

# ADOBE® FLASH® PLAYER 9

## DELIVER ENGAGING, CROSS-PLATFORM USER EXPERIENCES



Adobe Flash Player 9 is an advanced, lightweight client runtime that delivers unparalleled creative options, highly engaging user experiences, stunning audio/video playback, and universal reach. Flash Player 9 enables a new generation of rich Internet applications by supporting a high-performance programming model, achieving greater standards compliance, and delivering groundbreaking performance.

### Deploy dynamic user experiences on a powerful, more secure client

Developers can achieve excellent productivity and up to ten times faster performance with the ActionScript™ 3.0 language and the new ActionScript Virtual Machine 2 (AVM2), now available as open source code. ActionScript 3.0 advances the ECMAScript-compliant programming language of the Flash Player runtime to offer developers a powerful programming model for rich Internet applications. In addition to key language features, such as ECMAScript for XML (E4X) and regular expressions, ActionScript 3.0 introduces runtime exceptions for common error conditions, improving the debugging experience and enabling development of more secure applications. The sandbox-based security model safeguards sensitive data and helps ensure safe browsing for users. With its small footprint of less than 2MB, Flash Player 9 also contains AVM1, which executes legacy ActionScript content. Overall, Flash Player 9 delivers faster application startup times, a smaller memory footprint, and increased speeds for content and text rendering.

### Transform digital user experiences

Developers can leverage the standards-based ActionScript 3.0 programming language to build sophisticated, data-driven applications and integrate data, video, audio, text, animation, and graphic effects to deliver breakthrough interactive experiences. Manipulate raw graphics and create stunning custom effects at runtime, or use the new file upload and download APIs to create sophisticated rich

Internet applications. The external Flash Player API enables integration with HTML, DHTML, and Ajax applications. Flash Player 9 also supports advanced technology for low bandwidth, high-quality video, including support for the H.264 video—the same standard deployed in Blu-ray and HD-DVD video players—and HE-AAC audio standards, as well as hardware-accelerated, multicore, enhanced full-screen video playback. In addition, it supports 8-bit alpha channels; blend modes for dynamic, creative compositing of media; and high-fidelity text.

### Leverage the world's most pervasive cross-platform runtime

Flash Player is the most pervasive client runtime available today, reaching more than 98% of Internet-enabled desktops worldwide as well as a wide range of devices. Visit the Adobe Flash Player Developer Center ([www.adobe.com/devnet/flashplayer/detection\\_installation.html](http://www.adobe.com/devnet/flashplayer/detection_installation.html)) for the latest techniques to implement effective player detection that ensures your site visitors' Flash Player version is compatible with your latest content and, if necessary, to upgrade visitors to the latest version of Flash Player using Express Install. Or rely on the default browser install experience for ActiveX® in Microsoft Internet Explorer and the Firefox plug-in finder service.

## System requirements

### Windows®

- 450MHz Intel® Pentium® II (or compatible) processor
- Microsoft® Windows 98, Windows ME®, Windows 2000, Windows XP, Windows Vista®, or Windows Server® 2003
- 128MB of RAM
- Microsoft Internet Explorer 5.5, Firefox 1.x, Firefox 2.x, Mozilla 1.x, Netscape 7.x, AOL 9, or Opera 7.11

### Macintosh

- 500MHz PowerPC® G3 or 1.33GHz Intel Core™ Duo processor
- Mac OS X v10.1 (PowerPC) or Mac OS X v10.4.x (Intel)
- 128MB of RAM
- PowerPC: Firefox 1.x, Mozilla 1.x, Netscape 7.x, AOL for Mac OS X, Opera 6, or Safari 1.x
- Intel: Firefox 1.5.0.3, Opera 6, or Safari 2.x

### Linux®

- 800MHz or faster processor
- Red Hat® Enterprise Linux (RHEL) 3 update 8, RHEL 4 update 4 (AS/ES/WS), or Novell SUSE™ 9.x or 10.1
- 512MB of RAM
- 128MB of graphics memory
- Advanced Linux Sound Architecture (ALSA)
- Firefox 1.5.0.7, Mozilla 1.7.x, or SeaMonkey 1.0.5 (only GTK2-based browser versions are supported)

### Solaris™

- Solaris 10
- 128MB of RAM
- Firefox 1.5.x or Mozilla 1.7.x

For complete and up-to-date system requirements, go to [www.adobe.com/products/flashplayer/productinfo/systemreqs](http://www.adobe.com/products/flashplayer/productinfo/systemreqs).

### For more information

For more details on Flash Player, go to [www.adobe.com/products/flashplayer](http://www.adobe.com/products/flashplayer).



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## Features and benefits

**ActionScript 3.0 support:** Facilitate the development of complex applications, large datasets, and object-oriented, reusable codebases with a significant update to the powerful, ECMAScript-compliant ActionScript programming language.

**Audio/Video playback:** Deliver low-bandwidth, up to HD-quality video with support for H.263 video playback and encoding, H.264 and On2 VP6 video playback, and HE-AAC and MP3 audio playback. Supports playback of H.264 and AAC in existing MP4, M4A, MOV, MP4V, 3GP, and 3G2 content.

**Innovative display APIs:** Directly create, manipulate, and control objects on the Flash Player display list for fine-grained control of user interface elements.

**Flash Player cache:** Reduce application size and download times through local caching of common components, such as the Adobe Flex™ framework, for use by any SWF from any domain.

**Expressive creative options:** Expand your creative options with blend modes for movie clips, radial gradient, and stroke enhancements. Add real-time dynamic effects with a variety of filters.

### High-performance graphical rendering:

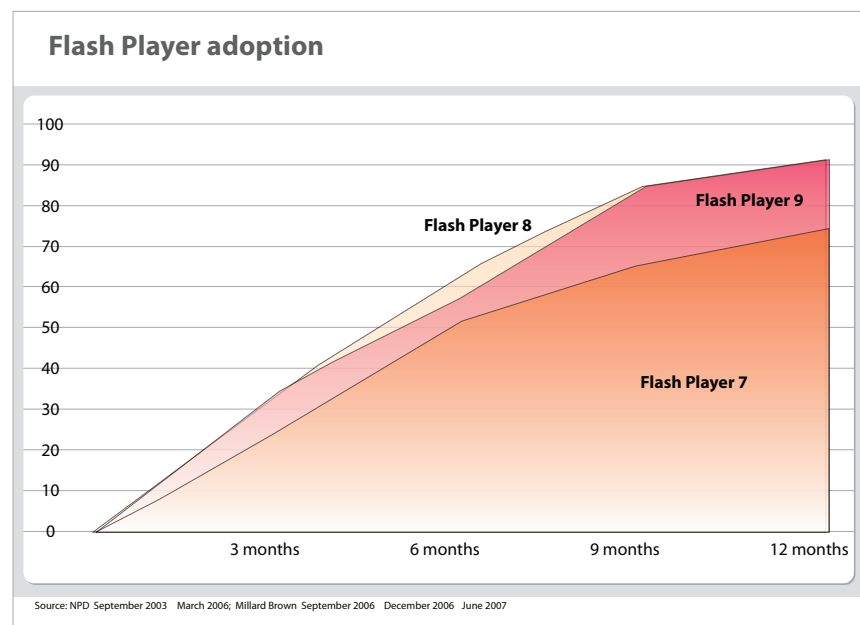
Experience high-quality full-screen video by leveraging hardware scaling, and accelerate the rendering of vectors, bitmaps, filters, and video—including true 1080p video—with multicore support and enhanced quality and performance of downscaled images.

**Advanced text rendering:** Create high-fidelity text and get faster, smoother scrolling of large text blocks with optimized text rendering routines and the new text rendering engine.

**File upload/download:** Create sophisticated rich Internet applications using file upload and download APIs.

**Binary data socket support:** Leverage interoperability with existing custom protocols, and increase data transfer performance with a more compact representation of data versus XML.

**Accessibility support:** Take advantage of accessibility support for keyboard users, deaf and hard-of-hearing users, and users with other disabilities. Flash Player also supports Microsoft's Active Accessibility (MSAA) API.



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