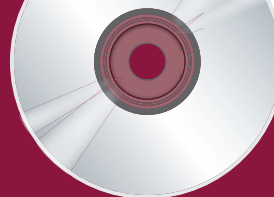


32
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ISSUE 138

Colour Affects

Revealed! The full spectrum of expert design tricks for maximum visual impact

Target your audience • The psychology of colour • Gender-specific design

BUILDING FLASH APPS

Learn how to bring dynamic projects to the desktop with Adobe AIR

AIR



GOOGLE GEARS

Drive your next-gen development with the search king's new RIA platform



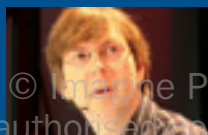
HOW TO

Use **ActionScript 3** to forge a world clock widget • **Flex** your muscles with **Coldfusion** & **MySQL**
Generate PDFs on the fly with **PHP** • Design user-friendly contact pages in **Dreamweaver CS3**



BUILD SPRY WIDGETS

Develop custom AJAX controls with a guide to creating an image-panning widget



ADOBE MAX EXCLUSIVE

Hear the latest gossip from Kevin Lynch at Europe's first developer conference





Welcome



Saying something doesn't always require words; it can be implied. This month we're looking at the subtlety of good web design with our cover feature...

DESIGN IS AS much about communication as it is about anything else. Think about those real-world products, buildings or facilities that are known for being effective, and you'll realise that they speak to the user. We're not talking in a literal sense, but rather that your interactions with a design are implicitly conveyed to you – they just make immediate sense. Examples like the chair or telephone, for instance, are so ergonomically formed in response to how they are used that they require no other instruction for the user, or at least most users. The point is, great design goes beyond traditional communication and into the realms of the subliminal.

Have no fear though, we're not giving up on words completely this issue, but are instead focusing our attentions to the web building blocks that don't always get much coverage. Fairly abstract notions of tone, style and mood are the order of the month, with David Howell's look at how colour schemes and other presentation decisions affect our interpretations of online content. It's essentially a guide to targeting your audience and tapping into the subconscious requirements of the viewer, particularly when it comes to gender. From there we investigate Adobe's brilliant new online colour-selection tool kuler, which will allow

you to preview and define harmonious palettes for your projects. Elsewhere, we continue our journey through AIR with an exercise in building desktop RIAs in Flash CS3, before Simon Bailey gets busy uniting Flex with ColdFusion. The other Simon, Mr. Bisson, turns his attentions to Google Gears with an overview and tutorial, while Dreamweaver fans get a dose of generating PDF files on the fly with PHP.

Fresh from our trip to Adobe MAX last month, we've also got an exciting Bulletin special from the conference, with all the sneak-peek stuff the whole industry is buzzing about.

Mark Billen
EDITOR

Editor's picks

Web Designer 138 is just so full of great stuff that we almost forgot to mention...



14-18

Our extended Bulletin section this month is dedicated to a report on Adobe's MAX show



66-70

Newbie contributor Geoff Blake builds a custom Spry widget in our opening Dreamweaver guide



92-93

Does the desire for Web 2.0 design leave us exposed to poor online security? Find out here...

gallery

THE CREAM OF THE WEB CROP

TYPOGRAPHY KICKS ASS: FLICKR BOLD ITALIC

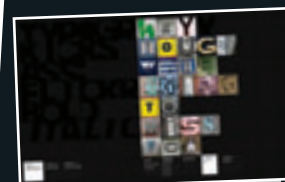
www.typographykicksass.com

Designed by: **Labworks**

Conceived out of sheer love for typography, this site functions using random sets of letters, published by photography website Flickr, to create user-determined messages to send to personal or public audiences for viewing. This is indeed an innovative and fun way to spread your digital love for one another, and the process couldn't be simpler. On opting to leave a message, you simply have to type your message and input your contact information. Then, once you have verified your email, the message goes live.

Easy to use and fun all the way, create your own message and share it with the world, or keep it personal with your friends

Rolling over a letter will display the photograph's individual information; clicking it, however, will take you to the Flickr website



Site Highlight

Seeing your message for all to see is a fantastic experience, and the quality of images used via Flickr adds a classy touch to your message too.



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ONCE AGAIN, WE have set sail and cast a huge net into the deepest regions of the web to find you the most beautiful, and downright cool websites out there. We think you'll agree that with this latest batch, there is enough here to keep you out of mischief for quite some time

GOT IT? FLAUNT IT!
If you know of an exciting website or have perhaps built one you regard as being mighty fine, then tell us about it. We're always interested to hear about great URLs or stunning site launches so don't be shy, drop us a line at webdesigner@imagine-publishing.co.uk

Browse the messages to see the most recent by date. You can also see who left the messages too

0001 06.10.2007 D	0002 06.10.2007 heather	0003 05.10.2007 nuno ribeiro	0004 05.10.2007 nicole	0005 05.10.2007 San Yellie	0006 05.10.2007 Pike	0007 05.10.2007 breff streby	0008 05.10.2007 breff	0009 05.10.2007 Leia	0010 05.10.2007 Davide	0011 05.10.2007 shirley	0012 05.10.2007 shirley
0012 04.10.2007 nathan	0013 04.10.2007 nick	0014 04.10.2007 Narkas	0015 04.10.2007 Billy	0016 04.10.2007 pura	0017 04.10.2007 kristine	0018 04.10.2007 Chatri	0019 04.10.2007 Chatri	0020 04.10.2007 LKS IBARRA	0021 03.10.2007 Rick	0022 03.10.2007 Douglas	0023 03.10.2007 Douglas
0023 03.10.2007 euan	0024 03.10.2007 paveis	0025 03.10.2007 jo albright	0026 03.10.2007 Riley	0027 03.10.2007 pawana	0028 03.10.2007 Faizal Reza	0029 03.10.2007 ezequiel	0030 03.10.2007 golia	0031 02.10.2007 rainaldart	0032 02.10.2007 radrigs	0033 02.10.2007 GEORGE	0034 02.10.2007 GEORGE
0034 02.10.2007 pft	0035 02.10.2007 pedro f	0036 02.10.2007 tim stopar	0037 02.10.2007 jim	0038 02.10.2007 teddy	0039 02.10.2007 jam	0040 02.10.2007 Zemggg	0041 02.10.2007 ferran	0042 02.10.2007 alexandro	0043 02.10.2007 preety	0044 02.10.2007 franfois	0045 02.10.2007 franfois
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Once the loading page has done its job, you are given Pause and Browse options to control your own viewing

Click on it and you'll see the uploaded image on the Yahoo!-owned company Flickr



gallery

THE CREAM OF THE WEB CROP

HALO3 BELIEVE

<http://halo3.com/believe/shell.html>

Designed by: Bungie Studios

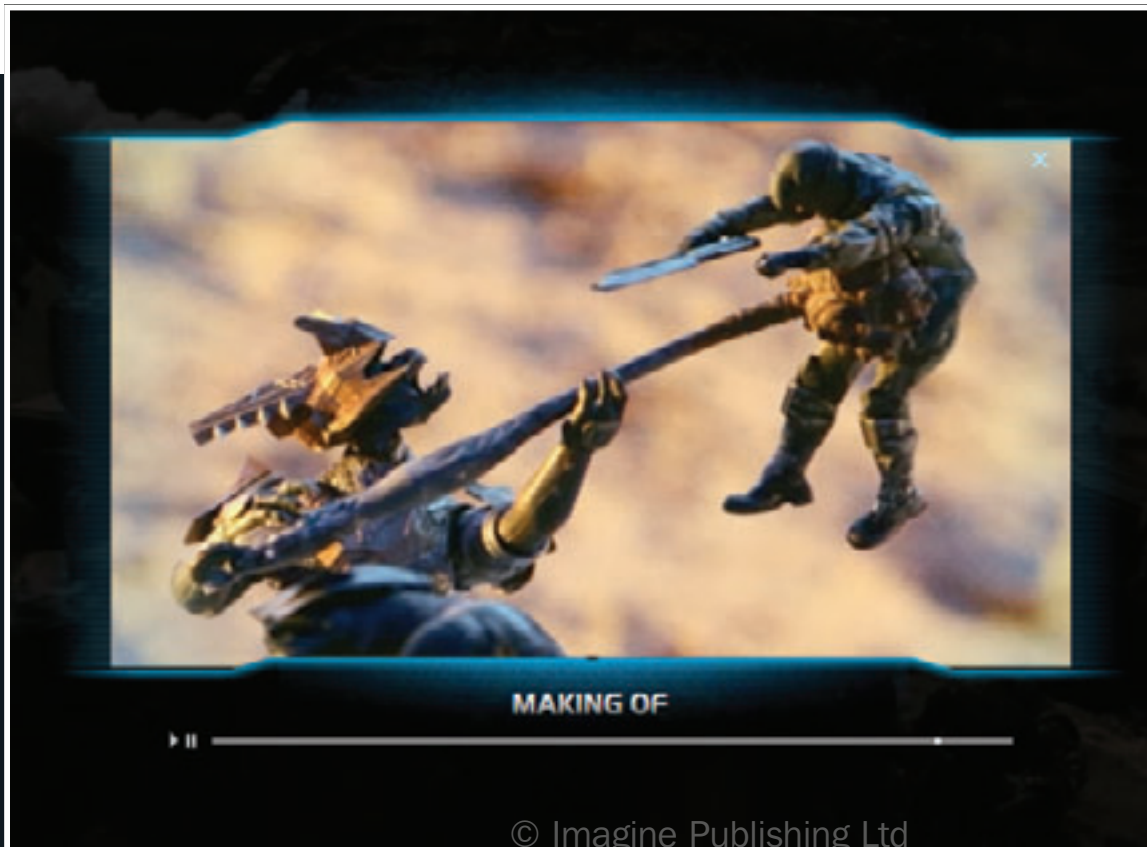
The third instalment of the Halo game has come to the web in the form of a fantastic site as part of its online marketing campaign. An interactive walkthrough entertains and inspires, as it enables you to transport yourself through a moment in time during a great battle based upon the gameplay, and is a model-maker's dream. Along the way you will find extra interactive checkpoints to click; these bring up relevant character information and various video clips for extra user enjoyment.

The site opens on loading with a typical Halo-style trailer as its intro, and moves straight into the instructions so you can get interacting straight away

You have the opportunity to take your own screenshots from your progress through the battle, each one being just as dramatic as the other



Try the auto-play option and the path through the battle will automate through the scene right until the end



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Site Highlight

The scale of the battle is something else and has incredible detail; to be able to float through the drama in such a way is sheer brilliance.



gallery

THE CREAM OF THE WEB CROP



Having such a strong body of work and varied client base enables Jam3media to authenticate their professionalism and skill set, expertly used to their advantage as the website's only real content

The staff at Jam3media comprises of the three original founding members and one recent addition to the team, all of them highly skilled specialists and self-styled fans of 'all things New Media'



Site Highlight

We love the use of assets on this site and its three-way navigation to all the different projects available in their collection. There is not much else on show here, but the site simply doesn't need it.



JAM3MEDIA

www.jam3media.com

Designed by: Jam3media

It is always a pleasure for us to feature websites in the gallery to the people behind the best in interactive media. When our browser arrived at Toronto New Media supremos Jam3media, we found a team of web developers who clearly love what they do. This team of web junkies specialise in the development of Flash and database-driven websites, boasting some pretty important clients to boot, Electronic Arts and America Online being just a couple. The site itself is to the point, serving simply to showcase their work.

Each project title is made up of miniature separate screens which, when you hover over one, reveals a small screen of another project. Naturally you can click and navigate to this if desired





The site is dynamic, slick on the eyes and fast-loading, with simple transitions between each of your viewing experiences

His artworks take centre stage with large preview images, each one presenting the visual array and talents he has to offer

PCZ: HARDWORK & DEDICATION

www.pczdesign.com

Designed by: **Pedro Cruz**

This award-winning site presents a professional portfolio-based website that showcases some experimental and striking artworks. The brainchild of Portugal-based multimedia and graphic designer Pedro Cruz, the site is crafted with an obvious obsession for visual communications. This site is image-heavy with some neat interactive elements and animations thrown in for good measure. Of course, his artworks are beautiful as you would expect, with all relevant information and news also catered for.

Cruz provides his visitors with an informative blog as well as a news section, enabling him to highlight his credits and progress regularly



Your stay here is that little bit more immersive thanks to the edgy soundtrack, which is not over the top but fits in right at home with the overall experience



Site Highlight

For such a fantastic collection of artwork, the website presents all of it perfectly as if mounted and slipped inside a creative leather portfolio.



gallery

THE CREAM OF THE WEB CROP

You can navigate through its work, from print to online media, with the large previewer taking centre stage once selected

HIVE CREATIVE

www.hive.com.au/

Designed by: Hive Creative

Another creative interactive agency but not just any another website. For Australian-based Hive, its site is another example of how it should be done. Following the trend of keeping it all as simple as it should be, Hive has presented a fantastic user experience that is as dynamic as it is clean, but highly polished in every facet with a strong brand identity to boot. The site naturally centres on its body of work, along with presenting the ever-approachable team behind the company.



The main graphic user interface is a joy to behold, with a very slick and dynamic horizontal panel in which to navigate through its portfolio

Site Highlight

Rich in content, dynamic in approach, this website and its navigation has been primed with the sharpest tools in the development toolbox, and certainly is one that we will make sure we bookmark.

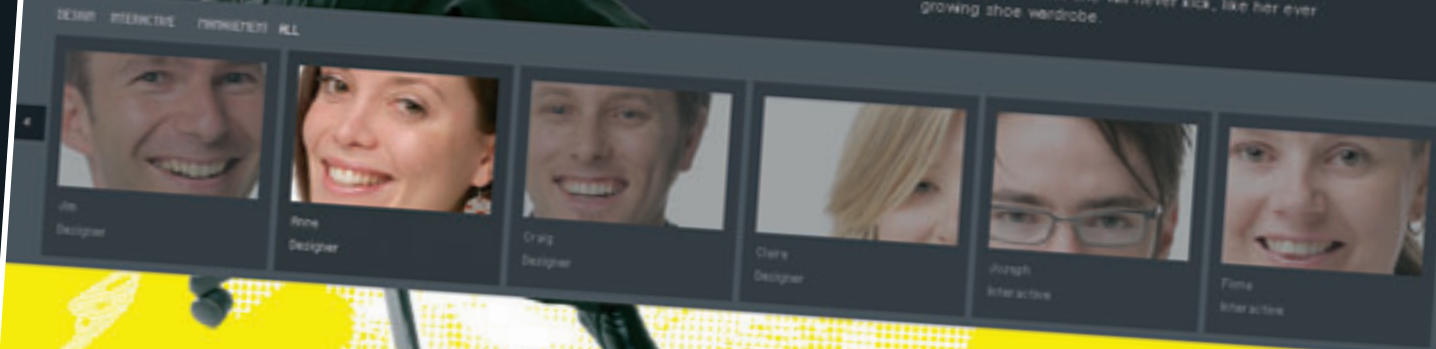


ANNE

DESIGNER

Concept/Design Development, Creative Direction and Choco-holic.

With a passion for design, fashion and photography Anne has an innate ability to look at things from obscure angles to achieve unique results. She has a few addictions that she will never kick, like her ever-growing shoe wardrobe.



Hive is proud of its work and does not hide away either. Its team is presented like that of their portfolio

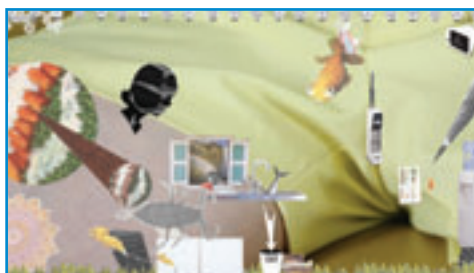


bulletin

HOT NEWS FROM THE WEB DESIGN WORLD



Rob Ford, founder and principal of theFWA.com, gives his monthly pick of the coolest sites out there

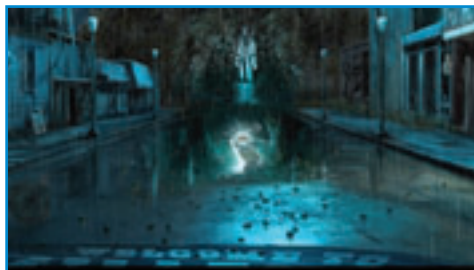


Harry The Dancing Hair

www.harrythedancinghair.com

Designed by: www.ludlowkingsley.com

Wacky, crazy, disgusting and beautiful. Harry is your new best friend.

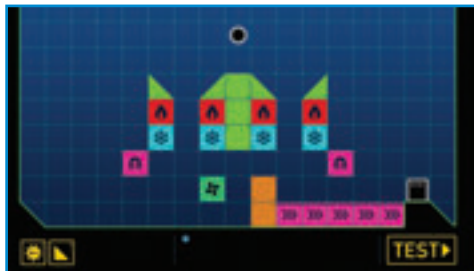


The Infinite OZ

www.road2oz.com

Designed by: www.fallon.com & www.b-reel.com

Taking the Zoomquilt to new levels, this really will suck you into your screen.



Launchball

www.sciencemuseum.org.uk/launchpad/launchball/

Designed by: www.preloaded.com

Possibly the most addictive thing since the Rubik's cube. Proof that physics can be fun.

ADRIAN BRIDGWATER

Adrian is a well-respected technology journalist with experience writing for ZDNet, the Register, BBC World Service, and the Wall Street Journal. Previous work includes publicity for IBM, Microsoft, Intel and many more.



Adobe MAX Europe 2007

WE SENT TECHNOLOGY WRITER & ZDNET BLOGGER ADRIAN BRIDGWATER TO BARCELONA TO SOAK UP ALL THE ACTION

ADOBE'S MAX DEVELOPER symposium is now staged annually in the USA, Europe and Japan to draw in web development devotees and provide them with all the presentations, break-out sessions and hands-on lab work they can handle. Now in its sixth year in the States, this October's Barcelona event was the first of its kind in Europe.

Over 1,200 web developers, designers, architects and programmers attended a total of 210 sessions and a selection of keynotes hosted by chief software architect Kevin Lynch and COO Shantanu Narayen. Adobe's approach is to open up all sessions and spokespeople to the press, so it's not every day you get to sit and have coffee with the likes of Ben Forta – the guy that co-authored the official training material and certification tests for ColdFusion.

Before taking you through my 'Developer Diary', I want to clarify the true nature of Adobe's AIR-integrated run time. The launch of AIR this summer is the biggest news for web development in recent years, so what does it mean? I found myself engaged in a discussion on this topic with Adobe evangelist, Andrew Shorten. He explained that essentially it is a set of capabilities, an execution environment if you like. Basically, a run time sits on top of the browser for online applications, and on top of the operating system for desktop applications. These run times give developers access to the APIs they need to build both online applications and the soon-to-emerge new breed of browserless internet applications. Phew! With that understood, thanks to Andrew's help, I was ready for the rest of the show...

MAX Europe special



Barcelona welcomed over 1200 MAX visitors

9:00 AM Welcome

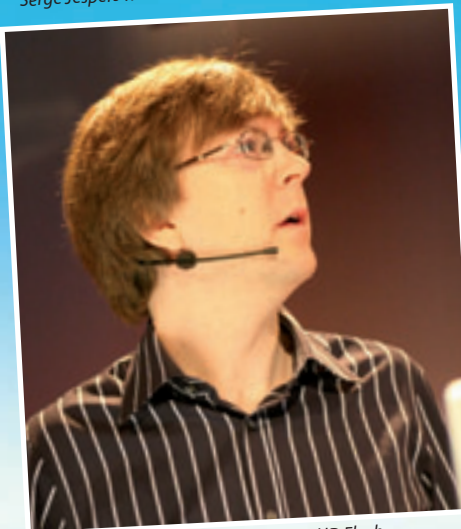


News and press releases were flying out of Adobe HQ

10:00 AM Session



Serge Jespers walked through some cool AIR applications



Adobe star man Kevin Lynch talks up HD Flash

Day 1

After an early start, everyone enjoyed a good opening day of welcome speeches, sessions, and keynotes...

ROBERT RAIOLA, EMEA senior marketing director, kicked off proceedings by underlining the four key industry trends of importance in the Adobe world. These are explosion of digital content, spiralling internet usage, proliferation of connected devices and new business ideas. (Does that sound too generic? Well, this was the welcome address after all).

With press announcements emanating from Adobe PR HQ at a blistering rate, it was hard to separate the reaffirmations from the 'new news', so to speak. That said, new to the party is the Adobe Developer Connection - a portal for developer and designer resources designed to fuel the next generation of RIA (rich internet application) development. You can find it at www.adobe.com/devnet/

At a time when predictions point to more than one billion Flash-enabled devices by 2010, the company is partnering with the likes of NTT DoCoMo to ensure proliferation is maximised. I later asked Raiola if that one-billion figure was provided by an independent industry analyst and he replied, "No, it's our prediction, but our predictions are normally pretty good."

Into the sessions, Serge Jespers hosted a meeting entitled 'Top AIR applications - visualising the possibilities of a new platform'. Jespers ran us through some of the more high-profile AIR applications that are said to empower millions of web developers and make their RIAs first-class citizens on the desktop. AIR apps share the fast start-up time of a traditional web application, but the user does not need to start their browser to navigate the pages of the site and several are already in public beta form, such as the eBay desktop - this is EffectiveUI's RIA version of eBay. There is only so much the user can do before they need to go online, synchronise, update pages or complete a transaction.

Jespers also made a point of highlighting the Adobe AIR Marketplace. This is a website where developers can publish and promote AIR applications - it can be found at www.adobe.com/go/marketplace.

Between sessions and keynotes, we learned that Adobe is incorporating support for the H.264 video compression standard within Flash. Adobe Media Player is currently in development and this will be Adobe's desktop video player. Currently available as a beta from <http://labs.adobe.com>, this technology will support Flash overlays for advertisement placement. This, of course, is precisely the kind of commercially linked-in awareness that will ensure the widespread proliferation of Adobe technology.



The welcome address kicked things off fairly cautiously

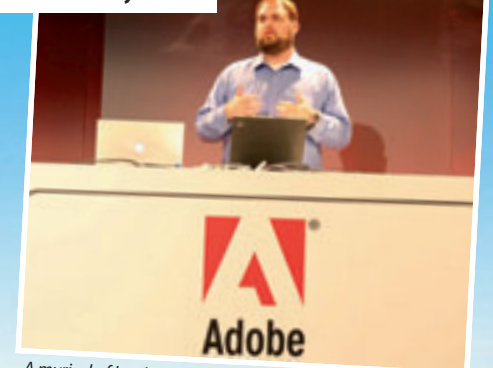
9:30 AM Session



"Who's figures are those Robert?" Adrian quizzes Raiola



11:30 AM Keynote



A myriad of leading speakers and evangelists were present

What the industry is saying about Adobe

"The last five years has seen a significant increase in the adoption of RIAs by our customers, who rely on their capabilities to create 'sticky' content for orders and transactional-based online processes," said Adrian Munn, director of Monochrome Ltd. "The benefits of immersive content delivered to users who interact directly with data has a significant impact on the effectiveness of the enterprise level applications that, up until now, we have developed using Flex. I anticipate that AIR will further boost this momentum as we develop a new generation of browserless applications in the same spirit."



Narayan commended AOL's Top 100 AIR application

10:45 AM Session



Papervision 3D wowed the session crowds

3:15 PM Session

Day 2

Seen by most as the main event, this was Adobe's chance to reveal future technologies to today's crowds...

IN DAY TWO'S keynote, we heard from president and COO Shantanu Narayan as he detailed Adobe's five rules for creating great digital experiences:

- 1 – Content is king** – essentially, you must have something appealing to offer if you want to create great digital experiences; just making things 'look' good will not work in the long run.
- 2 – Applications must be** personalised to give users an individual experience that is simple, effective, compelling and one that makes the user want to come back for more.
- 3 – Less is more** – RIAs should be simple, straightforward and above all, useable. For an example, look at the user interface that drives Flickr. Crucially, it is not overcomplex and that is inherently what makes it so useable.
- 4 – Movement has meaning** – great applications must now feature dynamic movement to bring the user closer to the form and function of the application itself.
- 5 – Immersive experiences** – if you think about how immersed and lost you can feel when you go to the movies, this is the kind of experience with video, intelligent image-use and collaboration options that applications must now move to.

"Not supporting Flash when developing an online application is like not supporting the web itself," said Narayan. These are big words, but it's not such a wild claim when you consider that Flash is installed on 90 per cent of consumer-grade machines in the world.

My first session for the day was a conceptual presentation from Carlos Ulloa [www.carlosulloa.com] on the future possibilities of using graphics to produce immersive experiences. Ulloa pointed to a selection of ways to use 2D and 3D graphics, discussing camera movement and rendering for future web applications.

Big news on day two was Adobe's new relationship with the BBC for delivery of web video. The Beeb has adopted Flash Player software to drive its free catch-up TV service, BBC iPlayer – available as a streaming service across Mac and Linux, as well as Windows, by the end of year. It was something to chat about while we ate!

Back to the sessions, 'Rediscovering fun with Aral Balkan' sounded like one not to miss. This extrovert chap is the originator of SWX. This is the native data format for the Flash platform and is said to be 'perfect' for building mashups, mobile applications and other data-driven Flash sites and applications. Although he got an enthusiastic reception from the crowd, most attendees appeared to be slightly lost by this heavily conceptual presentation and seemed to leave the room none the wiser at the end of his session.

9:00-10:30 AM



What was the name of the show again?



COO Shantanu Narayan spoke of "5 Golden Rules"

12:00 - 13:00 PM Lunch



Carlos Ulloa's site has some great 3D Flash work

Sneak Peek's Galore...

ADOBE STUNS THE CROWDS WITH A SESSION OF NEW WORK AND DEVELOPMENTS TO WATCH OUT FOR

Arguably the most exciting part of any MAX gathering is the Sneak Peek session, where Adobe reveals some of its prototype applications in current development.

First up, the next generation of Flash Player (codenamed Astro) was previewed. This product will ship with advanced text-layout support that will be capable of handling bi-directional text and supporting word-wrap rules of languages such as Hebrew, Arabic and Japanese, which do not follow standard English.

We were then treated to a Share beta preview. This is an interface built with Flex to allow document-sharing with access control functions for all types of files. Share converts whatever content you are putting up into Flash and allows for placing of documents for sharing within websites. Share is available as a hosted service via your browser or also through REST developer APIs. You can read more at www.adobe.com/go/share.

If you think any of that sounds impressive, that was just the warm-up act. The next sneak peek was Adobe Pacifica. This allows developers to integrate voice, messaging and user-presence information into applications built using Adobe Flex, AIR or Flash

technologies. Essentially it allows you to call mobile-phone numbers from applications, and speak to people or pass messages, making the web your single communication channel.

In a similar vein, Adobe Acrobat Connect Professional was previewed. This is a cutting-edge communication and collaboration solution with no software downloads needed for participants.

Turning the heat up one more notch, Adobe's Mark Anders took to the stage to preview Thermo. To explain this technology, consider the following: whereas developers like to start with components and build applications logically, designers typically like to draw what they want their final application to look like. Thermo is a new tool built to allow designers to build RIAs in a way that is natural to them. For more, go to <http://labs.adobe.com/wiki/index.php/Thermo>.

Making the seemingly impossible possible, we heard about an online version of Photoshop called Photoshop Express, with all the tools you would expect from a locally installed product. Also making its debut was Seam Carving. This is an imaging technique that allows you to resize or stretch images while isolating areas that can remain undistorted. You can also completely delete objects by highlighting and hitting delete.

Saving the best 'til last, the preview of Adobe Visual Communicator drew almost instant applause. This is a totally cool audio-visual collaborative communication tool, designed to act like a television-broadcast prompt Autocue, with options to bring in visuals and wipes and external cameras. The presenter live-mixed a script, brought in flying visuals, cut to a live camera focused on the audience and finished up perfectly on cue. Had he practised a lot? Probably. Were we really impressed nonetheless? You bet!



Mark Anders will now forever be known as 'Thermo Man'



A raft of new customisable filters and 3D rendering capabilities will feature in the next Flash revision

MAX Awards

ATAC Mobile

www.01design.it/portfolio.php?id=9

Developed by 01design

This project is an information delivery vehicle for mobile devices. It was developed for ATAC SPA (Rome's public-transport services company) and in operation, is accessible to more than five million people in and around the Italian capital. Originators of the system, 01design, built the solution to take traffic, weather, events and other information of public interest, and transform it in a way that it can be delivered to the ATAC mobile-application client. Adobe technology incorporated in the product includes Flash Lite, CS3 Premium, Creative Suite 2 Premium, Studio 8 Bundle and Device Central CS3.



Winner

Incident Management System (SIPAUM)

www.seidor.com/irj/portal/anonymous?guest_user=Guest_ES

Developed by Madrid City Council Fire Department and Seidor Spain

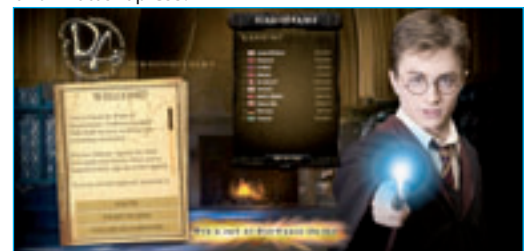
This system enables more than 1,500 firefighters across the city of Madrid to easily enter information about incidents, so that proper tracking procedures can be performed and personal safety kept at maximum levels. Firefighters can add details about responses into web-based digital forms integrated with the department's own back-end systems. Information is captured automatically and securely, and is available for easy, reliable reference. Adobe elements inside include Captivate, LiveCycle Designer, LiveCycle Forms and LiveCycle Reader Extensions.

Harry Potter 5

www.darkarts-defence.com/uk/home.aspx

Developed by Megalo(s)

This website was designed to create a large buzz within the Harry Potter fan community for the release of *The Order of the Phoenix*. The site encourages fans to register and learn new magical talents, which can be used during a multi-player game. Adobe technology elements built in include After Effects CS3, Flash CS3 Professional, Flash Media Server and Photoshop CS3.



hot stuff

Spotted an über-cool gadget that every self-respecting web designer should own? Tell us about it by emailing webdesigner@imagine-publishing.co.uk

As Christmas fast approaches, we unveil another haul of desirable creative products for helping you work, rest and play!

1



1 Wacom Cintiq 12WX
£829.99
www.wacom.eu

Touch-screen technology has gone through a bit of a renaissance recently, in no small part due to Apple's keenness to add it to their next-generation phones and iPods. Now it appears that graphics tablets are mounting the bandwagon to offer a much more engaging and versatile experience, whereby the peripheral becomes an extra monitor. This superb addition to Wacom's Cintiq range effectively extends the workspace to let you draw or paint directly onto the digital canvas, while simultaneously arranging your Photoshop, Flash or InDesign interface. A toggle button lets you jump between the Cintiq display and your desktop monitor so that toolbars can be shifted across multiple views, making this a powerful bit of kit.

2 Panasonic TH50PZ70 50" HD Plasma TV
£1,999
www.panasonic.com

We've become big telly anoraks in the *Web Designer* office since editor Mark pronounced he "needed" one. This is apparently his top choice after doing some considerable shopping around, and seeing the thing in action vindicates that decision. Panasonic are highly regarded in the High Definition plasma market and the 1,920 x 1,080 resolution is awesome particularly during Blu-ray playback. Integrated digital tuner, four-speaker surround sound, SD Card slot and the ability to stream high-definition wallpapers from your PC makes this one of the most desirable and powerful video devices you could want. Prices vary online but pedestal stand and remote are included!

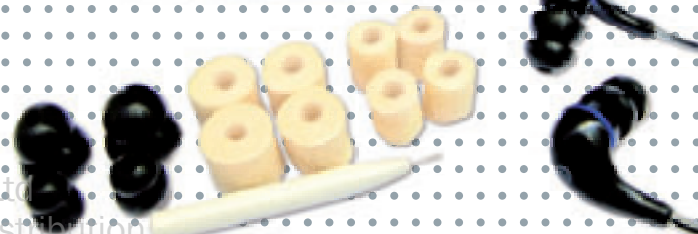
3 Future Sonics Atrio Series Headphones
\$199 (£98)
www.futuresonics.com

Okay, so before you think they would make fairly attractive replacements for your iPod buds, you're missing the point. These babies are designed for professional use as monitoring headphones, so they are traditionally employed by musicians who do like live performances and all that stuff. Known for having the best frequency response that in-ear products can deliver, they also do a top job of cancelling any unwanted noise and can be purchased in cobalt blue or black. Great for multimedia directors as well as music makers, they come in a handy zip case with an array of ear fitments for personal comfort, although we'd grumble that a 1.3 metre cable is too short...

2



3



4



4 Family Guy Season Six DVD

£17.99

www.play.com

It's not all work, work, work – you've got to stop and have a laugh once in a while eh? As fans of Seth MacFarlane's hit US cartoon series, we couldn't wait to get our mitts on the latest DVD release, and this three-disc pack does not disappoint. For the uninitiated, Family Guy is a kind of relentlessly rude and anarchic Simpsons clone, built around the classically dysfunctional American household – where Brian the dog talks, Stewie the baby dreams of committing homicide, while the father is indescribably dumb. The manic plots veer from silly cut-away gags to cringingly distasteful one-liners to form one of the best sitcoms you'll ever see, and with 13 superb episodes plus a wealth of extras, this is one DVD you'll leave in the player for weeks.

5 Creative Suite 3 Integration

(Focal Press)

£24.99

www.focalpress.com

This new title from author Keith Martin tackles the use of CS3 in a way that Adobe would surely approve of. We're told that the latest in their design-product family is all about the concept of integration between its component applications, so surely this is where the true pulling power lies. Anyone keen to exploit the improved workflow between Photoshop, Illustrator, InDesign, Dreamweaver, Flash Pro, Acrobat, Bridge and Version Cue will love the bright and well-illustrated structure, even if it is better geared to general designers rather than advanced web-slingers. Example projects do well to combine product sets effectively, so we'd heartily recommend it.

6 Vauxhall C.M.O.N puppets

£25 (single), £105 (set)

www.thecmons.co.uk

It was an advertising campaign that, on the face of it, shouldn't have worked. But Vauxhall's gang of mumbling rag dolls have since gone on to capture the public's heart and pretty much overshadowed the Corsa car range they promote. We just happen to think they're quite cute, well, designer Becca does anyway, and so you can imagine our delight to find the tie-in toys released. Blue, Cherri, Moo, Red and White can be purchased individually or as a more expensive set of the whole band - which is their chosen occupation when not flogging automobiles. As a means of brightening up your desktop, office or magazine pod, we really rate them and especially like the way they have a character biography attached. C'Mon!

5



6



Message board

Give us your point of view
on breaking topics or just
talk amongst yourselves
on our forum!

SPEAK OUT
www.webdesignermag.co.uk/forum

POST: Web Designer, Richmond House,
33 Richmond Hill, Bournemouth, BH2 6EZ

FORUM: www.webdesignermag.co.uk/forum

EMAIL: webdesigner@imagine-publishing.co.uk

Time to pass the editorial floor to you with our regular email and answer session on all things creative and webby. . .

Shopping around

Hi,

First, I just want to say that I love *Web Designer* magazine. Second of all, I would also like your professional suggestions for eCommerce software.

I am a university student and I am preparing to put together a website for my travel-tours business. My company puts together spring break tours for university students, and I need a system that would let them pay online via both PayPal and credit card. Recently I have looked at osCommerce, Zen Cart, and CRE Loaded, but I am overwhelmed with information. I am looking for a simple, safe solution that is not too expensive. Please HELP!

Michael O'Neil

Hi Michael, good question. Perhaps the best, and possibly most predictable answer we could give you is to have a look down the right-hand side of this page! It may be an advertiser with us, but in our experience you can't really go wrong with any of Actinic's off-the-shelf solutions, particularly if you want to start small and scale up in time. Their Express product is great for launching a fledgling venture, before progressing to Catalog and Business when things take off. A beta of the new version nine will soon be available, and you can learn more by visiting www.actinic.co.uk. Failing that, you could go for the free option and try eBay!

Sporting site

Hello,

My name is Frank Angulo and I just launched my first website at www.threefooter.com. I'm not sure it's flaunting material but I am very happy with it.

I hope you enjoy it as much as I enjoyed making it. The site is dedicated to all aspects of the game of golf. I enjoyed blurring the line between helpful instructions and irreverent satire or parody. I can also see it coming back and biting me on the rear end! Anyway, I hope you enjoy it and if you have any pointers then I'm all ears.

I enjoy your magazine very much, although I don't understand three-quarters of it, but I'll keep experimenting and learning.

Frank Angulo (via email)

Thanks for your email Frank, and we really appreciate hearing about reader projects such as yours. Having paid a visit to the site, we'd congratulate you on producing a really neat little effort that certainly looks pretty great for a first go. The best thing, however, is that producing the site has brought you a considerable amount of enjoyment and pride, which is ultimately a big motivational factor in driving all web designers, whether they are a hobbyist or a professional. It's up to you where your own interest in this industry ends up, but we hope that when you're not on the links, you'll continue to enjoy the one quarter of our magazine that you do understand!

MAIL OF THE MONTH

Air-headed on AIR?

Hi *Web Designer*,

I absolutely loved the cover artwork for issue 137. The laminate effect on the AIR logo was awesome – it really lifted the look of the magazine to another level. However, am I being exceptionally dumb here, because I still can't get my head around what this new AIR thing is all about, let alone why it means "The web will never be the same again". If the whole gimmick is that rich internet applications can now be placed outside the browser and onto the desktop, then so what? This has been possible before, surely. If someone could explain what all the fuss is about, then I might feel more invited to the party!

Tim Foster (via email)

Ok Tim, well just because you were so nice about our last cover, we'll try and explain just why AIR is so important. We can imagine that a good number of readers share your uncertainty about any new and much hyped technologies, but you have to try and think more about the possibilities that might stem from something like AIR.

Essentially you're right that the big boon is this ability to migrate RIAs into standalone programs that run across desktops and into mobile territories, without the need for the browser 'sandbox'. With that comes the benefits and potential pitfalls of being able to access system resources that wouldn't normally be available, and extend the current web experiences into untapped realms. Take the eBay application for instance, and the prospect of being able to enjoy an online and offline auction experience via a far more engaging and customisable interface. Granted, we personally feel that this could effectively result in a wave of branded browsers which would possibly cause more harm to the mobility of the internet as we currently know it – but that's another story.

What is seriously cool is that traditionally lightweight web technologies are now able to be utilised in building legitimate applications that would normally have required knowledge of languages such as Java or C++. Further down the line, could we realistically see Adobe (or anyone else for that matter) making moves towards a web-based operating system where content comes to you rather than you going to it?





Google™

Gears BETA

TAKE YOUR WEB APPLICATIONS OFFLINE WITH GOOGLE'S GEARS



Google has used Gears to give its Reader offline capabilities, with rumours that Gmail will soon follow suit

Where does SQLite fit in?

SQLite is one of the quietest success stories of recent years. Unlike many databases, this is one you can build into any application, as it comes as a C library. There's no need to configure it; once it's built into your applications, all you need to do is feed it data.

It's not surprising that it's starting to appear in all sorts of places. We're creating more and more data and we need to manage it effectively, even on our desktops and laptops. Full-blown web applications use hefty databases like MySQL or Oracle. They're not needed for single-user desktop applications, so tools like Google Gears that need to use a database, but don't need to fill your hard disk and steal your CPU, use SQLite. Google Gears lets you use SQLite from your application's JavaScript. Creating a database is easy enough. All you need to do is initialise the Database class:

```
<script type="text/javascript">
var db = google.gears.factory.
create("beta.database", "1.0");
</script>
```

Once you've created a database, you'll need to add data to it. You'll need to create tables and then add data to them. Once data's stored in the database, you'll be able to use standard SQL syntax to build and run queries. The resulting data is held in a ResultSet object, which can be used in your applications, just the same way as you would work with data returned by an AJAX or JSON call to a remote server.

There's one big problem with the web; you can't take it with you. There you are, visiting a friend who hasn't got broadband, and you can't work with your email in Gmail or your files in Google Docs. Web 2.0 is all about the online experience, but there's no offline to go with it. If your data is stored on a website, it's going to stay there until you're back online again.

That's why there's a lot of work going into developing the tools for delivering what Adobe calls rich internet applications, tools that take internet applications away from the traditional online browser-based experience. Adobe's own AIR builds on its Flash Player, while other tools like Google's Gears are intended to help existing browsers work offline. Google's push into the world of web services has given it a much wider reach than its core search business, but it has also meant that there's a demand for Google's applications to run without its servers.

That's the rationale behind Gears. It's a tool that will help existing web applications work offline. Download Gears and you'll get three things: a local server that caches and runs web applications; a database to store persistent data from session to session (and to store

Google describes Gears as a 'developer-only release'. While it's not intended for use by all and sundry, it's suitable for developers who want to learn how to use the technology with their sites, and for anyone who wants to just kick the tires.

Google Gears is intended to work with both Firefox and Internet Explorer (there's also an initial release for Safari), and runs on Windows, Macintosh and Linux. You can download the beta from Google's Gears web site (<http://gears.google.com>). The initial set-up installer is small – only 222KB – but it does download additional components if they're needed, so it's a good idea to be online when you're installing Gears.

Gears gives web developers several options. One is the ability to take static content offline – ideal for building a Help tool for a desktop application. You'll need to start with a manifest file in JSON format. This is a list of the URLs of the pages you want to store offline. URLs can be fully qualified or relative:

```
"entries": [
  { "url": "page1.html" },
  { "url": "site.css" },
  { "url": "images/logo.png" },
```

“Download Gears and you'll get three things: a local server, a database and a JavaScript library”

server data); and a JavaScript library that helps speed up large processor-intensive operations. There's one important thing to remember – Gears won't make just any web application work offline, so you'll need to develop a Gears-enabled version before your users can take it offline.

```
{ "url": "page1.js" },
]
```

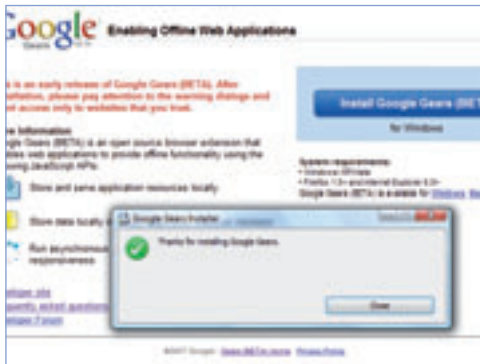
Once you've created your manifest, you'll need to write Gears-aware JavaScript to handle your application's interactions with Gears. Google provides a sample



Remember the milk lets you take your to-do-lists offline with Google Gears, so you won't forget anything on your shopping list!

GETTING STARTED WITH GOOGLE GEARS

We take you through the initial process with our step-by-step guide



01 Download and install

Google Gears is installed from the Gears home page at <http://gears.google.com>. Click on the large blue button to download the Gears installer. Once the file has downloaded and you've run the installer, you'll need to restart your browser to enable Gears. Even though Gears is beta software, it should install without any problems.



02 Trying out Gears

Once installed, head over to the Gears developer site (<http://code.google.com/apis/gears/>) to test your installation. Google provides a small selection of sample applications so you can test the main functions of Gears – just make sure you'll be able to disconnect your PC from the internet.

04 Taking a site offline

We can now create our HTML content, a page with two buttons – one to take the page offline, the other to remove the page from the local store when we don't need it any more. The page will also need to initialise Gears when it loads, so make sure it loads Google's `gears_init.js` script.

```
<head>
<script type="text/javascript" src="gears_init.js"></script>
<script type="text/javascript" src="gears_handler.js"></script>
<title>Online/Offline</title>
</head>
<body onload="init()">
<div>
<p>Status: <span id="statusMessage"></span></p>
</div>
<p>
<button onclick="goOffline()" > Take offline
</button>
</p>
<p>
<button onclick="goOnline()" > Remove
offline </button>
</p>
</body>
```

05 Managing the store

The following JavaScript will use the Gears' APIs to handle creating a store, copying the files from the manifest into it, and close down offline access when the user goes online.

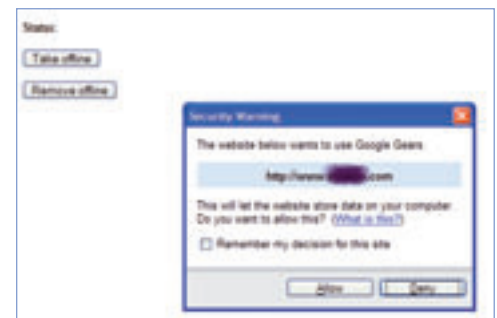
```
var localServer;
var store;
function init() {
  if (!window.google || !google.gears) {
    statusMessage("Google Gears is not installed.");
  } else {
    localServer = google.gears.factory.create("beta.localserver","1.0");
    store = localServer.createManagedStore("OfflineFiles");
    textOut("Yeay, Google Gears is already installed.");
  }
}
function createStore() {
  if (!window.google || !google.gears) {
    alert("Google Gears is not installed.");
    return;
  }
  store.manifestUrl = "manifest.json";
  store.checkForUpdate();
  var timerId = window.setInterval(function() {
    if (store.currentVersion) {
      window.clearInterval(timerId);
      statusMessage("This site is now offline " + store.currentVersion);
    } else if (store.updateStatus == 3) {
      statusMessage("Error: " + store.lastErrorMessage);
    }
  }, 500);
}
```

03 A first Gears application

Now it's time to write your first simple Gears application. We'll build an application that downloads a single web page to Gears' local cache. First create a file called 'manifest.json'. We'll use it to store details of the files we need to download when we take our site offline. The structure is very simple:

```
{
  "betaManifestVersion": 1,
  "version": "WebDesigner 1.0",
  "entries": [
    { "url": "offlinefile.html",
    { "url": "gears_handler.js",
    { "url": "gears_init.js"
  ]
}
```

```
}, 500);
}
function removeStore() {
  if (!window.google || !google.gears) {
    alert("Google Gears is not installed.");
    return;
  }
  localServer.removeManagedStore("OfflineFiles");
  statusMessage("Offline copy removed");
}
function statusMessage(text) {
  var message = document.getElementById("statusMessage");
  while (message.firstChild) {
    message.removeChild(message.firstChild);
  }
  message.appendChild(document.createTextNode(text));
}
```

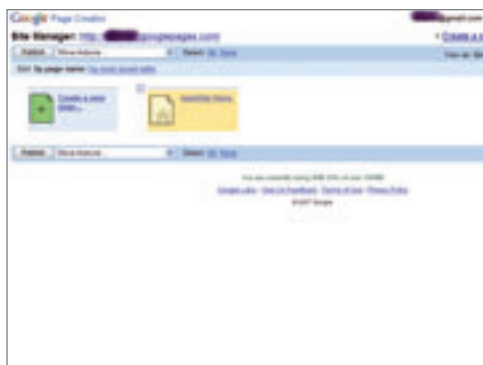


06 Online and offline

Upload the manifest, the HTML and the JavaScript files to a web server. Click on the buttons to take the site offline. Once offline, you can reload the URL when your PC is disconnected, and you'll get the same content.

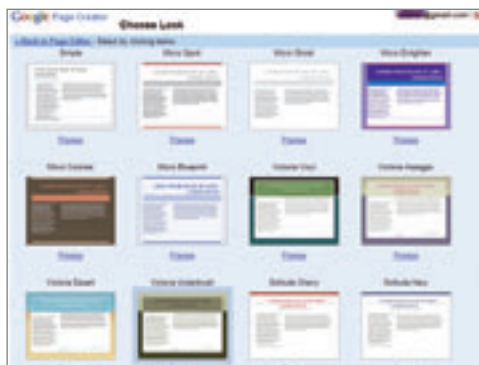
HOW GOOGLE PAGE CREATOR WORKS

Another of Google's new development tools helps you personalise your pages



01 Building a site with GPC

You'll need a Google Account to use the Page Creator (if you've got a Gmail address, use this). Once you're logged in, you'll start with the Site Manager. This will allow you to create pages and to give them names. You can also use the Site Manager to manage uploaded files, and see how much of your 100MB of space you've used.



02 Choosing a look

Google Page Creator has a library of page designs you can use to give your page a distinctive look and feel. Other options mean you can quickly change page layouts. Once you've chosen a design, a WYSIWYG online editor lets you add content to your pages. You can also edit the page HTML source.



03 Adding Gadgets

Google's iGoogle personalised home page can host any of a large selection of Gadgets. These are JavaScript and HTML page elements that add interactivity to a page. The same Gadgets can be used with the Google Page Creator, making it easy to quickly create a page with complex interactive features – all without writing any code.

"Gears uses a same origin policy, which means that an application can only access its own database"

script that you can use to help take your site offline. Your applications will first need to check to ensure that Google Gears is installed, using a call to a standard initialisation script, `gears_init.js`. This is the only supported way of starting up Gears, so you'll need to use it in all your applications. It will then need to create the appropriate store for your HTML content, using the contents of the manifest to capture the content. You'll need to make sure that the content has been stored before you can continue to run your application. Once the pages have been captured, you can then go offline and can load the pages, simply by typing the URL of the site.

If you're using an offline database, you'll want to keep data synchronised. This is where the Worker Pool tools come in, as they can allow your application to carry on running while data is transferred to and from your servers.

Google has thought about security in some detail, as you don't want a malicious site stealing all the data stored by the various Gears applications you've been using. Gears uses a 'same origin policy', which means that an application can only access its own database, and the local server can only capture content from the originating site. As the local database uses SQL, you'll need to use standard techniques to prevent SQL-injection attacks.

One problem facing anyone developing offline web applications is testing and debugging your code. Google's put together a library of tools to help you debug your applications, including a tool for examining the contents of your local server, and another to query database content.

One difference between Gears and many of the other RIA platforms is the fact that it's an open-source project, using a version of the popular BSD licence.

This means that you can build it and its API into your own applications, making it possible to use Google Gears to create your own RIA platform without a browser. If you're building an application on the Mozilla framework, you'll be able to use Gears to manage your user interface.

Google's other web application-development tools include the Google Mashup Editor and the Google Page Creator. GME is a site and language for creating web mashups that take advantage of Google's GData online storage API. Google's Page Creator is a tool for quickly creating your own web pages. With so many tools, Google's aiming to cover all the web development bases.

As Gears is only a developer release, it's not been used by many sites. Google's only included it on its Reader, though there are rumours of an upcoming Gears-enabled version of Gmail. One site that's taken advantage of Gears is the to-do-list site, Remember The Milk (www.rememberthemilk.com). To get you started, we show you how to build your own Gears-enabled web application in a tutorial on page 82.

Google Gears vs Adobe AIR

Adobe's AIR is probably the best-known rich internet development tool. Like Gears, it takes existing applications and lets them run offline. Probably the biggest difference between the two platforms is that AIR uses its own run time, while Gears adds offline capabilities to existing browsers.

This means that AIR applications look like desktop applications, while Gears applications will look and work just like a browser application. Google Gears makes a lot of sense if you're already running a

popular web application that you want to run offline, while AIR is for new applications that change the way users work with sites and services. Google has used Gears to give its Reader offline capabilities, while eBay has used AIR to give its familiar site a complete overhaul with a new desktop application.

Both let you work with your existing development tools, though Gears can be used with any JavaScript-editing package. That's a significant advantage, as it means your designers and developers don't need

to learn new languages or tools. However, you are limited by the capabilities of the browser. If you want to save files locally, you're going to need to use AIR, as Gears is limited to using a local database.

While there's competition between Adobe and Google, there's also co-operation. The two companies are working on developing a common API for the SQLite database that's used in both AIR and Gears. This will make it easier to deliver applications that run on both platforms.








COLOUR MATTERS

The ability to support a brand, convey a style and even evoke an emotion, colour in web design is one of its most crucial but neglected components, says Dave Howell



Colour shapes our world, as without it we could not navigate, understand and appreciate our surroundings. Everyone with normal colour vision intuitively has a colour sense that is influenced by their gender and the culture that they are a product of. Online, colour has become one of the most important design considerations as websites have evolved into more than simple static pages of information. Mood, style, branding and commerce; all of these aspects have a colour component that can enhance the perception and as a knock-on effect, the success of a site.

The RGB colour space that you'll be designing within offers an infinite variety of hues to choose from. However, there are many considerations to take into account. As we will see a bit later on, your own gender can have a heavy influence on the colours you choose. The colour palette for every site is undoubtedly a vital design decision. Get the palette right and you will reinforce your site's mood, and more importantly attract and retain visitors. Get the

elements and colour schemes. Creating meaningful visual components that enhance the user's experience will be the key to creating the mood of the site that appeals directly to the target audience."

A thorough grounding in colour theory is essential for all web designers. Bookmark useful sites like COLOURlovers (www.colourlovers.com), colorcombos (www.colorcombos.com) and Colors on the Web (www.colorsontheweb.com) to keep up-to-date with the current debates on colour theory and see the colour palettes that other designers are using.

Colour is one of the key design components of a website. Without the bold or subtle shades that a site uses, the design and therefore the site would not function as its designer intended. Sites like Philips' Amberlight (www.aurea.philips.com), newsmaps (www.marumushi.com/apps/newsmap/newsmap.cfm) and Chromazone (www.chromazone-imaging.co.uk) illustrate how colour is at the very centre of their design. Change the colour palette and their design simply doesn't work as well as it could.

"The colour palette for every site is undoubtedly a vital design decision"

palette wrong, and you risk alienating the very audience you are designing for, something of a nightmare in this profession of ours.


"Whether the site is client-based or personal, it's important to set the right mood so that people remember the site, the product and the company" said Shane Mielke (www.shanemielke.com). "If your site is too plain, colourless, boring or lacking in content, then no one will remember your site. Colours as well as motion, style, fonts and music are a big part of being remembered. The right colours feed off of the design of the site to inspire a person's emotions to what the designer wants them to feel. Through colour and those other factors, we can make people feel happy, sad, inspired, scared or any other emotions we want them to feel. The more a person feels the specific emotions we want them to, the more they will remember your site."

Kumi Akiyoshi, an experience strategist with design consultancy Adaptive Path also said, "To create a cohesive web experience, all of the visual components must work harmoniously. A successful web visual experience can be achieved with skilful crafting of a product experience, rather than being achieved by plastering graphical

What is important to remember is that the colour scheme that you choose for your site design doesn't exist in isolation as Andy Bennett, senior interaction designer at Head London commented, "Colour can play a huge role in web design, it can be used in various ways, such as helping a user to navigate around a site easily and efficiently, or for getting the user into the right mood. Take Give A Love Note (demo site at www.headlondon.com/bhf), a campaign site that we created for the British Heart Foundation. The idea was based around Valentine's Day and we needed to get the users into the mood of stringing together sexy messages to send to their loved ones. We used a very simple, yet striking colour palette of black, white and a racy red. It instantly has a mysterious and sexy feel to it, as well as getting the user into the right mood. When designing this site, I referenced established sites such as Agent Provocateur (www.agentprovocateur.com) and Myla (www.myla.com)."

COLOUR IN DESIGN

The use of colour in your site layout can offer you a rich and diverse range of design components. The overall colour palette of your site's design is important, but you



Interview



Gloria Moss, senior research fellow in the Business School at Glamorgan University, and visiting professor at ESF Paris

Gloria Moss combines a background in HR with a unique understanding of the impact of nationality and gender on graphic, product and web design. She has published over 30 peer-reviewed articles, many on men and women's design preferences, and is currently writing several books on design. She holds the position of senior research fellow in the Business School at Glamorgan University, and visiting professor at ESF Paris.

WJD: Your research on web design has shown that websites with certain characteristics will attract a particular gender. Have you concluded that there are any dos and don'ts when it comes to designing commercial websites to appeal to one particular sex?

GM: Yes, there are definitely dos and don'ts. Men tend to like linearity, formality and a not too-colourful look while women look for more colour,

more informality and less linearity. The language they like is also different with women tolerating greater informality than men. From the evidence of the men and women's sites across three countries (UK, France and Poland), it is quite clear that men and women's preferences diverge on numerous features! Take a look at the weblog I've prepared with my co-author at the University of Glamorgan, statistician Dr Rod Gunn, and you will see examples of male and female-designed websites [<http://designpsych.weblog.glam.ac.uk/>].

WJD: Ecommerce sites these days tend to be built with content management systems. This does mean in a lot of cases that they all end up looking very similar to Amazon. But the Amazon site is clearly successful. Is the Amazon site therefore gender neutral? Or does it – and the sites that look similar – actually appeal more to one sex than the other?

GM: At the moment, the vast majority of websites are constructed using a single aesthetic paradigm. This is very much mirrored on the male production aesthetic.

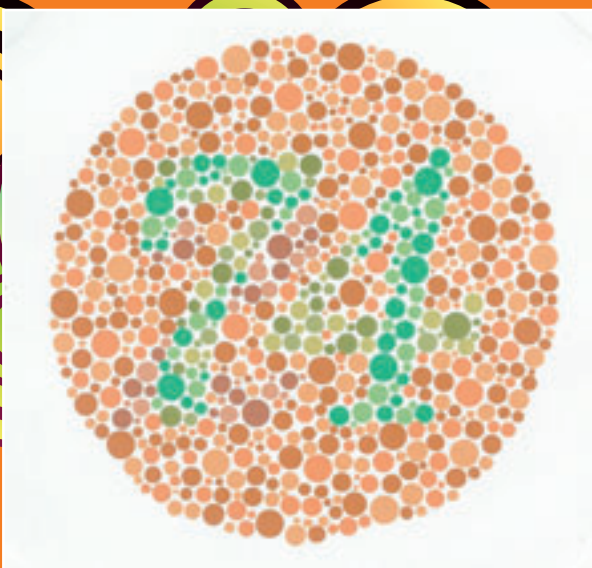
This may sound surprising but I found exactly the same when studying graphic and product design over a ten-year period. Just as in the case of web design, I found a massive tendency for design to be anchored in the male paradigm, and this was true even in sectors where the majority of consumers are women.

This matters for two crucial reasons. Firstly, it matters because tests I performed on graphic and product design, and more recently I performed with Dr Rod Gunn on web design, show that each sex has a massively strong tendency to prefer designs originated by their own gender. I have dubbed this phenomenon 'own-sex preference' and it holds true across all these design disciplines. Secondly, it matters because products perceived as pleasurable are preferred and used more often than products perceived otherwise, leading to enhanced purchasing.

WJD: You often talk about the production aesthetic. Can you explain what this is in the context of designing websites aimed at men and women?

GM: The production aesthetic is the term I use to describe the aesthetic employed in the designs that people produce. You can

"The sex of the audience for your website has much more of an impact on its colour palette than many designers realise"



Even though the percentage of people with colour blindness is relatively small, accessibility regulations state that you should do all you can to ensure that this section of the population can use your website

also need to look closely at how individual elements fit together. The colours you choose for these components will have a major impact on how your site is navigated for instance. But colour is not just about backgrounds and buttons. How photography, graphics, animation and text are presented on each page are also important considerations, as your design must be approached as a whole design concept.

With accessibility issues high on the design agenda once again, your colour choices will come under the spotlight. "Colour is as important in web design as any other form of design. Perhaps even more so when you consider accessibility guidelines," said graphic designer Sam Gilbey. "I think the colour scheme I used on MTV Switch [www.mtvswitch.org] worked really nicely. I can't totally take credit though, as the logo already existed and everything came from that. It all really came together when we added the blue tones though – they just complemented the red, black and beige perfectly. So you have the warmth of the red and the beige, but that's then contrasted with the black loneliness of space and the cold blue. Perhaps it's that slight dissonance that gives it a strong mood – the visual equivalent of sweet-and-sour sauce maybe. Only maybe though!"

The perception of colour by visually impaired people is also an area that can be easily overlooked by a site's design. Anything from eight to ten per cent of men but less than one per cent of women suffer from colour blindness. By far the most common form of this disorder is the inability to distinguish between red and green. Luckily there are various resources that enable you to check how the colour palette you have chosen would look to someone with colour blindness. Visit Vischeck [www.vischeck.com] to correct images for colour-blind visitors to your site, and also check out web specialists Etre for its Colour Blindness Simulator [www.etre.com/tools/colourblindsimulator].

Webcredible's Trenton Moss also pointed out, "Some dyslexic people actually prefer Comic Sans as that's the easiest for them to read. Dark blue on cream or on light blue are generally good colour combinations for dyslexic people and yellow on black is best for people with severe visual impairments." The Royal National Institute of Blind People (RNIB) website [<http://tinyurl.com/2jasmt>] also has a handy accessibility page that gives details of how colour backgrounds and text can have a high impact on their readability, depending on the particular colour choices you make for your design.

model this aesthetic by analysing these designs and comparing the male and female use of design. I did this with two colleagues at the University of Glamorgan, Dr Rod Gunn and Hrzysztof Hubacki, when we analysed 30 male and 30 female randomly selected student webites in each of the UK, France and Poland. We analysed the sites against 23 criteria (these spanned the areas of navigation, visual elements and linguistic elements) and then used the chi-square test of association (with $p < 0.05$ considered as the threshold for significance) compared the male and female sites. What came out of this was astonishing. More than half of the characteristics showed up as being significantly different in the male and female sites.

WD: The own-sex preference is an interesting discovery. If we assume that there are more male web designers working today than women web designers, does this mean that websites will always be geared or biased towards a male audience, or men built the sites? Can a man learn to design for a female audience?

GM: The majority of web designers it seems are men. I have carried out several surveys on the web design industry in the UK, and have consistently found men to constitute about 74-78 per cent

of designers. The picture in France is only slightly different in France with 65 per cent of web designers in Paris male.

Can a man learn to design for a female audience? That is a difficult question since it presupposes some understanding of the reasons for the differences. If you assume that the differences are rooted in society and the way that boys and girls are socialised, then you could expect that the differences could in fact be taught. If, however, you assume the differences to have some sort of biological origin, then it might be more difficult.

WD: Is there a formula that a website builder can use to ensure that their site appeals to the right gender in their audience? Is there specific design, colour, layout cues that are specific to gender?

GM: There may not be a formula but there are clear differences. The language they use is different, and the sites women create also have more links than the men's. From the evidence of the men and women's sites across three countries, it is quite clear that men and women part company on many different features!

WD: Clearly talking about gender bias is still pretty taboo and not very PC. But your research would seem to indicate that designers and the companies that employ them must put their audience's gender at the very heart of their site's aesthetics to be even remotely attractive

to women. Is gender is now an accepted design consideration, or are we still some way from seeing the light?

GM: I wish I could say that gender is now an accepted design consideration. I have had the honour of working with leading companies who have understood its importance, but they are probably still the exception rather than the rule. Many design companies are still influenced by the notion of unitary design excellence. Mention diversity and marketing and most people would give you a funny look!

I am hoping that, jointly with the Journal of Brand Management, we can put on a conference next year that will bring all these ideas to a wider audience. A recent consultancy was with the company Bounty, over 90 per cent of whose market is with women. Its old website was typically masculine – lots of lines and few colours – and it's now much better adapted to its market.

WD: What does the future hold? Will we finally understand that the design aesthetic has a gender element and build attractive and functional websites that appeal to their target audience; or will we continue to ignore this fundamental element of web design?

GM: We can only hope that word seeps out gradually. At the moment, over half the consumer population is not having its visual needs met. This leaves a tremendous opportunity for enterprising companies to step in and set themselves apart from the competition.

Try and approach the colour within your site's design holistically. The subject matter and the target audience will give you a guide to the colour palette that you'll likely be using. Also think about how you can use complementary colours and even a colour contrast to add drama and effect to your design if your audience will be receptive to this bold move. "Colour is one of the great tools we as designers wield in creating the emotional aspect of our designs," said Greg Huntoon, senior art director and account executive at Real Pie Media (www.realpie.com). "On a fairly universal level, there are a handful of colour combinations which evoke a mood or call in specific ideas or feelings: warm colours (reds, browns, yellows, oranges) remind us of daytime, sunshine and heat. Cooler colours (lighter blues, light greys, whites) suggest cooler days, cloudy skies or rain. A collection of drab shades of olive greens, some darker, some lighter, will nearly always invoke a military or militant feeling. Pastels will add a soft and light air to nearly any composition. Do red, white and blue not spell patriotism for any American? Even if a dissident, those colours have been reserved by the State – they are powerfully controlled in this way. The same goes for Christmas; holly-green and candy-red together scream 25 December."

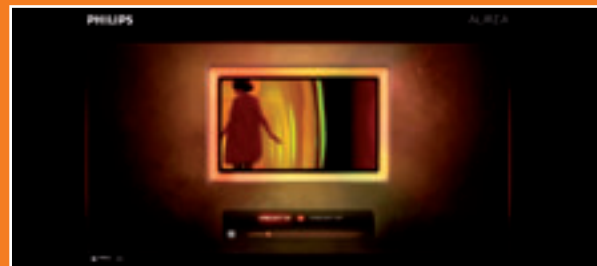
DESIGNING FOR GENDER

The sex of the audience for your website has much more of an impact on its colour palette than many designers realise. The often-accepted view that women like pink sites and men blue sites actually has some basis in reality, according to recent research.

A team studying how men and women actually process colour discovered that men and women do in fact react differently to the blue and red wavelengths of light. More telling is that a study has also revealed women's affinity for pink and lilac shades. In her forthcoming book on colour and gender, Gloria Moss, senior research fellow in the Business School at Glamorgan University says, "What the findings showed was that volunteers aged between 20 and 26 had been asked to select the colour they preferred by clicking with a computer mouse. While most of the participants were British white Caucasians, a sub-group of 37 were recent immigrants to the UK from mainland China, with almost equal numbers of men and women. The idea of testing the two groups was to separate out whether culture or biology might influence gender preferences for colour. Each participant viewed about 750 different pairs of colours spanning the entire



Colour is used to great effect on this news-aggregation website. You can instantly see how old a news item is by the saturation of its colour



To promote their new TV range, Philips commissioned a film that evokes emotion through saturated colour. The black serves to highlight the colour used in the movie

Men are from Mars,

Sex: Male
Site: ITV FI
URL: www.itv-fi.com

Designing for a particular gender is an art in of a website can be driven

Bold graphics

A high-resolution central image is often used on sites aimed at a male audience. The image reinforces the site's design and puts the visitor in no doubt about what kind of site they are visiting

Main site navigation

When a site is part of a larger portal, the main site should remain the centre of a visitor's focus. ITV's other sites are within easy reach, but they are unobtrusive and don't interfere with the main site design

Left navigation

The white-on-black theme is used to great effect here. The visitor can easily see how to navigate to the main sections of the site. Contrasting black and grey bands help to promote the hi-tech feel to this site

Sidebar buttons

Male-orientated sites tend to have a lot of graphical components, plus video content when available. The large buttons on this site use the white-on-black colour theme, with red for accent

Link colour

The main red-and-black colour theme is carried through to the individual text links. Dispensing with the usual rules regarding text-link colouring can often work very well, as in this case



Colour is part of your design vocabulary. Sites like this one enable you to see what's new in the world of colour design and keep ahead of the trends

rainbow, and in each case had to indicate which of the two shades they preferred. The male favourite was a pale blue while the female favourite was a lilac shade of pink."

This in-built preference should be on your agenda when designing for a particular sex. With site design becoming increasingly focused on narrower groups of consumers as marketers use the web to reach micro-groups for niche products and markets, understanding

"The male design paradigm is in evidence on just about every site"

who your audience is and what their colour preference is likely to become very important in the future." Try and get into the mind-set of the target audience that you're aiming for," said Head's Andy Bennett. "It's always good to find similar sites or influences which have been successful in targeting the right audience – have a go at deconstructing their design and work out what makes it successful. When I'm working on a design concept, I tend to try out quite a few different colour ways even though I have a gut feeling at the start as to the kind of thing that would be right. Be open-minded."

Also, the fact that most web designers are male influences the final design of the sites they are working on. The male design aesthetic is dominant on the web, even when a site is supposedly aimed at a female audience. The research carried out on the colour preferences of the sexes when applied to existing websites is interesting in that many of the sites that purport to appeal to women clearly have a male design aesthetic.

What is interesting is that when you look at websites that clearly have a strong female audience, their design is still governed by the male design paradigm. A good example is Confetti (www.confetti.co.uk). The wedding specialists clearly understand that the vast majority of their visitors will be female, but simply softening the tone of its colour palette and using lilac and pink isn't enough to truly be a site designed for a female audience. Other examples of sites that purport to be for women, but still have a strong masculine feel include: Shiny Shiny (www.shinyshiny.tv), Glamour magazine (www.glamourmagazine.co.uk),

Women are from Venus

itself. These sites ably illustrate how the design of by the sex of its target audience

Sex: Female
Name: Confetti
URL: www.confetti.co.uk

Section navigation

Colour can be used to great effect on a site's main navigational areas. Here, colours that complement the main lilac brand colour are used to reinforce the female design paradigm used on this site

Master colour

The Confetti site uses lilac as its main brand colour. This hue has been proven to appeal to a female audience. The brand, subject matter and site contents are perfect matches for the site's audience

Menu colour

Navigation is important on a complex site like this one. The drop-down menus continue the main colour themes that the site uses on each of its pages. Highlighted links use complementary pastel hue

Link colour

Abandoning the traditional link colour scheme complements the design on this site. The darker lilac of each live link supports the overall design aesthetic of the site

Complementary ads

A site design can be completely upset with the addition of adverts that the designer has no control over. Each ad sits comfortably as they use the same colour palette as the main site

social colour

The Web 2.0 design paradigm

If you open any two Web 2.0 sites side-by-side, it's abundantly clear that they have their own colour palette. Pastel shades are the order of the day, as are bold graphics and typography. This use of colour has become associated with social networking sites, and as such has become a design paradigm in its own right. You can learn the basic principles of Web 2.0 design on the Design From Scratch website [www.webdesignfromscratch.com/web-2-0-design-style-guide.cfm]. Perfecting your Web 2.0 design skills will mean acquiring a number of new tools. Point your browser at the Photohop Lab to learn the best techniques [www.photohoplab.com/web2-0-design-kit.html].

Andy Bennett, senior interaction designer at Head London says, "The Web 2.0 style has been influenced by technology – a move away from Flash sites with embedded fonts, etc, forced designers into actually using CSS styles and seeing what they can accomplish with them. I think the original aim with the Web 2.0 style was to create something that looked futuristic with a richer experience – use of bright, bold colours used sparingly against a clean background, gradients, reflections, fonts, shapes and a bigger size altogether added to this.

To ensure you're working with a Web 2.0 colour palette, download your own Photohop colour palette file from <http://tinyurl.com/y9h69e>. Lastly, no self-respecting Web 2.0 site would go live without a logo that shows the world that it is part of the Web 2.0 community. Take a look at a compilation of Web 2.0 logos for inspiration at <http://tinyurl.com/kgqrv>.

Agent Provocateur [www.agentprovocateur.com] and Dior [<http://fashion.dior.com/dior4.html>]. If you contrast this with a site that has been built with the female design aesthetic [<http://designpsych.weblog.glam.ac.uk/images/WebsiteFemale.gif>], you can see how their designs differ.

The male design paradigm is in evidence on just about every website that is live today. But some sites do clearly illustrate how design for the male audience is different than that for a female audience. Sites like Firebox [www.firebox.com], ITV's F1 portal [www.itv-f1.com/Home.aspx], Gamespot [<http://uk.gamespot.com>] and Manchester United Football Club [www.manutd.com] all have a strong male bias.

It has become clear that designing for specific genders can be difficult if you don't understand the market for your site, and also what the key design principles are for male and female design. Sites like Fingleaves [www.fingleaves.com/uk], Next [www.next.co.uk], Handbag [www.handbag.com], British Vogue [www.vogue.co.uk] and Nike [<http://store.nike.com>] all have a strongly masculine design when their customer base is mixed. The danger with these sites that attempt to appeal to a wide audience is that they lose sight of who their core visitors

are. As a consequence of this, their designers are not optimised with the colour palettes they use, or the design itself is too firmly rooted in the male design paradigm.

COLOUR, DESIGN AND EMOTION

Website design used to be all about function. Today, the web is such an integrated aspect of our lives that it must invoke emotion in just the same way as other media do. Design must clearly serve the site's purpose that more often than not is to sell us a product or service, but it's imperative that your designs also convey mood, emotion and style. These are key components of branding – something that all designers must take to heart if their sites are to fulfil their brief.

Kumi Akiyoshi says, "Creating mood expands website design beyond mere product offerings. Developing mood helps create enticing, emotionally relevant sensory experiences that will bring relevant values to people. Choice of colour can help capture the spirit of web experience, set the mood and define how the audience responds to the site. For me, one of the best ways for the use of colour to set a proper mood is by studying nature and things surrounding us, paying attention to things like how different colours feel memorable, visible, distinctive,

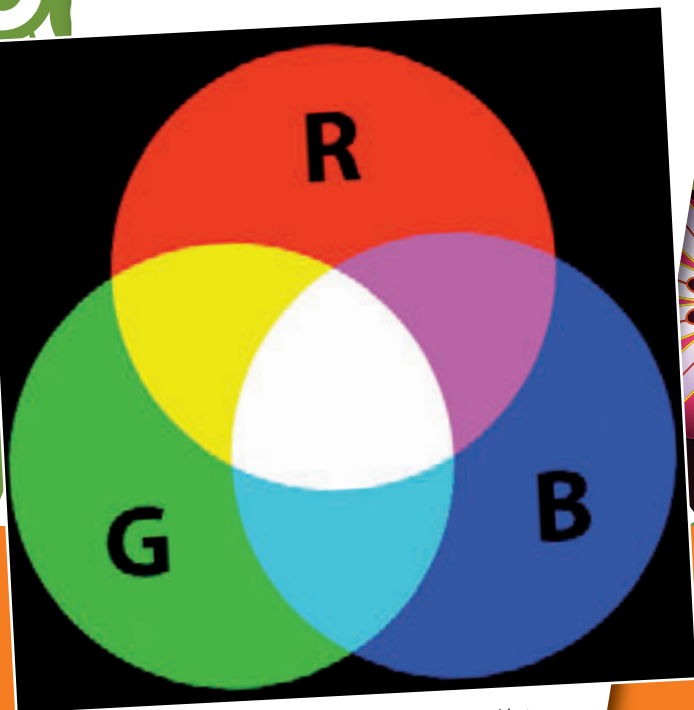
Colour theory

Understanding the web colour

All of the colours that you can specify for your website's design are based on the RGB (red, green and blue) colour space. This system is called the additive colour space, as you add colours together to get individual hues. Based on the ability of the cathode-ray tube to combine these three wavelengths of light, the RGB system is the basis for the creation of all screen-based colour.

The colours that the RGB colour space can produce are often grouped into two categories: warm and cool. Warm colours such as red and orange are often described as warm colours due to their association with sunlight. Conversely, blue and green are cool colours as they are associated with the earth. Colour can certainly evoke emotions. Colour psychology has developed, attempting to assign emotions to colours. For instance, red is associated with passion, green with nature, black with power and pink with marriage and femininity.

Colour cannot, however, be freely associated with a simple equation that states that one colour equals one emotion. The age, sex, and above all the culture of a person viewing a colour, will influence any empathy they feel. When designing colour palettes for your own website, it's imperative to know as much about your audience as possible. If your site is global, then checking out how a colour is interpreted in different countries might well surprise you and mean a redesign of some of your proposed site.



The RGB colour space might look as though it is quite limited, but from these three primary colours, millions of hues can be created

"Designing a site for every user group isn't possible without losing a lot of the personality of a site"

universal, engaging and timeless. Also it is important to understand who the audience is. What sort of emotional values does the site need to create? And how are colours useful in helping users experience the site?"

Choosing the right colour palette will often be one of the most important aspects in the early stages of your design. Using a limited colour palette can often be very effective. Websites like First Direct (www.firstdirect.com) and the portfolio of Jonathan Yuen (www.jonathanyuen.com) are great examples of what can be achieved. And if you need to convert colour images into black-and-white, take the tutorial on the Photoshop retouching website (www.photoshopsupport.com/tutorials/or/black-and-white.html). If your site design is heavy with images, it's a good idea to match the overall colour scheme to the main shots you'll be using. Take a look at the handy utility on the DeGraeve website (www.degraeve.com/color-palette). Enter the URL of an image to get a colour palette that matches the image. This is useful for coming up with a website colour palette that matches a key image a client wants you to work with.

Shane Mielke concluded by saying, "It's near impossible to account for every single user's preferences. Every individual in the world has a different take on their

personal favourites for colour, fonts, design style, font size, music genres, etc. Combine all of those things together and the combinations are endless. Designing a site for every user group isn't possible without losing a lot of the soul and personality of a site. Take, for example, Apple.com. It is a beautifully simple site but it is mostly devoid of any special mood or colour. In order to breathe life into a design, it helps to have a site that does cater to a smaller, more specific audience within a set demographic. When I do car sites for Ford, it is fun because they tell me exactly the type of people who buy a specific car before I design the site. Age, sex, personality and income are all things I find out about the end user, and this information helps me to establish the colour and personality without fear of alienating certain users."

The German abstract painter Hans Hofmann said, "The whole world, as we experience it visually, comes to us through the mystic realm of colour." This affects you as a web designer. Part of your skill set is to decode this mystic realm and by relating this to your client's brief, and the target audience for your site, distil a colour palette that will give the site its personality. When placed at the heart of your design, colour can really be a designer's most formidable weapon.





THE BRIEF

ON THE CD

Tutorial files:
Find all the files you
need on the CD

TUTORIAL OBJECTIVE

Create Adobe AIR desktop
applications using Flash

TIME REQUIRED

1 hour

SKILL LEVEL



Create applications with Flash and Adobe AIR

WE SHOW YOU HOW TO TAKE YOUR FAMILIAR WEB SKILLS AND
BUILD DESKTOP APPLICATIONS THAT RUN OUTSIDE THE BROWSER

FOR QUITE SOME time now, there has been a blurring of boundaries between the two main computer elements consisting of the web and the desktop. This is in no small part thanks to mashups and the like, which have given functionality to web services that have previously been the specialities of desktop applications. Flash itself has had the ability to create projectors that work on the desktop of the OS since Flash 3 way back when.

The problem was that Flash's projectors couldn't talk to the OS directory structure but could talk to the web. Now Adobe AIR allows you to use Flash, HTML, CSS and AJAX. With these technologies, you can package up any file to run on the desktop and have access to both the web and the computer-file system. In this tutorial, we herald in the new era of desktop development with Flash and the Adobe AIR beta by creating an RSS reader and weather widget.



YOUR EXPERT

Mark Shufflebottom teaches on the BA and MA Interactive Media courses at Bournemouth University. He teaches 3D applications, interface design, online gaming, small-screen device production and, of course, all things Flash and ActionScript.

Create applications with Flash and Adobe AIR



01 Get AIR run time

Open your web browser and visit http://labs.adobe.com/technologies/air/develop_flash.html. On the right-hand side of the page, you will see a box entitled Download and Discuss. Click the Get Adobe Air link, then download and install the beta for your operating system.



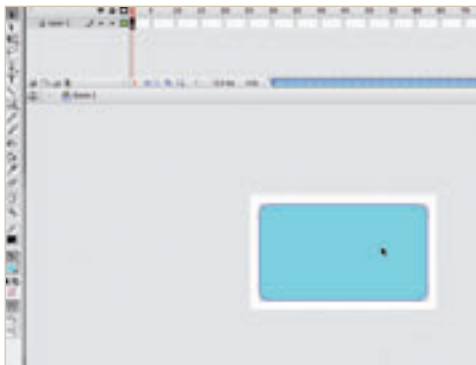
02 Get AIR for Flash

Hit the Back button on the browser to go back to the URL given in the first step. This time click on the next link, entitled Get Adobe AIR update for Flash CS3 Professional. Follow the download process then install the software. You will need to close Flash first to install this.



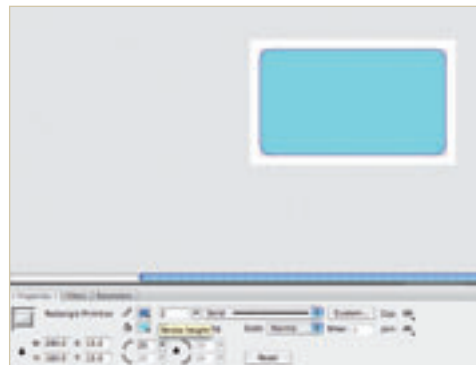
03 Start Flash

The first installer allows AIR applications to run on your computer and the second updates Flash to be able to publish AIR applications. Now let's start Flash and take a look at some of the basics. In the welcome window, select Flash File (Adobe AIR) under the Create New column.



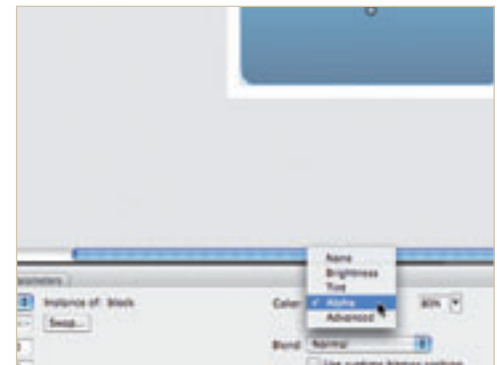
04 Document settings

Change the Document settings by clicking the Size tab in the Properties panel and make the width 310 by 190 pixels high. Click OK to close the Document settings. Now choose the Rectangle Primitive tool and draw a rectangle on the stage as shown.



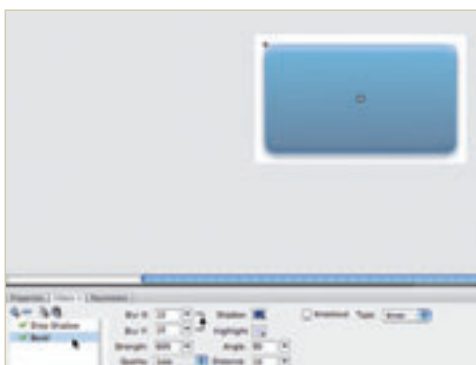
05 Change dimensions

In the Properties palette, position the rectangle at 15 pixels on the x and y axis, make the width 280 by 160 pixels high, and give it a 20-pixel corner radius. Add a two-pixel stroke to the rectangle in a mid-blue colour. In the Mixer palette, change the gradient drop menu from Solid to Linear.



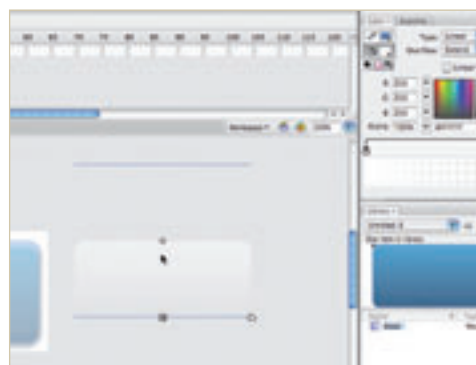
06 Change the gradient

Add a dark to light-blue gradient, then add it to the shape and change the gradient direction using the Fill Transform tool. Select the rectangle and choose Modify>Convert To Symbol. Make it a Movie Clip and name it 'block'. Change the Alpha value of the Movie Clip to 80 per cent.



07 Glossy edges

Select the Filters tab in the Properties palette and add a Drop Shadow to the rectangle. Make the Strength 60 per cent with a 15 pixel Blur, at a 90 degrees angle with a Distance of five pixels. Now add a Bevel filter and copy the above settings to make the rectangle look glossy.



08 More highlight

Copy and paste the rectangle, then press Ctrl+B twice to break apart the symbol and the Rectangle Primitive. Remove the stroke and select the bottom half of the rectangle, then hit delete. Add a white transparent gradient to the top, then press Ctrl+G to group it.



09 Position the shape

Position the grouped rectangle at 15 pixels on the x and y axes. Select the Text tool, change the settings to Dynamic Text in the Properties palette and draw a text box as shown on the stage. Give the text area the instance name 'myText_txt'. Change the text style to Render text as HTML.



TECHNIQUE

Going further with AIR

AIR is such a new piece of technology that it is still in beta-testing. Here we show you how to get information on it



01 Adobe Labs

You can find a good overview of the technology at <http://labs.adobe.com/technologies/air/> and gain a good insight into how AIR works. The whole site is a wiki, so users can contribute and help others to learn by making additions to the documentation.



02 Download samples

Crucial to working with any development technology, it is always useful to get hold of some sample applications and look at the code. Learn how the professionals create AIR applications at <http://labs.adobe.com/technologies/air/samples>.



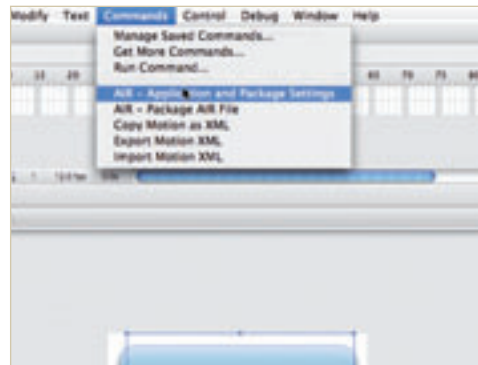
03 Visit the bus online

Adobe has sent a bus of AIR coders across America to tell the world about AIR. As you probably can't get access to the bus, visit the accompanying website, <http://onair.adobe.com/>, and read the developers' blogs.

10 Add a new layer

Create a new layer and select Frame 1. Open the ActionScript editor and add the code below. This sets up the code to load a weather RSS feed for Bournemouth. To get the weather for your area, point your browser to <http://weather.yahoo.com> and add your location. Then click the RSS button to get the feed address.

```
stage.scaleMode = StageScaleMode.NO_SCALE;
var myXML:XML = new XML();
var XML_URL:String = "http://xml.weather.
yahoo.com/forecastrss?p=UKXX0021&u=c";
var myXMLURL:URLRequest = new
URLRequest(XML_URL);
var myLoader:URLLoader = new
URLLoader(myXMLURL);
myLoader.addEventListener("complete",
xmlLoaded);
```



12 Test the SWF

Press Ctrl+Enter to test the SWF; it should connect to the weather feed and put the weather in the text area. However, it does still look like a regular SWF with the usual Flash window around it. Close the window and choose Commands>AIR Application - and Package Settings.



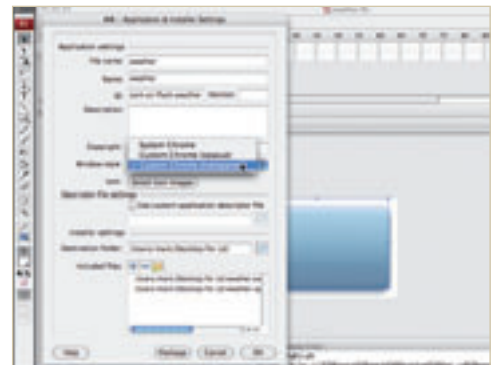
14 Install the application

Minimise Flash and browse to the location that you saved your weather fla. You will notice some new files, including weather.air. Double-click this and you will be given the Adobe AIR installer. Install and make sure the option is checked to start the application after the installation.

11 Loader event

Add the function shown below which is called when the XML is loaded from the RSS feed. This places the description node of the RSS into the text field on the stage, named 'myText_txt'. This is all the code we need, so save the Flash file as 'weather' somewhere on your computer.

```
function xmlLoaded(event:Event):void
{
    myXML = XML(myLoader.data);
    trace("Data loaded.");
    myText_txt.htmlText=myXML.channel.
item.description;
}
```



13 Change transparency

Change the Window Style to Custom Chrome (transparent). Close this window and press Ctrl+Enter to test the file again - the SWF should now be transparent. Close this and open the AIR settings again. Now click the Package button and it will generate the AIR package.



15 The finished application

Once the application is installed, it can run just like any normal application and can sit on your desktop like a gadget/widget or just run in the background, keeping tabs on the weather for you. This can be distributed for Mac or PC and will work as an application on either platform.



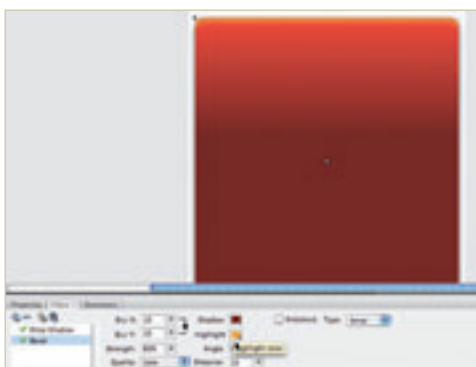
16 A new AIR document

Back in Flash, save and close the weather fla. Again create another Flash File (Adobe AIR) document. This time we will create a desktop RSS reader that will sit outside of the browser and bring all the news you need straight to you. As before, change the Document settings as shown above.



17 Rectangle Primitive

Select the Rectangle Primitive tool and as before, add a rectangle. Make it 430 pixels wide by 470 pixels high in the Properties palette. Position it at ten pixels on the x and y axes, with a 20-pixel corner radius. Use a light-red to dark-red gradient for the fill as shown above.



18 Make transparent

Choose Modify>Convert To Symbol to change the rectangle to a Movie Clip, and name it 'block'. In the Properties palette, change the colour drop menu to Alpha, with a value of 90 per cent. Click on Filters and add a Drop Shadow and a Bevel as in Step 7, but use orange colours.

IN DETAIL

Packaging AIR applications

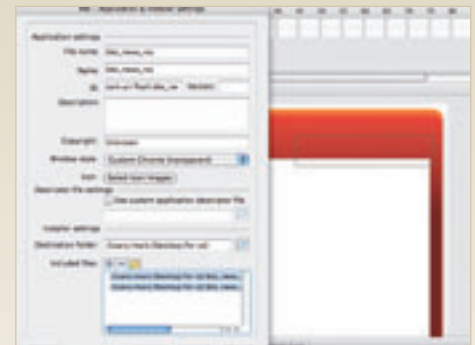
AIR applications are packaged up in Flash, but it is important to know how this works in order to make sure that you get the right results in your final AIR package

WHEN WE PACKAGED the AIR application in the tutorial, you may have thought it slightly strange in that we had to close down the AIR – Application & Installer Settings window, generate an SWF and then go back to package our file. This is because the software is still in a beta-testing phase. To make it clear, we explain here how the packaging of the AIR file works.

The answer to why we have to first generate our SWF file is that if we do not generate this, then the AIR application has nothing that it can package. So if you go straight into AIR – Application & Installer Settings from the Commands menu and click the Package button, you will not get an AIR application. This is because the two files, the SWF and an XML file, are not yet generated. So the first important task to remember when creating an AIR application is make sure you have first tested your SWF. This usually is not a problem because as you are working on an application in Flash, the normal practice is to test the application at fairly regular intervals of development to make sure that it is working perfectly fine.

Another important point to note is that if you go to the AIR – Application & Installer Settings pop-up window and change any details, such as having a Custom Chrome (transparent) background, then hit the Package button, you will not have a transparent background AIR application. As before, this is because the Package button only packages what it has to work with. As you have not generated a new transparent SWF, the AIR application uses the last SWF that you have generated. So in order to take advantage of the transparency, just test the SWF and then go back and hit the Package button.

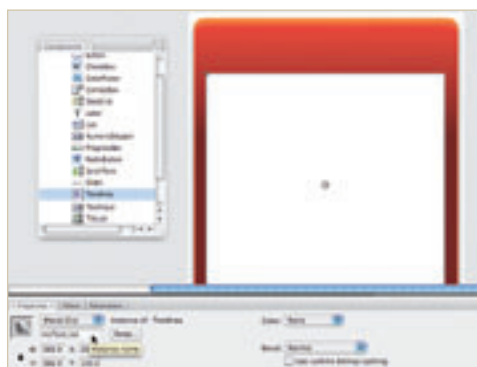
This probably all seems a little long-winded but because the AIR framework is still in beta-testing, you can be fairly confident that these small bugs will be ironed out when the final release hits us.



Flash needs the application settings, XML file and the SWF file already created, or it will package up nothing as an AIR application

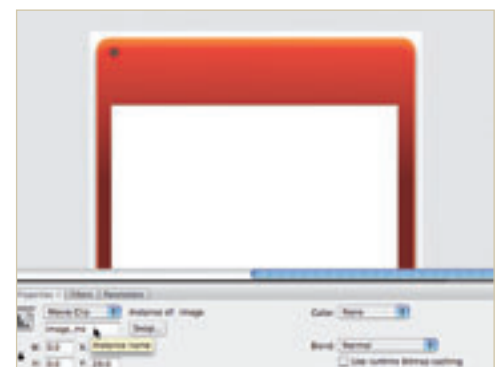


All the files necessary to create the AIR application can be created by first testing the SWF (Ctrl+Enter), then packaging the application



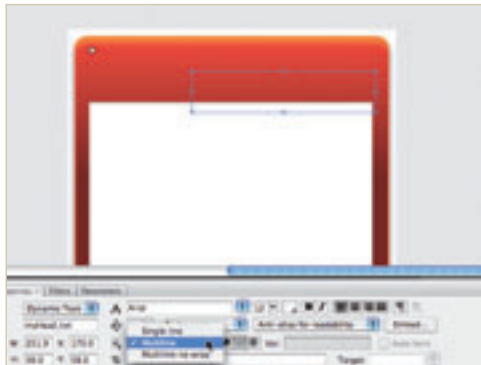
19 Add a text area

From the Window menu, choose Components. Browse the Components panel for the TextArea in the User Interface components. Drag this onto the stage and resize it to fit inside the rectangle, but leave some space at the top of the panel. Give this the instance name of 'myText_txt'.



20 Create a Movie Clip

Press Ctrl+F8 to create a new symbol. Name it 'image' and make it a Movie Clip. Don't add anything, just return back to the main stage and drag the symbol onto the stage. It will look like a white spot. Move this to the top corner as shown above, and give it the instance name of 'image_mc'.



21 Add a text panel

Select the Text tool and in the Properties panel, change the drop menu to Dynamic Text and add a text box as shown above. Give this the instance name of 'myHead_txt'. Make the font colour white and change the settings to Multiline and Render text as HTML.

24 Read the feed

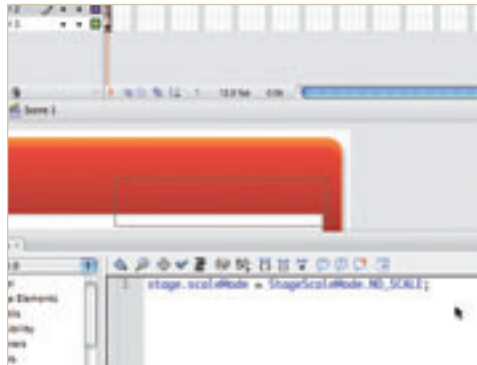
Continue adding the code as shown below. The first line sets up a variable to handle the loading of the BBC image from the feed. Then the function is declared which handles the feed when it is loaded. The image is loaded by getting the name from the feed and using it to load into the image_mc Movie Clip.

```
var loadImage:Loader = new Loader();
function xmlLoaded(event:Event):void
{
    myXML = XML(myLoader.data);
    if (myXML.namespace("") != undefined) {
        default xml namespace = myXML.namespace("");
    }
    var urlReqImage:URLRequest = new
    URLRequest(myXML.channel.image.url);
    loadImage.load(urlReqImage);
    image_mc.addChild(loadImage);
}
```

27 Final code

Add the final code as shown below. This displays the link to the story as a More... link, so the user can read any story that interests them in full. The rendered elements are stored in the body variable, which is returned back to the xmlLoaded function for display.

```
link.font = "More...";
p.appendChild(<br/>);
p.appendChild(link);
body += p;
return body;
}
```



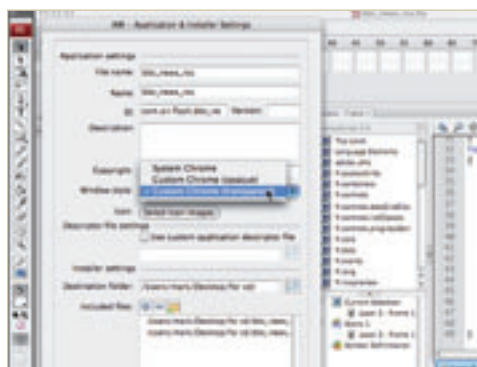
22 Create a new layer

We've now added all the graphical elements to sit on the stage. Create a new layer that will hold the ActionScript. With Frame 1 selected, open ActionScript, ready to add the functionality to this document. Add the first line of code as shown above which stops the Flash file from scaling.

25 News heading

The heading is added to the myHead_txt text field from the feed, then each of the XML items is sorted by title, description and link, which is sent to the buildItemHTML function for formatting. When this is returned, it is placed in the text area 'myText_txt'.

```
myHead_txt.htmlText+=myXML.channel.title;
for each (var item:XML in myXML..item) {
    var itemTitle:String = item.title.toString();
    var itemDescription:String = item.
    description.toString();
    var itemLink:String = item.link.toString();
    outXML += buildItemHTML(itemTitle,
    itemDescription, itemLink);
}
XML.prettyPrinting = false;
rssOutput = outXML.toXMLString();
myText_txt.htmlText=rssOutput;
```



28 Test this file

Save the file as 'bbc_news_rss fla' on your computer. Press Ctrl+Enter to test and you will see the RSS feed into the file. Close the preview window and choose Commands>AIR – Application and Installer Settings. Change the Window Style to Custom Chrome (transparent).

23 Set up variables

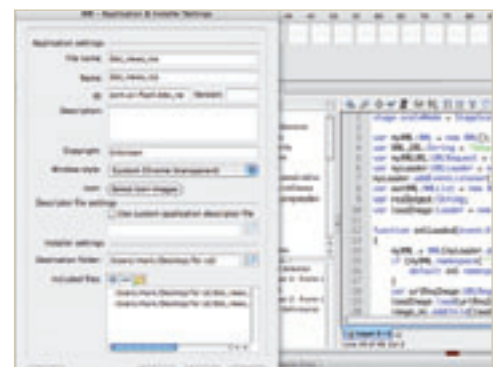
Add the code shown below to the ActionScript editor. These variables set up the XML object and store the URL of the RSS feed to load. You can change this to another RSS feed if you desire. An Event Listener is added to handle the feed when loaded so the xmlLoaded function will be called.

```
var myXML:XML = new XML();
var XML_URL:String = "http://newsrss.bbc.
co.uk/rss/newsonline_uk_edition/front_page/
rss.xml";
var myXMLURL:URLRequest = new
URLRequest(XML_URL);
var myLoader:URLLoader = new
URLLoader(myXMLURL);
myLoader.addEventListener("complete",
xmlLoaded);
var outXML:XMLElementList = new XMLElementList();
var rssOutput:String;
```

26 Format the text for display

The function buildItemHTML takes each element and formats them using HTML-style elements. These are interpreted in the text by rendering the text as HTML.

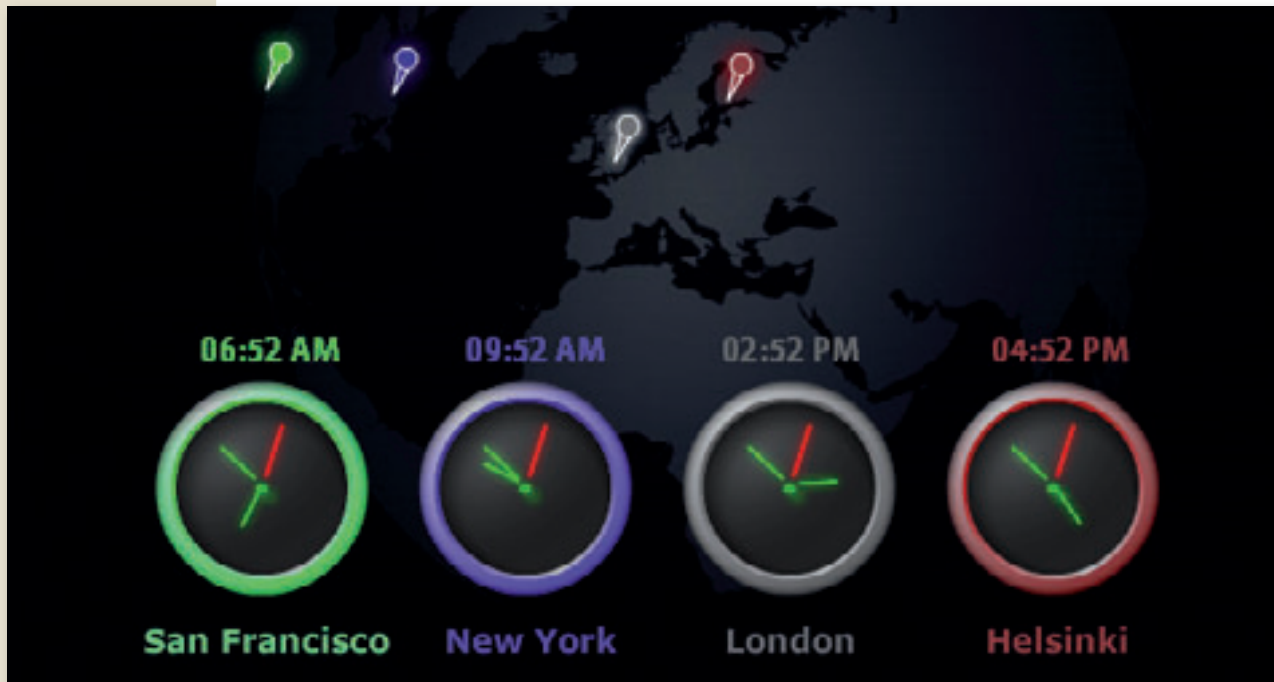
```
function buildItemHTML(itemTitle:String,
itemDescription:String, itemLink:String):
XMLElementList
{
    default xml namespace = new
    Namespace();
    var body:XMLElementList = new XMLElementList();
    body += new XML("<b>" + itemTitle +
    "</b>");
    var p:XML = new XML("<p>" +
    itemDescription + "</p>");
    var link:XML = <a></a>;
    link.@href = itemLink;
    link.font.@color = "#990000";
}
```



29 Package and install

Close the window, then press Ctrl+Enter again and you should have a transparent SWF. Close this and open the AIR settings again. Select the Package button and wait for the file to package. Minimise Flash and then double-click the bbc_news_rss.air file to install.





THE BRIEF

ON THE CD

Tutorial files:
wd138_timezone fla

TUTORIAL OBJECTIVE

Learn how to create a time-zone widget for your website

TIME REQUIRED

1 hour

SKILL LEVEL

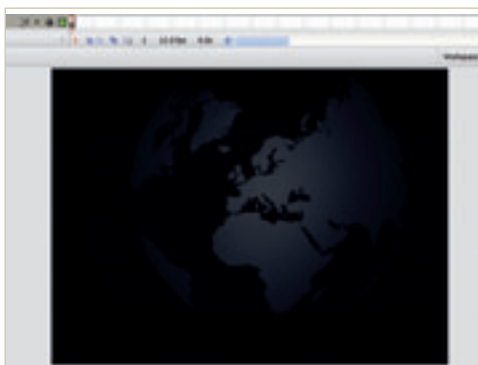


Create a Flash time-zone widget with ActionScript

DARREN RICHARDSON HELPS YOU KEEP TRACK OF TIME AROUND THE WORLD WITH THIS NEAT FLASH CS3 TIME-ZONE WIDGET

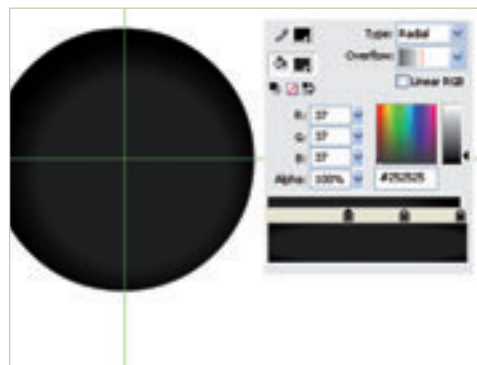
HAVE YOU EVER wondered what is happening on the other side of the world? Are they sleeping or at work? Or are you like me in my job, do you have to deal with clients in different parts of the world, and do you too have trouble keeping track of the time zones? I have to deal with clients in London, Helsinki, San Francisco and North America, and I am

always trying to work out when I could call or email them to get a response. So I decided to create a little widget, which I have on the depths of my website as a quick reference. In this tutorial, I will deconstruct the widget to show you how it's done, so then you too can add the widget to your site, and modify it to add or remove any cities as you wish.



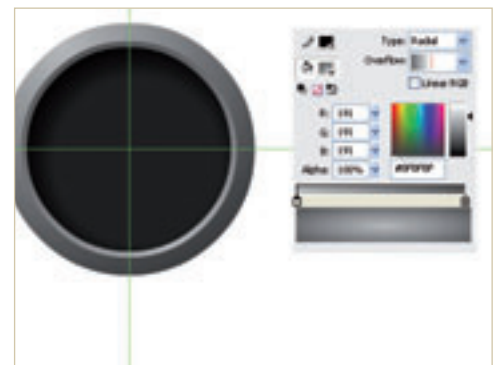
01 Setting the stage

Open up Flash CS3, and save the FLA as TimeZone fla. Open the Properties panel and set the size to 600 x 450px. Go to the timeline and name the first layer 'base'. Get the background image of the world from the cover disc called wd138_timezone_start fla, or you can create your own.



02 Clock face

As this is a time-zone widget, we need a clock face to show the time. Create a new layer and call it 'time'. On that layer, create a new Movie Clip and call it 'clockface'. Inside the Movie Clip, create a layer called 'face'. Draw an eclipse and apply the Fill Color radial with the settings above.



03 Clock rim

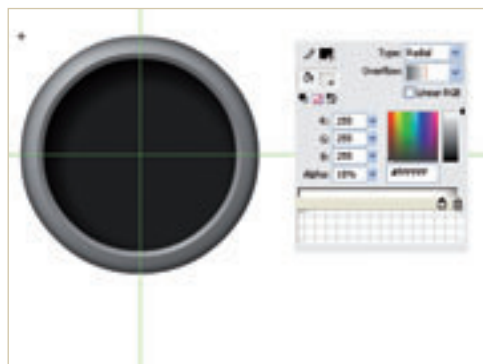
Create a new layer in the clock Movie Clip and call it 'rim1'. First draw a circle using the radial fill as above, then draw a second eclipse, but this time a bit larger and using a darker radial fill. Now drag the face layer above the rim1 layer and you should see something resembling the image above.



YOUR EXPERT

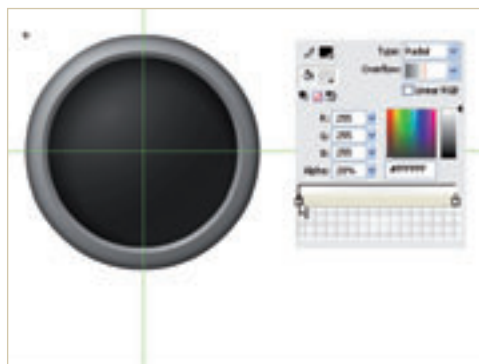
Darren Richardson works as tech leader at R/GA's London office. He has written a number of Flash articles, from experimental to rich internet applications using Flash and ActionScript. Catch more from Darren at www.playfool.com and www.experiment.org.uk.

Create a Flash time-zone widget with ActionScript



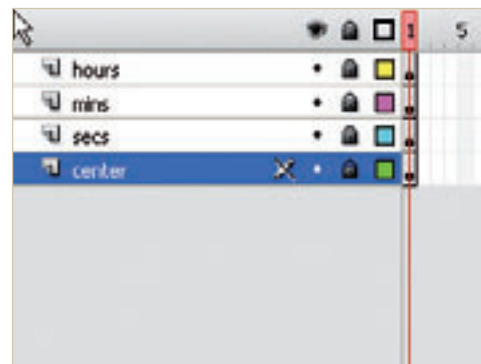
04 Continue the clock rim

In-between the two current layers, create a new layer called 'rim2'. This will give you a nice bevel effect on the current rim. As before, draw an eclipse but this time add the radial effect as above. Using Alpha allows the previous and current blends to mix and give the desired effect.



05 Light spot

This is the last thing on the clock face to make it look cool. Create another layer and call it 'top'. Draw another eclipse, this time the same size as the first one you drew. Place it directly over the top and add the Radial and Alpha effects above to create a light-source effect on the clock face.



06 Hands Move Clip

Create a new Movie Clip and call it 'handsMC'. This will go inside the clockface Movie Clip when it's completed, but to position it correctly inside the clockface Movie Clip, you first need to create it. Create four layers and call them 'hours', 'mins', 'secs' and 'centre'.



07 Hour hand

Inside the handsMC, create a new Movie Clip and call it 'hours'. Open up the Movie Clip and inside, draw a line from the registration point (highlighted by the cursor) upwards. If you don't draw from here, the hand will not move correctly. Place the hand a little above it as shown.



08 Minute hand

Navigate back to the handsMC and create a new Movie Clip called 'mins'. As before, create a new line in the mins Movie Clip, placing it just above the registration point. Make this hand slightly longer; like any clock, the minute and second hands are always longer than the hour hand.



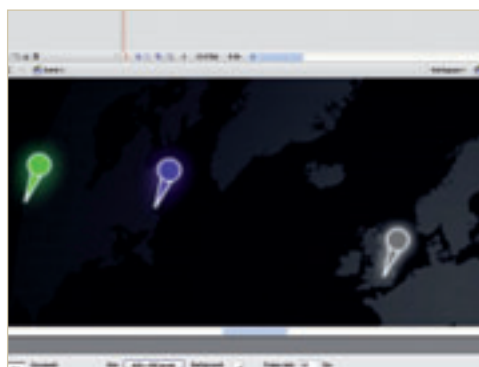
09 Second hand

Like you have just done for the previous two hands, create a new hand and call it 'seconds'. Again, make this about the same length as the minutes hand. Notice the different colour. Navigate back to the handsMC, and here you can tint the hands as you like.



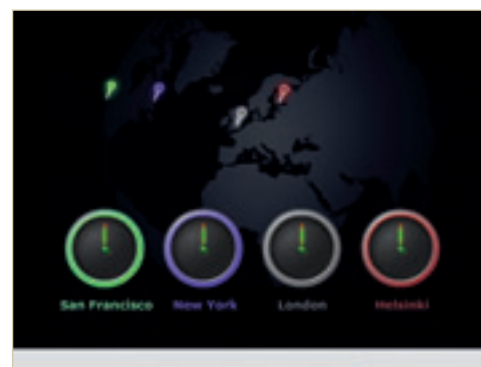
10 Clock centre

In the layer called centre, draw an eclipse. Select each of the hands and in the Properties panel, change the instance names. For the hour hand, call it 'hoursMC', the minutes hand as 'minsMC' and the seconds hand as 'secsMC'. Save and place on the centre of the clockface Movie Clip.



11 Location pins

Back in the main stage, create a new Movie Clip called 'London_block'. Inside this, create a pin graphic and then duplicate it in the library by right-clicking the Movie Clip. Create three more called 'Hel_block', 'SF_block' and 'NY_block'. Change the colour for each and place on the map.



12 Clock instance

Duplicate the clockface Movie Clip and tint each of the four clocks to match the pins. Name them something like 'countryNameClock'. Place them on the stage and call their instance names the following: 'SanFranClock', 'NYClock', 'UKClock' and 'HelsinkiClock'. Place a label under each.

TECHNIQUE

Add textual time

You have added a clock face to the widget, now add a textual reference so you can see if it's morning or afternoon

```
London_txt.text = getClockTime(hou
rs,mins);
Helsinki_txt.text =
getClockTime(hours + helsinki,mins);
NY_txt.text = getClockTime(hours +
ny,mins);
SanFran_txt.text =
getClockTime(hours + sanFran,mins);
```

01 Dynamic text

Add a new layer to the main stage, then add four dynamic text fields, calling them 'London_txt', 'Helsinki_txt', 'NY_txt' and 'SanFran_txt'. Make sure they are wide enough to hold 12 characters. Add the above code to the onEnterFrame function.

```
function getClockTime(hrs:uint,
mins:uint):String {
    var modifier:String = "PM";
    var minLabel:String =
doubleDigitFormat(mins);
    if(hrs > 12) {
        hrs = hrs-12;
    } else if(hrs == 0) {
        modifier = "AM";
        hrs = 12;
    } else if(hrs < 12) {
        modifier = "AM";
    }
    return (doubleDigitFormat(hrs)
+ ":" + minLabel + " " + modifier);
}
```

02 AM or PM

Add the function code under the onEnterFrame function. This takes in the hours and minutes, then checks to see if it's actually AM or PM, before returning a new string. This function calls another function called doubleDigitFormat.

```
function doubleDigitFormat(num:
uint):String {
    if(num < 10) {
        return ("0" + num);
    }
    return String(num);
}
```

03 DoubleDigitFormat

Copy this function below the getClockTime(). This will check to see if the number passed in is a single digit or not. If it is, it will add a 0 to the beginning. Save your file and test.

13 Events

Create a new layer called 'code' on the main stage. Open the Actions panel and add the code below. With ActionScript 3, you have to import the Events class to enable you to execute an onEnterFrame event. The second line adds an Event Listener to the main stage, so that in every frame the function onEnterFrame is called.

```
import flash.events.Event;
this.addEventListener(Event.ENTER_FRAME, this.
onEnterFrame);
```

15 Date

Set up the onEnterFrame function you referenced in your Event Listener at the beginning. Remember to add the Event object as a passing parameter, otherwise your movie will error. Now set up a new Date object and assign three variables, one for each of the methods (getHours, getMinutes and getSeconds). This will fire on every frame, so the correct time will always be shown.

```
function onEnterFrame(e:Event):void
{
    var d:Date = new Date();
    var hours:uint = d.getHours();
    var mins:uint = d.getMinutes();
    var secs:uint = d.getSeconds();
```

17 Zones

Do the same for the seconds hand as before. With the hours, you need to add the corresponding variable to the location as well to the hours variable, and then X by 30 plus the mins x 0.5 to give the correct angle of rotation.

```
NYClock.handsMC.MinsMC.rotation = mins * 6;
NYClock.handsMC.secsMC.rotation = secs * 6;
NYClock.handsMC.hoursMC.rotation = (hours +
ny) * 30 + (mins * 0.5);
// San Fran
SanFranClock.handsMC.MinsMC.rotation = mins
* 6;
SanFranClock.handsMC.secsMC.rotation = secs
* 6;
SanFranClock.handsMC.hoursMC.rotation =
(hours + sanFran) * 30 + (mins * 0.5);
```

14 Variables

Now we have to set the variables for the time zones. Because the main country is the UK, the other variables represent the time differences from the UK. When declaring the variables, use int and not uint, because you need to deal with negative numbers.

```
var sanFran:int = -8;
var helsinki:int = 2;
var ny:int = -5;
```

16 Assign the time

When you were creating the clockface and handsMC, you may remember you assigned all these nested Movie Clip instance names. A common error when creating applications like this is forgetting to assign the instance names, so double-check. Assign the UKClock.handsMc.MinsMc.rotation parameter the min variable X 6 to get the correct angle.

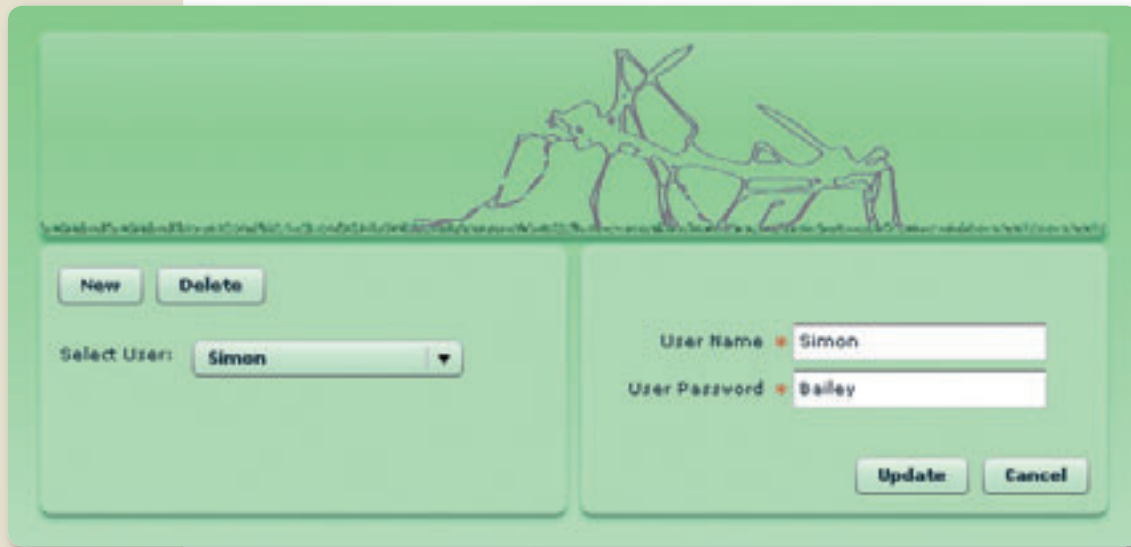
```
// London
UKClock.handsMC.MinsMC.rotation = mins * 6;
UKClock.handsMC.secsMC.rotation = secs * 6;
UKClock.handsMC.hoursMC.rotation = hours *
30 + (mins * 0.5);
// Helsinki
HelsinkiClock.handsMC.MinsMC.rotation = mins
* 6;
HelsinkiClock.handsMC.secsMC.rotation = secs
* 6;
HelsinkiClock.handsMC.hoursMC.rotation =
(hours + helsinki) * 30 + (mins * 0.5);
```



18 Banner

Create a new layer on the main stage and call it 'banner' and add a little banner like above. Then test your movie. You should now be seeing all the times from the four different locations. You can change, add and delete these locations, and personalise for your own website widget.





THE BRIEF

ON THE CD

Tutorial files:
local_flexCF_mvc.zip
server_flexCF_mvc.zip

TUTORIAL OBJECTIVE

Develop an RIA using ColdFusion and Flex based on an MVC design pattern

TIME REQUIRED

3 hours

SKILL LEVEL



Flex and ColdFusion RIA utilising design patterns

INTERACT WITH A DATABASE USING COLDFUSION AND FLEX BUILDER, THEN ARCHITECT THE APPLICATION TO AN MVC FRAMEWORK

 **RICH INTERNET APPLICATIONS** rocketed in development alongside the rise in popularity of software such as Flex and AJAX. We are going to use Flex Builder 2 to construct an application that will connect to a MySQL database using ColdFusion 8. The application will offer the facility to add, update and delete data from the database using the Flex interface. It will be structured on a Model View Controller (MVC) design pattern for better organisation. We will also use

the PureMVC framework to implement the MVC pattern. If your experience in any of these subjects is lacking, further reading will be required.

Before you start with the tutorial, take time to look at the In Detail box and how we structure this application, specifically the particular order for initiation at the start of the application and communication techniques within the framework between classes and components.

01 Install required software

Download PureMVC 1.6 from <http://puremvc.org>, MySQL Community Server from <http://dev.mysql.com/downloads/>, and a GUI for MySQL such as MySQL Administrator. Import the flexcf SQL file using your GUI, ensuring the database is named 'flexcf'.

02 Create a data source

Log in to your ColdFusion administration panel; if you accepted the default setting on installation, this will be at <http://localhost:8500/CFIDE/administrator/> on the PC. Select Data And Services>Data Sources. Enter 'flexcf' as the new data-source name and select other as the driver type. Enter the information found in the Step 2 image.

03 Create server directory

Navigate to the ColdFusion root folder (if the default paths were chosen on installation, it should be C:\ColdFusion8\wwwroot\) and create new folders in flexCF_mvc as above. The published files should launch on the local host server.

04 New Flex project

Start Flex and right-click in the navigation panel, selecting New>Flex Project. Select ColdFusion's Flash Remoting service and click Next. Uncheck Use Local ColdFusion Server and browse to your wwwroot folder. Ensure the root URL is <http://localhost:8500/> and click Next. Enter a project name of 'flexCF_mvc', keeping Use Default Location checked, then click Next.

05 Add PureMVC SWC

Ensure the Source Path tab is selected and enter 'FlexCF.mxml' for the main application file. For the output folder, browse and select the flexCF_mvc folder in wwwroot. Select the Library Path tab and click Add SWC. Navigate to the PureMVC folder and open PureMVC SWC. Click Finish.

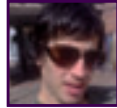
06 Set up folder structure

In the Navigation panel, right-click and select New>Folder and name it 'com'. Repeat this process, creating all folders as shown in the Step 6 overleaf.

07 Create the form

Create a new MXML component and name it 'UserForm', basing it on a Panel. Enter the code below. This component allows information entry and then dispatches the data to its corresponding mediator to act upon.

```
<mx:Panel xmlns:mx="http://www.adobe.com/2006/
mxml" height="100%" width="100%"
borderColor="#B4FFC3" borderAlpha="1.0"
cornerRadius="8">
<mx:Form enabled="{user != null}"
width="100%" backgroundColor="#B4FFC3">
<!-- User Name -->
<mx:FormItem label="User Name"
required="true">
<mx:TextInput id="username" width="150"
text="{user.username}"/>
</mx:FormItem>
<!-- User Password -->
<mx:FormItem label="User Password"
required="true">
<mx:TextInput id="password" width="150"
text="{user.password}"/>
</mx:FormItem>
</mx:Form>
</mx:Panel>
```



YOUR EXPERT

Simon Bailey is a freelance Flash and Flex developer whose site is based at newtriks.com. Main areas of expertise are building rich internet applications using Flash, Flex and ColdFusion. He is also involved in Flash Video applications and Flash Media Server.

Flex and ColdFusion RIA utilising design patterns

```

</mx:FormItem></mx:Form>
<!-- Action Buttons -->
<mx:ControlBar horizontalAlign="right">
  <!-- Update/Add User Button -->
  <mx:Button id="submitButton" click="submit()"
    label="{ ( mode == MODE_ADD
)?'Add':'Update' }"
    enabled="{ enableSubmit( username.text,
password.text ) }" />
  <!-- Cancel User Button -->
  <mx:Button label="Cancel" click="cancel()"
    enabled="{ user != null }" />
</mx:ControlBar></mx:Panel>

```

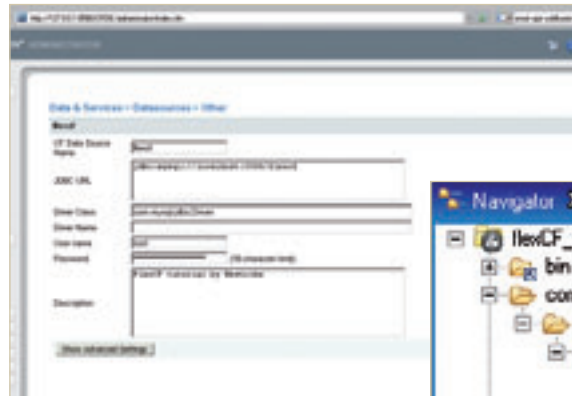
08 Add form functionality

Enter the code below to the UserForm component. This enables the form to communicate to anyone listening by utilising the dispatchEvent() method. The submit() method gathers up all the form information to be assigned to a public variable user.

```

<!-- Events dispatched by this View
Component -->
<mx:Metadata>
  [Event('add')]
  [Event('update')]
  [Event('cancel')]
</mx:Metadata>
<mx:Script>
  <![CDATA[
import com.newtriks.flexcf.model.vo.UserVO;
public static const ADD:String = "add";
public static const UPDATE:String = "update";
public static const CANCEL:String = "cancel";
    public static const MODE_ADD:String
= "modeAdd";
    public static const MODE_EDIT:String
= "modeEdit";
    [Bindable] public var user:UserVO;
    [Bindable] public var mode:String;
    // Submit Add or Update
    private function submit():void
    {
        var u:UserVO = new UserVO();
        u.user_id = user.user_id;
        u.username = username.text;
        u.password = password.text;
        user = new UserVO();
        user = u;
        if( mode == MODE_ADD )
        {
            dispatchEvent( new Event( ADD ) );
        } else
        {
            dispatchEvent( new Event( UPDATE ) );
        }
        //Cancel the add or update
        private function cancel():void
        {
            dispatchEvent( new Event( CANCEL ) );
        }
    }

```



Step 02

Make sure you set everything up correctly before you even think of starting with the coding!

```

//Enable submit buttons if required
fields populated
    private function enableSubmit( u:
String, p:String ):Boolean
    {
        return( u != '' && p != '' );
    }
</mx:Script>

```

09 Create the ComboBox

Create a new MXML component called 'UserList', basing it on a Canvas. Enter the code below. This data is an ArrayCollection of information originating from our database, passed to Flex from a ColdFusion query. Selected data is publicly available using the Binding tag, populated using the changeEvent in the ComboBox.

```

<mx:Canvas xmlns:mx="http://www.adobe.
com/2006/mxml"
    height="100%" width="100%" horizon
talScrollPolicy="off"
    backgroundColor="#B4FFC3" cornerRadius="8"
    borderStyle="solid" borderThickness="0"
    dropShadowEnabled="true">
<!-- The selectedUser property is bound to
Selection in the Combo Box -->
    <mx:Binding source="userCombo.
selectedItem as UserVO" destination="selected
User"/>
    <!-- Partner select combo box -->
    <mx:HBox x="10" y="56">
        <mx:Label text="Select User:" />
    <mx:ComboBox id="userCombo"
        rowCount="3"
        prompt="Select User"
        dataProvider="{ users }"
        labelField="username"
        width="100%"

```

```

change="if( userCombo.selectedIndex != -1 )
sendEvent( SELECT )"/>
</mx:HBox>
<!-- Action Buttons -->
<mx:ControlBar horizontalAlign="right">
  <mx:Button label="New" click="deSelect();sendE
vent( NEW )" />
  <mx:Button label="Delete" click="armed=true"
    enabled="{ userCombo.selectedIndex != -1 }"
  />
  <!-- Delete Confirmation -->
  <mx:HBox id="deleteArmed"
    visible="{armed}" verticalAlign="middle">
    <mx:Label text="Are you sure?"/>
    <mx:LinkBar itemClick="(event.item ==
'Yes'?sendEvent( DELETE ):armed=false)" />
    <mx:dataProvider>
      <mx:String>Yes</mx:String>
      <mx:String>No</mx:String>
    </mx:dataProvider>
  </mx:LinkBar>
</mx:HBox>
</mx:ControlBar>
  <mx:Label id="successMessage"
    text="" x="10" y="86"/>
</mx:Canvas>

```

10 ComboBox functionality

Enter the code below to the UserList component. When a user is selected, the Binding tag grabs the information as a UserVO value object. This is assigned to the public variable selectedUser, available to this component's mediator to act upon. Three Events are dispatched from this component: select, delete and new.

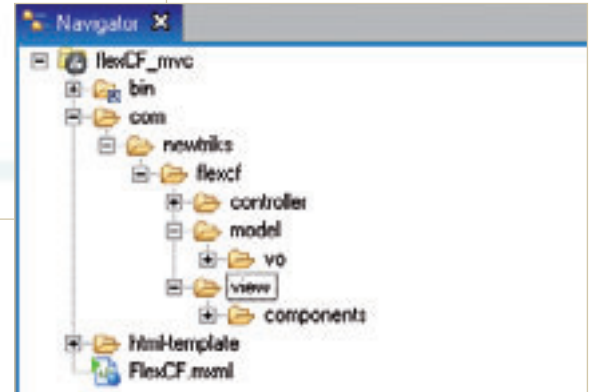
```

<mx:Metadata>
  [Event('select')]
  [Event('delete')]

```

Step 06

Make sure you create the folders in the exact same directory structure as shown below



```
[Event('new')]
</mx:Metadata>
<mx:Script>
<![CDATA[ import mx.collections.
ArrayCollection;
import com.newtriks.flexcf.model.vo.UserVO;
public static const SELECT:String = 'select';
public static const DELETE:String = 'delete';
public static const NEW:String = 'new';
[Bindable] public var selectedUser:UserVO;
[Bindable] public var users:ArrayCollection;
[Bindable] private var armed:Boolean;
private function sendEvent( eventName:String
):void
{
armed = false;
successMessage.text = "";
dispatchEvent( new Event( eventName, true )
);
}
public function deSelect():void
{
armed = false;
userCombo.selectedIndex = -1;
}
public function showSuccess( msg:String ):
void
{
successMessage.text = msg+" Successfull";
}]]>
</mx:Script>
```

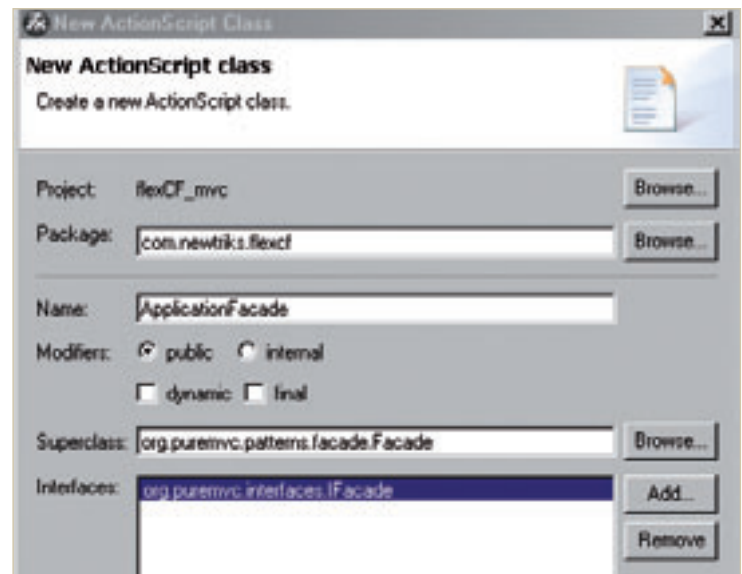
11 Custom value object

Create a new ActionScript class named 'UserVO' in the vo folder and enter the code below. A value object (or data-transfer object) is for storage of the user_id, username and password, each data typed accordingly. We use a [Bindable] meta-data tag so that all the classes can be accessed by controls or data structures.

```
package com.newtriks.flexcf.model.vo
{
// *** IMPORTANT CASE SENSITIVE ***
[RemoteClass(alias="flexCF_mvc.
assets.cfc.UserVO")]
[Bindable]
public class UserVO
{
public var user_id:Number;
public var username:String;
public var password:String;
public function UserVO(){}
}
}
```

12 The ApplicationFacade

The Façade pattern brokers all requests, so we do not need to import all MVC classes, and acts as a central source for the framework. Right-click on the flexcf folder, select New>ActionScript Class, and enter settings as shown.



Step 12

Importing all the MVC classes isn't necessary, but you'll need to enter these settings

13 Façade structure

One instance of the ApplicationFacade (a singleton) is created by the getInstance() method. We extend the Façade class to inherit and implement its variables and methods detailed in the IFacade class. ApplicationFacade will receive notifications and can call registered commands to act on these (public static constants).

```
package com.newtriks.flexcf
{
import org.puremvc.interfaces.IFacade;
import org.puremvc.patterns.facade.Facade;
import org.puremvc.patterns.observer.
Notification;
import com.newtriks.flexcf.controller.
StartupCommand;
public class ApplicationFacade extends Facade
implements IFacade
{
/**
* Notification name constants
*/
public static const STARTUP:String
= "startUp";
/**
* Singleton ApplicationFacade Factory Method
*/
public static function
getInstance():ApplicationFacade
{
if ( instance == null ) instance =
new ApplicationFacade();
return instance as
ApplicationFacade;
}
public function startup( app:FlexCF ):void
{
notifyObservers( new Notification(
```

```
STARTUP, app ) );
}
override protected
function initializeController():void
{
super.initializeController();
registerCommand( STARTUP, StartupCommand );
}
}
```

14 Instantiate

Import the newly created ApplicationFacade in FlexCF.mxml, getting a reference to the main singleton. In the main application tag, creationComplete calls the startup method in the ApplicationFacade and passes it a reference to the main FlexCF.mxml application. It also adds the two view components, utilising a custom XML name space.

```
<mx:Application xmlns:mx="http://www.adobe.
com/2006/mxml"
layout="vertical"
xmlns:view="com.newtriks.flexcf.view.
components.*"
backgroundGradientColors="[0x7AFF95,
0xFFFFFFFF]"
creationComplete="facade.startup(this)">
<mx:Script>
<![CDATA[
import com.newtriks.flexcf.ApplicationFacade;
// **
* Get reference to ApplicationFacade
*/
private var facade:ApplicationFacade
= ApplicationFacade.getInstance();
]]>
</mx:Script>
<!-- Main header bar with the
```

IN DETAIL: PureMVC Architecture

Here we will create the application's structure, and visually map where classes will reside and who will talk to who. This will assist in the overall understanding of the project

THE DIAGRAM OF our application may look a little heavy-handed, but it enables us to stand back and understand which classes communicate with each other, and also how certain classes or components have absolutely no idea about other parts of the project. This is known as loose coupling and enables us to reuse elements of this application in other projects.

For example, let's look at the back end of the application, specifically the RemoteProxy. Teamed with the RemoteDelegate, it does all the work to retrieve all the data from ColdFusion. No other part of the application is involved with this whatsoever, and classes simply tap into the information retrieved by the proxy.

Now look at the UserList view component, the only class that is linked in anyway to its mediator. The UserList component has no knowledge of the PureMVC framework at all, due to it dispatching events with its data being assigned

by the mediator. Once again, we could plug this component into another project, knowing that we just need to create a new mediator to integrate it into the system.

Let's follow a sequence of events between the view components. Starting with the UserList, a user is selected in the ComboBox which fires a changeEvent that dispatches an event named Select to whoever is listening. UserListMediator happens to be listening and runs an onSelect() method to send a notification to the ApplicationFacade. The notification is named USER_SELECTED and has an attached UserVO object with the selected user's data. The UserFormMediator has registered an interest in the named constant USER_SELECTED, and when it hears this notification fired from the ApplicationFacade, it retrieves the user's data from the notification.getBody() method and assigns the data to a public variable in the UserForm. This then populates the form with all the user information.



A rough higher-level diagram guide to detail the overall structure of the package

```
Newtriks banner loaded in within a HBox -->
<mx:ApplicationControlBar
width="630" paddingLeft="0" paddingRight="0"
paddingBottom="0">
<mx:Image source="assets/imgs/header.png" />
</mx:ApplicationControlBar>
<mx:HBox>
<!-- User List -->
<view:UserList id="userList"/>
<!-- User Form -->
<view:UserForm id="userForm"/>
</mx:HBox></mx:Application>
```

15 Initiate commands

The startup() method uses notifyObservers() to act as a broadcaster. First it tells the façade a notification name and second it passes an object. The façade stores named constants, ie STARTUP, which other classes listen out for. If the named constant is registered to a command, the designated command is initiated.

```
public function startup( app:FlexCF ):void
{
    notifyObservers( new Notification( STARTUP,
    app ) );
}
override protected function
initializeController():void
{
    super.initializeController();
    registerCommand( STARTUP, StartupCommand );
}
```

16 StartupCommand

Create a new ActionScript class in the controller directory named 'StartupCommand', extending SimpleCommand and implementing ICommand by entering the code

below. Import and register to the façade a proxy and two mediators, assigning a mediator to each view component. Registrations will instantiate the respective classes.

```
package com.newtriks.flexcf.controller
{
    import org.puremvc.interfaces.ICommand;
    import org.puremvc.patterns.command.
    SimpleCommand;
    import org.puremvc.interfaces.INotification;
    import com.newtriks.flexcf.model.RemoteProxy;
    import com.newtriks.flexcf.ApplicationFacade;
    import com.newtriks.flexcf.view.
    UserListMediator;
    import com.newtriks.flexcf.view.
    UserFormMediator;
    public class StartupCommand extends
    SimpleCommand implements ICommand
    {
        /**
        * Register the Proxies and Mediators.
        * Get the View Components for the
        Mediators from the app.
        * which passed a reference to itself on the
        notification.
        */
        override public function execute( note:
        INotification ):void
        {
            var app:FlexCF = note.getBody() as FlexCF;
            facade.registerProxy( new RemoteProxy() );
            facade.registerMediator( new
            UserFormMediator( app.userForm ) );
            facade.registerMediator( new
            UserListMediator( app.userList ) );
        }
    }
}
```

17 UserList mediator

Create a new ActionScript class named 'UserListMediator', extending Mediator and implementing IMediator. To identify this mediator, create a public named 'constant'. Call super in the constructor, passing the viewComponent that is assigned a unique name using a getter method and returning the UserList component. Add listeners for dispatched Events from UserList, ie SELECT.

```
public static const NAME:String =
'UserListMediator';
public function UserListMediator(
viewComponent:Object )
{
    super( viewComponent );
    // Add listeners to the view component i.e.
    userList combobox
    userList.addEventListener( UserList.
    SELECT, onSelect );
    userList.addEventListener( UserList.NEW, onNew
    );
    userList.addEventListener( UserList.DELETE,
    onDelete );
    public function get userList():UserList
    {
        return viewComponent as UserList;
    }
}
```

18 UserFormMediator

Create a new ActionScript class named 'UserFormMediator' as follows. The listNotificationInterests() method returns an Array of notifications this mediator listens out for from the façade. Handle each notification using a switch statement and if there's an object passed, grab it using the getBody() method. Set and retrieve attributes from the userForm in response to notifications.

```

        override public function
listNotificationInterests():Array
{
    return [
ApplicationFacade.USER_SELECTED,
ApplicationFacade.NEW_USER,
ApplicationFacade.USER_DELETED
    ];
}
override public function handleNotification(
note:INotification):void
{
    switch ( note.getName() )
    {
case ApplicationFacade.USER_SELECTED:
userForm.user = note.getBody() as UserVO;
userForm.mode = UserForm.MODE_EDIT;
userForm.username.setFocus();
break;
case ApplicationFacade.NEW_USER:
userForm.user = note.getBody() as UserVO;
userForm.mode = UserForm.MODE_ADD;
userForm.username.setFocus();
break;
case ApplicationFacade.USER_DELETED:
userForm.user = null;
clearForm();
break;
    }
}

```

19 Mediators

Mediators relate with the Model tier, thus removing the view component's knowledge of the framework, providing reuse of the components in other projects. Ideally a view component should have one mediator to inspect its events, modify exposed properties of the view component (or call exposed methods) of a proxy and send notifications. Enter the following code:

```

package
{
import org.puremvc.interfaces.IMediator;
import org.puremvc.interfaces.INotification;
import org.puremvc.patterns.mediator.
Mediator;

    public class AnExampleMediator
extends Mediator implements IMediator
    {
        public static const NAME:String =
'AnExampleMediator';
        public function AnExampleMediator (
viewComponent:Object )
        {
            super( viewComponent );
            // SET LISTENERS
        }
        override public function getMediatorName():
String
        {
            return NAME;
        }
        public function get

```

```

aViewComponent():ViewComponent
{
    return viewComponent as ViewComponent;
}
override public function
listNotificationInterests():Array
{
    return [
        ApplicationFacade.A_NOTIFICATION
    ];
}
override public function
handleNotification( note:INotification ):void
{
    switch ( note.getName() )
    {
case ApplicationFacade.A_NOTIFICATION
        // Respond here
        break;
    }
}
}

```

20 Call the commands

The notifications that mediators send and receive from the ApplicationFacade have named constants, and will instantiate a command if they are registered in the facade. Each command has its own role in the framework, essentially telling the back end to do something.

21 Create the commands

Create three new ActionScript classes, each extending SimpleCommand and implementing ICommand. Name them 'AddUserCommand', 'UpdateUserCommand' and 'DeleteUserCommand'. Each contains a slight variation of the method execute(), which gets a reference to a proxy that handles our backend, calls a method on the proxy, and sends a notification of our action.

```

package com.newtriks.flexcf.controller
{
import com.newtriks.flexcf.ApplicationFacade;
import com.newtriks.flexcf.model.RemoteProxy;
import com.newtriks.flexcf.model.vo.UserVO;
import org.puremvc.interfaces.ICommand;
import org.puremvc.interfaces.INotification;
import org.puremvc.patterns.command.
SimpleCommand;

    public class AddUserCommand extends
SimpleCommand implements ICommand
    {
        override public function execute( note:
INotification ):void
        {
            var selectedUser:UserVO = note.
getBody() as UserVO;
            var remoteProxy:RemoteProxy = facade.
retrieveProxy( RemoteProxy.NAME ) as
RemoteProxy;
            // Add Item in Database
            remoteProxy.addItem( selectedUser );
            sendNotification( ApplicationFacade.USER_

```

```

ADDED );
        }
    }
}

```

22 Talking back-end

Our proxy, combined with a RemoteDelegate class, will handle all remote calls to and from ColdFusion with no knowledge of the front end. Create a new ActionScript class named 'RemoteProxy', extending Proxy and adding interfaces IProxy and IResponder.

23 RemoteProxy

RemoteProxy has its own data object which we can assign a type in the super statement within the class constructor. We want to store a list of items, so choose an ArrayCollection to handle the data. We assign the reference users to the ArrayCollection using a getter, returning proxy data as an ArrayCollection.

```

        public function RemoteProxy()
        {
            super( NAME, new ArrayCollection );
            remoteDelegate = new
RemoteDelegate( this, 'flexCF_mvc/assets/cfc.
userManager' );
            refreshData();
        }
        // Return data property cast to proper type
        public function get users():ArrayCollection
        {
            return data as ArrayCollection;
        }
    }

```

24 RemoteDelegate

Create a new ActionScript class named 'RemoteDelegate', entering the code as below. getAll() calls the getAllUsers function in the UserManager.cfc, which returns all the users to Flex. callCFC() expects two parameters; the method to call in the CFC, and a UserVO object containing user information, ie user_id, username and password. The CFC determines what's returned.

```

package com.newtriks.flexcf.model
{
import mx.rpc.AsyncToken;
import mx.rpc.IResponder;
import mx.rpc.remoting.RemoteObject;
import com.newtriks.flexcf.model.vo.UserVO;

    public class RemoteDelegate
    {
        private var responder:IResponder;
        private var ro:RemoteObject;
        public function RemoteDelegate( responder:
IResponder, url:String )
        {
            ro = new RemoteObject();
            ro.destination = "ColdFusion";
            ro.source = url;
            // and store a reference to the proxy that
            created this delegate

```

```
this.responder = responder;
}
public function getAll():void
{
    // Call the service
    var token:AsyncToken = ro.getAllUsers.send();
    // Notify this responder when the
    service call completes
    token.addResponder( this.responder );
}
public function callCFC( method:String, item:
    UserVO ):void
{
    // Call the service
    var token:AsyncToken = ro[method].send( item
    );
    // Notify this responder when the service
    call completes
    token.addResponder( this.responder );
}
```

25 Update the façade

We now need to update the ApplicationFaçade's named constants and register our newly created command classes. Ensure you have all the below constants present, import the three command classes and add the corresponding named constant on registration, eg, registerCommand(ADD_USER, AddUserCommand);

```
/**
 * Notification name constants
 */
public static const STARTUP:String
= "startup";
// User List
public static const USER_SELECTED:
String = "userSelected";
public static const NEW_USER:String
= "newUser";
public static const DELETE_USER:
String = "deleteUser";
public static const USER_DELETED:
String = "userDeleted";
// User Form
public static const ADD_USER:String
= "addUser";
public static const USER_ADDED:
String = "userAdded";
public static const UPDATE_USER:
String = "updateUser";
public static const USER_UPDATED:
String = "userUpdated";
public static const CANCEL_SELECTED:
String = "cancelSelected";
// Commands within initializeController()
method
registerCommand( ADD_USER, AddUserCommand );
registerCommand( UPDATE_USER,
    UpdateUserCommand );
registerCommand( DELETE_USER,
    DeleteUserCommand );
```

26 Custom CFC

In an editor of your choice, create the ColdFusion Component (CFC) below, named 'UserVO'. This will talk directly (via mapping) to our ActionScript UserVO and must mirror its properties, ensuring order and case. Communication is achieved by using the [RemoteClass()] meta-data descriptor and in the UserVO.cfc, the alias parameter to the cfcomponent.

```
<!--
Name: UserVO.cfc
Author: Newtriks (simon@newtriks.com)
Description: Corresponding ColdFusion
    ValuObject...
Created: 01/10/07
-->
<cfcomponent alias="flexCF_mvc.com.newtriks.
    flexcf.model.vo.UserVO">
    <cfproperty name="user_id" type="numeric">
    <cfproperty name="username" type="string">
    <cfproperty name="password" type="string">
</cfcomponent>
```

27 UserManager

Store the below CFC in wwwroot>FlexCF_mvc>Assets>CFC. In the same directory, create a CFC named 'UserManager'. This will handle all the requests from Flex and make the necessary calls to our database. Set our ColdFusion data source as a global variable and add the functions below. Note return values of UserVO.

```
<cfcomponent>
<!-- SET DATASOURCE -->
<cfset dsn="flexCF"/>
<!-- ***** -->
<!-- ADD A USER -->
<!-- ***** -->
    <cffunction name="addUser"
        returnType="UserVO" access="remote">
        <cfargument name="aUser" type="UserVO">
        <cfset var qUser = ''>
        <cfquery name="qUser" datasource="#dsn#">
            INSERT into users (username, password)
            VALUES ('#arguments.aUser.username#',
                '#arguments.aUser.password#')
        </cfquery>
        <cfquery name="qUser" datasource="#dsn#">
            SELECT MAX(user_id) as uID
            FROM users
        </cfquery>
        <cfset arguments.aUser.user_id = qUser.uID>
        <cfreturn aUser />
    </cffunction>
<!-- ***** -->
<!-- UPDATE A USER -->
<!-- ***** -->
    <cffunction name="updateUser"
        returnType="UserVO" access="remote">
        <cfargument name="aUser" type="UserVO">
        <cfset var qUser = ''>
        <cfquery name="qUser" datasource="#dsn#">
            UPDATE users
```

```
SET username =
'#arguments.aUser.username#',
password =
'#arguments.aUser.password#'
WHERE user_id = #arguments.
aUser.user_id#
</cfquery>
<cfreturn arguments.aUser />
</cffunction>
<!-- ***** -->
<!-- DELETE A USER -->
<!-- ***** -->
    <cffunction name="deleteUser"
        returnType="UserVO" access="remote">
        <cfargument name="aUser" type="UserVO">
        <cfset var qUser = ''>
        <cfquery name="qUser" datasource="#dsn#">
            DELETE FROM users
            WHERE user_id = #arguments.aUser.user_id#
        </cfquery>
        <cfreturn aUser />
    </cffunction>
<!-- ***** -->
<!-- GET ALL USERS -->
<!-- ***** -->
    <cffunction name="getAllUsers"
        returnType="Query" access="remote">
        <cfquery name="qUsers"
            datasource="#dsn#">
            SELECT * FROM users
        </cfquery>
        <cfreturn qUsers />
    </cffunction>
</cfcomponent>
```

28 A ColdFusion function

This function updates a record in the database. The function returns a UserVO object to whoever called it (RemoteDelegate) and expects to be passed a UserVO object as an argument. The argument contains necessary data to update the database. The query qUser passes the MySQL statements to the set data source (flexCF).

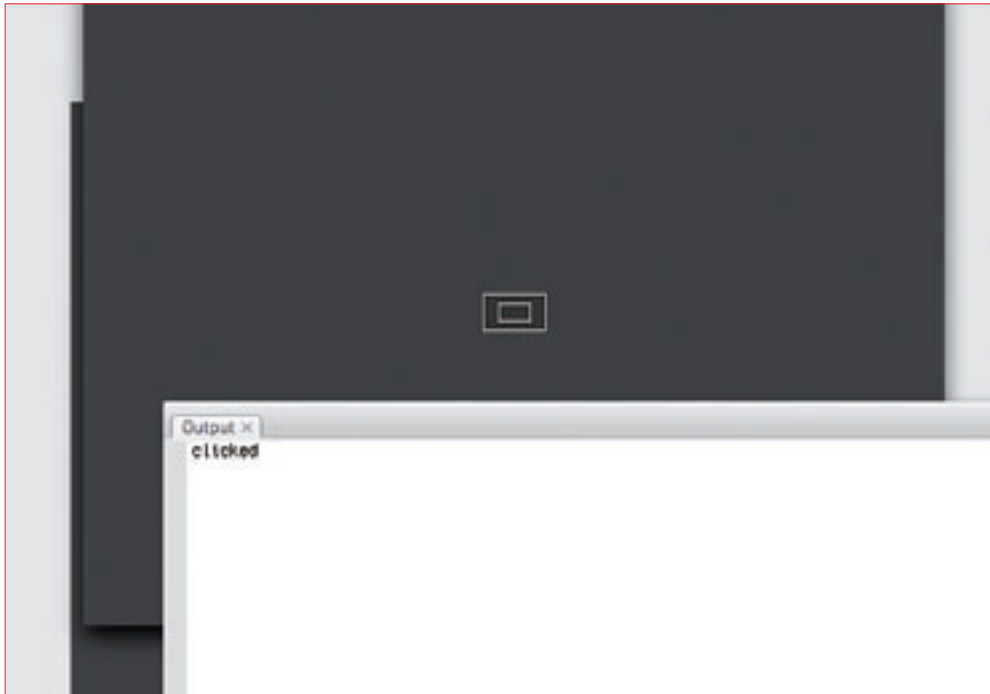
```
<cffunction name="updateUser"
    returnType="UserVO" access="remote">
    <cfargument name="aUser" type="UserVO">
    <cfset var qUser = ''>
    <cfquery name="qUser" datasource="#dsn#">
        UPDATE users
        SET username =
        '#arguments.aUser.username#',
        password =
        '#arguments.aUser.password#'
        WHERE user_id = #arguments.
        aUser.user_id#
    </cfquery>
    <cfreturn arguments.aUser />
</cffunction>
```

29 Study deeper

Each step highlights relevant aspects to construct the final application, and does not cover all of the code required

Tech Support Flash

Externally loading SWF files seem to be giving most of the trouble this month, so Mark Shufflebottom attempts to make the light work of loading



Add button functionality from classes easily using our AS 3.0 button code which utilises SimpleButton

Q Fiddly buttons

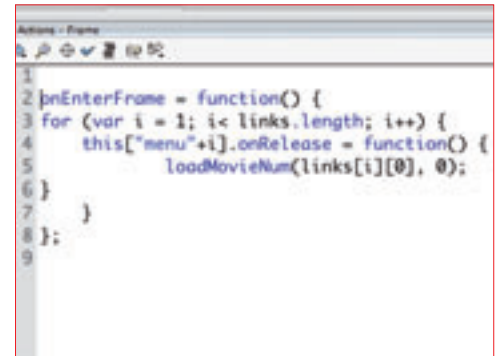
I am programming buttons perfectly fine using AS 3.0 in the timeline with code placed on a frame, however, when I attempt to do this from an AS 3.0 file using the Document class, I encounter difficulty and just can't find a way around it. Is there any chance you can supply this code and explain the procedure for linking a button on the stage to this code?

Dan Holzgang

A A good question Dan, and one no doubt that will be asked by many more to come by those making the transfer from ActionScript 2.0 to 3.0. Let's start with placing the button on the stage. The button should be a button-symbol library item and contain the usual up, over, down and hit states. For the purposes of this example, we will give this button the instance name of 'stageButton_btn' in the Properties palette. Now it's time to create the code to make this work, so create a new ActionScript 3.0 file and save this as 'Test.as'. Then add the following code to the file:

```
package {
    import flash.display.*;
    import flash.events.*;
    public class Test extends MovieClip {
        public var myButton
        :SimpleButton = new SimpleButton();
        public function
        Test() {
            myButton=stageButton_btn;
            myButton.addEventListener( MouseEvent.CLICK, clickMe );
            addChild( myButton );
        }
        private function
        clickMe(event:MouseEvent):void {
            trace("clicked");
        }
    }
}
```

We name the class 'Test' and likewise the function, as this is the same name as the file and it will be the Document class back in Flash that we will add later. As normal, we have to package the whole file up, so we start by



Stopping the timeline from automatically playing in the Document class can be confusing, but thankfully, using this.stop(); gets the job done

importing the relevant base classes from Flash's own AS library, in this case, Display and Events. First up to declare is the class Test. This extends the Movie Clip class which has a timeline, so gives timeline functionality if needed. Next we need to declare the variable that will hold our button. Take note here that this is given the SimpleButton strict name typing. Next to declare is the function which adds the instance name of the button on the stage to the button variable. This is then given an Event Listener which is told to use the clickMe function when the mouse is pressed on it. The button variable is now added to the stage using the addChild command. The clickMe button function then would contain whatever you want the button to actually do; in this case, it simply communicates to the output window the fact that it has been clicked.

If you add Test in the Document class of the Properties palette and give that a go, you should find yourself with the working button you desired!

Q Stop the timeline

I am trying to stop the timeline from automatically playing using the Document class in ActionScript 3.0. I have not been able to get this to work using either root.stop(); or parent.stop();. Is this possible or would I be better off working with timelines in ActionScript?

Jan Sherry

A This is a common problem that many new users of ActionScript 3.0 are facing, so don't worry, you're not alone Jan. One of the problems will be that you need to reference the stop(); action in relation to the Document class being the timeline, therefore you would use this.stop();. Now take a look at the following Document class. For the sake of simplicity, we will call this file 'Test.as':

```
package {
    import flash.display.*;
    public class Test extends
    MovieClip {
        public function Test() {
            this.
```

"SEPY IS CONSTANTLY UPDATED AND WILL CONTINUE TO PROVIDE ACTIONSCRIPT SUPPORT INTO THE FUTURE"



YOUR EXPERT

Mark Shufflebottom teaches on the BA and MA Interactive Media courses at Bournemouth University. He teaches 3D applications, interface design, online gaming, small-screen device production and, of course, all things Flash and ActionScript.

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Q&A Tech Support

```
stop();
```

```
}  
}  
}
```

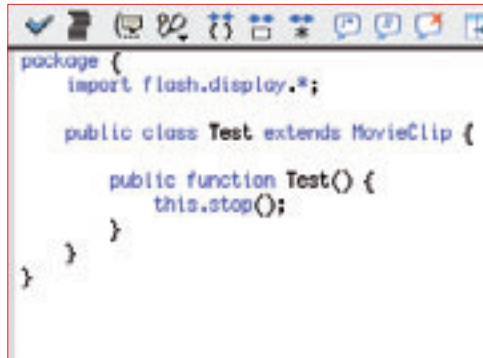
So in this code example, we first import the relevant Flash base class and then define our Test class. The initial Test function calls this. stop(); to stop the timeline. Obviously there is usually a just cause in stopping the timeline here, so you might reference other functions from imported classes for buttons or other interactivity, so it is not quite so long-winded as it might first seem. Don't forget though that you need to go back to your Flash file and add Test as the Document class. Publish this by pressing Ctrl+Enter and you will then have a timeline stopped on Frame 1 from the Document class.

Q Editor advice

I have found while working with Flash that the ActionScript editor is not that great, or at least not suited to me personally. Is there such an application, like a text editor adapted for coding in ActionScript, that might provide me with a robust script environment?

Darren Gillespie

A Yes Darren, there are several code editors available that give support for ActionScript specifically. One that is available for both Mac and PC is SEPY. This code editor is constantly being updated and so will continue to provide good ActionScript support into the future. The



Get the SEPY ActionScript editor for improved ActionScript writing and many useful features not included in the Flash editor

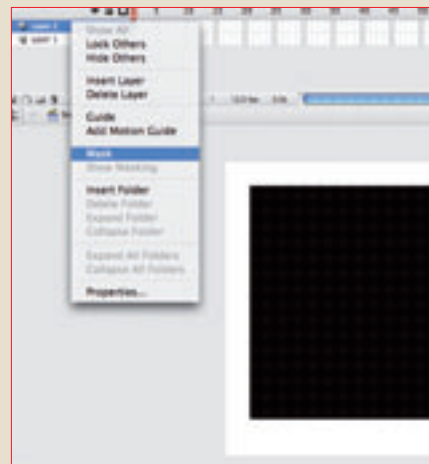
editor is a free release, so you'll be glad to know that it won't cost you a bean and is available from www.sepiroth.it/python/sepy.php. It provides many features such as a Class explorer, Flush Support, Smart Snippet panel, Lines bookmarks and a To Do panel which is very handy for working on large projects as you can map out what you want to program. Another very handy feature is that you can export your ActionScript code to a HTML web page, which is useful if you regularly share code with others on sites. You should find this solves your problems as many of these features are not in the Flash ActionScript editor.

On the SEPY website, you will also find that there is a feature request, so if you spot something that is urgently missing and needs updating, there is a chance to request this with the author.

Expert advice

Using Masks

If you are ever using Masks in your Flash file, they can be responsible for making the Flash movie slow down, particularly if you have a lot of animation taking place. The reason for this is that Flash has to decide what is hidden and what is rendered on every single frame of the movie. Instead of using Masks, try moving the background to the layer above all others, but cut a big hole into the area that was masked. The Flash file will instantly speed up and give you a much better frame rate on your animation. You will probably only notice this on larger Flash files.



Masks have their benefits but they can slow down your Flash file quite drastically, so consider other ways to avoid them

Technique: Top of the class

Q I have downloaded some example classes from the internet but I'm not sure about the directory structure that comes with these classes – they look like website addresses in the folder name. Why is that? Should I arrange my classes in the same way?

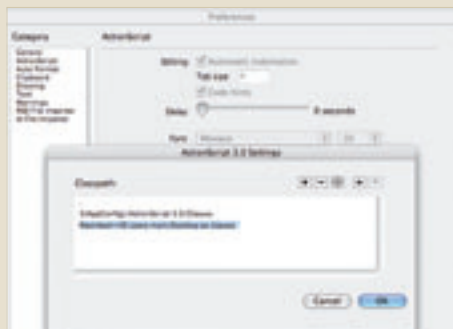
Tim Hughes

A This is a very confusing point if you are using classes for the first time. The structure of the folders is like the web address backwards, so that if you download classes with the same name, they don't override the existing one. Most people store their classes in one root folder on their computer, but then use sub-folders inside to store different classes.



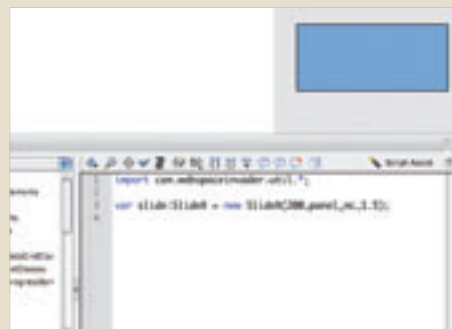
01 Set up the folder

First, set up the folder on your computer that you would like to put the code into. This can be on your desktop or alternatively your Documents folder. Then add folders called something like 'Com' and 'Domain-name' folders inside this folder.



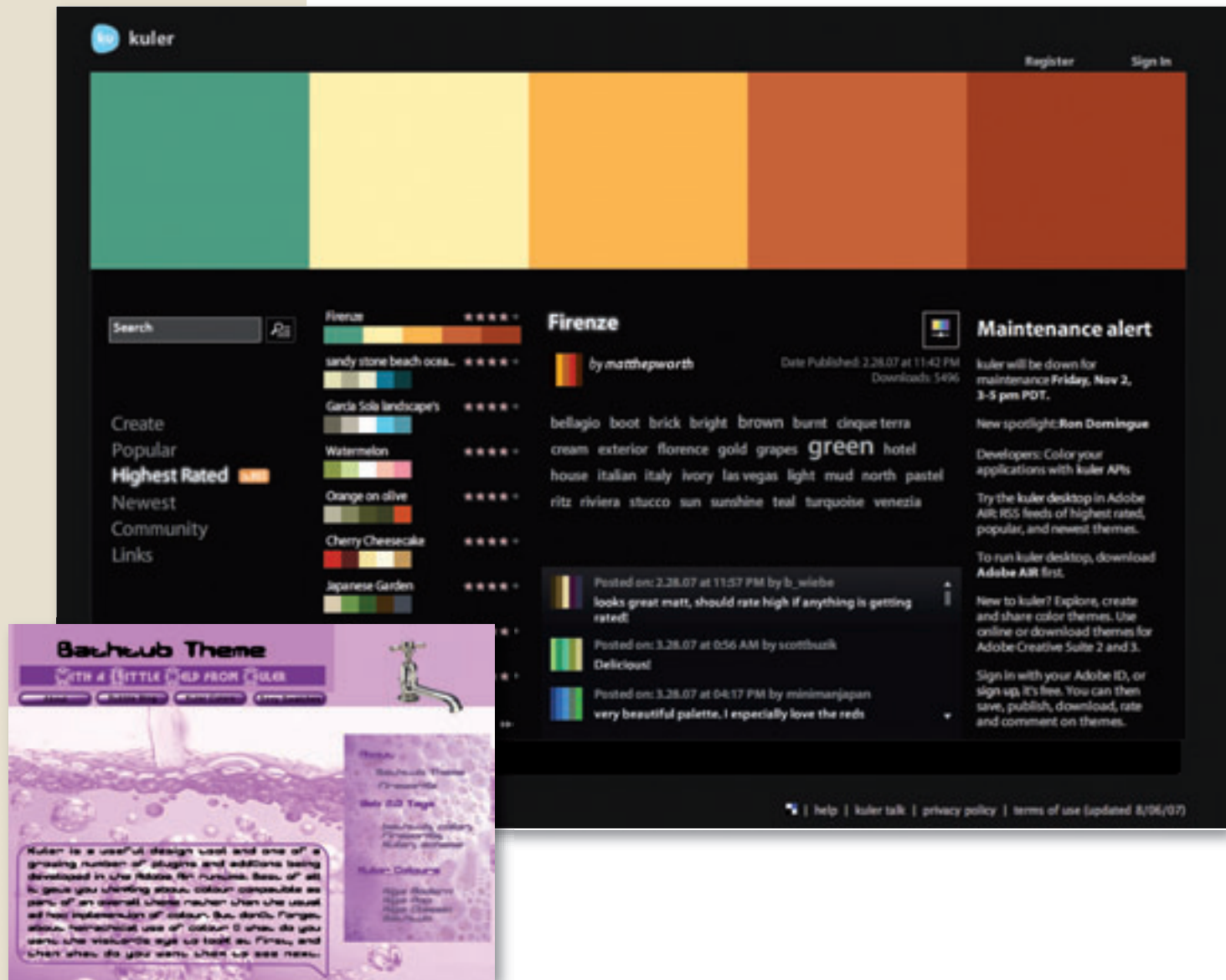
02 Edit Flash Preferences

Now in your Flash Preferences, click on ActionScript and choose the ActionScript 3.0 Settings button. Click the plus button and browse to the outmost folder that you are storing your sub-folders of classes in.



03 Use the class

Open a new Flash AS 3.0 file and use the import code shown above, which imports all classes from a Util folder (you can name your own folder suitably). The second part of the code calls the class from within that folder and uses it as an object.



Technicolour designs from Adobe kuler

CREATE YOUR OWN IMAGINATIVE COLOUR THEMES IN ADOBE'S KULER, THEN IMPORT THEM INTO FIREWORKS TO USE ON YOUR WEB DESIGNS

LET'S FACE IT – colour is important. It's not just about making attractive-looking technicolour websites. Good web design means identifying the most important sections of your page design (eg, news, contact details) and using colour in such a way that it draws the eye straight to these.

Adobe kuler is a web-hosted application that lets members create their own custom colour themes, either based on predefined compatibility rules or on their own selection. So

why use kuler as opposed to your reliable old colour palette? Adobe's kuler provides a means of saving an unlimited number of colour schemes, including the favourites you often use in your web design work. Its colour harmony rules can also be an interesting way of coming up with new themes and sharing them with other web designers. By combining kuler with Fireworks CS3, all manner of images, fonts and objects may be coloured to fit in with your overall theme.

THE BRIEF

TUTORIAL OBJECTIVE

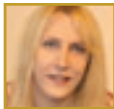
Create imaginative colour schemes to apply to your Firework designs

TIME REQUIRED

1-2 hours

SKILL LEVEL





YOUR EXPERT

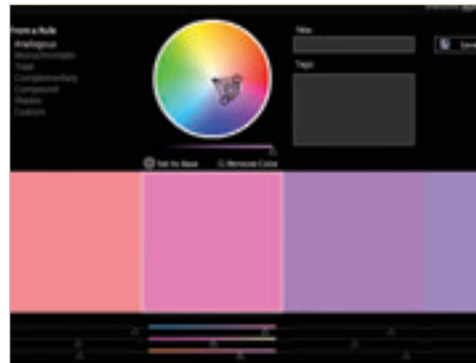
Petra Jones is a systems analyst who has worked as a website designer and developer for over ten years, perfectly placing her as an expert for *Web Designer*. Her interests include sound production, podcasting and interactive multimedia sites.

Technicolour designs from Adobe kuler



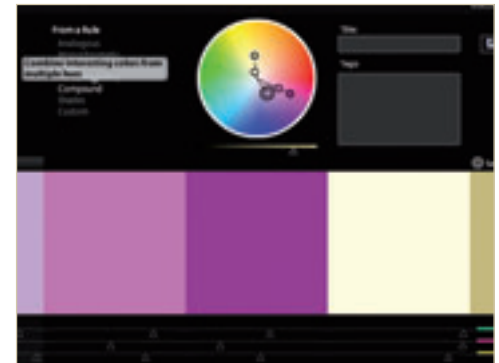
01 Get kuler colours

Visit <http://kuler.adobe.com/> then register for an Adobe account if you haven't got one already. Once set up, return to the main kuler page and sign in. Now you can download pre-existing colour themes in ASE format or create one of your own. Click Create, located to the left of the screen.



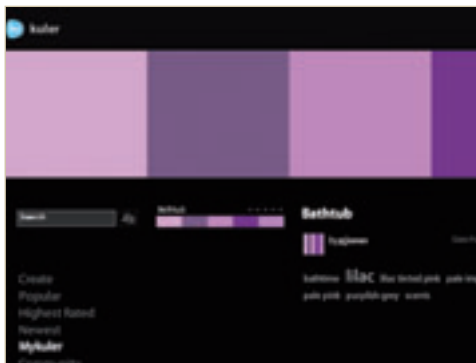
02 Start scheming

Pick a maximum of five colours using the colour wheel. Move the arrow clockwise or anti-clockwise to change the range of colours or drag towards the centre to lighten the shades. By default, kuler applies the Analogous Rule to limit the colours you can combine in predictable groups.



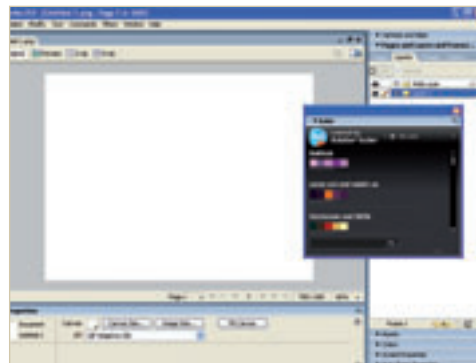
03 Changing the rules

For a more radical mix of colours, select a different rule such as Triad (pictured above). Each circle on the colour wheel corresponds to one of your five colours – drag them to a new position to pick each specific colour you want. Choose your base colour by clicking on that square.



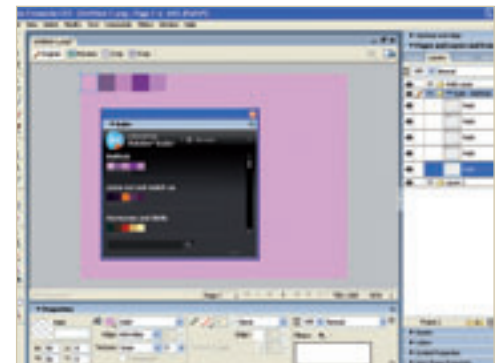
04 Name and tag it

Give your scheme a title, add some comma-separated descriptive tags, then save and publish your new colour scheme on kuler. You'll need to download the new beta Fireworks kuler panel from <http://pixelfumes.blogspot.com/2007/08/adobe-fireworks-cs3-kuler-panel.html>.



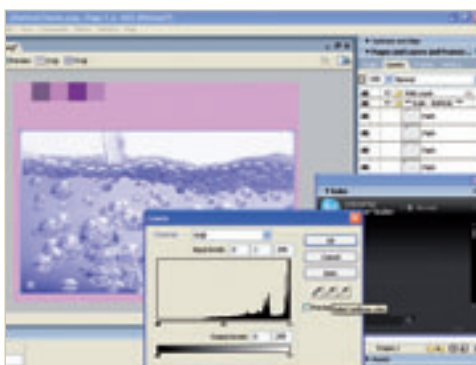
05 Install panel

Open the KulerFW file in Adobe Extension Manager and accept the disclaimer. Open Fireworks CS3 and create a new PNG document with a width of 780 and height of 800 pixels. You should see the kuler panel installed under Window>Others>Kuler. Use Search to locate your theme.



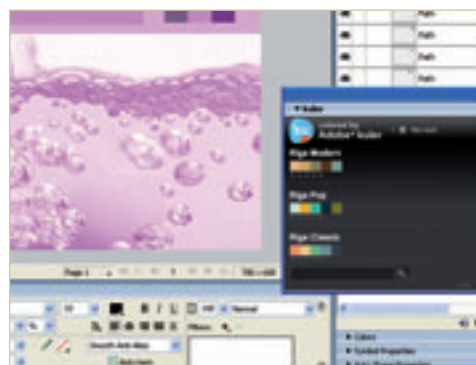
06 Add base colour

Click on your new theme to add it to your Firework document temporarily as a new layer. To assign your theme's base colour as the new background, select Layer 1 then click on the canvas colour selector and use the Pipette tool to select your base colour on the top-left.



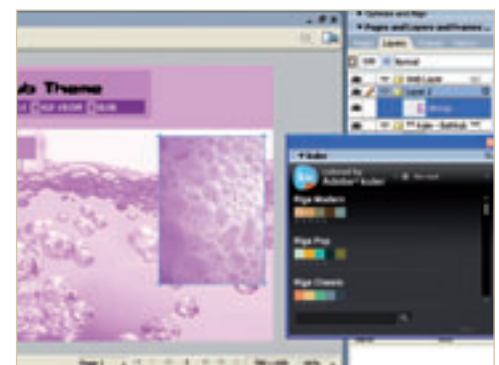
07 Add background image

Use File>Import to add a background image, sizing as appropriate. We can tint our colour scheme to match the colour of the image using Filter>Adjust Color>Levels. Click on the middle pipette to select the midtone colour then click on your base kuler colour, followed by OK.



08 Matching header

The background image is now tinted to match our colour scheme. Drag your kuler palette to the bottom-right, and insert a rectangular shape for your header. Click on the Fill Color icon and then select another colour from your kuler theme before entering some text in an appropriate font.



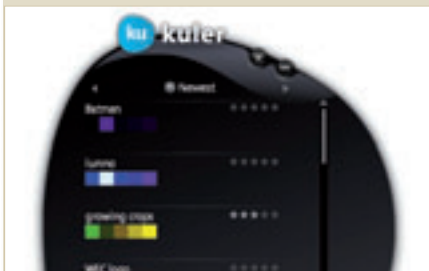
09 Subheading

Create a second shape for your subheading, using the Pipette tool to select another kuler theme colour, then add subtext in a different style, using your theme's base colour. Import froth4.jpg as the background for your upper-right panel, then tint using a kuler theme colour.

TECHNIQUE

Inside kuler

How kuler works, with information on where to get the AIR cross-browser compatible desktop version of kuler



01 Kuler desktop

For those of you into desktop applications created via Adobe AIR, there's a desktop version of kuler available from http://download.macromedia.com/pub/labs/kuler/kuler_desktop_061407.air, which includes views of the newest themes.



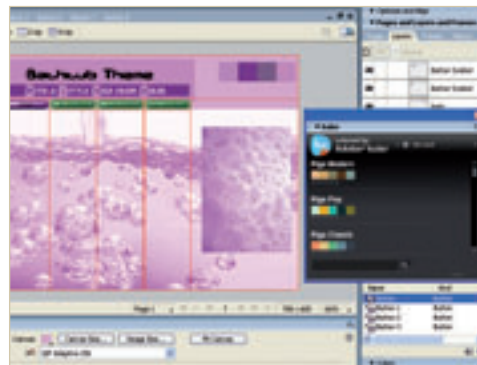
02 How does it work?

The kuler front-end was built using Adobe Flash and ActionScript 3. Through Application Programming Interfaces, you submit requests that return colour schemes as lists of RSS feeds, each supporting CMYK, LAB, RGB, or HSV encoding of colours.



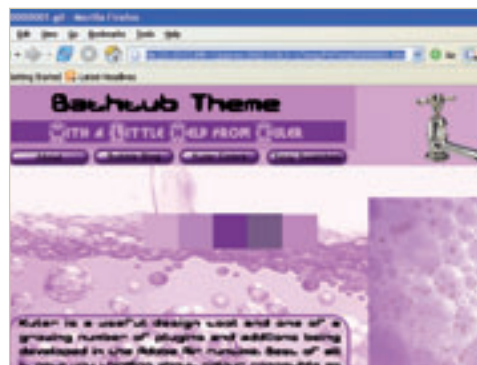
03 The Apple widget

An official Adobe kuler Dashboard Widget is also available for Mac OS X users, available from <http://labs.adobe.com/technologies/Kuler>. The widget has a 'search by creator ID' facility, as well as a 'view hex values' feature that's handy for Dreamweaver.



10 Navigation design

Create a new navigation layer using Edit>Insert>Layer, then select Edit>Insert>Button. Import a Button to pick an appropriate style for your navigation (eg, the default). Position your first button GIF image directly under the subheading, and tint using Filter>Adjust Color>Levels.



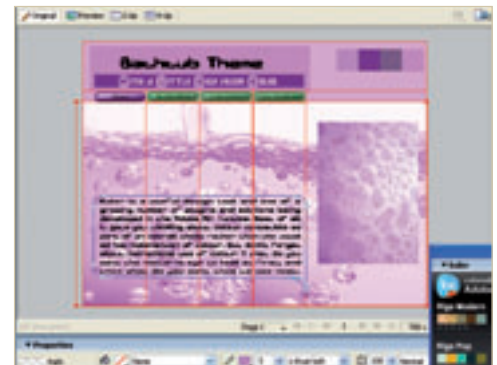
12 Preview in Browser

Use File>Preview in Browser to check out how your document looks – we've designed our Bathtub theme for IE or Firefox at a screen resolution of 800 x 600. Having added another image (tap-sm.jpg) in the top-right corner, let's see how some text looks in the right-hand panel.



14 Flash and kuler

All good fun, and you can even use kuler if you don't have Fireworks CS3 – here's a kuler panel also available for Flash. You can download the latest version with improved swatch-handling from <http://pixelfumes.blogspot.com/2007/06/flash-cs3-kuler-panel-updates.html>.



11 Add main content

To create the content area, select the Rectangle tool, then set Background Color to None, with Roundness set to 31. Use one of your kuler theme colours for the three-pixel border. Add some text, with the leading set to 20px and stretch the right-curved corners of your rectangle down.



13 Finishing touches

Notice how the kuler colour theme also appears in the preview? Make sure you remember to delete the kuler sub-layer before your Fireworks design goes live! This is just a matter of highlighting the Bathtub layer containing the five RSS paths and deleting.



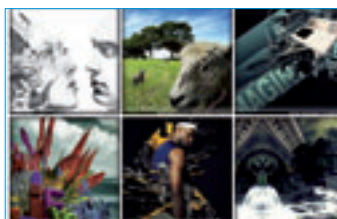
15 Kuler compatibility

If you have any Creative Suite 2.0 or 3.0 applications such as Illustrator, Photoshop or InDesign, you won't even need to download a panel – they all support ASE files. Sadly, there's no panel or ASE support yet for Dreamweaver CS3 but you can enter the HEX values as a workaround.



Superlover

www.superlover.com.au



TOP TIP



Use the screen

When browsing other sites to use for this article, one thing I frequently notice is that many sites that employ a vertical scrolling, centrally aligned format tend not to maximise the horizontal potential of the screen.

Viewing resolution is something we as designers need to be mindful of – when creating my site, I checked out Google Analytics, and found that less than one per cent of people viewing my site were on a resolution less than 1,024 x 768. Hence, the central table is 1,000px wide, which allows for each and every one of the thumbnails to stand out as much as possible. Using the screen will result in a site that commands much more attention.

Now now, hear me out; this month's selection is not just a shameless self-plug. The hardest part of writing this article for me is always selecting a site that offers a diverse-enough range of design intricacies to comprise a decent tutorial.

I typically spend a couple of hours trawling through design portals and my colleague's links lists to find a folio or website that will make for a good read. However, many of the best portfolios out there are very simple, featuring stripped-back design and classically minimal styling – they look brilliant, but offer very little in the way of educational potential, and hence are of little to no use to us.

My folio is similarly straightforward, but my coding and typographical inadequacies force me to add all the polish and panache to my website in Photoshop. When designing this site, I was aiming for a professional and simple feel; I wanted all of the focus to be on the artwork, so my main challenge was finding an attractive, unusual and minimal thumbnail style that would allow me to add new images at any time, and to shuffle their order with no fuss. Hence, dissecting my folio should give you a couple of handy tricks to add to your design repertoire. It's nothing ridiculously advanced, so I am going to aim to show you how to replicate some of these subtle effects with the least effort possible.

Line breaks

Dotted bars are a pleasant change from solid line breaks; feel free to experiment with your own ideas too!



Thumbnail creation

Applying a vignette to the thumbnails can make them appear part of the site design

Towing those line breaks

Go dotted for dividing up areas of page content with some more visually pleasing ideas

Breaking up sections of the page with line breaks is crucial, and often an aesthetically pleasing way to subdivide the page. However, straight lines can get boring, so on my site I have a repeating dot pattern. This can be created by making a dot in a new layer, duplicating it, nudging to the right, merging down and then repeating this process a dozen times. A far easier way to achieve this is to make a custom brush; simply select a three pixel-wide brush, increase the Hardness to 100 per cent, and then set Spacing to 150 per cent. Now create a new layer, hold down



Shift and then just paint horizontally. This is a far simpler, and less mind-numbing technique that achieves the same effect.

Vignette effects made easy

Give your thumbnails a face-lift by adding dark gradient edges with just a few clicks

Often, some of the best-looking effects are so much simpler to apply than they lead to believe. First, load up a square selection that you wish to turn into a thumbnail, and then Ctrl+click this layer to get its selection. Next, simply create a new layer, and fill it with black; it is important at this point to make sure that you do NOT deselect. Then contract your selection (Select>Modify>Contract) by five pixels, followed by a feather (Alt>Ctrl>D) of four pixels. Then simply hit Clear to delete and achieve a perfect vignette effect. Experiment with the amount

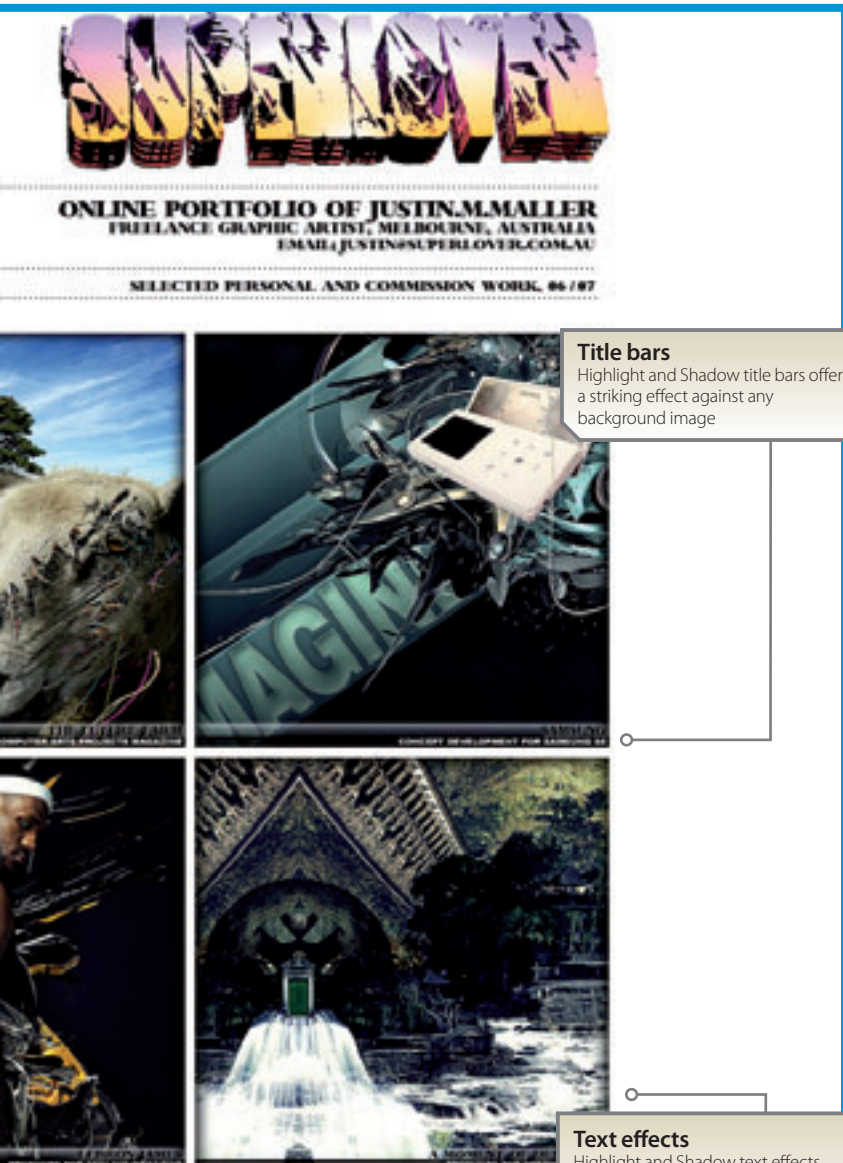


of contraction and feathering to achieve more or less prominent results, whichever suits your site's theme best.



YOUR EXPERT

Justin Maller is a graphic artist from Melbourne, Australia. He is currently working as a full-time freelance graphic artist, while also creatively directing the crew over at depthcore.com. Check out his personal folio at superlover.com.au.



Title bars that fit right

Try regulating rectangles so you get the best fit for adding title text to your images

Size matters – at least when it comes to your website. Proportion plays an important role in aesthetics. To properly ascertain how big your title bar should be, first place your title in the bottom-right corner of the image. Make a thin rectangular selection that spans the width of your thumbnail, and fits your title text in with a couple of pixels' space on either side. Hide the text for now, and create a new layer. Fill this selection with white, and add a layer mask. Drag out a black-to-white vertical gradient so that the bar is 90 per cent visible at the top, and around 30 per cent visible



at bottom. When satisfied, duplicate and Invert (Ctrl+I) the layer, and drag it below the white layer to form the bottom black title bar.

STEP BY STEP

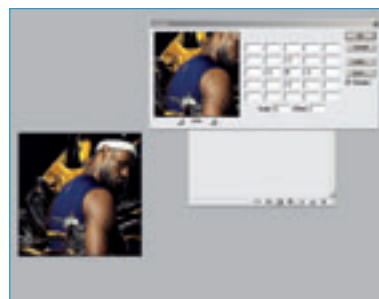
Thumbnail perfection

Nail a near-perfect method for creating a standout image that needn't be huge



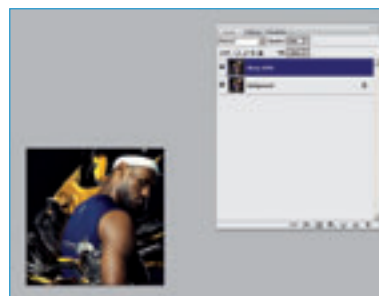
01 Sharp ideas

Selecting and sharpening your thumbnail images with care will give a crisper, more detailed feel. It's these little details that can help make an image on a site stand out, and indeed, make the site itself more prominent. So these next few steps will guide you through creating a thumbnail, pointing out the potential pitfalls.



02 Crop the image

Choose the image you want, then crop it to your selection. Resize to your desired thumbnail size; for the purpose of this tutorial, make it 300 x 300 pixels. When resizing, you will nearly always lose a bit of crispness; don't worry, just duplicate the layer, and apply a Custom Sharp filter (Filters>Other>Custom).



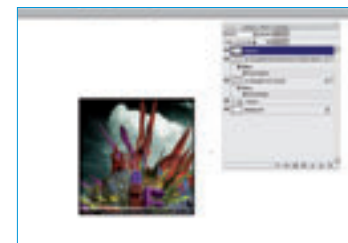
03 Reduce Opacity

Reduce the Sharp duplicate layer's Opacity to around 40 per cent; this should yield a crisp, but not pixellated effect. We use a secondary layer instead of simply applying the Sharp to the original layer and fading to increase or decrease the sharpness at any point in the future, simply by altering this layer's Opacity.

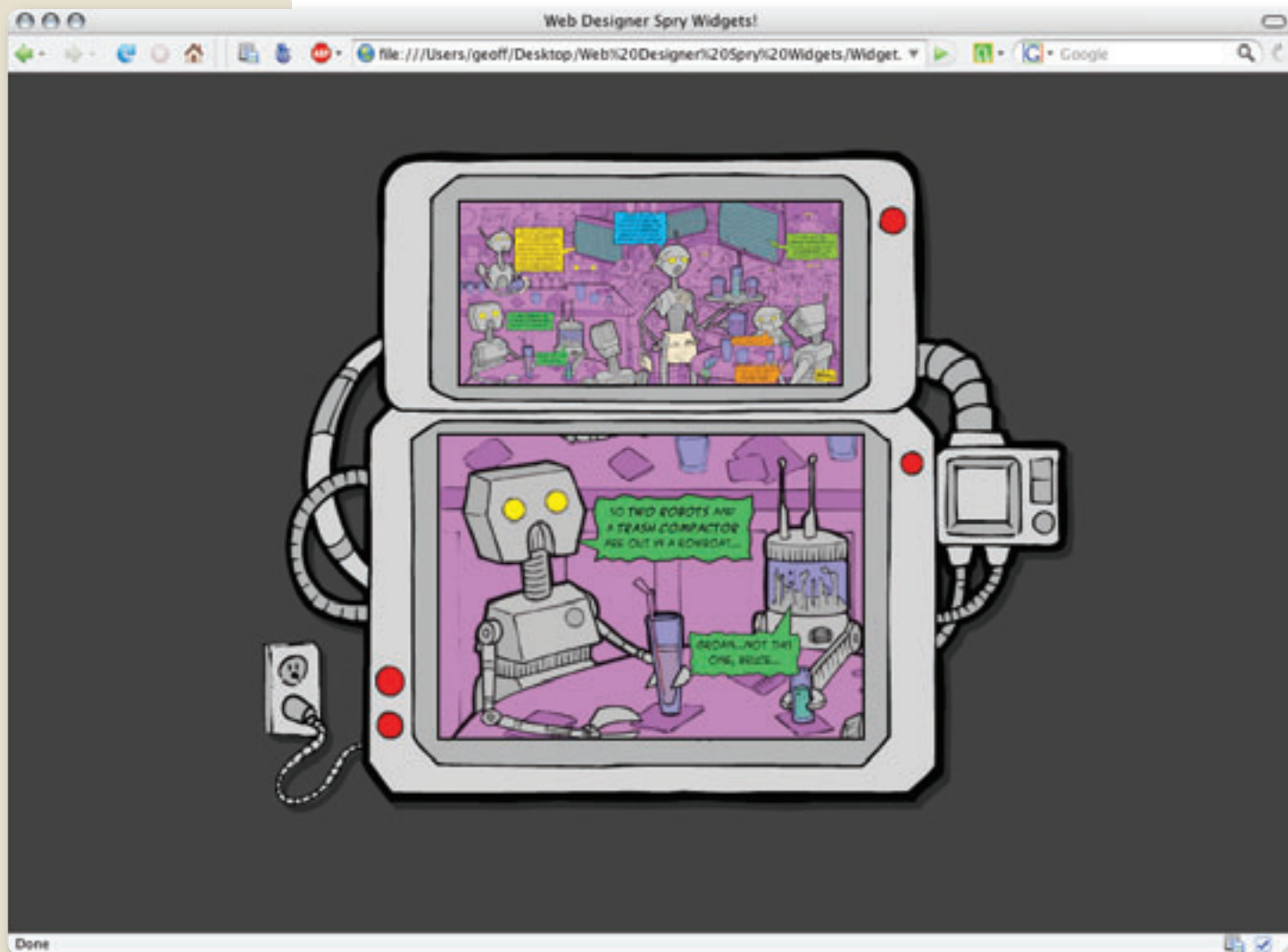
Add some shadow

Lift your title bars off the page with a few shadowy tricks you'll use again and again

Add your title text over the white bar. Make sure the title is in 100 per cent black, and that its layer is above the highlight bar in the Layer palette. You have two options here; adding a manual white Drop Shadow, or an automatic one. Normally, a manual Gaussian Blur shadow will give you the most customisable results, but as all these techniques can be best used to create a thumbnail template, a layer style is the most efficient method. Implement a Drop Shadow layer, with a white shadow set to Screen Style on the black text to separate it from the



title bar. Add the Info text in white, and add a standard black Drop Shadow to achieve the same differentiation; experimentation is the key here – you want the effect to be functional, but still subtle.



THE BRIEF

ON THE CD

Tutorial files:
RobotLounge.jpg,
Televisions.gif and more

TUTORIAL OBJECTIVE

Build a panning image in Dreamweaver CS3 with a Spry widget!

TIME REQUIRED


1 hour

SKILL LEVEL



How to build an image-panning Spry widget

FIND OUT HOW TO BUILD A COMPLETELY CUSTOM SPRY WIDGET THAT ALLOWS VIEWERS TO PAN AND NAVIGATE AROUND INSIDE AN IMAGE!

 **IF YOU HAVEN'T** had a chance to explore Spry widgets – one of the most amazing additions to Dreamweaver CS3 – then you're in for a real treat with this tutorial. Spry widgets are a great way to add interactivity and special effects to your web pages, mixing HTML, CSS and JavaScript, and, of course, they're easily customisable. One option is to explore Dreamweaver's default set of Spry widgets and Spry effects on your own, although you may prefer to go even further

by taking a trip to Adobe Labs, where you'll find the latest releases of the Spry framework – it's a totally fascinating world to delve into.

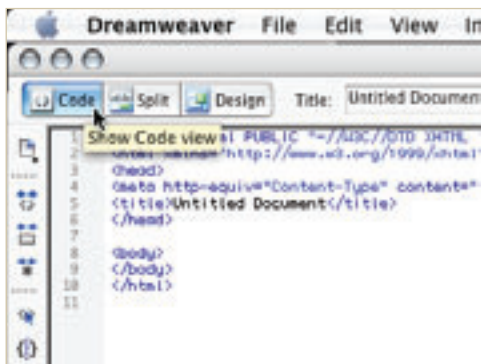
Here, we're going to create a widget completely from scratch and code much of it by hand so you can see exactly how it's built. Just a few things before we begin: first, make sure to define a new site in Dreamweaver for this tutorial, and copy all the tutorial files into your site's local folder.



YOUR EXPERT

Geoff Blake has provided a wide range of graphic design, consulting, artwork and web design services in Canada, providing expert training and support for many graphic, web and print applications. Visit Geoff online at www.tentonbooks.com.

How to build an image-panning Spry widget



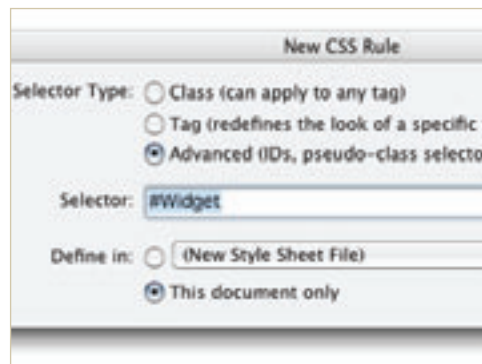
01 A blank new page

Choose File>New, then choose HTML in the Page Type column, and <none> in the Layout column, then click Create. Save your page in your site folder. We'll be coding quite a bit by hand, so in the top-left corner of Dreamweaver's interface, click the Code view button.



02 Inserting the first div

We're ready to begin creating the div elements that will hold our widget components and other page objects. Place your cursor inside the <body> area in your page; then choose Insert>Layout Objects>Div Tag. In the Insert Div Tag dialog box that appears, click New CSS Style.



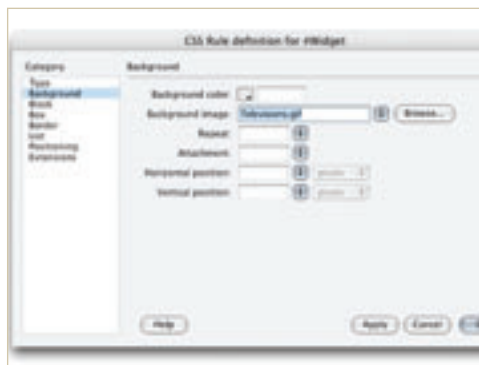
03 Creating the #Widget

In the New CSS Rule dialog box that appears, set the Selector Type to Advanced; then, in the Selector field, type in #Widget. Make sure Define in is set to This document only, then click OK. In the CSS Rule Definition dialog box, click on the Positioning category on the left.



04 Positioning options

In the Positioning category, set Type to absolute, Width to 690px, and Height to 570px. Because this div will control the positioning of the entire object (including the widget), use the Placement area to help position your object. We used a Top value of 50px, and a Left value of 200px.



05 Set the background graphic

Next we'll set a background graphic for our div. Click on the Background category, then beside Background image, click Browse. Navigate to and double-click Televisions.gif. Click OK to close the dialog box, then back in the Insert Div Tag dialog box, click New CSS Style.



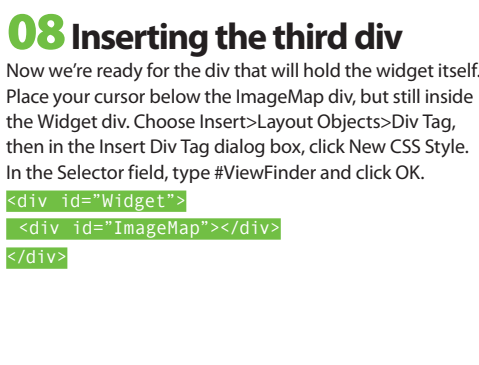
06 Inserting the next div

Remove the 'Content for id "Widget" Goes Here' text that Dreamweaver inserted. Place your cursor inside the Widget div, then choose Insert>Layout Objects>Div Tag. In the Insert Div Tag dialog box, click New CSS Style. In the Selector field, type #ImageMap and click OK.



07 Positioning the ImageMap

Click on the Positioning category. Set Type to absolute, Width to 315px, and Height to 150px. In the Placement area, set Top to 58px and Left to 175px. Click OK, then back in the Insert Div Tag dialog, click OK. Once again, get rid of the default text that Dreamweaver inserts into the div.



08 Inserting the third div

Now we're ready for the div that will hold the widget itself. Place your cursor below the ImageMap div, but still inside the Widget div. Choose Insert>Layout Objects>Div Tag, then in the Insert Div Tag dialog box, click New CSS Style. In the Selector field, type #ViewFinder and click OK.



09 Positioning the ViewFinder

Head to the Positioning category once again. Set Type to absolute, Width to 350px, and Height to 250px. For Placement, set Top to 251px and Left to 158px. Click OK, then back in the Insert Div Tag dialog, click OK again. Remove Dreamweaver's default text once more.

TECHNIQUE

Add more panels to your widget

You can always add as many panels as your widget requires. Let's get customising your Spry widget

```
<div id="Panel6" class="SlidingPanel
sContent">A night out at the Robot
Lounge</div>
<div id="Panel7" class="SlidingP
anelsContent">Bring all your bad
jokes...</div>
<div id="Panel8" class="SlidingPane
lsContent">...And all your sorrows,
too!</div>
```

01 Add additional divs

Select the last SlidingPanelsContent div line of code, then paste three times below, still inside the SlidingPanelsContentGroup div. Change the id="Panel5" code to number sequentially (6, 7, 8).

```
<p>
<a href="#" onclick="navigator.
showPanel(6); return false;">First
new panel</a> |
<a href="#" onclick="navigator.
showPanel(7); return false;">Second
new panel</a> |
<a href="#" onclick="navigator.
showPanel(8); return false;">Third
new panel</a></p>
```

02 Setting hyperlinks

You'll need to create some hyperlinks to call these new panels. Insert the following hyperlink code for each link, making sure to change showPanel(6) to showPanel(7) and showPanel(8):



03 Different structures

You could create a single row instead of three columns of three by simply changing the Width setting for the SlidingPanelsContentGroup to 3,150px (the width set for SlidingPanelsContent multiplied by the number of sliding boxes).

10 Viewer window divs

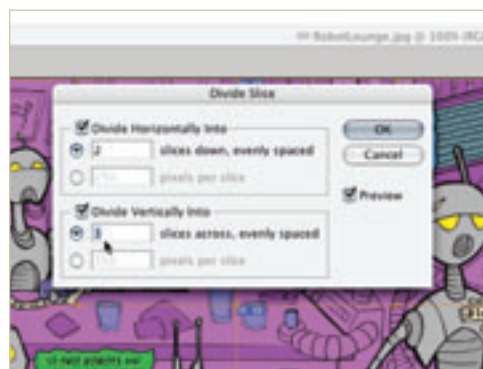
Now we're ready for two more divs, one that will act as the viewer window, and the other that will control the group of divs that we'll put inside the window. Make sure your cursor is inside the ViewFinder div, then type in the following code:

```
<div id="ViewFinder">
<div id="navigator"
class="SlidingPanels">
<div class="SlidingPanelsContentGrou
p"></div>
</div>
</div>
```

12 Sequential numbering

Highlight the code, copy it, then paste it five times. For each div, change id="Panel0" to number sequentially. Note that Spry uses a zero-based numeric system.

```
<div class="SlidingPanelsContentGroup">
<div id="Panel0" class="SlidingPanelsConten
t"></div>
<div id="Panel1" class="SlidingPanelsConten
t"></div>
<div id="Panel2" class="SlidingPanelsConten
t"></div>
<div id="Panel3" class="SlidingPanelsConten
t"></div>
<div id="Panel4" class="SlidingPanelsConten
t"></div>
<div id="Panel5" class="SlidingPanelsConten
t"></div>
</div>
```



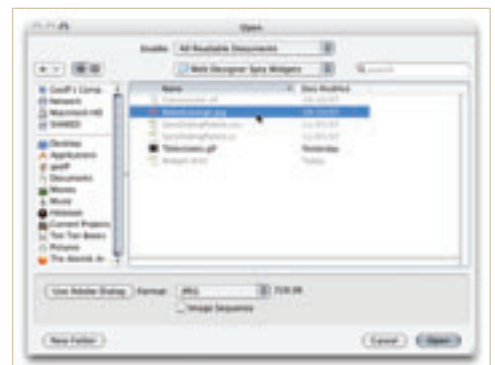
14 Slice up the Robot Lounge

Select the Slice tool from the toolbox, then drag a single large slice around the entire image. Right-click and choose Divide Slice. In the Divide Slice dialog box, turn on Divide Horizontally Into and type 2 in the field. Next, turn on Divide Vertically Into and type 3 in the field, then click OK.

11 SlidingPanelsContent div

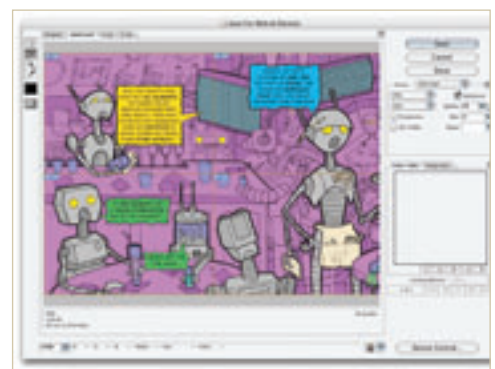
Inside the SlidingContentPanelsGroup div, we'll need to create six additional divs that will hold the content that we want to have move around inside the Sliding Panels div, which acts as our viewer window. So, place your cursor inside the SlidingContentPanelsGroup div, then type in the following code:

```
<div id="navigator" class="SlidingPanels">
<div class="SlidingPanelsContentGroup">
<div id="Panel0" class="SlidingPanelsConten
t"></div>
</div>
</div>
```



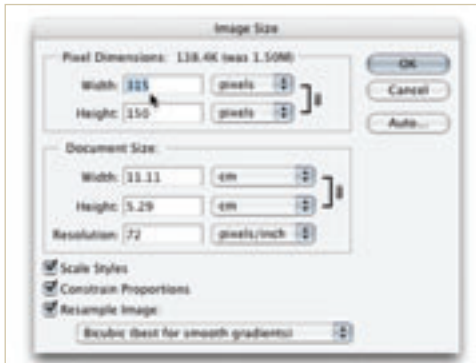
13 Head into Photoshop

Now we'll set up the image that will appear inside the viewing window on the web page. Because the window contains six smaller panels that will slide around, we'll take a larger image and slice it into six smaller pieces. Launch Photoshop, and open RobotLounge.jpg from the CD.



15 Saving the slices

Choose File>Save For Web And Devices. Select all the slices, then choose JPEG High from the Preset menu on the right. Click Save, then in the Save Optimized As dialog box, set the Format menu to Images Only and the Slices menu to All Slices. Navigate to your site folder and click Save.



16 Saving the image map

Now we'll save out the image that will be used as the image map. Remove the slices by choosing View>Clear Slices, then choose Image>Image Size. At the top of the Image Size dialog box, type 315 into the Width field at the top. Click OK, then choose File>Save.



17 Creating the hotspots

Place your cursor inside the ImageMap div back in Dreamweaver. Choose Insert>Image in Design view, then insert RobotLounge.jpg. Choose the Rectangular Hotspot tool from the bottom-left of the Properties inspector, and drag out six small hotspots for your image map.

18 Set the hotspot grid

Back in Code view, set these co-ordinates for each hotspot.

```
<div id="ImageMap">
  
  <map name="Map" id="Map">
    <area shape="rect"
    coords="0,0,105,75" href="#" />
    <area shape="rect"
    coords="105,0,210,75" href="#" />
    <area shape="rect"
    coords="210,0,315,75" href="#" />
    <area shape="rect"
    coords="0,75,105,150" href="#" />
    <area shape="rect"
    coords="105,75,210,150" href="#" />
    <area shape="rect"
    coords="210,75,315,150" href="#" />
  </map>
</div>
```

IN DETAIL

A closer look: how this widget works

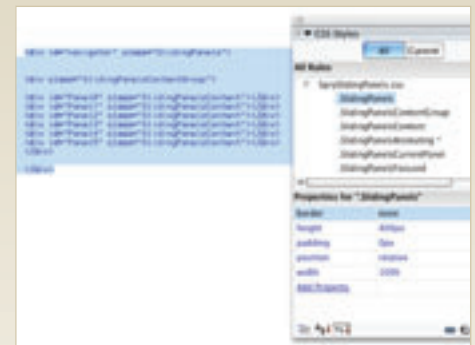
So how the heck does this widget actually work? Well, there are some very unique aspects to this particular widget needed in order for it to run, so let's take a closer look!

THE WIDGET WE'RE building in this tutorial is based on the Sliding Panels widget found in Spry Framework 1.5. The widget contains a viewing window through which content-panel divs are viewed. You can customise the widget to contain any number of content panels, and the content panels themselves can contain any type of content normally displayed on a page, including text, images and multimedia objects. All you have to do is make sure that your JavaScript-assisted hyperlinks point to the right panel.

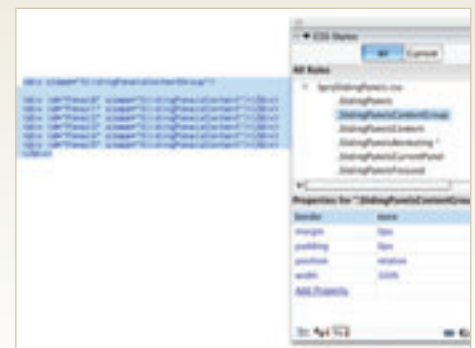
The coding structure of the widget is fairly simple: At the outermost, there's a div for the widget element itself, which also serves as the viewing window. Within this div is a nested div which acts as a container for the content-panel divs. The content-panel divs themselves hold the content that appears to slide around inside the viewing window.

Controlling the divs that make up the widget are three CSS rules. SlidingPanels controls the viewing window for the widget, and can be customised in size, shape and so on (just be sure not to use padding or border settings, as this may affect the animation and positioning of your widget). SlidingPanelsContentGroup controls the div that contains all the sliding panels. Make sure to leave its border, margin and padding settings as is. However, by adjusting its width, you can control the layout of the content panels inside (for example, you may want a vertical column of content panels). Finally, SlidingPanelsContent is used to control the divs that contain the content that's viewable within the widget. You can customise this rule as well, but just like the others, be sure to leave border, padding and margin as is.

To ensure that the widget functions, at the bottom of your page you must provide a JavaScript constructor, and the page also has to point to outside JavaScript and CSS files – all of which have been supplied with the tutorial files. Beyond this, the entire widget itself is completely customisable to suit whatever need you can dream up.



A closer look at the SlidingPanels div and its default settings. This div contains the widget and acts as a viewing window



This div acts as a container for the SlidingPanelsContent divs, which slide within the SlidingPanels div

19 Setting JavaScript

Now we'll add some JavaScript to each hotspot to correspond with the six panels in the viewer window. This code will create a connection between the hotspots and the panels. Back in Code view, click after href="#" in the first occurrence of <area shape="rect" and type in onclick="navigator.showPanel(0); return false;"

```
<map name="Map" id="Map">
  <area shape="rect" coords="0,0,105,75"
  href="#" onclick="navigator.showPanel(0);
  return false;" />
  <area shape="rect" coords="105,0,210,75"
  href="#" />
  <area shape="rect" coords="210,0,315,75"
  href="#" />
```

20 The remaining hotspots

Drop the code you entered in the last step into each <area shape="rect" hotspot. Be sure to change the panel number that the code is calling for.

```
<area shape="rect" coords="0,0,105,75"
href="#" onclick="navigator.showPanel(0);
return false;" />
<area shape="rect" coords="105,0,210,75"
href="#" onclick="navigator.showPanel(1);
return false;" />
<area shape="rect" coords="210,0,315,75"
href="#" onclick="navigator.showPanel(2);
return false;" />
<area shape="rect" coords="0,75,105,150"
href="#" onclick="navigator.showPanel(3);
return false;" />
<area shape="rect" coords="105,75,210,150"
href="#" onclick="navigator.showPanel(4);
return false;" />
<area shape="rect" coords="210,75,315,150"
href="#" onclick="navigator.showPanel(5);
return false;" />
```

Tutorial

21 Drop in the image slices

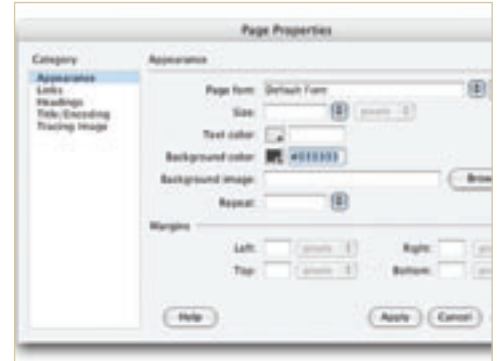
Place your cursor inside the first SlidingPanelsContent div. Choose Insert>Image and insert the first image slice, RobotLounge_01.jpg. Repeat for each div and image slice.

```
<div id="Panel0" class="SlidingPanelsContent">
</div>
<div id="Panel1" class="SlidingPanelsContent">
</div>
<div id="Panel2" class="SlidingPanelsContent">
</div>
<div id="Panel3" class="SlidingPanelsContent">
</div>
<div id="Panel4" class="SlidingPanelsContent">
</div>
<div id="Panel5" class="SlidingPanelsContent">
</div>
```



22 Controlling the widget

To attach the necessary JavaScript and external StyleSheets, in the <head> area of your page, type in <script type="text/javascript" src="SprySlidingPanels.js"></script>. At the bottom of the CSS Styles panel, click Attach Style Sheet. Browse, then attach SprySlidingPanels.



23 Set the background colour

Now edit the background colour. Select Modify>Page Properties, then type #333333 into the Background Colour field in the dialog box that appears. This web-safe colour is the same colour that the Televisions.gif graphic uses, so the image and page background will match up perfectly.



24 Adjust .SlidingPanels' rule

Now we'll adjust the CSS that's controlling the widget. In the CSS Styles panel, expand SprySlidingPanels.css, double-click on .SlidingPanels, then in the Box category, set Float to Left. In the Positioning category, set Width to 350px, and Height to 250px, then click OK.



25 Adjusting another rule

Next, double-click on .SlidingPanelsContentGroup in the CSS Styles panel. In the CSS Rule Definition dialog box that appears, click on the Box category, and set the Float to Left and the Width to 1050. Make sure to change the unit measurement to pixels. When you're done, click OK.



26 .SlidingPanelsContent rule

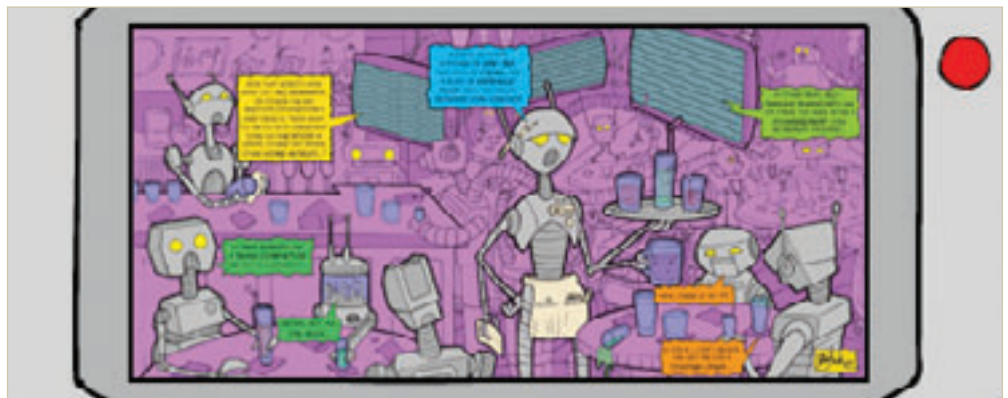
Now in the CSS Styles panel, double-click on .SlidingPanelsContent. In the CSS Rule Definition dialog box that appears, click on the Box category, set the Width to 350px and the Height to 250px. Also, set Float to Left, then click OK when you're finished.

27 The constructor JavaScript

Finally, we need to add in some JavaScript at the very bottom of the page, which is called the widget's constructor. In the tutorial sample files, open up Constructor.rtf, select and copy the contents, then head back to Dreamweaver. Place your cursor just before the closing </body> tag and paste.

```
<script type="text/javascript">
var navigator = new Spry.Widget.SlidingPanels
('navigator');
</script>
```

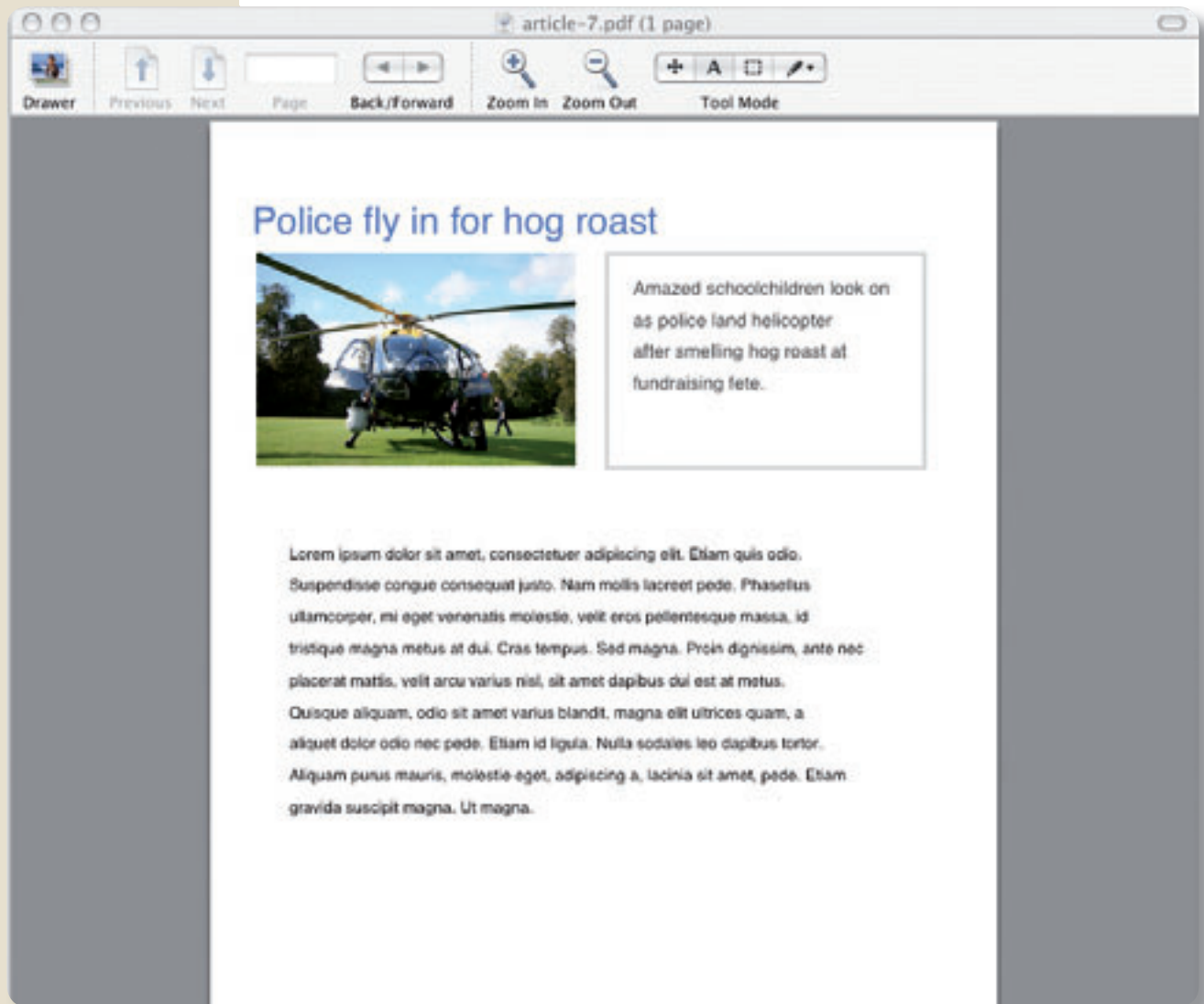
```
</body>
</html>
```



28 Previewing your work

You're done! Save your page and your external StyleSheet by choosing File>Save All, then choose File>Preview In Browser and pick a web browser from the menu that appears. In your browser, try clicking on the different areas of your image map to pan around inside your viewing window.





THE BRIEF

ON THE CD

Tutorial files:
 .htaccess
 createpdf.php

TUTORIAL OBJECTIVE

Learn how to generate PDF files using the Zend Framework and PHP

TIME REQUIRED

1 hour

SKILL LEVEL



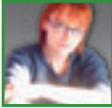
Generate PDF files on the fly using PHP

TURN ANY CONTENT FROM YOUR WEB APPLICATION INTO A HANDY PDF FILE, USING THE POWER OF PHP 5 AND THE ZEND FRAMEWORK

IF YOU HAVE content that you expect your users to want to save, print or email to other people, then offering them the opportunity to download the content as a PDF can be very useful. If you have a static website, you can create and upload PDF files as you create the pages, however, in a dynamic, database-driven application, you will need to generate these PDF files from the content in your database, either when requested by the user or when the content changes.

It is possible to generate these documents on the fly using PHP. We will look at one way to do this, using part of the open-source Zend Framework. This is a PHP framework from Zend Technologies, which provides a library of reusable code you can use to provide a backbone for your PHP applications.

To use the Zend Framework, you will need PHP 5. As PHP 4 announced its 'end of life' in July, you should be building new applications to run on PHP 5, so this should not be a problem.



YOUR EXPERT

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Generate PDF files on the fly using PHP

```
<?php

require_once 'Zend/Pdf.php';

?>
```

Step 03

We should now be able to link in the bits of the Zend Framework we want to use, as we need to use them

```
1 <?php
2
3 require_once 'Zend/Pdf.php';
4
5 /* set up your text and image elements here -
6 $heading = "Police fly in for hog roast";
7 $subhead = "Amazed schoolchildren look on as
8 $body = "Lorem ipsum dolor sit amet, consectetur
sellus ullamcorper, mi eget venenatis molesti
sim, ante nec placerat mattis, velit arcu var
ultrices quam, a aliquet dolor odio nec pede.
lacinia sit amet, pede. Etiam gravida suscipi
9 $imagePath = '/Users/rachel/Sites/zend-pdf-tu
10
11
```

Step 04

We added Lorem Ipsum as our body text, but feel free to use your own when creating your own PDF file



01 Download the framework

You can download the Zend Framework from the Zend website at <http://framework.zend.com/download>. Download the file to your computer and unzip the file. You will need to copy the library file into your site folder.

02 Adding Zend to your path

Adding Zend to your path means that PHP knows where the Zend library is. If several sites on your server used the framework, you could place the files anywhere on the server for them all to use as long as PHP understood where they were. We will use a simple method of adding the instruction to an .htaccess file. Change /to/to/library/ in the code below to the path to your site where you have placed the framework library file.

```
php_value include_path ".:/path/to/site/library"
```

03 Create a PHP file

We should now be able to link in the bits of the Zend Framework we want to use, as we need to use them. For this tutorial, we are just going to use Zend PDF. Create a

new PHP document and save it as createpdf.php. In that document, add the following code, which will include Zend PDF. If loading this page in your browser causes an error, then Zend is not on your path, as explained in the previous step.

```
<?php
require_once 'Zend/Pdf.php';
?>
```

04 The content of the PDF

For the purposes of this tutorial, we are going to use some content inserted into our file. In your application, it is likely that at this point, you would be retrieving content from a database into these variables in order to write it into the PDF. However, for now just add some content to these variables, in order that we can test our PDF experiment.

```
$heading = "Police fly in for hog roast";
$subhead = "Amazed schoolchildren look on
as police land helicopter after smelling hog
roast at fundraising fete.";
$body = "Lorem ipsum dolor sit amet,
consectetur adipiscing elit. Etiam
quis odio. Suspendisse congue consequat
justo. Nam mollis laoreet pede. Phasellus
ullamcorper, mi eget venenatis molestie,
velit eros pellentesque massa, id tristique
magna metus at dui. Cras tempus. Sed magna.
Proin dignissim, ante nec placerat mattis,
velit arcu varius nisl, sit amet dapibus dui
est at metus. Quisque aliquam, odio sit amet
varius blandit, magna elit ultrices quam, a
aliquet dolor odio nec pede. Etiam id ligula.
Nulla sodales leo dapibus tortor. Aliquam
purus mauris, molestie eget, adipiscing
a, lacinia sit amet, pede. Etiam gravida
suscepit magna. Ut magna.";
$imagePath = '/Users/rachel/Sites/zend-pdf-
tutorial/helicopter.jpg';
```

05 Create the PDF object

Next, we need to create a PDF object which will represent our PDF document and enable us to build up a document consisting of pages and information. Create this object by using the code below.

```
$pdf = new Zend_Pdf();
```

06 Create a page

Now you have a PDF object, you need to create a page that our data can be drawn onto. Use the code below to be able to create this. Here, we are going to create an A4 portrait format page using the constant `SIZE_A4`, but you can also create a landscape document using `SIZE_A4_LANDSCAPE` or American letter-format sizes by replacing `A4` with `LETTER`.

```
$page = new Zend_Pdf_Page(Zend_Pdf_Page::
SIZE_A4);
```

07 Get the page dimensions

We need to know where to start drawing our elements onto the page, so get the dimensions of the page by using `getHeight` and `getWidth`. We then work out where to start drawing, by subtracting 36 points from the height (which gives us our top position in the variable `$topPos`) and setting the variable `$leftPos` to 36, so we will be 36 points in from the left. We are working in points rather than pixels in a PDF document.

```
$pageHeight = $page->getHeight();
$pageWidth = $page->getWidth();
$topPos = $pageHeight - 36;
$leftPos = 36;
```

```
$style = new Zend_Pdf_Style();
$style->setLineColor(new Zend_Pdf_Color_HTML('#333333'));
$style->setFillColor(new Zend_Pdf_Color_HTML('#333333'));
$style->setLineWidth(3);
$style->setFont(Zend_Pdf_Font::fontWithName(Zend_Pdf_Font::FONT_HELVETICA));
$page->setStyle($style);
```

Step 08

The first thing we are going to do is output the heading to the PDF document so that we can check it

```
// text in box
$style->setLineColor(new Zend_Pdf_Color_HTML('#333333'));
$style->setFillColor(new Zend_Pdf_Color_HTML('#333333'));
$style->setLineWidth(2);
$style->setFont(Zend_Pdf_Font::fontWithName(Zend_Pdf_Font::FONT_HELVETICA));
$page->setStyle($style);
```

08 Set the heading styles

The first thing we are going to do is output the heading to the PDF document so that we can check it all works. To start with, we need to create a style object; we can then set the line colour, fill colour and line width. You will see that we are using hex codes as we are familiar with in CSS – you could also use RGB values by using `Zend_Pdf_Color_RGB` and then adding RGB within the brackets instead of hex.

With the colours now set, because we are dealing with a text element, we can also now set a font. The Zend Framework PDF supports the 14 standard PDF fonts which are as follows:

```
Zend_Pdf_Font::FONT_COURIER
Zend_Pdf_Font::FONT_COURIER_BOLD
Zend_Pdf_Font::FONT_COURIER_OBLIQUE (identical to
Zend_Pdf_Font::FONT_COURIER_ITALIC)
Zend_Pdf_Font::FONT_COURIER_BOLD_OBLIQUE
(identical to Zend_Pdf_Font::FONT_COURIER_BOLD_
ITALIC)
Zend_Pdf_Font::FONT_HELVETICA
Zend_Pdf_Font::FONT_HELVETICA_BOLD
Zend_Pdf_Font::FONT_HELVETICA_OBLIQUE (identical to
Zend_Pdf_Font::FONT_HELVETICA_ITALIC)
Zend_Pdf_Font::FONT_HELVETICA_BOLD_OBLIQUE
(identical to Zend_Pdf_Font::FONT_HELVETICA_BOLD_
ITALIC)
Zend_Pdf_Font::FONT_SYMBOL
Zend_Pdf_Font::FONT_TIMES_ROMAN
Zend_Pdf_Font::FONT_TIMES
Zend_Pdf_Font::FONT_TIMES_BOLD
Zend_Pdf_Font::FONT_TIMES_ITALIC
Zend_Pdf_Font::FONT_ZAPFDINGBATS
```

After creating all of the styles that you want, you need to set the style of the PDF object using `setStyle`. This will now be the style of anything you add to the document until you set a new style.

```
$style = new Zend_Pdf_Style();
$style->setLineColor(new Zend_Pdf_Color_HTML('#3366FF'));
$style->setFillColor(new Zend_Pdf_Color_HTML('#3366FF'));
$style->setLineWidth(3);
$style->setFont(Zend_Pdf_Font::fontWithName(Zend_Pdf_Font::FONT_HELVETICA), 28);
$page->setStyle($style);
```

09 Draw the heading

To actually add the heading to the page is quite simple once the style has been set. Use the `drawText` function, with the first parameter being the variable that contains your heading text, the second being the left position and the third the right position.

```
$page->drawText($heading, $leftPos + 32, $topPos - 48);
```

10 Save the PDF

Now we have something on our PDF, we can create our first PDF document and check that everything is working so far. First we need to add the page we are working on to the PDF object, and then save it to the disk using the code below. Make sure that the folder in your site that the PDF is saved into is writable by the web server.

You should then be able to run your script and find the newly generated PDF and open it. The PDF should contain your heading text.

```
$pdf->pages[0] = ($page);
header('Content-type: application/pdf');
$pdf->save('files/test.pdf');
```

```
36
37 $imageHeight = 160;
38 $imageWidth = 240;
39
40 $topPos = $topPos - 64;
41 $leftPos = 36;
42 $bottomPos = $topPos - $imageHeight;
43 $rightPos = $leftPos + $imageWidth;
44
45 // Load image
46 $image = Zend_Pdf_Image::imageWithPath($imagePath);
47
48 // Draw image
49 $page->drawImage($image, $leftPos, $bottomPos, $rightPos, $topPos);
50
```

Step 11

The image path we set at the top of the script should be the physical location on your disk of the image

Step 13

We need to set the style again unless we want the text to look the same as our main heading

11 Add an image

If everything went well with your test, we can add an image to the PDF. The image path we set at the top of the script should be the physical location on your disk of the image you want to include. Set the height and width of the image and work out where you want it to go on the page. Then create an image object using `imageWithPath()` with a parameter of our image path. Use the function `drawImage` to add the image to the page; the first parameter is the image object and the others deal with the positioning. Positioning the elements on the page is the hardest part about generating a PDF, and you will probably find you need to play around a bit with those values till you get the result you want.

```
$imageHeight = 160;
$imageWidth = 240;
$topPos = $topPos - 64;
$leftPos = 36;
$bottomPos = $topPos - $imageHeight;
$rightPos = $leftPos + $imageWidth;
$image = Zend_Pdf_Image::imageWithPath($imagePath);
$page->drawImage($image, $leftPos, $bottomPos, $rightPos, $topPos);
```

12 Draw a text box

One of the other things you can do with a PDF is to draw shapes on the document. To demonstrate this, we will add a text box to contain our subheading text. First set the line colour, and then use the `drawRectangle` function to draw a rectangle-shaped box.

```
$page->setLineColor(new Zend_Pdf_Color_HTML('#CFCFCF'));
$page->drawRectangle(300, $pageHeight-100, 540, 580, Zend_Pdf_Page::SHAPE_DRAW_STROKE);
```

IN DETAIL: Creating complex PDF documents

Some further tips tricks and additional reading for creating more complex PDF documents with PHP

AS YOU WILL have realised from this tutorial, creating a PDF document with PHP is a little more complicated than laying out a page with CSS, however, with a bit of playing around, you can create complex PDF document on the fly in this way.

If you need to create a very complicated and highly styled document, a useful tip is to open a template PDF first and then add your data to that, as opposed to trying to draw the entire PDF document on the fly. One of the common reasons that we end up creating a PDF file is to generate an invoice that the user can save to their computer or print. In this case, we would go for the template approach as we know the fields that need to be populated in our template, and so can create the invoice layout in Acrobat or another programme that can export as PDF, and just add the amounts and order details on the fly.

To open an existing document using Zend PDF, you simply call `Zend_Pdf` with a file path as the parameter. You can then start to add elements to your existing document rather than starting out with a blank canvas. The pages of your document are simply an array. So to get the first page of your opened file, you can use `$pdf->pages[0]`.

```
$fileName = '/path/to/your/file.pdf';  
$pdf = new Zend_Pdf($fileName);
```

A nice thing about the Zend Framework is that you don't have to use the entire thing – or build your application in a 'Zend way' to get the benefits – you can simply use certain parts of it as you require them. This is the approach we have taken with our PDF generator – simply using the PDF class from the framework to take out some of the complexity.



You can find the Zend PDF Tutorial at http://devzone.zend.com/article/2525-Zend_Pdf-tutorial. This tutorial goes through the different functions of Zend PDF in more detail

13 Set style for text in this box

To add text into our new box, we need to set the style again, unless we want it to look the same as our main heading. So create a new style for this text just as we did before – we have used 14 point Helvetica in #333333.

```
$style->setLineColor(new Zend_Pdf_Color_HTML('#333333'));  
$style->setFillColor(new Zend_Pdf_Color_HTML('#333333'));  
$style->setLineWidth(2);  
$style->setFont(Zend_Pdf_Font::fontWithName(Zend_Pdf_Font::FONT_HELVETICA), 14);  
$page->setStyle($style);
```

14 Add text to the box

We now want to add this text to the box. If we simply add it as we did the heading, we will find that it doesn't wrap and so will continue off the edge of the page and disappear. So first we are using the PHP `wordWrap` function to break the text at 30 characters maximum line length. We then turn the text into an array, splitting on the new line character and can loop through this array drawing our lines of text one at a time – decreasing the start position as we go.

```
$startPos = $pageHeight - 130;  
$subhead = wordwrap($subhead, 30, '\n');  
$subheadArray = explode('\n', $subhead);  
foreach ($subheadArray as $line) {  
    $line = ltrim($line);  
    $page->drawText($line, 320, $startPos);  
    $startPos = $startPos - 24;  
}
```

15 Set style for the body text

We now want to add our main body text; hopefully this process is starting to become familiar now. We set the style for this text, making it 12 point Helvetica and black.

```
$style->setFillColor(new Zend_Pdf_Color_HTML('#000000'));  
$style->setFont(Zend_Pdf_Font::fontWithName(Zend_Pdf_Font::FONT_HELVETICA), 12);  
$page->setStyle($style);  
$startPos = $pageHeight - 330;
```

16 Add body text

Once again we need to wrap our body text. This time we have chosen to wrap the lines at 80 characters, which fits the page nicely. We can then loop through the created array and add our text to the PDF document line by line.

```
$startPos = $pageHeight - 330;  
$body = wordwrap($body, 80, '\n');  
$bodyArray = explode('\n', $body);  
foreach ($bodyArray as $line) {  
    $line = ltrim($line);  
    $page->drawText($line, 60, $startPos);  
    $startPos = $startPos - 24;  
}
```



17 Test the document

You have now completed your PDF document, so can run the script again to save the file. The completed document should contain a heading, image, subheading in a box and the main body text. You can tweak the styles, colours and positioning by changing any of the values we added – experimenting is really the best way to get to grips with how this all works so that you can do a similar thing in your own projects.



18 Output the document to the browser

It may be better for your application to simply output the document to the browser so the user is prompted to save the PDF, rather than saving it to your server file system. To change our script to do this, simply comment out the final two lines and then add the below code, which renders the PDF and then outputs it as a file that can be saved.

```
$pdfData = $pdf->render();  
header("Content-Disposition: inline;  
filename=article.pdf");  
header("Content-type: application/x-pdf");  
echo $pdfData;
```



THE BRIEF

TUTORIAL OBJECTIVE

To build the basis of a contact form using Dreamweaver CS3

TIME REQUIRED


30 minutes +

SKILL LEVEL

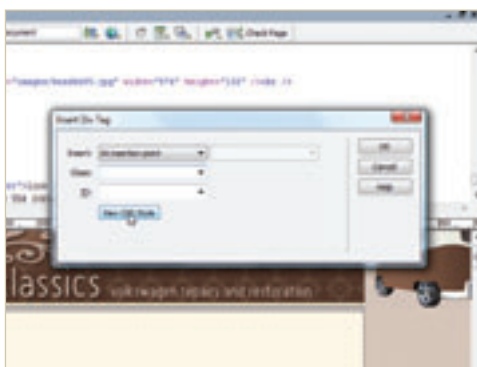


Create a user-friendly contact page

CREATE A SIMPLE, EFFECTIVE AND FUNCTIONAL CONTACT PAGE, BRINGING TOGETHER ALL THE INFORMATION IN A SINGLE SPACE

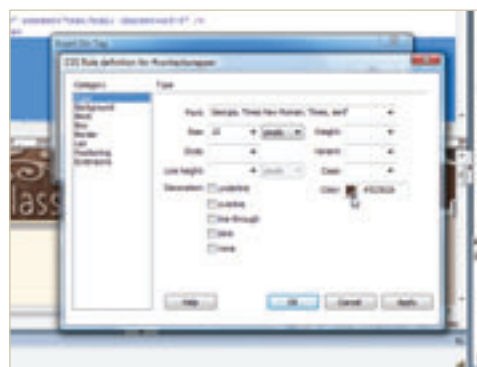
 **AN ONLINE PRESENCE** is the perfect opportunity, especially for business, to present itself to a 24-hour global audience. However, it seems that many are intent on making it as difficult as possible for visitors to get in contact. Instead of access via the home page, visitors are required to scour the site to find details. Unfortunately, a single phone number that never gets answered or a ten-field form is no way to attract a potential customer.

A contact page should be easily accessible and contain all the relevant information. It should be presented in a style and fashion that instantly gives viewers a choice of contact points to choose from. Typically, a contact page should include a postal address, telephone number and email address, or a simple contact form. The more accessible, welcoming and user-friendly the page is, the happier visitors will be to make good use of it.



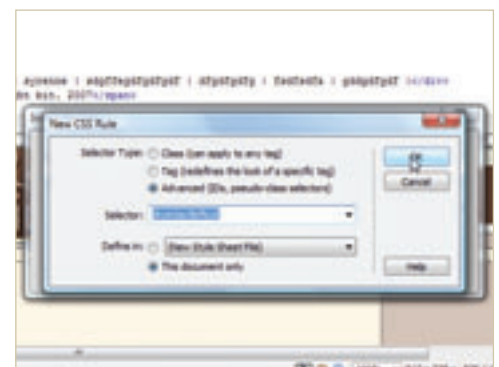
01 Get wrapping

The contact page is to consist of a two-column layout. The left column is going to contain a simple submit form, and the right an address and phone number. The first step is to create a wrapper for both columns. From the Insert menu, select Layout Object > Div Tag, then select New CSS Style.



02 Create a div tag

Now select Advanced Selector Type and give the Selector a name like '#contactwrapper'. From the Define in: section, select This document only, then press OK. This will reveal the CSS Rule Definition window with the Type category selected. Now choose a base Font, Size and Color.



03 Define div

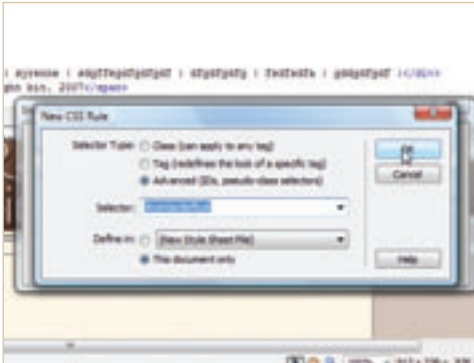
Head to the Box category and define the Width and Height of the wrapper. The Width can be defined in percentages or pixels, depending on its placement. For this tutorial, we are going to use a Width of 600 pixels and set the Height to auto. Remember, this can be adjusted later if needed.



YOUR EXPERT

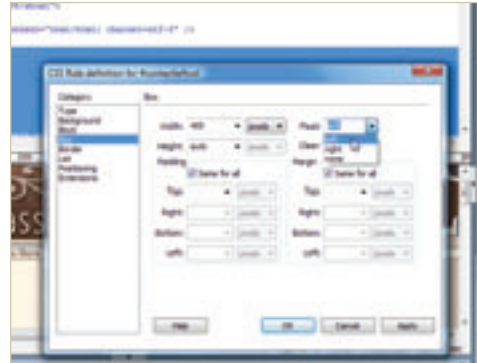
Steve Jenkins is a keen designer and developer who started creating websites after attending Bournemouth University and loves tackling the most testing of Dreamweaver problems. To see a sample of Steve's work, take a visit to www.thesouthend.co.uk.

Create a user-friendly contact page



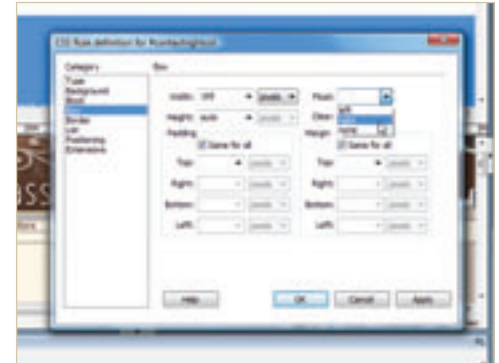
04 Left div

Pressing OK and OK will place the div tag in the appropriate position. Now place the cursor at the beginning of the div-tag text, head back to the Insert menu and add a new div tag. Press CSS Style and name the Selector, eg, '#contactleftcol' and press OK.



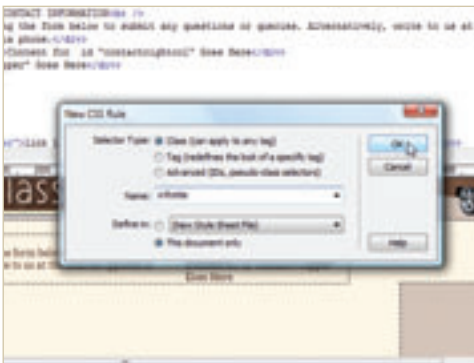
05 Left column

This tag is set to contain a simple submit form and will be given a width two-thirds of the page, ie, 400 pixels. The Height will initially be set to auto. These dimensions and padding/margins can be added at a later date. Now select left from the Float drop-down list.



06 Right column

Next, in Split view, place the cursor directly after the closing #contactleftcol div tag. In the Insert menu, add a div tag with a name of '#contactrightcol' and press OK. Select Box and make the Width 195 pixels, set Height to auto, select right from the Float list, and press OK.



07 Title and instructions

Now delete the text in the #contactleftcol and enter the title and the relevant text that will instruct users on how to use the contact page. Now head to the Text menu and select CSS Styles>New to open the New CSS Rule window. Give the Class a name and press OK.



08 Favoured font

Select the Type category, if not already selected, and select the font to be used from the Font drop-down list. Use a font such as Verdana or Georgia and then select Size, Weight, Style and Colour before pressing OK. Now select the contact-title text and apply the newly created style.



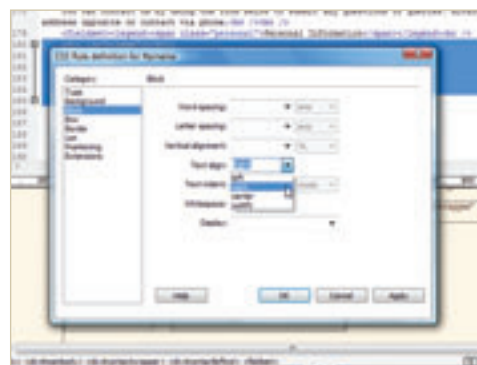
09 Fieldset tags

The personal information needed for the contact form, like name and email, is to be contained within a set of fieldset tags. Using the Code view, place the cursor at the end of the subtext and insert a break (Enter+Shift). Now insert an opening and closing set of fieldset tags.



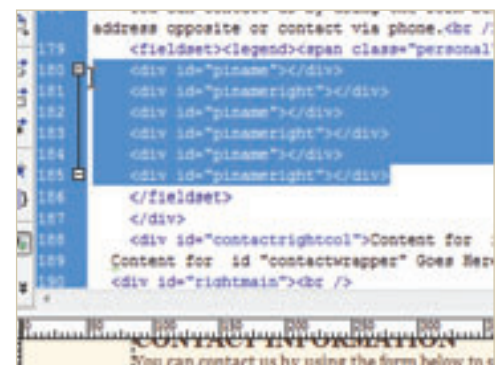
10 Add the legend

Inside the fieldset tags created previously, add an opening and closing set of legend tags. This is where the name for the fieldset will be placed. Enter the appropriate text and apply the appropriate style. If the desired style doesn't exist, create a new class.



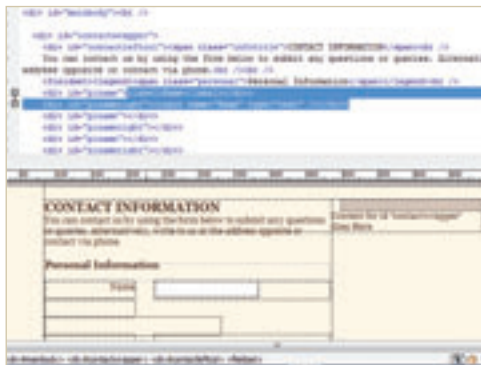
11 Float left

To create perfectly aligned labels and fields, two div tags are needed, one floated left and one floated right. Place the cursor after the closing legend tag and add a tag as shown before. Give the floated left tag a Height of 25 pixels and a Width of 125 pixels with Text align set to right.



12 Float right

Now insert another div tag, immediately after the closing div tag of the one created in the previous step. The new div tag is to have a Height of 25 pixels, a Width of 245 pixels and be floated to the right. Now copy and paste these tags to create three lines.



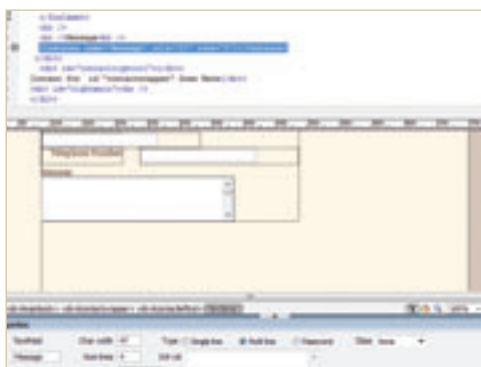
13 Labels and fields

The fieldset needs a label and text box to be added to each of the div tags created in the last two steps. Place the cursor between the first tag, head to Insert>Form>Label, press OK and type in a label, ie. Name. In the corresponding tag, add a text field via Insert>Form.



14 Adjust text field

To complete the fieldset, repeat the previous step and save the page. The text-field size can be adjusted via the Char width box found via the Properties window. Insert the cursor after the last fieldset tag and insert a couple of breaks using the keyboard short cut Enter+Break.



15 The message

Now insert the text Message, insert a break and head to the Insert menu and select Form>Text Area. Name the field and add columns and rows; try 45 and four. Save the page and head to File>Preview in Browser to view. Adjust the Char width to match fieldset.

IN DETAIL

A constantly-changing contact page

The beauty of CSS is that it gives designers scope to create a whole new colour scheme or theme with a few tweaks of the existing code

A **CORE CONTACT** page can be the basis for a hundred contact pages with a little tweaking here and there. The contact page created in the tutorial could grace any site, all it needs is the code to be wrapped in a form and it's ready to go. Placing the current code in its current form into an alternative page probably wouldn't work, however, tweaking the font and font colour would immediately bring it closer to its desired destination. Tweak the right column's background colour and there is a contact page that looks like it was custom-built for the occasion.

Admittedly, this would still leave much the same structure as the original, but a few new tweaks could take it to another level again. A popular design practice is the placement of background images to enhance simple elements. This would work well for a contact form. A suitable image could be placed within the #contentwrapper tag to enclose the whole form.

Alternatively, the #contentrightcol tag could dispose of the coloured background and introduce a 3D border. This is a simple procedure that involves no more than opening the appropriate div tag and adding the desired image to the Background field. However, the results can be mightily impressive if your Photoshop is up to the task.

Other elements that can be tweaked to further enhance the overall appearance are the text fields. These are dull in their default format, but creating and applying a simple class can offer far more appeal. A first-rate example is to create a new class and head to Border to create a simple one-pixel border in the desired colour. There are a number of styles on offer including dotted, dashed and solid. Further modifications could include a matching background colour, new style text or the standard Submit button. The latter can quickly be enhanced with a new style, but for real appeal, there is the option to add a button image. Head to the Insert menu, select Form>Image Field, select an image and press OK. To finish, give the button the name 'submit'.



Create themes by including backgrounds, images and clever styling of text and elements to match

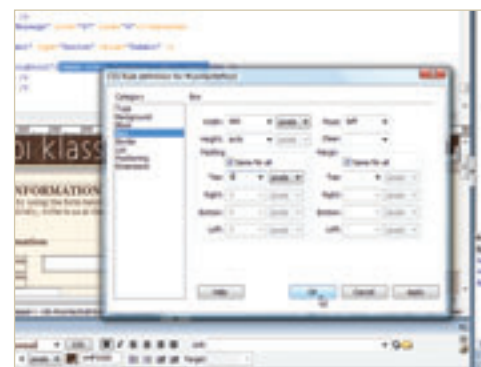


Imaginative use of background images can seriously enhance a contact page's confidence



16 Submit

Now add a couple of breaks after textarea and head to the Insert menu, then select Form>Button. Add the name and value. Submit and press OK. Now head over to the left-column div tag and delete any text. Do the same with the #contactwrapper text.



17 Style details

To complete the contact form, add the appropriate text and style to match the page. The left column has a different coloured background which displays the text up against the edge. To add some padding, double-click the #contactrightcol tag, select Box and a five-pixel padding.



Ungarbage

www.ungarbage.com



TOP TIP



Give your links more visual impact

The common option when creating a link is to use text or image and link this to the appropriate page. This is a perfectly acceptable way of creating links across any site. However, all links are not created equal and using a little imagination can give it far more impact. There is a perfect example on the Ungarbage site. Where instead of using the common 'more...' text to link to more content, they use visual impact in the shape of [+].

Ungarbage is the work of Brazilian web and graphic designer Mourlyse Heymer Marreiros, who is currently based in London. She started out as a graphic designer in her native country, creating accessories for the fashion industry.

After completing her degree in 2000, she joined a Portuguese company specialising in web marketing. She went on to become a senior designer at the Computer Graphic Centre of Minho University. Here she provided creative services for the technical departments and realised research in fields including accessibility and human-computer interface. Last year she finished her Masters degree in Multimedia Technology at Porto University and decided to come to the UK.

Ungarbage.com is Marreiros' first web standards-compliant production and her experience as a graphic designer is obvious for all to see. The site is a classic example of a Web 2.0 website, with its combination of colours, background images and CSS. Background images are very much an element of the site with the main image, stamp effect and body background making up the vast majority of the design.

The layout is a simple affair, with liberal use of div tags that simply lie on top of one another, including several simply used as a spacer. This avoids too many nested div tags and helps create the space and uniform look of the pages.



Lovely links

The rollover effect is put to good use on the prominent link text, whereas the more subtle links use no text at all

In the background

The background, stamp effect and Post-it Notes are all created by the use of the background-repeat command

Border forms

Give form fields a little more pizzazz with styled borders and a few quick classes

Forms are often seen as functional and are generally given little design status. However, styling a form can ensure that it does not look out of place on the page. The simple and more obvious action is to style the text labels and, if feeling a little more adventurous, the text-field style. Background colours can be added to a text field and background images to the form. However, to give a text field more definition and get rid of the usual ugly border, a class can be created and applied. To create a new class, head to the Text menu and select CSS Styles>New and give the

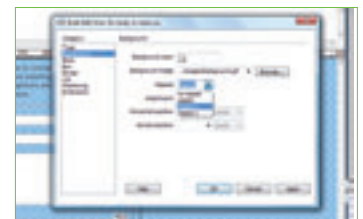


class a relevant name, eg, 'borderdot', and press OK. Now select the Border category and from the Style drop-down list, select dotted. To complete the new class, add one to the Width drop list, pick a colour from the Color palette and press Apply and OK.

Repeating backgrounds

Create stunning backgrounds with a single small image

Background images are a popular design option as they give more flexibility than just a standard image. They can be used as a single independent image, with the option to add text over the top. Alternatively, an image with a small footprint can be repeated to create any number of effects. Typically an image will be repeated horizontally, vertically or simply repeated indefinitely. To add a repeating background to a div tag or class, first select the CSS panel and double-click to open the Rule Definition window. Now select the Background



category and click Browse to locate the appropriate image. The repeat drop-down list offers several options with repeat repeating the image vertically and horizontally. Repeat-x repeats horizontally, while repeat-y repeats an image vertically.



YOUR EXPERT

Steve Jenkins is a keen designer and developer who started creating websites after attending Bournemouth University and loves tackling the most testing of Dreamweaver problems. To see a sample of Steve's work, take a visit to www.thesouthend.co.uk.

Site doctor

Diagnosing the tricks behind dotcom designs

rbage: Taking one step rd to recycle the Web

arose from a personal effort aimed to turn the Web a
Actually there are a lot of web designers doing the
ow, and the magical words are "Web Standards". Like a
paper, many websites are being daily discarded by their
target; therefore it's time to attack the reasons.

ite must be valuable, useful, visible, quick and
therwise it is not worthy of viewing. But, you must be
we need more than a well constructed website to
result. What about the content, the information itself?
t when you set high standards of work, they will guide
of the project. Do you also believe so? [Contact me](#).

Highlights

To draw a viewer's attention to specific text, a class has been created to create a highlighted effect

Contact

The contact form is a set of fields that are complemented by a background image, image button and styled text

Latest Project

Chickenmylove is a new brand created by the fashion designer Katharine Heymer targeting teenage consumers. The website will present unique accessories inspired by color that pops... [-]



Contact Me

Please, feel free to contact me anytime. It's always a pleasure meeting new people of like mind and different opinions are very welcome in a positive discussion.

Name

your name

E-mail

your e-mail

Message

STEP BY STEP

Creating lists

Take advantage of the UL and LI tags to create well-ordered lists of information

01 Manual insert

It is possible, and indeed common, to insert list tags into a page with Dreamweaver, but it is quicker to add the relevant tags manually. First, select the position where the tags are to reside and add the opening and closing unordered list tags ``. This will be the container for the list items.

02 List items

The first step in order to create list items is to add the opening and closing list tags, ``. You will need to place these between the unordered list tags. Next up, a set of opening and closing list tags will need to be added for each item that is set to appear in the list. After only two steps, you've got all your tags in place!

03 Populate the list

Now all the necessary tags are in position, the next step is to populate the list `` tags with text, images and links if desired. First, place the cursor between a set of list tags and type in any text. Next up, if you are adding an image, go to the Insert menu; however, if you are adding a link, use the Properties window.



Definition lists

Use the correct HTML markup to create good-looking definition lists

Definition lists use a collection of HTML tags to present information in a particular style. A good example of a definition list is a glossary of terms. Alternatively, the tags can be used to define a single definition if desired. Admittedly, the same information can be presented using alternative methods but the DL, DT and DD tags have been specifically designed for the task. The first step is to create an opening and closing set of Definition List tags, eg, `<dl></dl>`. This will be the container for the terms and descriptions that appear in the list. Now the Definition Term is



the next set of tags to be added: `<dt></dt>`. These will appear after the opening DL tag. Finally, the third and final set of tags are the Definition Description, `<dd></dd>`. These appear between the closing `</dt>` and `</dl>` tags. Once set up, populate as you desire.

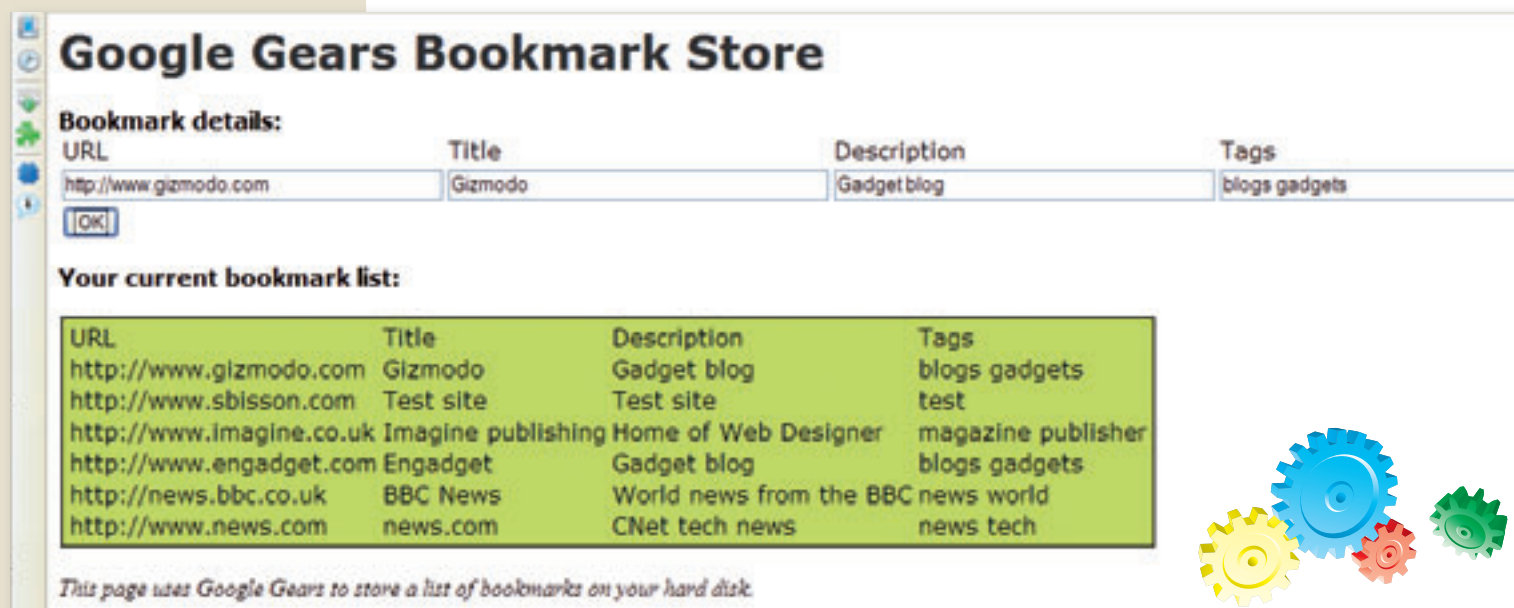
Jump around

Create links for quick access to different parts of a page

The recent trend for longer pages means that viewers are having to do a lot more work to get to the desired destination. The ideal solution would be to create shorter pages but this is not always feasible. An alternative solution is to create links that jump to a selected section of the page. Named anchors are a popular choice, but this involves adding an anchor to the appropriate part of the page and naming. Then the corresponding link must be created and assigned the correct link. There is an alternative method that makes use of existing page elements, ie, div tags,



and reduces the workload. First select the text or image that is going to be used as the link and head to the Properties window. In the Link field, add the hash symbol followed by the name of the div tag, eg, `#footer`. Now save and preview the page to test the link.



THE BRIEF

TUTORIAL OBJECTIVE

Learn how to use Google Gears' offline database

TIME REQUIRED

2 hours

SKILL LEVEL



Store data with Google Gears' built-in database

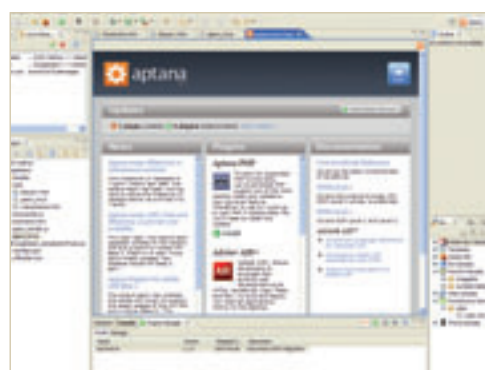
WE USE GOOGLE'S GEARS TO BUILD A TOOL FOR STORING USEFUL URLS ON YOUR PC – WITHOUT LEAVING YOUR BROWSER

RICH INTERNET APPLICATIONS don't need to be shiny, Flash-driven AIR applications. With Google Gears, you can grasp web applications and take them offline. Gears is a suite of tools that let you cache whole sites on users' PCs, letting your sites run offline.

Gears' features include a local database. This lets web applications store information on a local PC, rather than shovelling data up and down AJAX connections. Local

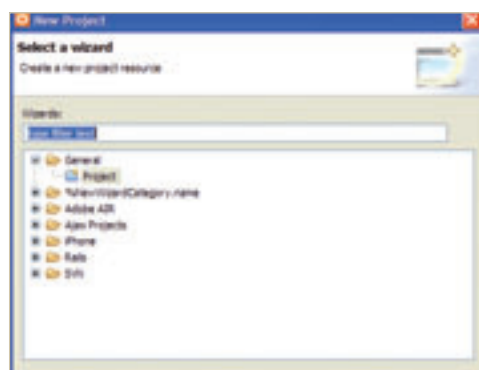
data can be accessed quickly, and if your users are worried about privacy, it never leaves their desktops. You can even synchronise remote data sources with the database.

One of the earliest Web 2.0 sites was the del.icio.us social-bookmarking service. But what if you don't want to share your bookmarks with everyone? We'll use Google Gears to build a simple web application to become the heart of a personal service, storing details of favourite links in a local database.



01 Get started

There's no need to install a new development tool for Gears – from a design perspective, the extension is just another set of JavaScript APIs. You can use any tool to create your application. We're using the Aptana JavaScript editor, which includes a local web server for test purposes.



02 Create a new project

Our application will need at least two files – as well as Google's own debugging and test tools. We'll use Aptana's project tools to manage these files and to handle uploading the files to a web server using the built-in synchronisation tools.



03 Get the initialisation files

Download the gears_init.js file from Google, as this is needed to launch Gears, and to manage access to the integral SQLite database, using the google.gears.factory JavaScript class. You'll find the current version of the file at <http://code.google.com/apis/gears/tools.html>.



YOUR EXPERT

Simon Bisson built chunks of Web 2.0 too soon for the rest of the world, and now explores the latest web technologies for *Web Designer*. Google Gears is the latest tool to be found plugged into his browsers and development tools.

Store data with Google Gears' built-in database

04 Build the Bookmarks page

Start by creating an HTML file in Aptana. Our page will need an input form, to add details of the bookmarks we want to store. Create a table to hold the input fields.

```

<b>Bookmark details:</b><br>
<table>
  <tr>
    <td valign="middle">URL</td>
    <td valign="middle">Title</td>
    <td valign="middle">Description</td>
    <td valign="middle">Tags</td>
  </tr>
  <tr>
    <td valign="middle"><input type="text"
id="URL"
style="width:20em;"></td>
    <td valign="middle"><input type="text"
id="Title"
style="width:20em;"></td>
    <td valign="middle"><input type="text"
id="Description"
style="width:20em;"></td>
    <td valign="middle"><input type="text"
id="Tags"
style="width:20em;"></td>
  </tr>
  <tr>
    <td colspan="4"><input type="submit"
value="OK"></td>
  </tr>
</table>

```

07 Initialise Gears

We've now put all the HTML we need in place, so we can start to add the JavaScript. Add a call to the `gears_init.js` script, then start a new script block. Use this to create an object to manage interactions with the database, and then call a JavaScript function that will create our database.

10 Get the Bookmark data

To add the submit function, make sure the database is running before extracting data from the form object. Use standard HTML DOM techniques to get the form contents, using the field IDs to identify the form elements. Also add an identifier to each record in the shape of a time stamp.

```

function submitBookmarks() {
  if (!google.gears.factory || !db) {
    return;
  }
  var currURL = document.
getElementById('URL').value;
  var currTitle = document.
getElementById('Title').value;
  var currDescription = document.getElementById(
  'Description').value;
  var currTags = document.
getElementById('Tags').value;
  var currTime = new Date().getTime();

```

05 Submit data

We can wrap the table with a form tag, using the `onsubmit` action to call the JavaScript that will handle interactions with the Gears database. The intention is that the database will be updated when the OK button in the form is pressed. We'll be delivering the following four fields: a URL, a title, a description and (in best Web 2.0 fashion) a set of tags.

```

<form onsubmit="submitBookmarks(); return
false;">
  [table goes here]
</form>

```

08 Create the database

Opening a database for the first time with Gears automatically creates it, so you only need to do this once. The first time we open the database, we'll need to create the table that will store our data, so we can use an SQL statement to create the table if it doesn't already exist.

```

function initdb() {
  var success = false;
  db = google.gears.factory.create('beta.
database', '1.0');
  if (db) {
    db.open('bookmarks-database');
    db.execute('CREATE TABLE IF NOT
EXISTS Bookmarks (URL varchar(255), Title
varchar(255), Description varchar(255), Tags
varchar(255), Timestamp int)');
    success = true;
    displayBookmarks();
  }
}

```

11 Load the Gears database

Once we've got the form data, we can use it to construct an SQL statement that will insert the data into the Bookmarks table. Use the Gears API's database-execute function to load the data, with a substitution to reduce the risk of SQL-injection attacks. Once the data is saved, refresh the display table.

```

db.execute('INSERT INTO Bookmarks VALUES
(?, ?, ?, ?, ?)', [currURL, currTitle,
currDescription, currTags, currTime]);
displayBookmarks();
}

```

06 Add a display placeholder

Our application will need to display its results, so we'll need to put in place a stub table that we can then modify using JavaScript and the HTML-document object model. The table will need four columns that will be labelled. We'll only need to create this initial row, as our JavaScript will dynamically create the rest of the table.

```





```

09 Exception handling

It's a good idea to wrap our database-creation code in an exception-handling block, so that if there are any problems, we can see just what has gone wrong. Use an `if` block to only create the database if Gears is installed and running, and then wrap the database code in a `try catch` block, with an `alert` to show any error messages.

```

if (window.google && google.gears) {
  try {
    [database creation code goes here]
  } catch (ex) {
    alert('Could not create database: ' +
ex.message);
  }
}
}

```

12 Display the contents

Again, use a database-execute function to extract all the data in the Bookmarks table. Use a standard select statement to fill a result set (`rs`). Use a `try catch` block to handle any exceptions. Remove current rows from the bookmarks list as we need an empty table to work with.

```

function displayBookmarks() {
  var mytable = document.getElementById('show
Bookmarks');
  if (mytable.rows.length > 1) {
    for (var i=mytable.rows.length; i>1; i--)
      mytable.deleteRow(i-1);
  }
  try {
    var rs = db.execute('select * from
Bookmarks'); [display code]
  } catch (e) {
    throw new Error(e.message);
  }
}

```

TECHNIQUE

Inside the Gears' database API

Gears' database API is designed to give a way of storing information inside users' browsers from session to session



01 Find what you need

Gears' site has the documentation for the database API. It uses two JavaScript classes: Database and ResultSet. The Database class creates, queries and manages SQLite databases, while the ResultSet lets you work with data that's been returned by a query.



02 Querying databases

Use the execute () function with an SQL statement and a list of parameters to select, add, update or delete data. You can also use ? as a placeholder in the SQL. Get a list of the SQLite SQL syntax at www.sqlite.org/lang.html.



03 Explore ResultSets

Once you've got data from a database, you'll need to extract it from the ResultSet object. The ResultSet is an array of rows and fields. You can use the next() function to move between rows. Each row is made up of an array of fields, queried by index or by name.

13 Fill the table

Use a while loop to extract the contents of the result set. isValidRow is only true for the rows that have been filled by our application. Insert new rows and cells into the display table created earlier. Create new cell objects, populate them with the contents of the record set, then close.

```
while (rs.isValidRow()) {
    var table=mytable.insertRow(1);
    cell1=table.insertCell(0);
    cell3=table.insertCell(2);
    cell4=table.insertCell(3);
    cell1.innerHTML=rs.field(0);
    cell2.innerHTML=rs.field(1);
    cell3.innerHTML=rs.field(2);
    cell4.innerHTML=rs.field(3);
    rs.next();
}
rs.close();
```



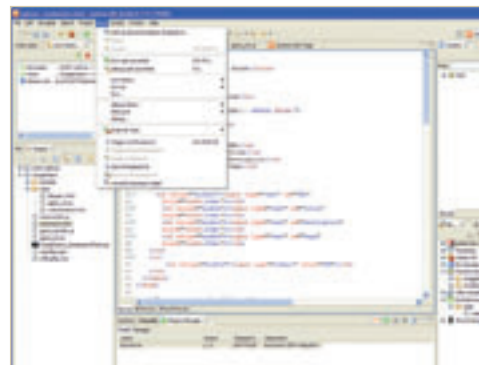
15 Check the contents

Extract the contents of the GoogleGears_SamplesAndTools zip file into your project folder, go to the Tools folder and open dbquery.html in Aptana. You can then run it to see what's been stored in your database. Use select statements to explore your database tables.



17 Redesign the application

Use a tool like Dreamweaver to edit the HTML for the page – adding new design elements using inline CSS. This will improve the look and feel of your application, and also allow you to experiment with new design elements without affecting the application JavaScript.



14 Test the application

Aptana has a built-in web server, so we can test our application before uploading it to our server. Click on the Run menu and choose Run to launch our application in your default web browser. As your application is being served by a local web server, Gears will run.



16 Run the application

Use the built-in synchronisation tools to upload all the project files to your web server (include the dbquery tool for additional debugging if necessary). You can then run the Bookmarks application to make sure that it works with a public web server.



18 What next?

We can start to add additional features. One option is a JavaScript bookmark to automatically fill in and submit database entries. Others might be additional search tools and the ability to edit the database content, using an AJAX grid control to work with the database contents.



REVIEWS

We round up a delightful collection of new hardware products that will surely add both style and power to your designer studio...



iRex iLiad Reader

www.irextechnologies.com

£435

TAKING BOOKS FIRMLY into the 21st Century, iRex's iLiad Reader is doing its best to change the way the world reads. The lightweight electronic reader comes with

neat features like a clear stable display that can be read in bright sunlight, a rechargeable battery for a full day's use, and screen navigation and annotation using a stylus. It can be used to read Word documents using MyScript notes, as well as automatically download content and updates over the internet thanks to built-in 802.11b/g Wi-Fi. The compact travel hub even has an Ethernet card that will hook you up with any wired network.

The iLiad now features a fully redesigned back-casing that looks better, and also provides greater stability when the device is laying on a surface. On the inside, the new casing offers more rigidity to the display and electronics, reducing the risk of breakage. With a new battery that holds almost 20 per cent more power, the new iLiad allows you to read books, newspapers and documents for longer without recharging. Memory capacity (128MB) can be increased up to 4GB simply by inserting a Compact Flash or MMC card, just as with digital cameras.

The paper-like display of the iLiad produces a stable image, unlike a flickering PC screen, which makes reading text much more comfortable. Also, the display only consumes power when a page is turned, so power consumption is kept to a minimum!

Pros: Amazing piece of technology, whether you want to read books, play Sudoku, sketch, even subscribe to international papers

Cons: Can't browse the internet, plus the screen is monochrome. There's no pretence that this is a total luxury item

Verdict:



Sony VAIO UX1XN

www.sony.co.uk

£1000

SONY'S VAIO UX1XN is the smallest, lightest, fully-functioning VAIO PC to date. Larger than a PDA but miles smaller than a laptop, and weighing just 486g, the machine is a miniature marvel. Years of Sony design expertise and technical innovation have combined to create a seriously stylish product that opens doors for mobile professionals and entertainment enthusiasts.

Despite its size, the UX1XN is no lightweight performer. It includes an Intel Core Solo Ultra Low Voltage processor, 4.5-inch WSVGA (1024 x 600) display, integrated keyboard and speaker, two digital cameras and Windows Vista Business operating system so you can work or play wherever you are.

A biometric fingerprint sensor provides quick and easy log-in while keeping precious files secure from snoopers, and with G-Sensor HDD Shock Protection, your work is as safe as possible from accidents while out of the office. Plus, with wireless connectivity including wireless LAN, WAN and Bluetooth, you can communicate with customers and colleagues while travelling.

Sony has done a great job of squeezing a full version of Windows Vista onto a tiny computer. The full QWERTY keyboard and flash memory also makes it special. Overall the UX1XN is an eye-catching micro PC that's a brilliant travel companion for those who don't want to leave their hobbies at home.

Pros: Imagine how good it would be to travel with your PC in your pocket, booting from stand-by mode in just three seconds!

Cons: Too small for graphical web design, so you'll have to weight up the benefits between having this or your current computer

Verdict:





ASUS W5Fe

www.asus.com

£1100

THE WORLD'S FIRST SideShow laptop has arrived, and it's a scorcher. Brought to us from ASUSTeK Computer (ASUS), a constant innovator, the W5Fe is a compact laptop with one unique feature – a 2.8-inch QVGA auxiliary display. The two-spindle design with card-reader slot and Bluetooth 2.0+EDR also ensures extensive connectivity, as well as ample data storage.

Powered by Windows Vista, SideShow is an independent operating system that can be switched on without booting up the whole system. The external system synchronises with the main operating system so it automatically updates Outlook (emails, calendar and meeting appointments) when the main system is powered. On the entertainment front, the outer display can even be used to view photos, play music and games such as Solitaire.

Gimmicks aside, the W5Fe is crafted of sturdy, attractive magnesium alloy, so it's built for business. The W5Fe comes with just about everything the busy web designer needs. The 12.1-inch WXGA screen is bright, and for networking there's Gigabit Ethernet, modem, Bluetooth and Wi-Fi communications. The integrated 1.3-megapixel webcam can swivel 235 degrees to capture images both in front of and behind the screen. The hard drive can hold a practical 160GB of content, and power comes by way of a 2GHz Intel Core 2 Duo processor and 1GB of RAM. The only things this machine can't handle are 3D games.

Pros: Packed with a wide range of exclusive features including display technologies for enhanced digital entertainment

Cons: Can't handle 3D games, which some might argue are a big part of digital entertainment these days

Verdict:



MBW-150 Music

www.sonyericsson.com

£200

SONY ERICSSON is making great strides into turning mobile phones into the centre of our music-listening world. Its handsets all sport brilliant audio quality, stand-out design and simple operation. The latest model is different. It's a Bluetooth music watch. If you love music and you want nothing to come between you and your favourite tunes, apart from the odd phone call, then the MBW-150 is the perfect accessory.

The MBW-150 is good because not only is it an attractive black-and-orange analogue watch, but it vibrates whenever you receive a phone call and the digital display shows when a new SMS has arrived. In other words, the watch becomes an alternative phone display, but in snazzy mineral crystal glass and stainless steel. Furthermore, dedicated music buttons allow you to control tracks and volume of the music on your phone (up to ten metres), and the OLED display shows which track is playing.

Auto-pairing makes connecting the watch with your Bluetooth mobile phone faster and simpler by dropping the PIN code without compromising security, and being rechargeable means you can safely recharge the watch's built-in battery time and time again with minimal reduction in performance or capacity. Other stand-out features include caller ID and the ability to discreetly handle calls – who will ever know you hung up using your watch?

Pros: There's no cooler way to manage your Bluetooth phone, and if money's no object, this gadget can't fail to impress!

Cons: Charging a watch takes some getting used to, and at £200 a pop, is it worth it for what's primarily a second screen for your phone?

Verdict:





Archos 605 WiFi

www.archos.com

from **£165**

WHO NEEDS AN iPod Touch when you have an Archos 605 WiFi? The Portable Media Player (PMP) offers excellent quality, performance, design and value. Primarily a video player, the Linux-based Archos 605 WiFi also allows you to playback photos and music in style on its 4.3-inch (800 x 480) display. You can even use the touch screen to easily operate the device with your finger or stylus.

The built-in memory (either 4GB, 30GB or 160GB) lets you store and play movies in a choice of popular formats: MPEG-4, WMV, protected WMV, MPEG-2, VOB, and H.264. You can transfer your photos (JPEG, PNG and BMP formats) from your PC or most mass-storage devices via the USB 2.0 high-speed interface, as well as display slideshows with music and transition effect. Files and folders can be managed directly on the device for better mobility.

Windows recognises the player as an external drive over USB, allowing you to drag-and-drop files. The Archos 605 even handles folder-based sorting. That's not all. Check this out. Using the optional DVR Station Gen 5, you can record your favourite TV shows or series directly on the Archos 605 WiFi from most video sources such as satellite/cable box, VCR, and DVD player in MPEG-4 format. Web gurus will love the net experience thanks to the Opera browser and full support for Flash Video, meaning you can watch video sites like YouTube.

Setting the standard for affordable portable video players, the Archos 605 WiFi should be at the top of your Christmas shopping list. Saying that, it isn't perfect. For instance, you can playback most standard definition video MPEG-4 based formats natively (such as DivX and WMV), but you'll need to splash out a further £19.99 on a plug-in if you want MPEG-2 support. A plug-in for H.264 support is yet another additional expense. Furthermore, you can't listen to OGG, FLAC or WMA Lossless files, and AAC files can only be accessed if you buy the aforementioned MPEG-2 plug-in. A little frustrating, but the majority of people won't be affected by these specific limitations, and will see the Archos 605 WiFi for what it is – a near-perfect PMP to rival Apple's iPods.

Pros: When it comes to portable multimedia, the Archos 605 WiFi player sets the standard. We expect good things come Christmas...

Cons: Average file format support, considering the power of machine, and you don't expect to have to pay for further plug-ins

Verdict:



Killer feature
Large storage space and a superb 4.3-inch touch-screen display brings your multimedia to life



THIS Month

WEB 2.0 SECURITY 92
Should we all be a bit more worried?

INSIDE VIEW 94
Mark Jeffries of Fasthosts speaks

ECOMMERCE GALLERY 96
Google get all commercial with Ads

BBC set to broadcast online with Flash

THE BEEB FINALLY STRIKES A DEAL WITH ADOBE TO DELIVER INTERNET VIDEO CONTENT WITH THE WEB'S MOST UBIQUITOUS PLAYER STANDARD

WEB VIDEO HAS more or less exploded thanks to the utter phenomenon that is YouTube, with audiences now demanding film content at every turn. Strangely, the more established TV broadcasters and film distributors are now finding that they are playing catch-up to get their product to the masses. The BBC has done just that by announcing a historic deal with Adobe to publish and distribute its digital video archive in Flash, which ironically is cited as the real masterstroke behind YouTube's success. Flash Player is after all known for being among the most widely adopted pieces of software in the world, with the technology residing on around 90 per cent of the globe's web-enabled computers. "Adobe is driving the next generation of video delivery by accelerating the fusion of TV and the internet," said Adobe CEO Bruce Chizen. "With more control over playback, interactivity and branding, the move to Flash Player-compatible video will help the BBC to engage audiences by delivering a seamless, instant video experience."

The deal is being positioned alongside the BBC's iPlayer as a way of delivering a consistent service across Windows, Mac and Linux platforms, although existing video streams found on www.bbc.co.uk should benefit from the new support. It also seems

feasible that the two companies may strike future agreements in regards to Adobe's own Flash Media Player. "With a complete end-to-end workflow, Adobe's video solutions will revolutionise how we create and deliver content to audiences in the digital age," commented BBC future media and technology group controller Erik Huggers.



The BBC's reluctance to offer Flash Video has been a bugbear to those users who wish to view streaming content across multiple browsers and platforms

Net calling

SKYPE-ENABLED MOBILE PHONES ALLOW USERS TO TALK FOR FREE

MOBILE NETWORK PROVIDER 3 has just launched an innovative handset that enables customers to make free phone calls across the Skype service. The cleverly christened Skypephone features a special button that enables the dialler to contact any of the 246 million registered users at no cost, and store usernames to the contact book. Operating over a peer-to-peer architecture, members can chat or send SMS and MMS messages to other Skype friends across the globe but will be charged for connecting to regular land line or mobile numbers. The £49.99 pay-as-you-go handset will retail across Europe and Asia before the end of the year, and will be offered in a variety of fashionable colours. Buyers can also look forward to MP3 playback, mobile TV and internet support.



The traditional mobile networks could be running scared by the prospect of Skype's free service entering the market

Top STRATO

HOSTING FIRM CROWNED TOP ECOMMERCE SERVICE PROVIDER

THE INDEPENDENT REVIEWER Web Host Directory has awarded Berlin-based STRATO the premier UK E-Commerce Web Host Provider. Judged on merits of cost, features, support, reliability and speed, the provider was particularly applauded for its Web Shop product, which provides templates and wizards through the web browser. "Setting up and earning money with a STRATO Web Shop is as easy as publishing a blog site," enthused CEO Damian Schmidt. "We are always striving to offer the easiest solution for the most competitive price, so it's no wonder that our STRATO Web Shops are highly appreciated. We are extremely happy that this was underlined through winning this award." For more information, drop by <http://uk.webhostdir.com>.



STRATO's value, commitment to service and highly intuitive Web Shop-building tool was enough to make it best eCommerce host provider



eCommerce



WEB DEVELOPERS IN A WEB 2.0 WORLD

The Web 2.0 phenomenon exists because of open-source technology. But as we sit at our computers, are hackers rummaging through our digital dustbins? Pete Simpson, ThreatLab Manager at Clearswift, presents a special article...

RECENT REPORTS THAT web developer pay has risen by 26 per cent in the past year should come as no surprise to anyone; after all, the popularity of social networking sites seems ever-increasing. In just one year, Facebook has grown by 270 per cent and now boasts over 52 million users worldwide. This zeal for all things interactive has

has numerous windows – all providing a point of break-and-entry. Of course, it is this open-source technology that allows the interactive functions on a website to exist and it would be ridiculous to suggest erasing such functions to retain a secure website. Instead, the security industry must share its knowledge with web developers and designers

“AJAX is a key cause of increased security breaches on the web”

seeped into the online community's consciousness and as a result, businesses are now clamouring to implement their own Web 2.0 functionality within their own organisations.

Yet while such an increase in web traffic is a boom for the industry, it does have its downsides. Interactive sites use open-source AJAX coding, which gives malware writers many more points of entry than with traditional HTML coding. The problem is further exacerbated when web developers and designers do not have adequate security knowledge to deal with new advances in the industry, and so unwittingly leave sites and, as a result, the end user open to attack.

So what threats are web developers now facing? As mentioned, AJAX is a key cause of increased security breaches on the web. A traditional web application can be compared to a house with just one front door and no windows, in that it offers only one point of attack. On the other hand, an AJAX application constantly exchanges small amounts of data between the browser and the server, which creates many points of input. The inputs provide more opportunities for attack – it is as though in addition to the front door, the house

so that precautions are taken to prevent AJAX-based sites being hijacked. A key issue is that Web 2.0 technology has exploded so fast that it has been hard for the IT industry to keep up. 71 per cent of UK office workers aged 18-29 access Web 2.0 internet sites at least a few times a week (www.clearswift.com/resources/survey.aspx), and it is these sites that have gained popularity with phishers and hackers. In March 2007, Google's Online Security Blog noted that the number of pageviews generated on phishing sites increased five-fold, with 95 per cent targeting MySpace. Holes in security mean that sites like MySpace have become gold mines – the injection of a simple CSS code into a profile is all it takes to infect the page so that wherever a user clicks, even on what appears to be a legitimate link, they are redirected to a phishing page. Many users have the same login credentials for social networking accounts as for banks and web-based mail, allowing for a domino effect with a user's online identity being fully compromised. If web developers and designers are unaware of how to prevent such security breaches, the web will grow increasingly unsafe, and as a result the positive



The team at Clearswift have made it their business to question the safety of internet trends. Are they right to worry about Web 2.0?

aspects of the Web 2.0 revolution will gradually become undermined.

One successful hacker named 'Lithium' has been quoted as saying, "Lazy web developers are the reason I'm still around phishing." However, the blame cannot be laid solely at the door of web developers. On the contrary, it is the training they receive which is part of the problem – it seems the provision of security training varies from course to course, with some teaching very little on the subject at all. Web development or design courses should teach would-be developers that the key to ensuring consumer's confidence in the web is to make a site as invulnerable as possible from its conception. To do this, developers should ensure all input is sanitised and all points of input are secure. Up-to-date security advice and free, secure source code can be found at the Open Web Application Security Project (www.owasp.org).

Within the next year, it is likely the IT community will see more incidents of AJAX-borne threats, which should hopefully be enough to raise developers' awareness of this issue. For most web developers, all they need to know initially to produce safe, secure websites can be taught in two days, but after this it is up to the developers themselves to keep tabs on the latest security threats and developments.

'Future shape of the UK web'

Mark Jeffries, CTO Fasthosts

THE INTERNET IS CHANGING, WITH BUSINESSES RAPIDLY RECOGNISING THE POTENTIAL OF WEB 2.0 SITES. THE CHIEF TECHNOLOGY OFFICER OF ONE OF THE UK'S LEADING WEB HOSTS HAS THE ANSWERS TO THE IMPACT THAT ALL THIS MAY HAVE IN THE FUTURE

WD: What technical aspects need looking after at a web host?

MJ: As chief technology officer of Fasthosts, I'm responsible for the operational running of the hosting platform and software and systems development. Web hosts are effectively the homes of the internet, and the performance of web hosts determine a good amount of web surfers' user experience. Web hosts themselves need to continually increase their connectivity, and work to maintain their uptime.

Web hosts measure website traffic and email traffic, and make adjustments accordingly to their routers and servers in order to maximise input and output. Fasthosts manages hundreds of thousands of active websites and millions of emails a month, so we are constantly fine-tuning our systems according to technical demands.

WD: Is the UK web growing in terms of number of websites/website traffic?

MJ: While it's difficult to measure the UK slice of the web, the few indicators we do have, such as Netcraft's web server survey and Nominet's domain registration figures, suggest that UK growth remains at a steady rate. As a UK provider, we currently view demand for web space and bandwidth as very healthy. The maturing of the market has meant that today's typical hosting customer is using a larger amount of web space and traffic.

WD: Are increasingly complex websites and broadband proliferation putting a strain on web infrastructure?

MJ: There doesn't appear to be any creaking or straining at present. However, the web's infrastructure comprises of a vast array of networks that connect a surfer to a web server. Web hosts have the challenge of staying apace of technical demands and ensuring that websites remain well-connected. The speed and reliability of websites will depend upon how well-connected web hosts are to changing internet protocol

networks. If a host does not maintain the best possible connections to interconnection facilities and peering platforms, its websites will suffer.

As the web grows, providers optimise their networks and backbone routers to maximise on redundancy, reliability and security. Investments in ring networks and connections mean that hosts today can enjoy connections of single or even multiple ten-Gigabit Ethernet (ten GbE) channels. Such co-ordinated growth should ensure that web networks increase alongside the growth of demand.

WD: How 'expert' are internet systems today?

MJ: The internet can be called 'expert' in the sense that there are systems in place to ensure that its infrastructure develops sufficiently. However, these rely on network providers making investments and are in no way automatic.

For the user today, perhaps the biggest challenge is the transfer of data which can often be a cumbersome process. The future will bring unprecedented levels of business and personal data and so will drive the production of affordable connectivity. With the ability to access and transfer higher volumes of data from a centralised hosted space, users will be free to use more of the web.

WD: How effective will today's navigation techniques be for tomorrow's web?

MJ: Our searching of the web is likely to be transformed. In the future, the sheer amount of data online could risk choking the web user. Greater use of meta-data and meta-search engines will lead to more virtual databases being used. This more powerful type of search engine synthesises requests and is far more efficient for the user.

Wider use of rich media, such as video and interactive services within websites, will mean that users will soon become reliant on high-speed connections and intuitive navigation tools to make the most of the internet.

WD: Are modifications in search impacting the way in which websites need to be hosted?

MJ: Modifications in search will inevitably impact the way in which websites need to be hosted. The proliferation of audio and video knowledge on the web will require hosting to be ever more powerful and robust. More powerful search engines will greatly enhance our capacity to capture, store, analyse and manage data from across the web, but this may indeed require hosts to enhance the availability and structure of the data they store.

WD: Will the development of Web 2.0 and 3.0 require hosts to change their infrastructure?

MJ: Web 2.0 is defined by the personal user, by their participation and by the collective intelligence that collaborative platforms generate.

The biggest implication for hosting is the increase in the quantity of data that will be centralised. Web 3.0 will build on this by developing innovative portal services on a number of platforms like mobile phones, set-top boxes and game consoles. This will require web hosts to advance their networks and the hosting products they offer.





eCommerce gallery

Increase your market reach and extend your advertising campaigns by targeting users with Google Gadget Ads

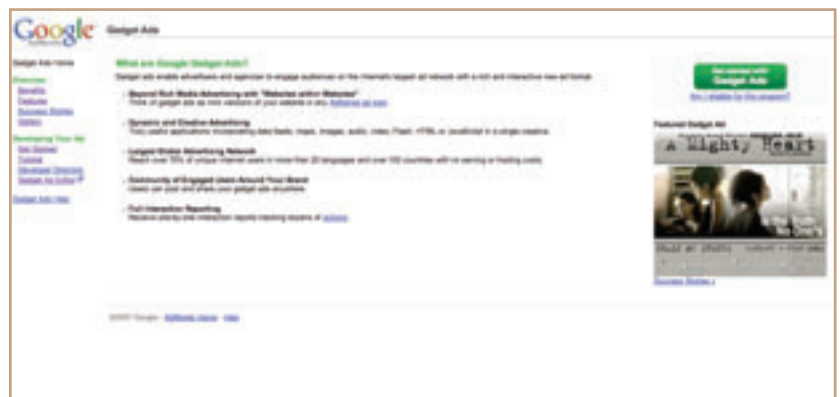
Google advertising campaigns

www.google.com/adwords/gadgetads/

GOOGLE GADGET ADS was launched this September, specifically to a limited number of Google AdWords advertisers, exciting advertisers everywhere with good reason.

Gadget ads are fully interactive mini-web pages, similar to widgets and built using standard Flash, standard HTML, JavaScript and CSS. The ads are versatile, incorporating real-time data feeds, images and video, while providing advertisers with different consumer-targeting options such as contextual, site, geographic and demographic, with the option to select between the CPC or CPI pricing models. The gadgets are open platform and provide users with a much richer ad experience that grabs attention far more so than any text-based ad. They can also be embedded upon personal blogs and web pages, providing reports and the ability to track actions within each ad.

A would-be advertiser needs to be eligible to participate with compliance to the policies and technical requirements; naturally, Google has very strict controls on size, formats and usage which simply prevent misleading click targets and to ensure high performance.



As you would expect from Google, they hold your hand through the entire process with their extensive step-by-step guides



You have the ability to create and build versatile Google Gadget Ads, which have the ability to have maximum impact



“The gadgets are open platform and provide users with a much richer ad experience”

Welcome to the Google Gadget Ads Editor!

The Google Gadget Ads Editor (GGAE) is a fully-equipped gadget development tool that lets you quickly build, test, and validate your gadget ads prior to submitting it for review. GGAE contains a variety of developed, approved and running on our content network in a shorter period of time. For more specific information on how to use the editor, [see below](#).

Editor Preview Validate


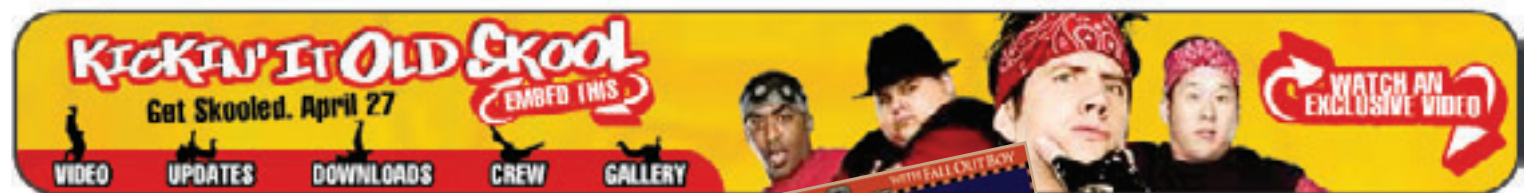
File

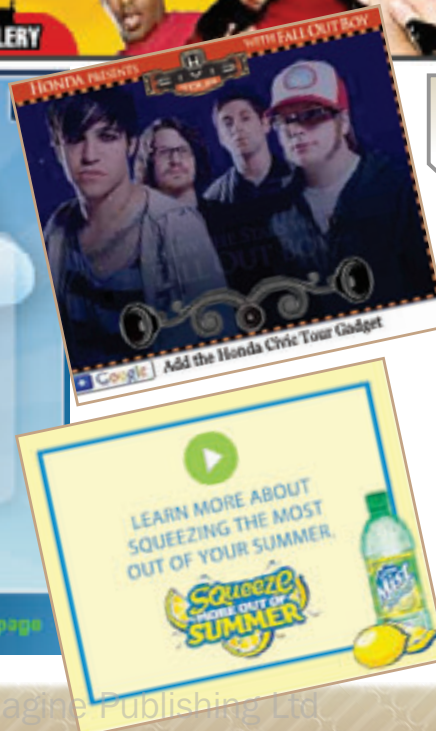
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1 <?xml version="1.0" encoding="UTF-8" ?>
2 <Module>
3   <ModulePrefs title="My Gadget Ad" width="300" height="250" thumbnail="" scrolling="false">
4     <Require feature="ads"/>
5     <Require feature="flash"/>
6   </ModulePrefs>
7   <UserPref name="clickurl" datatype="hidden" default_value="DEMO"/>
8   <UserPref name="alturl" datatype="hidden" default_value="DEMO"/>
9   <Content type="html"><![CDATA[
10
11     <!-- Embeds a single Flash file in the gadget ad and sets the dimensions
12         to match the ad size. -->
13     <div id="fc"></div>
14     <script>
15       // Replace the SWF URL below with your own
16       var swfUrl = "http://gadgetads.googlecode.com/svn/trunk/test/test_content/fad.swf";
17
18       // Update the width/height to the ad size
19       var fWidth = 300;
20       var fHeight = 250;
21
22       // Embed Flash into HTML container div
23       _IO_EmbedCachedFlash(swfUrl, 'fc', {
24         width: fWidth,
25         height: fHeight
26       });
27     </script>
28   </Content>
29 </Module>

```

Read up on all acceptable forms of advertising, conforming to both the IAB (Internet Advertising Board) and Google's own corporate policies



The Google Gadget Ads Editor is the development tool that enables you to quickly build, test and validate your ads prior to submission

VERDICT

Gadget Ads

Google Gadget Ads has the ability to engage and entertain the user with fully primed advertising campaigns that will no doubt weaken and cheapen those that have come before.

portfolio

THE PLACE WHERE YOUR WORK DOES THE TALKING

Clemens Hackl

www.exponentialdesign.co.uk

Skills: Interactive multimedia, cross-platform marketing and more...

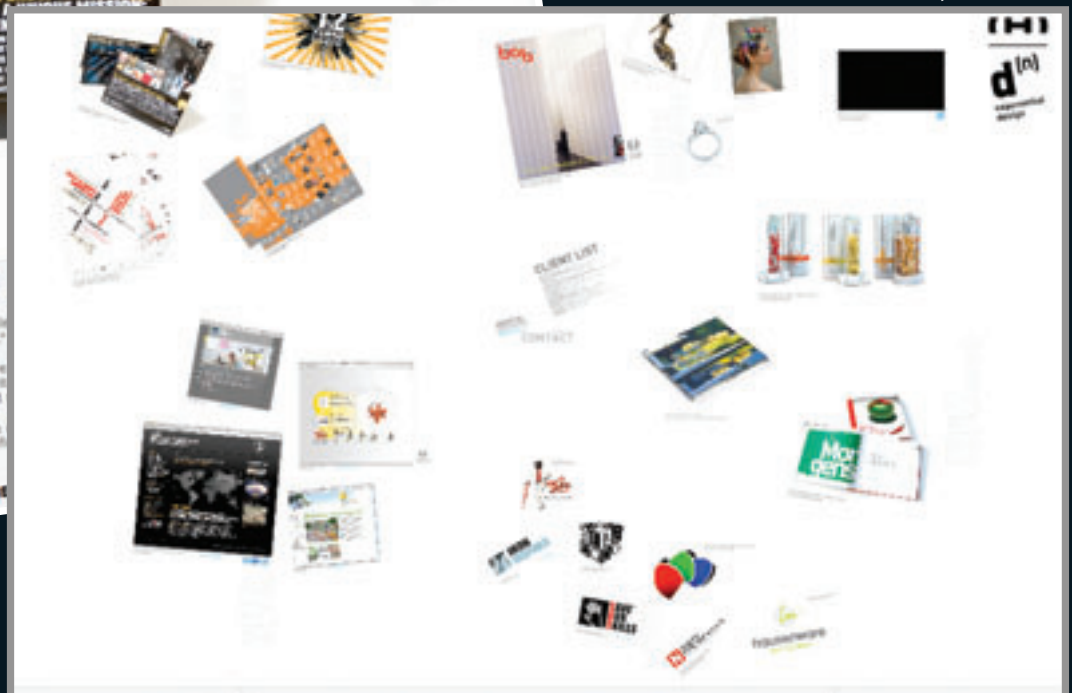
Employment status: Designer

Visitors need only a few seconds on Clemens Hackl's incredibly slick home page to realise that this 31-year old means business, with a zoom-based navigation system showcasing cross-medium work that can't fail to impress. Trained in Communication Design at the Fachhochschule, Dusseldorf and in Interactive Multimedia at London's University of the Arts, he's also served apprenticeships at agencies like FCA!BMZ, BBDO and Ogilvy&Mather. Such experience simply oozes from sites Hackl has developed for, such as www.finnstone.com, www.parklifelondon.com and Iron Inspired, while his skills in print design and product packaging show an incredible adaptability. Recognised in the industry by a whole plethora of awards, he's currently boasting a full-scale branding project for the Emirates College of Media Arts and Sciences in Dubai.



Exponential is the design headquarters of the multi-talented design force that is Clemens Hackl

The zoom-based navigation system employed on the home page is very cool, eye-catching from the first moment you click on a link



The site gives the definition of exponential design as "a function which raises the profile of a given brand or product by recognising and communicating its true potential"

NO SHORTAGE of budding web design talent means that we have another duo of promising creative individuals to celebrate this month. Be inspired, but above all make sure you let us know about your own efforts too!

MAKE IT HAPPEN!

To keep this section going we rely on student or freelance designers to put themselves forward. It's great exposure for your talents and every single one of you will be considered, so drop us a line now at webdesigner@imagine-publishing.co.uk



A nice feature is to be able to see what kind of work Hackl has undertaken for each client



Hackl beat off competition to win the bid to fully rebrand the Emirates College of Media Arts and Sciences in Dubai



He also designed the website for The British European Design Group, with its standout style consisting of a black-and-orange colour scheme combined with bold lettering



Hackl created the website for design company Iron Inspired. He also inspired the company's whole identity, which in turn means that he has a big influence on his clients' success

portfolio

THE PLACE WHERE YOUR WORK DOES THE TALKING



The home page is visually stunning, displaying examples of the studio's 3D models, some moving, some static

Terrasynth

www.terrasynth.com

Skills: Designing, coding, animating and more...

Employment status: 3D-design studio

Mark our words that if it isn't already, 3D design on the web is going to be the next big thing to get excited about. Terrasynth certainly hope so, and this collaborative set of artists are well-poised to offer customers the kind of service that will elevate online content to the next level. Specialising in producing 3D-product demonstrations, character animations, special effects and logo animations in response to bespoke media requirements, they already have a great selection of example pieces to exhibit on the Terrasynth site. Here you'll find static renders and interactive samples that let you rotate and flip models without the need for obscure plug-ins, which is surely a thumbs-up for potential clients. Check it out for yourself!

Interactive 3D demonstrations, such as the Dolphin Flipper Fone displayed, give the buyer a greater understanding in their purchase



Access more great links to portfolio sites and a whole lot more from our brand-new HTML site!

FIND MORE
www.webdesignermag.co.uk



If Terrasynth is to be believed, then its next-generation style is the future of advertising



An independent study supports the company's ethos, stating that 20 per cent of online shoppers are more likely to spend if they see a 3D representation of the desired product

Terrasynth's services include 3D modelling and animation, advanced web design, special-effects animation and video postproduction

Terrasynth - best3Dstudio.com