

ADOBE® FLASH® PLAYER 10

Deliver breakthrough, cross-platform web experiences



Adobe Flash Player 10 is a lightweight browser plug-in and rich Internet application (RIA) runtime that delivers consistent and engaging user experiences, stunning audio/video playback, and pervasive reach. Flash Player 10 introduces new expressive features, visual performance improvements, and extensibility to unleash the creative potential of designers and developers so they can build richer and more immersive web experiences.

Get expressive with custom filters and effects

With Adobe Flash Player 10, developers now have the flexibility to create and share filters, blend modes, and fills for unprecedented creative control. Using Adobe Pixel Bender™ technology, developers can write small pixel-shading functions that can be parameterized to animate or change the effect at runtime.

Custom filters and effects execute on the new, high-performance Pixel Bender just-in-time (JIT) compiler and can be applied to all display objects, including vectors, bitmaps, and video, while retaining full interactivity. Pixel Bender can also be used to process other types of data, such as sound or mathematical functions, asynchronously in a separate thread from the ActionScript® programming language.

Bring objects to life with 3D effects

Create more intuitive, engaging interfaces and unique effects with native 3D transformation and animation capabilities that easily manipulate interactive 2D display objects through 3D space. Fast, extremely lightweight, and simple-to-use APIs, along with new 3D tools in Adobe Flash CS4 Professional software, make motion that was previously accessible to expert users via ActionScript or custom third-party libraries available to everyone.

Manipulate text in new ways

The new, flexible text layout engine enables innovation in creating text controls. In addition to new layout and typographic capabilities, device fonts can now be anti-aliased, rotated, and styled. An extensible library of ActionScript 3.0 text components provides advanced, easy-to-integrate layout functionality to flow text and complex scripts across multiple columns, around tables and inline images, from right to left, from left to right, or vertically.

Create richer, more responsive user experiences

By leveraging the power of the graphics processing unit (GPU) for blitting and compositing, Flash Player 10 reduces the load on the central processing unit (CPU) and can provide a performance boost to graphically intense applications for more fluid, realistic, responsive user experiences.

Design with enhanced drawing and sound APIs

Runtime drawing is easier and more powerful with restyleable properties; 3D APIs; and a new, more efficient way of drawing sophisticated shapes. New sound APIs enable application-level audio mixing through ActionScript and audio filtering with Adobe Pixel Bender, enabling greater creative freedom that extends beyond the visual experience.

System requirements

Windows®

- 450MHz Intel® Pentium® II (or compatible) processor
- Microsoft® Windows 2000, Windows XP, Windows Vista®, or Windows Server® 2003–2008
- 128MB of RAM and 128MB of VRAM
- Microsoft Internet Explorer 6 or 7, Firefox 1.x–3.x, AOL 9, Safari 3.x, or Opera 9.5

Mac OS

- 500MHz PowerPC® G3 or 1.33GHz Intel Core™ Duo processor
- Mac OS X v10.4 or v10.5
- 128MB of RAM and 128MB of VRAM
- PowerPC: Firefox 2.x or 3.x, AOL for Mac OS X, Opera 9.5, or Safari 3.x
- Intel: Firefox 2.x or 3.x, Opera 9.5, or Safari 3.x

Linux®

- 800MHz or faster processor
- Red Hat® Enterprise Linux 5, openSUSE™ 11, or Ubuntu 7 or 8
- 512MB of RAM and 128MB of VRAM
- Advanced Linux Sound Architecture (ALSA)
- Firefox 2.x or 3.x

Solaris™

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

For complete and up-to-date system requirements, visit www.adobe.com/products/flashplayer/productinfo/systemreqs.

Related products

- Adobe Flash CS4 Professional
- Adobe Flex® Builder™ 3
- Adobe Flash Media Server 3.5

For more information

For more details on Flash Player, visit www.adobe.com/products/flashplayer.

For the latest Flash Player adoption statistics, visit www.adobe.com/products/player_census/flashplayer.

For more details on Pixel Bender, visit www.adobe.com/go/pixelbender_toolkit.

To view or share custom filters and effects, visit the Pixel Bender Exchange at www.adobe.com/go/pixelbender.



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Top reasons to adopt Adobe Flash Player 10

Expressive creative options

Engage users with highly innovative and cinematic experiences using custom effects and filters created with Adobe Pixel Bender and native 3D effects. Innovate with text to create new types of publications using an advanced text engine, typographic control, and new layout options.

High-performance runtime

Flash Player 10 leverages the GPU to deliver faster performance for applications and videos. The vector data type, multicore support, and open source ActionScript Virtual Machine 2 (AVM2) all contribute to highly scalable code execution performance. Text-rendering improvements boost performance and rendering quality for Asian languages.

Easy, cross-platform deployment

Rapid adoption of new releases of Flash Player allows developers to design content with the latest features and target the majority of users within a matter of months. Create content that can be accessed in a consistent, reliable, backwards-compatible, and more secure manner across all major operating systems and browsers.

Enhanced audio and video

Deliver stunning audio/video experiences using industry-standard codecs such as H.264, HE-AAC, and MP3. The new, high-fidelity Speex voice codec delivers a low-latency audio experience. Show full-screen, HD-quality video that can automatically adjust to changing bandwidth conditions for smooth playback.

Freedom to extend Flash Player

Extend the runtime capabilities of Flash Player 10 to create user experiences never before possible in the browser. Access to low-level APIs allows developers to create their own text components and special effects. Leverage the power of the new, multi-threaded Pixel Bender JIT compiler for other advanced calculations, such as sound generation, or create new application capabilities through ActionScript that run on the high-performance AVM2.

System interoperability

Create applications that integrate smoothly with the browser, leverage local system resources, and provide users with a safer and more secure experience. Bring users into the experience by letting them use a read/write clipboard, upload and save files locally, and connect using a webcam/microphone. Easily make applications accessible to users with disabilities.

Network interoperability

Create applications that communicate and integrate with the network and remote resources while providing users with a safer and more secure experience. Design with support for standard Internet protocols in addition to advanced communications such as remoting, asynchronous communications, and binary sockets.

Advancing web innovation

Adobe's commitment to advancing innovation through the use and contribution of open technologies enables developers to deliver consistent, differentiated web experiences.

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