

# Flash Player 10.1 Beta Release Notes

Please read these Release Notes carefully before downloading the Flash Player 10.1 Beta.

- System Requirements
- Features and Enhancements
- Uninstallation
- Installation
- Fixed Issues
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- Reporting Issues

Flash Player 10.1 includes bug fixes and enhancements. These release notes document known issues related to the prerelease versions of Flash Player 10.1.

Flash Player 10 for Microsoft Windows, Macintosh, Linux, and Solaris computers is currently available from [www.adobe.com/go/getflashplayer](http://www.adobe.com/go/getflashplayer). To learn more about the new features added in Flash Player 10, see <http://www.adobe.com/products/flashplayer/>.

The Flash Player prerelease is available in all languages; however, the prerelease installers are only in English and we can only accept feedback in English at this time. Web versions of Flash Player 10.1 are available for Windows, Macintosh and Linux platforms in this Beta.

The build number for this prerelease is 10.1.51.45 for all platforms.

## **System Requirements**

System requirements for platforms supported by Flash Player 10 are available at <http://www.adobe.com/products/flashplayer/productinfo/systemreqs/>.

### ***H.264 Video Hardware Acceleration Support***

Flash Player 10.1 supports hardware decoding of H.264 video on Windows platforms when running with supported hardware. Use the following recommended hardware and driver combinations to experience hardware acceleration of H.264 videos in Flash Player 10.1. Unless otherwise noted, the following hardware will support H.264 hardware decoding with supported drivers under Windows XP 32-bit, Windows Vista (32/64-bit), and Windows 7 (32/64-bit).

Please note that, because some mobile and notebook systems require customized drivers, driver updates for some systems must be obtained directly from OEMs rather than from the chipset vendor websites below.

When reporting a bug involving video, it is essential to note your graphics card and driver, along with your operating system and browser, so we can reproduce and investigate issues. Please be sure to include this information as described in [Instructions for Reporting Video Bugs](#).

## AMD/ATI

Hardware video decoding of H.264 content in Flash Player 10.1 is supported on AMD/ATI products with UVD2 with the ATI Catalyst™ Software Suite, starting with version 9.11 for the ATI Radeon™ family of products, and driver release 8.68 for the ATI FirePro™ family of products.

Family	Product
Radeon	Radeon HD 4xxx (and higher)
Mobility Radeon	Mobility Radeon HD 4xxx series (and higher)
Integrated/Motherboard	Radeon HD 3xxx (and higher)
FirePro	FirePro V3750, FirePro V5700, FirePro V7750, FirePro V8700, and FirePro V8750 (and later)

The ATI Catalyst Software Suite contains all the components required for your video solution to function, and includes the individual components for all ATI Radeon video cards and motherboard/integrated video products (ATI Radeon Video cards, ATI Radeon and Mobility Radeon graphics processors) and includes the Catalyst Control Center. The individual Catalyst components may also be downloaded if you only need a specific driver or language pack for the Catalyst Control Center.

For the latest AMD/ATI drivers, see <http://support.amd.com/us/gpudownload/Pages/index.aspx>. For some mobile and notebook systems, drivers may only be available from the OEM directly. Notebook drivers are not available from the AMD website.

## Broadcom

Hardware video decoding of H.264 content in Flash Player 10.1 is supported on the Broadcom BCM70012 video decoding chipset, found in systems with Broadcom Crystal HD Enhanced Video Accelerator hardware. Driver support is available at [www.broadcom.com/support](http://www.broadcom.com/support).

## Intel

Hardware video decoding of H.264 content in Flash Player 10.1 is supported on the Intel® 4 Series Chipset family, starting with the graphics driver version 15.16.2.1986 for 32/64-bit Windows Vista and Windows 7. These drivers are available from:

- 32-bit EXE: [http://downloadcenter.intel.com/Detail\\_Desc.aspx?agr=Y&DwnldID=18334](http://downloadcenter.intel.com/Detail_Desc.aspx?agr=Y&DwnldID=18334)
- 64-bit EXE: [http://downloadcenter.intel.com/Detail\\_Desc.aspx?agr=Y&DwnldID=18336](http://downloadcenter.intel.com/Detail_Desc.aspx?agr=Y&DwnldID=18336)

Or automatically detect the latest driver for your system by using this link:

<http://www.intel.com/support/graphics/detect.htm>.

To determine if you have the Intel 4 Series Chipset,

1. Right-click on Desktop -> Personalize -> Display Settings. It should say "Generic PnP Monitor on Mobile Intel® 4 Series Express Chipset".
2. If you click on Advanced Settings under Display settings, it should bring up an Intel-specific

window where the chip Type mentions "Intel® 4 Series Express Chipset Family".

## NVIDIA

Adobe Flash Player 10.1 offers full GPU-acceleration for NVIDIA ION and supported NVIDIA GeForce-powered PCs. The following NVIDIA GPUs support H.264 hardware decoding with updated drivers. The latest drivers are available at <http://www.nvidia.com/drivers>.

Desktop	Mobile
GeForce GTX 295 GeForce GTX 285 GeForce GTX 285 for Mac GeForce GTX 280 GeForce GTX 275 GeForce GTX 260 GeForce GTS 250 GeForce GTS 240* GeForce GTS 150* GeForce GT 240 GeForce GT 230* GeForce GT 130* GeForce GT 120* GeForce GT 220 GeForce 210 GeForce 205* GeForce G100* GeForce 9800 GX2 GeForce 9800 GTX+ GeForce 9800 GTX GeForce 9800 GT GeForce 9600 GSO GeForce 9600 GT GeForce 9500 GT GeForce 9400GT GeForce 8800 GTS 512 GeForce 8800 GT GeForce 8800 GS GeForce 8600 GTS GeForce 8600 GT GeForce 8500 GT GeForce 8400 GS GeForce 9400 mGPU GeForce 9300 mGPU GeForce 8300 mGPU GeForce 8200 mGPU GeForce 8100 mGPU	Ion Ion LE GeForce GTX 280M GeForce GTX 260M GeForce GTS 260M GeForce GTS 250M GeForce GTS 160M GeForce GTS 150M GeForce GT 240M GeForce GT 230M GeForce GT 130M GeForce G210M GeForce G110M GeForce G105M GeForce G102M GeForce 9800M GTX GeForce 9800M GT GeForce 9800M GTS GeForce 9800M GS GeForce 9700M GTS GeForce 9700M GT GeForce 9650M GS GeForce 9600M GT GeForce 9600M GS GeForce 9500M GS GeForce 9500M G GeForce 9400M G GeForce 9300M GS GeForce 9300M G GeForce 9200M GS GeForce 9100M G GeForce 8800M GTS GeForce 8700M GT GeForce 8600M GT GeForce 8600M GS GeForce 8400M GT GeForce 8400M GS

## **Features and Enhancements**

The prerelease contains several new features and enhancements:

Flash Player 10.1 is the first runtime release of the Open Screen Project that enables uncompromised Web browsing of expressive applications, content and video across devices.

### ***Support for new platforms***

Flash Player 10.1 will be available for a broad range of mobile devices, including smartphones, netbooks and other Internet-connected devices, allowing your content to reach your customers wherever they are. As with Flash Player 10, this release also supports Windows 7 and Mac OS X 10.6 (“Snow Leopard”) desktop operating systems.

The consistent Flash Player browser-based runtime is the most productive way to deliver content to users across operating systems and devices. Runtime consistency reduces the cost of creating, testing and deploying content across different device, software, network and user contexts and helps improve business results.

### ***Designed for mobility***

To make it possible to deploy SWF content on smartphones and other mobile devices that have limited processing power and memory availability compared to PCs, a tremendous amount of work has gone into making Flash Player 10.1 “ready for mobility”. This work includes performance improvements, such as rendering, scripting, memory, start-up time, battery and CPU optimizations, in addition to hardware acceleration of graphics and video. Improvements in memory utilization and management, start-up time, CPU usage, and rendering/scripting performance benefit PCs as well as mobile devices.

Flash Player 10.1 also introduces new mobile-ready features that take advantage of native device capabilities – including support for multi-touch, gestures, mobile input models, and accelerometer input -- bringing unprecedented creative control and expressiveness to the mobile browsing experience.

### **Mobile text input**

Flash Player 10.1 provides support for use of native device virtual keyboards with TextField support if no physical keyboard is detected. A virtual keyboard is automatically raised and lowered in response to focus changes on text fields when editing text on mobile devices supporting a virtual keyboard to enable unobstructed and intuitive text editing. The focused text field is centered in the visible region of the page and appropriately zoomed/scrolls to ensure it is not obscured by the virtual keyboard. Upon screen rotation, incoming calls, or other system events, any already existing text input is retained. The virtual keyboard works with TextField but does not currently work with the Text Layout Framework or other Flash Text Engine `flash.text.engine` text.

### **Multi-touch and gestures**

Developers can take advantage of the latest hardware and operating system user interaction capabilities using new ActionScript 3 APIs for multi-touch and native gesture events. Create multi-touch aware content for a wide range of devices as well as multi-touch capable PCs running Microsoft Windows 7. Interact with multiple objects simultaneously or work with native gestures, such as pinch, scroll, rotate, scale and two-

finger tap.

### **Accelerometer input**

A new Accelerometer class allows developers to read acceleration values in X, Y and Z axes from native device accelerometer sensors in ActionScript. Leverage accelerometer input on supported devices for user input control and to control screen orientation. Developers can specify the rate of accelerometer updates to conserve battery life.

### **Screen orientation** (mobile only)

SWF content can adjust to screen orientation changes, such as switching between portrait and landscape modes, consistent with built-in applications on devices. Event information gives developers the option to change the layout or format of their content when reorientation occurs, whether this occurs because of accelerometer input or other user input (e.g., when a slider keyboard opens).

### **Optimized SWF management for mobile** (mobile only)

Flash Player 10.1 optimizes SWF loading and playback for mobile CPU and memory limitations to provide a better user experience. Instances are loaded or deferred based on SWF priority, visibility and available memory and CPU resources to enable more immediate browsing experiences without waiting for every SWF on a page to load. Developers can indicate SWF priority through a new HTML parameter, `hasPriority`. Deferred instances are loaded after the HTML page load is complete, and offscreen and invisible instances are started when they become visible. Flash Player will also automatically pause SWF playback if it is not in view or the foreground application, for example when a call is received or alarm goes off, to reduce CPU utilization, battery usage and memory usage.

### **Sleep mode** (mobile only)

The Flash Player timer slows down when the mobile device goes into screen-saver or similar mode to reduce CPU and battery consumption on mobile devices. The timer returns to the default setting when a wake-up event is triggered. There is no interruption in audio/video playback. Incoming phone calls pause Flash Player.

### **Graphics hardware acceleration** (mobile only)

A GPU-based vector renderer replaces the software renderer on smartphones and other mobile devices, resulting in faster rendering performance for more expressive user experiences while consuming less power. Supports hardware acceleration of all rendering, including vector graphics, bitmaps, 3D effects, filters, color transforms, alpha, device and embedded text, Saffron type, and `cacheAsBitmap`.

### **H.264 video hardware decoding**

Flash Player 10.1 introduces hardware-based H.264 video decoding to deliver smooth, high quality video with minimal overhead across mobile devices and PCs. Using available hardware to decode video offloads tasks from the CPU, improving video playback performance, reducing system resource utilization, and preserving battery life.

### **Adaptive frame rate** (mobile only)

Flash Player will monitor and lower the SWF frame rate to provide greater processing power for rendering, which can improve content usability and conserve CPU utilization on resource constrained mobile devices.

If the frame rate drops below the threshold, Flash Player will drop frames to achieve the defined default frame rate of the SWF.

### ***Developer productivity***

#### **Global error handler**

The new global error handler enables developers to write a single handler to process all runtime errors that weren't part of a try/catch statement. Improve application reliability and user experience by catching and handling unexpected runtime errors and present custom error messages. When using the global error handler in a SWF running in the debug player, error pop-ups will not be shown. The Global error handler is disabled in the current build, but will be available in a future beta refresh of Flash Player 10.1

#### **Globalization support**

New ActionScript globalization APIs allow Flash Player to use the values chosen in the operating system preferences to process text and lists and present information based on location context, without any knowledge of locale requirements. Choose a specific format independent of the currently selected locale on the operating system. Locale specific information and processing can include: date, time, currency and number formatting; currency and number parsing; string comparison for sorting or searching for text; and upper/lower case conversions.

### ***Enhanced browser integration***

Flash Player 10.1 offers enhanced conformance to consistent browser usability guidelines, ensuring optimized user experiences and improved user control over privacy.

#### **Browser privacy mode (desktop only)**

Flash Player 10.1 abides by the host browser's "private browsing" mode, where local data and browsing activity are not persisted locally, providing a consistent private browsing mechanism for SWF and HTML content. Private local shared objects behave like their public variants as long as Flash Player is in memory and local shared objects created during private browsing are removed when returning to public browsing mode. Existing shared objects are preserved but inaccessible until private browsing is turned off. Libraries in the Flash Player cache, like the Flex framework, are unaffected by private mode. Supported in Firefox, Chrome, and Internet Explorer. No developer action required.

#### **Out-of-memory management**

Flash Player 10.1 prevents out-of-memory browser crashes by shutting down instances where a SWF attempts to allocate more memory than is available on the device. When a SWF tries to allocate more memory than is available on a device, Flash Player 10.1 adds logic to shut down Flash Player to prevent the browser from crashing. Users will receive notification to restart the SWF, or will see a notice to refresh the page if all instances must be shutdown.

### ***Expanded options for high quality media delivery***

Flash Player 10.1 includes a number of media quality of service improvements and is ready to take advantage of upcoming Adobe media servers that will provide new ways to deliver rich media experiences and create new business models. With new HTTP streaming and content protection features, premium

audio and video content can be securely delivered within the browser. Streaming performance is enhanced with improved support for live events, buffer control and peer assisted networking. Network context-aware services, like adaptive frame rate, will enable smooth, uninterrupted media playback and improved resource utilization on mobile devices.

**Content protection** (desktop only; output protection Windows only; requires Adobe Flash Access 2.0 SDK expected to be available the first half of 2010)

Media protected using the upcoming Adobe Flash Access 2.0 SDK can be played back securely in Flash Player 10.1 to support a wide range of business models, including video-on-demand, rental, and electronic sell-through, for streaming as well as download. Using industry-standard cryptography, Adobe Flash Access 2.0 and Flash Player 10.1 provides a robust environment to protect content so it remains safe from tampering or capture throughout its lifecycle. Flash Player 10.1 supports output protection on Windows, enabling content providers to specify requirements for protection of analog and digital outputs, providing additional safeguards against unauthorized recording. Note: Encrypted content cannot be hardware accelerated in this release of Flash Player.

**Peer-assisted networking** (requires "Stratus" on Adobe Labs, <http://labs.adobe.com/technologies/stratus/>)

The RTMFP protocol now supports groups, which enables an application to segment its users to send messages and data only between members of the group. Application level multicast provides one (or a few) -to-many streaming of continuous live video and audio live video chat using RTMFP groups.

### **HTTP streaming**

HTTP streaming enables delivery of video-on-demand and live streaming using standard HTTP servers, or from HTTP servers at CDNs, leveraging standard HTTP infrastructure and SWF-level playback components. The addition of HTTP streaming will enable expanded protocol options to deliver live and recorded media to Flash Player, including full content protection for HTTP streamed video with Flash Access 2.0.

**Stream reconnect** (requires FMS 3.5.3 server, available November 2009)

Stream reconnect allows an RTMP stream to continue to play through the buffer even if the connection is disrupted, thereby making media experiences more tolerant of short term network failures and enabling non-disruptive video playback. When a connection is re-established the stream resumes playback. Developers can add re-connection logic in ActionScript to re-establish server connection and resume streaming without any disruption in the video.

**Smart seek** (Requires FMS 3.5.3 server, available November 2009)

Smart seek allows you to seek within the buffer and introduces a new "back" buffer so you can easily rewind or fast forward video without going back to the server, reducing the start time after a seek. Smart seek can speed and improve the seeking performance of streamed videos and enable the creation of slow motion, double time, or "instant replay" experiences for streaming video.

### **Buffered stream catch-up**

Buffered stream catch-up allows developers to set a target latency threshold that triggers slightly accelerated video playback to ensure that live video streaming stays in sync with real time over extended

playback periods.

### **Dynamic Streaming enhancements** (requires FMS 3.5.3 server, available November 2009)

The Dynamic Streaming capability introduced in Flash Player 10 and FMS 3.5 is enhanced to improve switching times between bitrates, reducing the time to receive the best content quality for available bandwidth and processing speed. Users no longer need to wait for the buffer to play through, resulting in a faster bitrate transition time and an uninterrupted video playback experience, regardless of bandwidth fluctuations.

### **Microphone access** (desktop only)

Access binary data of the live and continuous waveform coming from the microphone to create new types of audio applications, such as audio recording for transcoding, karaoke, vocoder voice manipulation, sonographic analysis, pitch detection, and more.

## **Uninstallation**

Please uninstall any previous versions of Flash Player before installing this prerelease build.

### **Windows**

Use either the "Add or Remove Programs" prompt from your Control Panel or:

1. Save the Installer, and wait for it to download completely.
2. Open the Windows Command Prompt (Run > cmd).
3. Navigate to the directory where the installer was downloaded.
4. Run the installer with the `-uninstallclean` command, e.g.:

```
FlashPlayerPlugin_B1_11-11-09_En.exe -uninstallclean
```

### **Macintosh**

Run the appropriate uninstaller available from this [TechNote](#).

### **Linux**

Manual removal (for users who installed the plug-in via Install script):

- Delete `libflashplayer.so` binary and `flashplayer.xpt` file in directory `/home/<user>/.mozilla/plugins/`

RPM removal:

- As root, enter in terminal:
  - `# rpm -e flash-plugin`
  - Click Enter and follow prompts

To revert to the shipping version of Flash Player 10, follow the instructions above, then install the shipping version of Flash Player 10 from <http://www.adobe.com/go/getflashplayer>.

## **Installation**

### **Windows and Macintosh**

1. Save the Installer to your desktop, and wait for it to download completely.
2. An Installer icon will appear on your desktop. Double-click on it.
3. You may be prompted to close open browser windows to continue with the installation.
4. You can verify the version you have installed by visiting the [About Flash](#) page.

### **Linux**

Installation instructions for tar.gz:

1. Click the download link to begin installation. A dialog box will appear asking you where to save the file.
2. Save the .tar.gz file to your desktop and wait for the file to download completely.
3. Unpackage the file. A directory called install\_flash\_player\_10\_linux will be created.
4. In terminal, navigate to this directory and type ./flashplayer-installer to run the installer. Click Enter. The installer will instruct you to shut down your browser(s).
5. Once the installation is complete, the plug-in will be installed in your Mozilla browser. To verify, launch Mozilla and choose Help > About Plug-ins from the browser menu.

## **Fixed Issues**

[FP-###] denotes bugs that are filed in the Adobe Flash Player Bug and Issue Management System (<https://bugs.adobe.com/flashplayer>).

### **Graphics**

- 'Show Redraw Regions' draws on the entire swf even though only a part of it is changing. (1935032)
- Images render blank when scaled to specific sizes see example. (2201051)

### **Network**

- Time stamp doesn't get properly set in the request using URLRequestHeader. (2200991)
- FileReference.download does not return an error even it doesn't have enough space to save the file to download. (2316411)
- [FP-1585] loaderInfo Event.COMPLETE not dispatched if wmode is "transparent" or "opaque". (2345794)
- [FP-2746] Multi-domain inter-VM LocalConnection failure (2446591)

### **Audio/Video**

- Calling close after calling seek without calling play first won't actually close stream. (2201102)
- Attaching and detaching Audio while publishing with record option leads to loss of data. (2216926)
- Problem in playing only audio or only video after audio video h264 streaming in same subscriber. (2217003)
- When AAC is published from FME, setting buffer from default or 0 to something else e.g. 1 causes

- playback stop with buffer length growing. (2296673)
- Play video then stop, remove from the display list, the CPU usage is about 2.5 - 3.8% higher then before playing the video. (2314914)
- Live mp3 playback loses audio after 20 min or so. (2341618)
- [FP-220] Video stops playing if one right clicks in the browser, even if its in a different tab. (2384290)
- Screen dimming while playing video in fullscreen mode. (1935054)
- Audio playback worsens on Mac while switching browser tabs with certain videos. (2275111)
- [FP-178] -Video.clear fails. Clears only 1 pixel when Video.smoothing = true. (2200576)
- [FP-1936] win32 microphone deadlocks on unplug active USB microphone. (2200836)

## Text/Text Input

- High memory usage when using a longer string in TextLine. (1779180)
- Text with tracking applied does not align to tab stops correctly. (1883771)
- Tracking should not visible after the last character of tcy block. (1894774)
- ElementFormat.trackingLeft and ElementFormat.trackingRight are incorrectly applied to GraphicElement. (1906889)
- Justify all lines with "Track Right" and "Track Left" leave an empty space after and before each line respectively. (1907579)
- Kinsoku Can't-Begin-Line character and Can't End-Line character. settings is ignored if a character in front or after is tcy. (1916601)
- FTE TextLine.textWidth exceeds the specified width causing horizontal scrolling problem for Gumbo TextArea. (1929381)
- [FP-836, FP-838] Player needs Unicode character input: Hindi, and Maltese characters with accents do not show up properly. (2200969)
- [FP-40, FP-501] Cannot enter Chinese characters MS IME or even the @ symbol on a German keyboard in input field on Firefox when wmode is set. (2216616)
- Arial Black is not being measured correctly when used with FTE and TCAL/TLE, etc (2216941)
- [SDK-18311] Setting scrollRect or mask on a DisplayObject breaks sub-pixel font rendering. (2273704)
- Soft hyphenations don't appear in one-word text lines. (2363098)
- SWF built to use CharacterRange and new InteractiveObject methods for IME and MSA support won't run on Flash Player 10.0.22. (2399753)
- [FP-1877] Can't input Japanese characters in text field if wmode "opaque" or "transparent" is set true except IE. (2405319)
- [FP-40] International text entry broken in Linux reports in Flash Player 9.0.48 or higher. (2201048)
- On Mac, a TextInput event is fired after the users presses Command+Z. On other platforms, this event is suppressed. (1905332)
- TextLine using Bauhaus 93 font causes runtime exception. (2266418)
- Double byte characters can't be input in Firefox Mac. (2366116)
- TextField variable performance issue. (1455343)
- Key-in 80 2-byte Chinese characters with MS Pinyin IME 2003 , display as "?" on Windows XP and Vista in terms. (1639284)
- Event flash.events.IMEEvent.IME\_COMPOSITION does not fire in 'test movie' in Flash Professional when composing Chinese, even using MS Pinyin IME 3.0. (1646878)
- Arabic vocalization diacritics Tashkil are not rendered correctly. (1930910)

- TextInput is newly broken in IE8 when running flash content in any windowless mode. (1933447)
- Pressing ALT deletes selected text from a TextInput when wmod=transparent. (2200014)
- Ideographic Space AKA Full Size Double Byte Space is changed into "@" with IE7, Flash 10 and WinXP. (2257161)
- Cursor and selection behavior is incorrect around control spaces. (2273650)

## General

- Flash Player now offers scroll-wheel support in browsers that support Cocoa events, such as Apple's Safari 4 browser.
- flash.trace.Trace doesn't return packages for methods in the classes which are internal. (2200893)
- rollOut not received when a hovered descendant is removed from the display list. (2344043)
- [FP-2563] Saving a SharedObject larger than 10MB always returns "SharedObject.Flush.Failed" from Local Storage increase dialog. (2449156)
- General webcam/microphone functionality not working. (2201070)
- [FP-922] mouseX, mouseY value changes on external click in Mac plug-in. (2200963)
- [FP-2009] CPU Utilization in an idle app is more than expected on Mac. (2294236)
- Objects with negative origins fall out of the tab order. (2200980)
- [FP-1034, FP-809] Flash Player can not save over files initially saved with a browser IE 7 on a clean Vista Home machine or Ultimate Vista with UAC enabled. (2217092)
- Stage-placed SimpleButton references not defined in time for frame scripts (2275212)
- [FP-1633] Full screen message is not localized in Czech.(2289525)
- [FP-2630] Capabilities.os doesn't return specific Windows 7 string, but just a generic "Windows" string instead. (2328444)
- [FP-2428] Buttons are null when navigating from frame to frame if a button contains a MovieClip. (2389049)
- Pressing a key causes a Sprite to be pinned in memory. (2302574)
- Page Down and Page Up keys do not trigger key events when testing with Safari. (2309814)
- [FP-702] PrintJob page size incorrectly returns values that include non printable margins. (2201057)
- [FP-1025] Player 10 detection failure after reboot, Vista. (1938166)

## Known Issues

This is a Beta version of Flash Player 10.1, so some features are incomplete and you may see stability issues, but please do file bugs as you feel appropriate. Your participation and feedback in the prerelease program are tremendously important to the quality and success of Flash Player.

### **Global error handler support**

Support for the global error handler will be available in a future beta refresh of Flash Player 10.1.

### **Macintosh PowerPC support**

Support for the Macintosh PowerPC platform is not available in this prerelease but will be available in a future prerelease.

### **GPU compositing (desktop platforms only)**

Hardware compositing (wmode=gpu) has been disabled on desktop platforms only. Hardware compositing

in Flash Player 10 improves performance in select cases, but it can decrease performance in others. In addition, driver support varies widely on desktops. Given these complications, Flash Player 10.1 will ignore the `wmode=gpu embed` parameter and composite graphics in software.

### **H.264 video hardware decoding**

Support for the Broadcom BCM70015 ("FLEA") hardware decoder support is not yet enabled.

NVIDIA ION (MCP79) and GeForce 8400GS (G98) GPUs:

Video clips with unusual horizontal resolutions may not be GPU-accelerated on these particular video cards in this beta release. On these cards, playing videos with such resolutions will force playback via software decoding. The most likely place you will encounter this problem is with YouTube videos which have an "HQ" button. Activating that button will display a higher resolution version of the video which is 854 pixels in width. These cards currently do not support that width, and Flash Player will default to normal software decoding for these clips. As a workaround, append "&fmt=22" to the end of the YouTube video clip URL. This will play the video in HD mode (with a width of 1280 pixels), which is supported by these cards. This known issue will be fixed with an updated NVIDIA driver or Flash Player 10.1 release.

In Flash Player 10.1, H.264 hardware acceleration is not supported under Linux and Mac OS. Linux currently lacks a developed standard API that supports H.264 hardware video decoding, and Mac OS X does not expose access to the required APIs. We will continue to evaluate adding the feature to Linux and Mac OS in future releases.

### **Other**

- Clipboard keyboard shortcuts don't function in Safari 3 and Safari 4. (2472648)
- If a socket you are using times out, Flash Player may crash when attempting to use it again. To work around this, delete any Socket after a connection attempt times out.
- Flash Player installers running on Windows Vista will display a duplicate dialog box asking users confirm running content that was downloaded from the Internet.

### **Reporting Issues**

Please report bugs according to the instructions given in this prerelease program.

As noted above, Flash-based H.264 video may be decoded by your graphics hardware. There may be video bugs that can only be reproduced with your particular video card and driver. When reporting a bug involving video, it is essential to note your graphics card and driver, along with your operating system and browser, so that we can reproduce and investigate issues. Please be sure to include this information as described in [Instructions for Reporting Video Bugs](#).