

# /reviews

Our pick of the best net-related software out now

>> If programs were ... unusual pets

- ★★★★★ Rock python
- ★★★★★ Tarantula
- ★★★★ Praying mantis
- ★★★ Giant land snail
- ★ Sea monkeys

## Multimedia player

# Flash Player 10 beta

It might have been codenamed Astro, but Flash Player 10 has its feet firmly on the ground

Web [labs.adobe.com/technologies/flashplayer10/demos](http://labs.adobe.com/technologies/flashplayer10/demos)

Price Free

System Windows, Mac [OS X 10.2+], Linux

It doesn't seem like five minutes since Flash Player 9 was put out to beta, but Adobe has obviously been busy – because 10 has some exciting new features. Notably, a new 3D API, Text Engine and the ability to read and write local files.

These advances, plus the gradual introduction of the Pixel Bender technology (of which more later) heralds a more nuts and bolts development approach for Flash which promises improved performance and capabilities across the board.

### Getting started

First things first: before you download Flash Player 10 and start messing around with it, you must first fully uninstall older players using a custom uninstaller. That this is so suggests we aren't dealing with mere tweaks to the system here but a significantly new codebase.

Secondly, there's no accompanying upgrade in the Flash/Flex authoring pipeline, so to begin



**Pixel Bender** The new effects engine is both faster and more capable than previous solutions

exploring the possibilities of the new player you'll need the Flex 3 SDK and a few spare minutes to watch the instructional videos Adobe has provided.

The process is extremely smooth and if you follow the instructions closely you'll be up and running within the hour. And, having gone through

that process you'll want to see some bells and whistles, so let's look at the new 3D API.

### Another dimension

Those familiar with projects such as Papervision3D will be aware that getting Flash to play nicely with any kind of three-dimensional drawing routines is not without its limits, in terms of the speed and usability of the end product. But there's certainly potential in the player waiting to be explored.

Flash Player 10 provides a series of simple 3D drawing tools similar in feel to the 2D drawing API. These primitive 3D drawing classes can be inherited from and their methods can be nested, providing a much easier-to-use and somewhat lighter-weight approach to 3D than has been possible with Flash.

Adobe builds on this expanded drawing capability with a new suite of custom filters and blends, all made possible by the introduction of the Pixel Bender engine. Imported from After Effects, it works in much the same way as traditional 3D, applying self-contained shaders to in-scene objects such as vectors, video images and bitmaps.

And if you're still not convinced, there's been a long overdue rethink of the standard 2D drawing API. Parts of curves can be easily tweaked, styled

## \* Alternatives

### Silverlight

Web [silverlight.net](http://silverlight.net)

Price £31.99 (expected)

Despite the shaky start of version 1.0, Microsoft is persevering with its own alternative to Flash. Silverlight 2 is now in beta phase. Featuring expanded UI capabilities, data access modules and enhanced JavaScript handling, this is a tempting solution for those with .NET skills.

★★★★★

### Processing

Web [www.processing.org](http://www.processing.org)

Price Free

Originally a Java-based language and environment specifically designed to give creative coders and code-curious creatives a way to visually explore data-sets, Processing has now been ported to JavaScript. It may not have all the capabilities of Flash or Silverlight but is an interesting proposition.

★★★★★

### Java

Web [www.java.com/en](http://www.java.com/en)

Price Free

The overhead that the Java Virtual Machine entails has always been a problem for Java and continues to be so. Despite this performance problem, the language itself is powerful and versatile, so in the right hands, and in the appropriate field, it could be the ideal solution.

★★★★★

# \*Pixel Bender Toolkit Preview Release 3

## Ever wanted to create your own low-level image processing filters?

As any Photoshop user will tell you, filters can be good but they can also be bad – however, it's always nice to have the option. With the introduction of the Pixel Bender Toolkit's drawing tools and associated technology into the release of Flash Player 10, web developers are about to rediscover that Photoshop truism.

The Pixel Bender Toolkit won't be for everyone, as the language it relies on to describe the various routines is C-like. That said, the basic format is pretty straightforward, so those with any programming experience should be able to pick it up.

The main problem with Pixel Bender as things stand is that it's designed to take advantage of the low-level graphics processing routines of your graphics card, but not all graphics cards are supported. This will mean the processing is done on the CPU, draining resources.

However, that's a minor problem that time will solve. What's exciting about this technology is that it puts some real processing power in the hands of Flash developers. Those SWFs may begin to look a lot more impressive in the near future, once designers have got over the inevitable overuse of their favourite effect.

and restyled. Curve descriptions have been streamlined and dynamic runtime modification of lines has been catered for. As a result, drawing should be more flexible and intuitive than before.

### Text boost

Another ground-up new technology is the Text Engine. Described by Adobe as, 'A highly flexible text layout engine', the aim is to give Flash the kind of text-handling capabilities that a typographer would want. Device fonts can be manipulated, antialiased and filtered as if embedded; non-European layouts such as vertical flowing text have been accommodated and typographic components such as ligatures have also been supplied.

Building on the basic structures of the Text Engine will, says Adobe, enable designers to create their own text-handling tools. Adobe Labs also plans to release a suite of new text components.

Hopefully, the other new enhancements tie in nicely with the Text Engine. Textured surfaces, 3D faces and more easily controllable drawing APIs would put some interesting possibilities within reach of the technically ambitious typographer.

Probably the easiest way to get to grips with the new player's capabilities is to grab a copy of the ActionScript 3.0 language reference from Adobe Labs and fire up your favourite text editor. There's also a good video by Lee Brimelow of [theflashblog.com](http://theflashblog.com) that takes away any pain from the process.

There's another aspect to the testing process, though. This is a beta release, so Adobe is relying on the first wave of developer/designers to tell them what is and isn't working. And it pays to make your voice heard, as in the case of the File Reference API.

The ability to read/write to the local hard-drive has long been on the wish list of any developer with a persistent state to remember or a modified object

## Flash Player 10 provides a series of simple 3D drawing tools similar to the 2D drawing API

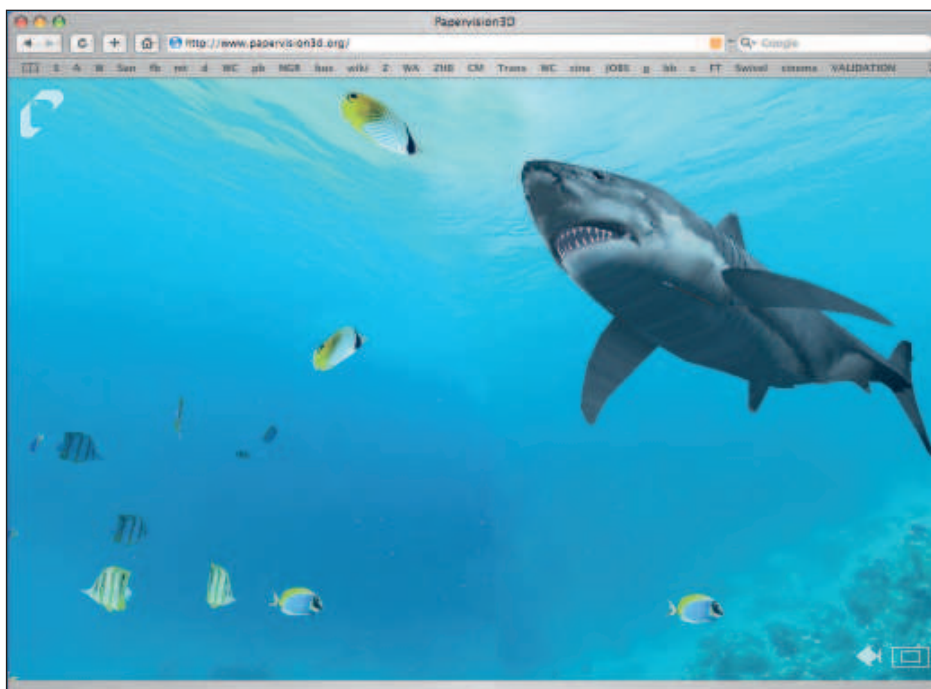
to store. Finally, with Flash 10, the day has arrived when applications no longer need to make a round-trip to the server every time a save is called for.

### Hardware focus

The theme for FP10 seems to be one of hardware acceleration. Not only will Flash applications be streamlined by things such as access to the local file structure but its rendering is to be augmented by taking advantage of local GPU processing power. The presence of an Open GL 2.0 graphics card on the user's machine will trigger mechanisms designed to farm out the compositing to a hardware GPU rather than overtaxing the CPU.

This performance bump feeds nicely into the capabilities of the new Pixel Bender and promises developers a means to deliver full-screen interactive quality without compromising the user's bandwidth, as textures and images can be built and rendered on the local GPU. Similarly, device fonts are given a fair hearing and colour management is introduced, based on hardware profiles.

All this looks like a vital milestone for Flash. Now what's needed is for the latest version of the IDE to make all this stuff easy to work with. ●



**Deep impact** Getting Flash to play nicely with three-dimensional drawing just got easier. The improved 3D API gives designers the kind of access that was previously restricted to users of solutions such as Papervision3D

### .net rating

#### For

- ⊕ Better 3D
- ⊕ New shading technology
- ⊕ New Text Engine

#### Against

- ⊖ Requires strange set-up to test
- ⊖ Still a little buggy

**As long as Adobe fixes FP10's rendering and proper integration problems with the expanded ActionScript library, this is a major step for Flash.**

★★★★★

Turn over for more reviews >>

Open source

Let's switch to ... Processing

What is it? JavaScript port of the data visualisation tool

Where? ejohn.org/blog/processingjs

Who's it for? Designers and coders with large data-sets to convey

How much is it? It's free

Whatever the source of your data, Processing can make it beautiful. Originally a Java-based language and development environment created specifically to enable designers and coders to visualise information, John Resig has ported it to JavaScript.

As a Java-based imaging solution, Processing suffers with latency on the web. Moving the system to JavaScript promises some performance improvements, though.

In porting the codebase, Resig relies on the Canvas object. What this means is that a large portion of browsers will be unable to support the resulting animations and visualisations. This isn't a criticism of Resig, far from it. The ideal browser is Firefox 3, though certain things will work in Safari 3.

If you want to code your apps in Java instead of directly in JS, Resig even provides a (Regex-based) parser, which will spit out JavaScript code. People are already producing some cool demos.

User-testing suite

# Silverback 1.0 beta

Rapid and affordable user-experience analysis for the masses

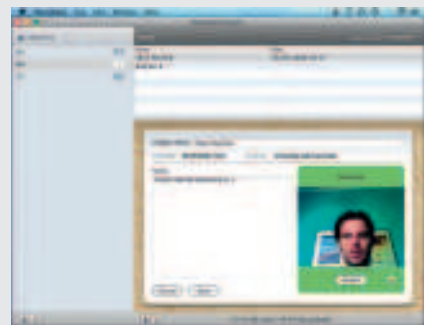
Web [www.silverbackapp.com](http://www.silverbackapp.com)  
Price \$49 (expected)  
System OS X equipped laptop with webcam

How do people interact with your creations? Do they immediately understand your clever navigation system or just spend ages staring at it, wondering if it's finished loading? Silverback is designed to give you straightforward answers to just this type of question.

Designed to work on Apple laptops with their built-in iSight cameras, Silverback is intentionally streamlined. The camera records the user while their desktop experience is simultaneously captured, along with a visual feedback system to highlight where mouse-clicks occur. The two videos are then outputted, picture-in-picture, to QuickTime. Audio can also be recorded.

There's a facility to annotate the video and add chapter markers as the user progresses, but compared to Morae it has few added extras.

Silverback is a great resource that should lead to improved design and functionality.



**Usability** Silverback's streamlined interface presents users with an easy to understand testing environment

.net rating

- For
- Reliable
  - Easy to use
  - Inexpensive

- Against
- Lacks the bells and whistles
  - Results are open to interpretation

Silverback will give even the smallest studio an informed understanding of user experience.

★★★★★

Also available

Morae [www.techsmith.com/morae.asp](http://www.techsmith.com/morae.asp)  
TechSmith's Morae is a long-standing favourite among those who perform user testing regularly. Its components include observation, statistical analysis and visualisation, with pretty much every angle you might want to explore covered in detail. The price tag is pretty steep at \$1,495.

Graphics editor

# Fireworks CS4 beta

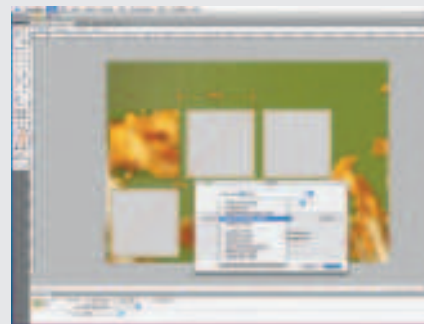
This web design prototyping tool is not quite there yet

Web [labs.adobe.com/technologies/fireworkscs4](http://labs.adobe.com/technologies/fireworkscs4)  
Price Free beta trial  
System Windows XP, OS 10.4.8

When designer and developer work together they need some common ground. Photoshop and Illustrator are usually drafted in for this purpose but Fireworks is slowly creeping towards a position where it could supplant them both.

Designed to enable rapid and accurate prototyping, CS4 sees the addition of a number of useful scaling and measuring tools into the Fireworks workflow. Alongside this, management of items such as grids and guides have been pulled together into a single place, and the layout system has been improved.

In terms of output, the designer is now given the option of an interactive PDF – essentially, a working model of their design that can be used to obtain sign-off from clients or demonstrate concepts to developers. While these are all useful features, though, it seems unlikely that they'll give Fireworks the impetus to overcome the familiarity factor of Photoshop.



**Added sparkle** Fireworks' export capabilities have now been augmented to include CSS

.net rating

- For
- The measuring tools
  - New interactive PDF and CSS output
  - Works well with Dreamweaver

- Against
- Doesn't feel as compelling as other Adobe apps do
  - Workflow still feels a bit clunky

A solid if uninspiring upgrade.

★★★★★

Also available

Photoshop [www.adobe.com/products/photoshop/index.html](http://www.adobe.com/products/photoshop/index.html)  
Though it may not be specifically designed to produce web-centric design and has no direct export to HTML or CSS functionality, Photoshop will probably remain (with Illustrator) the default design tool for most teams.