relying on the following Flash touch APIs: Pan, Zoom, Rotate, Swipe, and PressAndTap

If any of the functions in this list are required for an optimal experience with Flash, the content may be incompatible with Internet Explorer 10 and provide a less than desirable experience.

Preparing your site for Internet Explorer compatibility

As stated previously, developers who have sites that require plug-ins other than Flash Player can mark the page with a META tag (or serve a header) indicating that the site requires a plug-in. This causes Internet Explorer 10 to prompt the end user to open the site in Internet Explorer 10 for the desktop. If a site is on the CV list, Internet Explorer in the Windows UI will always open it with Flash Player disabled.
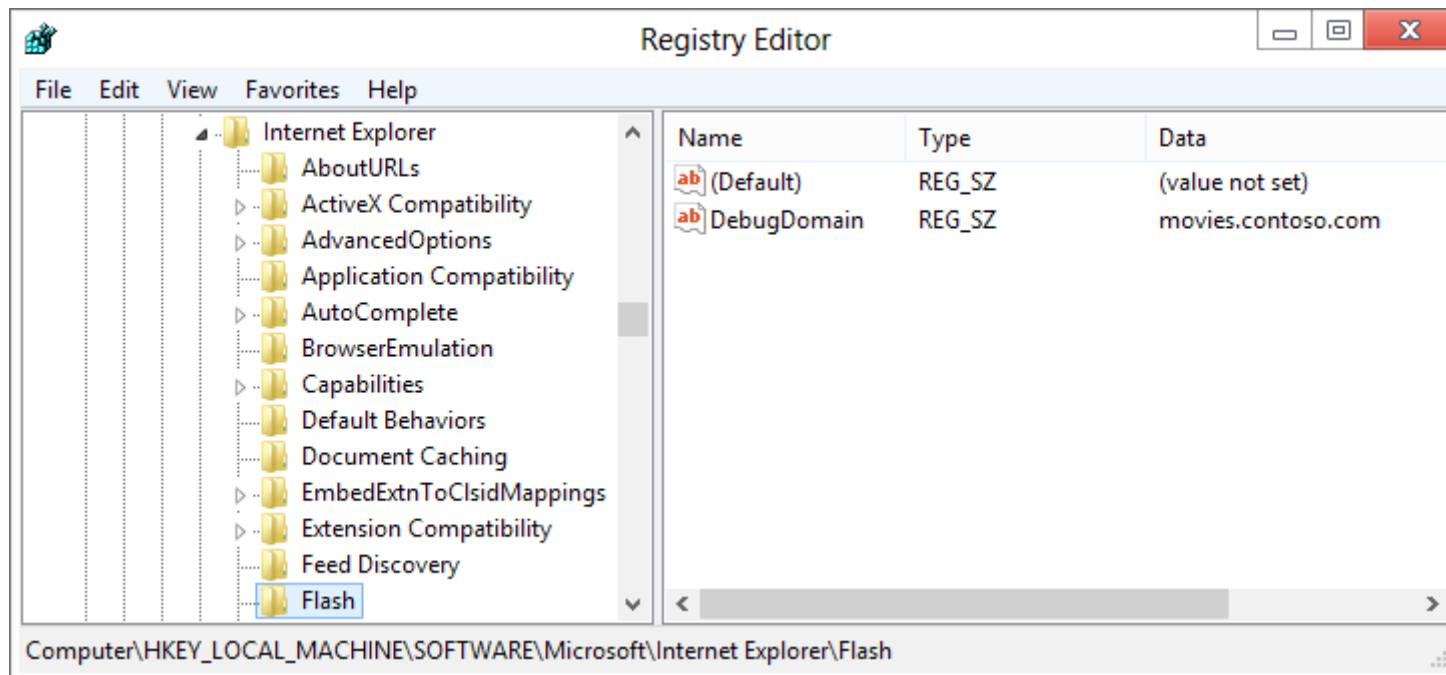
Testing your site

Developers can test their sites with Flash content for compatibility with Internet Explorer 10 before requesting removal from the CV list. To test their site for compatibility, developers can add their site to a registry setting, which allows any one site to run in Internet Explorer 10 with Flash enabled, even if it is on the CV list.

To test your Flash content in Internet Explorer 10, add the following registry key:

HKEY_LOCAL_MACHINE\Software\Microsoft\Internet Explorer\Flash**DebugDomain**

where **DebugDomain** is a string value specifying the domain name as its data. (For example, movies.contoso.com). For example:

HKEY_LOCAL_MACHINE\Software\Microsoft\Internet Explorer\Flash\DebugDomain = movies.contoso.com

Note on the **DebugDomain** string value:

- Direct URLs to a page or resource are not supported (for example, contoso.com/xyz). Any value containing '/' is not supported, including: http:// (or https://).
- Do not use "www." prefix, which is stripped (for example, www.movies.yahoo.com loads as http://movies.yahoo.com).
- Only a single domain is supported.

Adding the debug domain allows all pages in the domain (including subdomains) to play Flash content in Internet Explorer 10. Pages that include content coming from another domain via the embed tag will also play Flash content. Pages that include content coming from another domain via an iframe element will **not** play Flash content if that domain is on the CV list.

Removing your site from the CV list

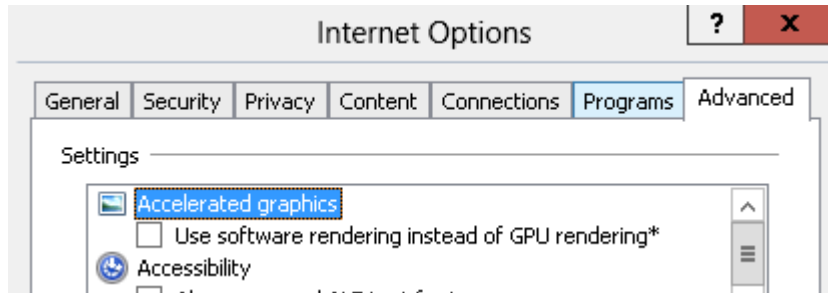Developers can request their sites be removed from the CV list to Microsoft via email.

To request that your site be removed from the CV list, email iepo@microsoft.com and include the following details:

1. Your name, company, title, and contact information
2. The domain you want removed (http://contoso.com/) and the specific pages containing Flash content (http://contoso.com/video, http://contoso.com/media)
3. The approximate unique users per month that visit the domain
4. The capabilities your Flash content requires. For more info see Guidelines for Flash Content in Internet Explorer 10 in this topic.
5. The name and version of the SWF your site is using, including version number for third party .SWF files if appropriate (for example, videoplayer.swf v1.2 from Contoso)
6. A list of any other plugs-ins (not Flash) your domain depends on and the specific pages containing those controls. Be aware that if your site depends on other plug-ins, users will be directed to open your site in Internet Explorer 10 for the desktop.

7. The results of your testing of the pages listed in step two (2) of these steps. For more info see Test Guidance and Test Cases in this topic.

Test guidance

1. Test on a local machine (not on a VM).
2. Test with software rendering enabled and disabled in Internet Explorer.

3. Test with at least a Windows 7 capacitive touch monitor that has a minimum of two touch points and a minimum resolution of 1366x768.

Test cases

1. Content works well with onscreen keyboard and physical keyboard
2. Content works well with mouse and touch
3. Hover functionality works with mouse and touch
4. Touch (play, pause, stop, etc.)
5. Panning in all directions
6. Pinch and zoom
7. Double tap to zoom
8. Back and forward navigation is smooth
9. Switching tabs and to other applications is smooth
10. Context menu (press & hold with touch, right-click with mouse) options function well
11. Snap integration is smooth and error free. Test 1-10 above in each view:
    1. Put browser in snapped view (320 pixels wide)
    2. Put browser in fill view (screen width minus snapped view)
12. Switch to full screen and return to non-full screen
13. Content rendering
    1. Check for screen artifacts
    2. Ensure all content is visible
    3. Ensure video playback is smooth

Microsoft will provide prompt notice to the developer acknowledging receipt of request and an estimated time for resolution. Microsoft will process the developer's request in approximately six (6) weeks depending on the volume of sites submitted. Microsoft will consider the site and may evaluate the site's compatibility as described in this paper and reply to the developer within the stated time of either the site's removal or the reason(s) for rejection. Updates to the CV list will be included in the next regular update of the CV list, which Microsoft updates to end users of Windows 8, typically one time per month.

Summary

In summary, developers control how their sites work in Windows 8 with Internet Explorer 10 in the new Windows UI. For websites on the CV List for Flash, the site owner has the following options:

• Detect that the request is coming from Internet Explorer 10 and serve a plug-in free version

of your site.
- Use the registry key described previously along with available documentation to make your Flash content compatible with Internet Explorer 10. After your Flash content is compatible with Internet Explorer 10, submit the site to Microsoft for evaluation and removal from the CV List for Flash.
- Add a META-tag/header in HTML to prompt the user to switch to Internet Explorer for the desktop to view your site with plug-ins enabled.
- Do nothing – your site will display in Internet Explorer in the Windows UI without Flash if it appears in the CV list for Flash.

Send comments about this topic to Microsoft

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