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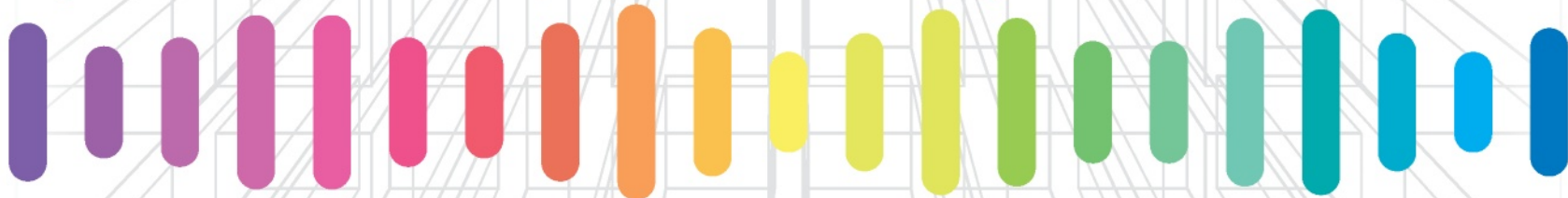
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# ANIMATE CSS

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# Welcome to the issue

## THE WEB DESIGNER MISSION

To be the most accessible and inspiring voice for the industry, offering cutting-edge features and techniques vital to building future-proof online content



Steve Jenkins

## Highlight



Agencies are collections of artists that iterate within the culture of their companies and it's important that they work on creative challenges

Web Designer gets squeaky clean with the Soapheroes at Soap Creative Page 34

## Take your CSS into a new dimension



We hate to mention the 'F' word but the demise of Flash is undoubtedly CSS's gain. The browser is where it's at and as browser support grows, the true potential of CSS is ready to take control. Animating with CSS is still in its infancy, but its adoption is a must.

It should be considered a core web skill and our lead feature on page 42 introduces the elements that you need to know to start animating and beyond. Find out how to use the basic building blocks, animation, transitions and transforms, before moving on to expert-level animation with keyframes and more.

Accompanying the king of styling, we have also included a collection of jQuery plug-ins that every designer should have in their creative arsenal. Make sure that you take a look, we guarantee you will find a favourite that you cannot live without.

Ever thought of starting your own eCommerce empire? Everyone has to start somewhere and our 'Build an online shop' feature on page 72 is as good a place as any to get going. We reveal the key considerations and show you how to build a store with Magento Go.

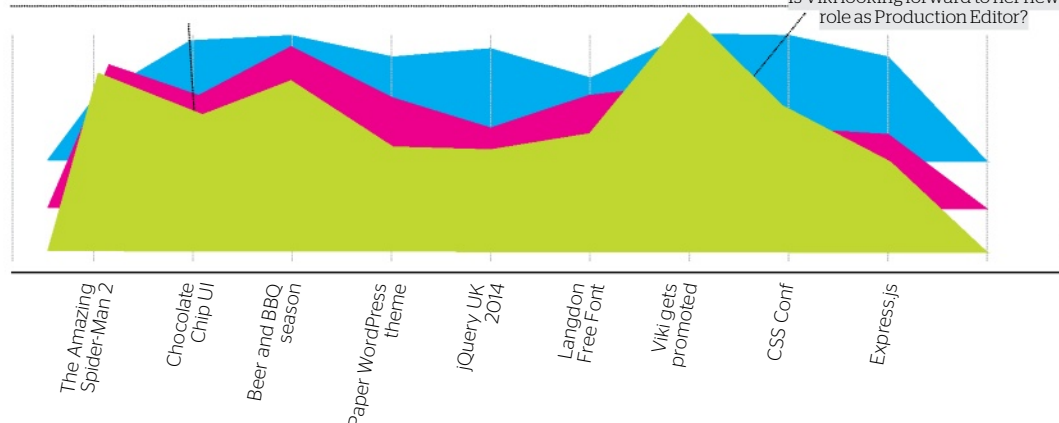
Want to build beautiful apps? Of course you do, so check out our tutorial on how to build with the HTML5 hybrid framework Ionic on page 86. As always, enjoy the magazine and see you again next issue.

CSS3 2D and 3D transforms are used to move, scale, skew, stretch and otherwise throw elements all around the viewport

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A very tasty-sounding framework

Is Viki looking forward to her new role as Production Editor?



## Excitographic

Plotting the features that got us in a frenzy over the month...

Steve Jenkins, Deputy Editor  
Andy Salter, Art Editor  
Victoria Richards, Production Editor

Turn over to the contents to discover what's going to get you excited this issue...

# This issue's panel of experts

Welcome to that bit of the mag where we learn more about the featured writers and contributors...

☞ Now with CSS, animation is much simpler. You tell it when to start, how to stop, what to do and it works. The details are kept locked inside your browser ☞



**Richard Wentk**

Richard is a long-time producer of code, creating apps and writing numerous books on the subject. This issue he tackles the king of styling, CSS. He reveals how to turn standard page elements into fully animated sequences and where to get the best resources. **Page 42**

## Matt Gifford

Matt Gifford is a lead RIA consultant developer and industry author from Cambridge who specialises in mobile development. This issue he gives an insight into the Ionic framework and reveals how to build great-looking apps. **Page 86**



## Tam Hanna

Tam is a veteran in the world of coding but a newcomer to **Web Designer**. He has worked with a host of languages with a focus on mobile. This issue he reveals a collection of jQuery plug-ins that every designer and developer needs. **Page 80**



## Steven Wu

Steven is a new face in **Web Designer** and is a freelance web developer who has a strong connection to WordPress and Magento. This issue he reveals how to start building your own online shop and offers invaluable advice. **Page 72**



## Neil Pearce

Neil is a designer and instructor for the Envato network and a keen exponent of CSS. It is his mission to make things stylish. This issue he shows how to create a thumbnail image preview grid using CSS3. **Page 62**



## Jayson Winters

The creative lead at Brace Design, Jayson is always looking to give users exactly what they're looking for. This issue he helps site visitors get a grip on where they are on a page using a handy animated progress bar. **Page 50**



## Pete Simmons

Pete is the senior digital manager at Something Big, a creative agency that specialises in marketing and advertising. This issue he goes for function as he shows how to create sticky table headers for easy reading of data. **Page 68**



## Mark Shufflebottom

Mark is a Professor of Interaction Design at Sheridan College, Ontario. This issue he shows how to add animation for content that only triggers when it is in the viewport of the browser, perfect for responsive sites. **Page 56**



## Tim Stone

Tim is a front-end developer with a first-class degree in Interactive Media Production. He loves coding and this issue he'll be building the backend for a reminder service for Ember.js with Node and Twilio. **Page 92**



**Got web skills?**  
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13-issue subscription (UK) – £62.30  
13-issue subscription (Europe) – £70  
13-issue subscription (ROW) – £80

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Printed by Wyndeham Heron Ltd, Bentalls Complex, Colchester Road, Heybridge, Maldon, Essex CM9 4NW

Distributed in the UK & Eire by Seymour Distribution, 2 East Poultry Avenue, London, EC1A 9PT ☎ 0207 429 4000

Distributed in Australia by Gordon & Gotch Corporate Centre, 26 Rodborough Road, Frenchs Forest, NSW 2086  
☎ +61 2 9972 8800

Distributed in Rest of the World by Marketforce, Blue Fin Building, 110 Southwark Street, London SE1 0SU  
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Chat with the team and other readers and discuss the latest tech, trends and techniques. Here's how to stay in touch...

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“Many of my favourite sites score very low on design and UI. The top priority is content”

Mark Ellis

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## The tools and trends to inspire your web projects

If you have a creative project, new web product or great designer story, contact the editorial desk

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# HTML5: How good is it?

It's heralded as the saviour of web design, but has HTML5 lived up to expectations? **Web Designer** investigates...

**T**he development of HTML5 started back in 2008 with its first public working draft. It was the launch pad for a brave

new web; bright new semantic tags, the potential to replace Flash and generally make the web a more standards-friendly place was its mission. It wasn't until 2011 when HTML5 got its 'Last Call' and the official HTML5 logo, created by OcuPop ([ocupop.com](http://ocupop.com)), were introduced that the standard began to get a grip on the web design community. The new logo was to 'represent HTML5, the cornerstone for modern web applications'.

While much was promised from the specification, it could be argued that HTML5 has evolved at a far slower rate than everyone originally expected. Back in 2011, its potential was hiding just around the corner and it would be fair to say that it took much longer than expected to turn that corner. There are always extenuating circumstances and browser support is one such circumstance that can cause problems with pushing forward. How many browsers were offering

extended support for HTML5 back in 2011? For that matter, how many browsers were offering extended support even in 2012?

It's only in the last couple of years that the adoption of HTML5 has gathered momentum. It could be considered that the moment Apple decided to support HTML5 was a turning point. However, is it the proliferation of mobile devices that has pushed forward the standard?

## HTML5 has not yet met its expectations as a development platform for mobile apps

A recent report from the international Data Corporation (IDC), titled 'The Evolving State of HTML5' suggests that 'HTML5 as a set of technologies has not yet met its expectations as a development and target deployment platform for mobile applications'. This is a statement that may ring true, but the adoption of HTML5 as a development platform is further ahead than it was two years ago.

The report also went on to say, "These are the best of times because the technology is moving faster than ever, and it has captured the world's attention." Conversely, it would then

go on to say, "These are also the worst of times for HTML5 because a number of high-profile efforts to develop important mobile applications in HTML5 have effectively failed (eg Facebook and LinkedIn), and as of today, few start-ups under pressure to succeed would risk implementing their important mobile apps in HTML5."

Reasons for the lack of adoption are suggested in the report: "Even as

HTML5 matures, it continues to suffer from a poverty of tooling and the shortage of advanced developer skills to support the full application development process. IDC does not expect an adequate developer skill set to evolve until the 2016 timeframe."

Does this mean that HTML5 developers are going to be the next big thing? Now could be the time to start evolving your HTML5 skills ready for the true HTML5 revolution.

We have no doubt that HTML5 is a long way from fulfilling its true potential, but its adoption seems to be enjoying a rapid rise. With more designers and developers experimenting with the standard and better browser support, the future is definitely bright for HTML5. We know it has been said before, but this time it's true.



## What is the future for HTML5?

After HTML5 comes HTML6? No, minor revisions are planned with 5.1 and 5.2 already in the pipeline

The general state of HTML5 is an evolving animal and as support grows for the standard, the standard will grow itself. 2011 saw HTML5's Last Call and 2012 saw HTML's Candidate recommendation. So, what is the plan for 2014? By the end of the year W3C is looking to 'release a stable HTML5 Recommendation'. For a full update on the current state of HTML5, head to the W3C website at [www.w3.org/TR/html5](http://www.w3.org/TR/html5).

2014 will see the last call for HTML5.1 along with a Candidate recommendation in 2015 and a recommendation in 2016. So what's in HTML5.1? The first minor revision will look to extensive changes, to get full details of what's happening visit [www.w3.org/TR/2012/WD-html51-20121217](http://www.w3.org/TR/2012/WD-html51-20121217). Another source worth checking it out is HTML5.1 Nightly at [www.w3.org/html/wg/drafts/html/master/single-page.html](http://www.w3.org/html/wg/drafts/html/master/single-page.html).

Beyond HTML5.1 there are plans for HTML5.2 with a first Working Draft scheduled for sometime in 2015. Based on current working timescales, we can expect this to be with us some time in 2017/18. For a more in-depth look at the W3C's future plans, visit [bit.ly/1ipAXOzn](http://bit.ly/1ipAXOzn).



## &lt;design notes&gt;

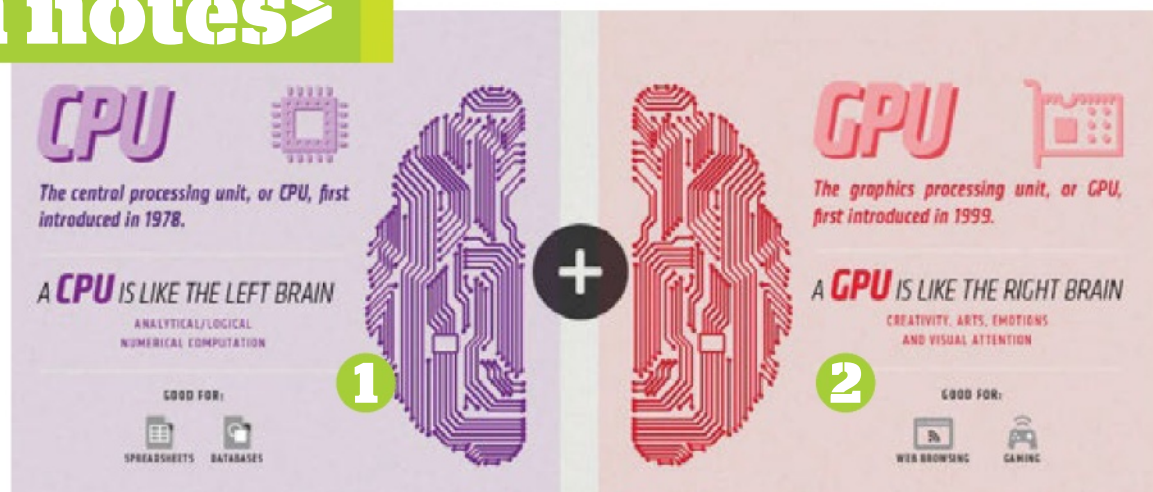
A collection of inspirational visuals

## How to choose the right processor

bit.ly/PqXOvM

**1** Portraying the brain as a microprocessor adds an instant point of interest and makes a relatively dull subject much more engaging.

**2** Adding a contrasting colour immediately and instinctively makes the viewer decide between the left brain or the right brain.



## Colour picker

Hot hexadecimal codes

## Grimdorks

bit.ly/1hbsFNc



## Story of a leaf

bit.ly/1k6Nbkr



## Typesetter

The best fonts you need



bit.ly/PqEqng

A typeface with an equal emphasis on thick and thin, perfect for headlines.

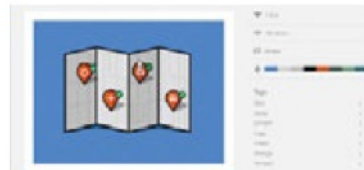


bit.ly/1mP1x8Y

An inline slab serif font that shouts retro while still remaining contemporary.

## Graphics

Great visuals to inspire



## Map of Solutions

bit.ly/1fR7r1K

This illustration, designed by Damian Allende, is currently a work in progress for a redesign of Kit Urbano. Let him know what you think.

## Themematic

Style up your WordPress

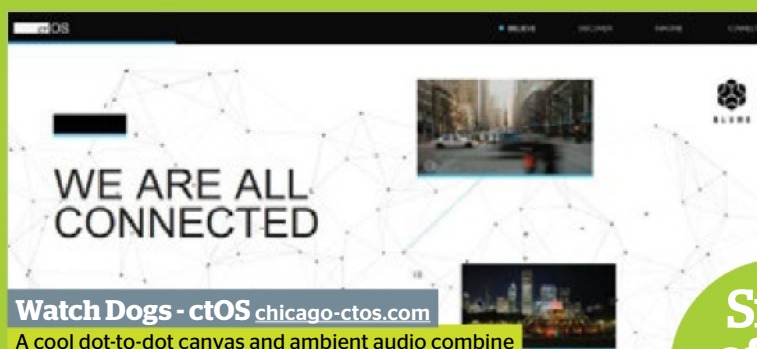


## Candy Queen

bit.ly/1ltRHq9

This is a soft, stylish, feminine and responsive theme that uses a great combination of colours and photography to enforce its message.

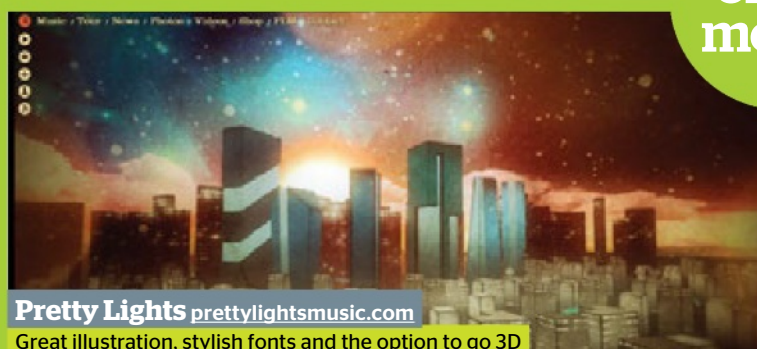
## Sites of the month

Watch Dogs - ctOS [chicago-ctos.com](http://chicago-ctos.com)

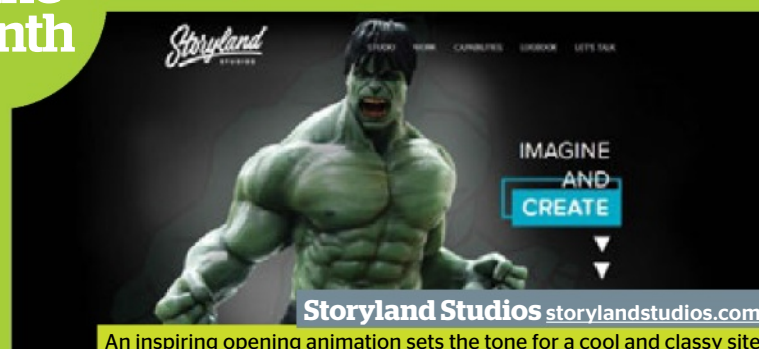
A cool dot-to-dot canvas and ambient audio combine

Mike Kus [mikekus.com](http://mikekus.com)

The gorgeous colour range makes this a standout site

Pretty Lights [prettylightsmusic.com](http://prettylightsmusic.com)

Great illustration, stylish fonts and the option to go 3D

Storyland Studios [storylandstudios.com](http://storylandstudios.com)

An inspiring opening animation sets the tone for a cool and classy site

## <webkit>

Discover the must-try resources that will make your site a better place



**Wow.js**

[mynameismatthieu.com/WOW](http://mynameismatthieu.com/WOW)

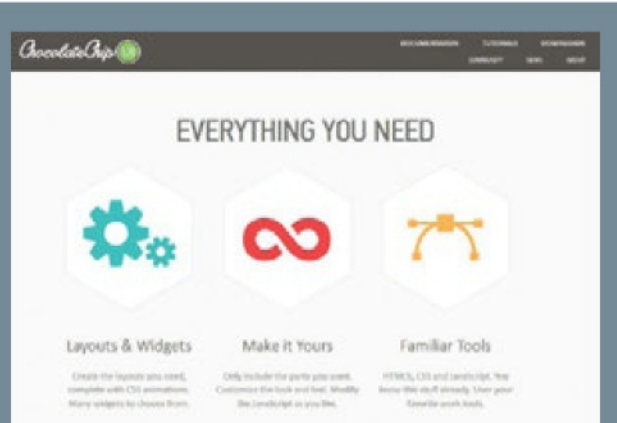
Don't let the site design fool you, this is a neat little library for adding easy-to-customise on-scroll animations. Full of wow factor.



**Bootply**

[www.bootply.com](http://www.bootply.com)

This 'Bootstrap Playground' lets you become awesome with Bootstrap. Fiddle with code, rapidly design and build and borrow code too.



## Chocolate Chip UI

[chocolatechip-ui.com](http://chocolatechip-ui.com)

If you want to build a web app this is one framework you need to take a look at. ChocolateChip UI is targeted at making mobile apps and adopts the web designer's three favourite web technologies - HTML5, CSS and JavaScript - to get the job done. It is currently the only mobile framework that comes with the native look and feel of iOS7, Android Jelly Bean and Windows 8. The Chocolate Chip framework is built on another favourite library, jQuery. To get the best out of the framework users will need to know handle JS to make AJAX requests and handle callbacks for user interaction. To get a closer look at what's happening with the framework, you can visit its GitHub repository at [github.com/sourcebitsllc/chocolatechip-ui](https://github.com/sourcebitsllc/chocolatechip-ui).



**Cut.js**

[cutjs.org](http://cutjs.org)

A lightweight, fast and interactive 2D HTML5 rendering engine, ideal for game development and experimentation.



**Atom.io**

[atom.io](http://atom.io)

There's always a need for a good code editor and in Atom you have one. Described as a hackable text editor for the 21st Century.

## TOP 5 WordPress starter themes

Need a custom WordPress theme fast? Try one of these

01

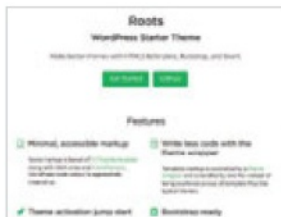


### Underscores

[underscores.me](http://underscores.me)

The perfect starter theme, featuring some ultra-minimal CSS that makes it that much easier for you to achieve the theme you really want.

02



### Roots

[roots.io](http://roots.io)

A responsive-ready theme that uses minimal and accessible markup. Its logical code organisation make it easy to use and functional.

03



### Joints WP

[jointswp.com](http://jointswp.com)

This starter theme is built on the Foundation 5 framework. This means that it's responsive and contains a host of great Foundation features.

04

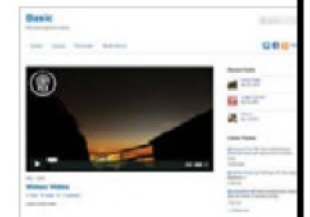


### Bones

[themble.com/bones](http://themble.com/bones)

Bones is a free HTML5 mobile-first, responsive theme that is fully customisable. Plus, it comes loaded with Sass for faster development.

05



### Basic

[themify.me/themes/basic](http://themify.me/themes/basic)

A free theme that provides a simple but effective structure to work from. It's fully responsive and easy to modify using the options panel.



# The secrets of Google Creative Labs

Executive creative director Steve Vranakis talks experimentation

**Google Creative Labs has an air of mystery about it. How would you describe what happens at the lab?**

Labs inherently sound mysterious... They're places where testing takes place and things are experimented with. That's kind of what we do with our ideas. We try to come up with really innovative and useful applications of our products and platforms. We look to really push what's possible on them in order to continue to add value and enhance the everyday lives of our users. There's a lot of hacking and mashing generally going on by a really mixed bag of people from all over the world.

**What does your role as creative director involve?**

My boss in New York told me when I first joined that I'd be measured by how well my team was doing. That really stuck with me and set the tone for how I was going to approach things. The idea of 'giving other people super powers'. My primary role is to create an environment that allows for my team to innovate and take risks without fear. I provide top-level direction alongside my director of strategy and then let my teams run with their ideas and rapidly prototype them. We've got a very interactive and collaborative way of working in teams of four or five that seems to be netting some pretty interesting results.

We also follow many of the principles that engineers apply, like launching early and iterating, not necessarily trying to get to perfection the first time around.

**Cutting-edge projects are an everyday part of your work. Who decides what projects are taken on and how?**

Our projects come from all over the place. Like most agencies, a lot of our projects come as briefs from the marketing groups in the different product areas. They ask us to look at new and innovative ways of looking at their products. Other ideas come from understanding what the company focus and objectives are that quarter and seeing how we can take these and make them into something magical using one of our products. Lastly we look to popular culture, the zeitgeist and other current phenomena that we feel can help us bring stories to life and help our users with theirs.

**Google Creative Labs works with a host of different individuals and agencies. How can people/agencies get involved?**

We have a very small team internally covering all of EMEA. Our model is to stay small and to collaborate with top agencies depending on the type of project we're trying to deliver. We tend to look out for really interesting agencies that are doing quite unconventional work in the digital space. We also use companies from all over the globe. On one project last year we had a team in the UK doing the backend, a team in California doing the frontend and another group in Sweden creating the sound design, including illustrators and animators from all over the world. We've been known to cover many different time zones on any given project. We also try to do these informal 'residencies', which we offer to artists, film makers, techies, etc, who can spend time with us here and expose us to more of their thinking while experiencing a bit of what we're doing.

**Finally, if you had an endless supply of money and talent at your disposal what project would you create?**

If I had an endless supply of talent and money - to be honest I would struggle to make anything. I honestly believe that the best work comes when there are limitations that you are trying to overcome, when there isn't enough time and you've got to move on instinct quickly and when you're working in small teams as a band of brothers. Some of our best projects were made with very little money. This is where we showed our resourcefulness and ingenuity without needing loads of funding. Some might even say it was our 'scrappiness'.

## PROFILE

■ **Steve Vranakis**

■ Executive creative director

■ CreativeLab | Google

## &lt;trending&gt;

Top tweets of the month



"Sixty days after we launched the new site... mobile revenue increased 107.65%." @electricpulp on responsive ecommerce: <http://electricpulp.com/notes/ecommerce-and-responsive-web-design> **@RWD**



In a world... of web apps that don't work offline, one spec shall find his destiny. That spec... is ...Service Worker: [http://slightlyoff.github.io/ServiceWorker/spec/service\\_worker/index.html](http://slightlyoff.github.io/ServiceWorker/spec/service_worker/index.html) **@BRUCCEL**



Thanks to you, the 'picture' element is coming to browsers this year. @wilto explains how: <http://bit.ly/1hWLRcP> **@ALISTAPART**



Perfecting the craft of programming is futile, accepting a lifetime of adapting to change is inevitable: <http://j.mp/14KRXXA> **@STANDARDISTAS**



"You can't copyright an idea, just the way the idea is carried out." <http://johnsonbanks.co.uk/thoughtfortheweek/copying-as-flattery> **@DAVIDAIREY**



Nothing like combing through the list of domains you've bought to recall how many pipe-dreams/idiotic ideas you've had. **@BRAD\_FROST**



the @IE team is now fully open about spec feature additions and runs a status page here: <http://status.modern.ie/#/> **@CODEPO8**



"Semantic Zoom": Pinch-to-zoom to close current view and return to previous info level. New best practice for tablets. #aeasea @globalmoxie **@ZELDMAN**



@Hop3y @darylws Comparing apps with @fudgegraphics and TweetDeck, iOS Safari & iOS Twitter are our only matches, all owned by Twitter! **@CHRISSPOONER**



"No one is coming to your website to use your controls... they're there for the content"—@globalmoxie #aeasea **@JOHN\_A\_DUNCAN**



## HOT TOPIC

## Bootstrap vs. Foundation

We asked the question, Bootstrap or Foundation 5: Which is the best responsive framework?



**@YASHI\_EL**  
@WebDesignerMag @ZURBfoundation I use Foundation since they released ver 3. Easy to build superfast web & apps. Nice and future proof



**@CHRISDASIE**  
@webdesignermag To throw a personal favorite out there, I like @wirefy. cc:// @zurbfoundation @twbootstrap



**@ALDEMARDGUN**  
@WebDesignerMag I think it's more flexible, but mainly I use Bootstrap since it's used for the Joomla core. I could use #foundation if required



**@BENJAMINSINGER**  
@webdesignermag @zurbfoundation it's fully fluid by default and that feels to me like how things \_should\_ work. Also, block grid.



**@ROSHANEINGRAM**  
@WebDesignerMag I use both but I prefer Foundation 5.



**@CASCADECSS**  
@WebDesignerMag It depends on your criteria. @ZURBfoundation and @twbootstrap are the most popular, but the most popular != the best.



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## &lt;comment&gt;

# Content thirst

**Mark Ellis is the director of Cherry, a brand and content agency based in Islington, London. He worked in magazine design from 1987 before going digital in 2000**

**L**ong before the internet had us hypnotised with its captivating 'anything, anywhere' immediacy, my main source of new information was through magazines – my first (and longest) love.

I'm a magazine geek and, much to my wife's distress, I have piles of back issues that I refuse to throw away. I have magazines about magazines. I have magazines about printing magazines. I also have magazines about the internet. You're actually reading one of them now. These publications offered a gateway into niche interests, a window into other worlds – something that wasn't easy to come by pre-internet.

My favourite magazines weren't really magazines at all. Fanzines, the more radical, edgier side of publishing, offered something that the mainstream press didn't. Photocopied, typewritten, cut and pasted; design aesthetics and standard layout rules all took a back seat here. Fanzines had an appealing throw-it-together approach that spawned a design style all of its own – certain publications, such as *i-D* for example, shaped mainstream culture so much that it ended up becoming mainstream itself.

But what made these kitchen table efforts so essential to my life? Look no further than the content itself. Fanzines helped readers get closer to a subject, providing a glimpse into other worlds, telling it straight, without pretension – and they would be read from cover to cover, every word digested and understood.

Fanzines helped to connect like-minded people; they became the voice of scenes that had no other outlet at the time. Communities and groups would spring up around them, local scenes would slowly develop into larger movements. And the lack of design aesthetic for this wannabe designer? I didn't care. Nobody cared. It was all about the content. And this is where those early scene-shaping publications cross over into my web design philosophy.

I spent some time recently analysing the websites that take up the vast percentage of my viewing time



on a daily basis. The ones that I auto-click on whenever I haven't been on the internet for more than half an hour and my nervous tick starts kicking in. What surprised me, considering how much time we spend in our studio looking at, loving and poring over great web design on a daily basis, is how many of my favourite sites score very low on design and UI. The top priority is – as you may have guessed – content.

And that's exactly where it should be. It's certainly the way we approach projects in our studio. We have a simple process that involves asking some fundamental questions before we get going. First, who is this site aimed at? We identify and examine the audience that we want to connect with. What is the real purpose of this site? We identify the reason we're bringing the site into the world. How will this site connect with the audience? This is where we look at a content strategy to ensure the site will resonate in the right way. Finally, what's the call to action? We need a response, so what form will that response take?

Once these questions are answered, we're in a position to start work, with the content strategy forming one of the key elements informing the UX design. How blessed we are in this moment that the technology and platforms available to us allow for such immersive content, which can be so widely viewed.

Video content seems to connect like nothing else, and the stats are backing this up. Video engagement on mobile went through the roof in 2013, and it's a trend that's only going one way – until the next disruptive technology comes along and changes how we consume all our content once again. Video creates a real intimacy with the audience and is a very powerful way to create a genuine connection. As a storytelling medium it's second to none and the potential for sharing is limitless.

This is why we've placed video content at the heart of our agency offering. We just recently completed a series of videos that really illustrate what life is actually like for students starting out at a top university. These videos offer a warts-and-all glance at the process of uprooting from your family and friends and finding your feet in a new and potentially intimidating institution. Told from a student perspective, we went behind the scenes and uncovered the real stories behind starting out at the university.

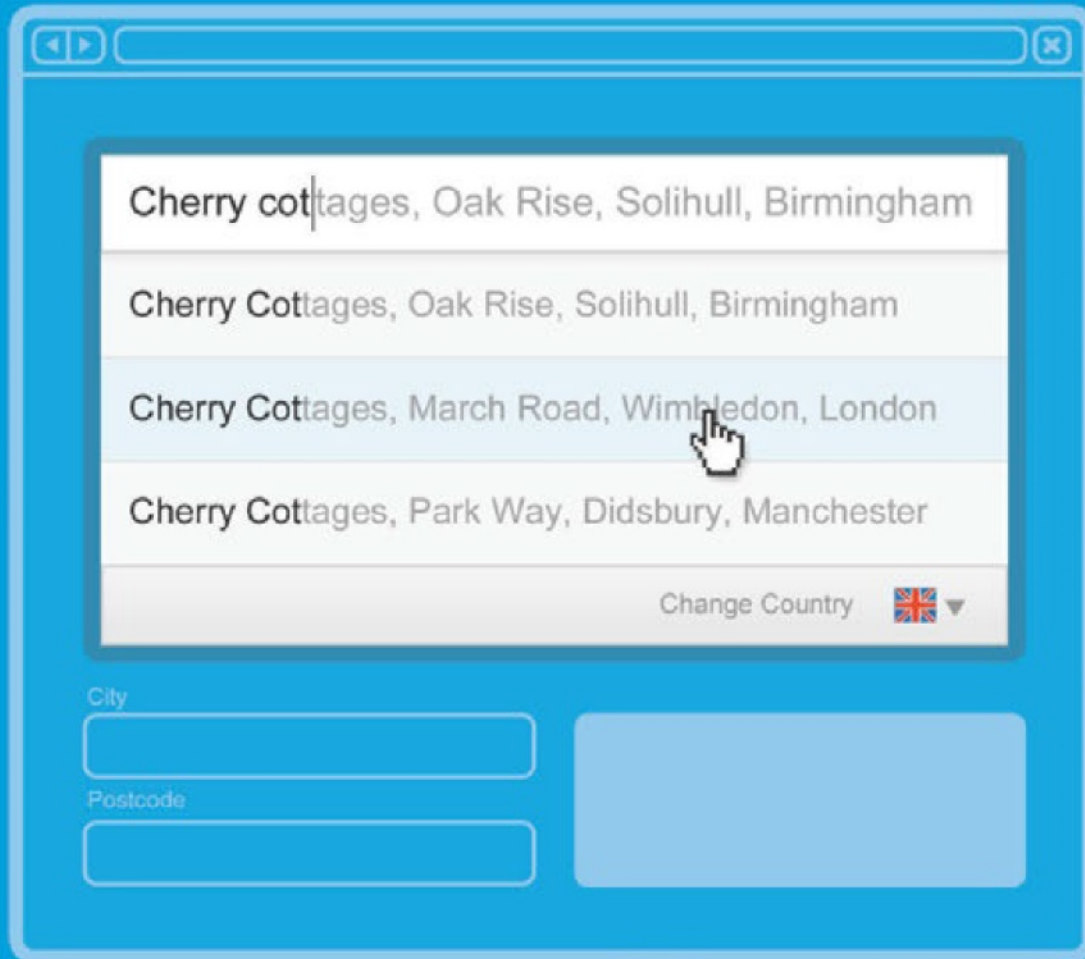
Not long ago, for a prospective student to find this type of intimate information, it would have required research, site visits, talking to other students, lots of organisation and several train tickets. Now, all of it is available to prospective students in only a single click. So, content is still king. You just have to make it relevant, clever, educational, eye-poppingly beautiful or mind-meltingly insane. It's the connector.

We put content right at the top of our priorities before we start pushing pixels or crunching code. If I ever have any doubt that it's the right approach, I just remember the power of those fanzines.

“Video creates a real intimacy with the audience and is a very powerful way to create a genuine connection”



# PostcodeAnywhere



The screenshot shows a web browser window with a search bar. The search bar contains the text "Cherry cottages, Oak Rise, Solihull, Birmingham". A dropdown menu is open, showing four suggestions: "Cherry Cottages, Oak Rise, Solihull, Birmingham", "Cherry Cottages, March Road, Wimbledon, London", "Cherry Cottages, Park Way, Didsbury, Manchester", and "Cherry Cottages, Park Way, Didsbury, Manchester". A mouse cursor is hovering over the second suggestion. Below the dropdown menu, there is a "Change Country" button with a UK flag icon. Below the search bar, there are two input fields labeled "City" and "Postcode", and a large blue button.

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Try the demo at: [www.postcodeanywhere.co.uk/webdesigner](http://www.postcodeanywhere.co.uk/webdesigner)

## Kévin Lagier Portfolio

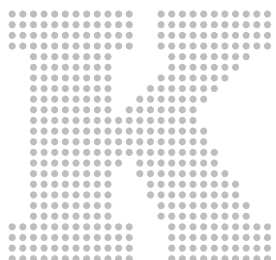
lagier-kevin.com

Development technologies HTML5, CSS3, jQuery, Backbone.js



Designer/developer **Kévin Lagier,  
Florentin Monteil**  
lagier-kevin.com / florentin-monteil.com

Behold a vibrant student portfolio rich with talent that offers an endorsement for collaboration



Kévin Lagier is a 22-year-old student currently reading a masters degree at France's Hetic Internet School. Specialising particularly in art direction and with a background in web design, this site is a personal portfolio that is positively bubbling

with jQuery effects. Leveraging the Backbone.js framework for streamlining JavaScript, the experience continually shifts through inventive styles as you explore each of the exhibited works.

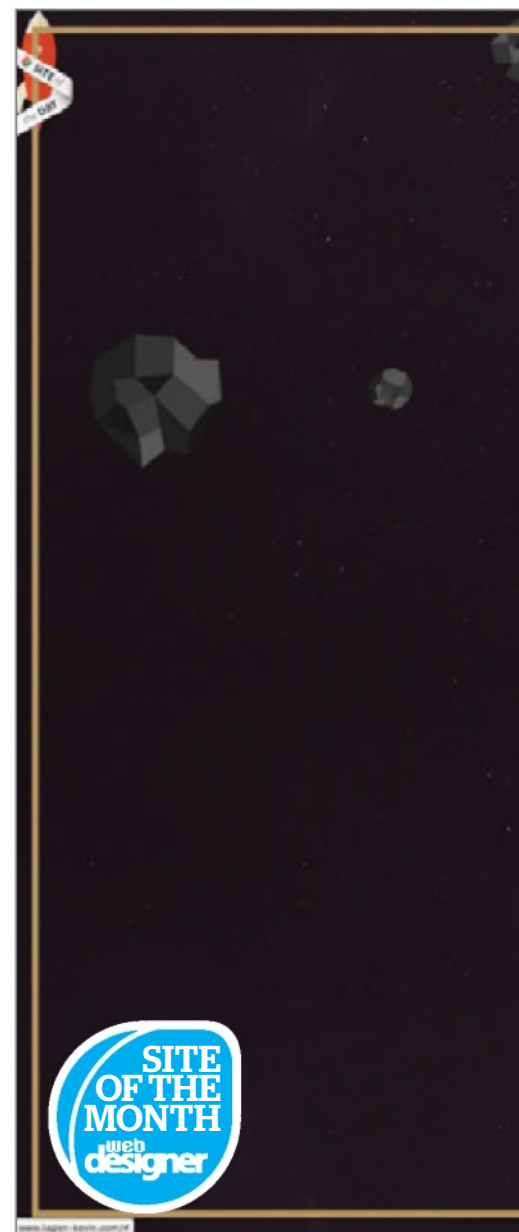
"The goal of my website is to present my different projects," Kévin explains. "I chose to describe the global conception of my projects rather than the different tasks I handled. I wanted the user to be immersed in the atmosphere of the

project, hence my choice to adapt the universe for each page."

Another skill Kévin demonstrates with the site is his ability to collaborate with other great people. Front- and back-end developer Florentin Monteil, also a fourth-year student at Hetic, provided the coding skills for bringing the content to life. In fact, the site really does exemplify what can be achieved when talented young people pool all their skills together and take pride in their design work.

"This website has been created between Florentin and myself. The different projects that I exposed on my portfolio have also been produced with other students of my school, providing an opportunity to work with skilled people. Without them my projects, including my portfolio, couldn't have come into existence."

I wanted the user to be immersed in the atmosphere of the project, hence my choice to adapt the universe for each page

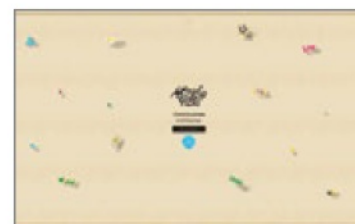


### <Above>

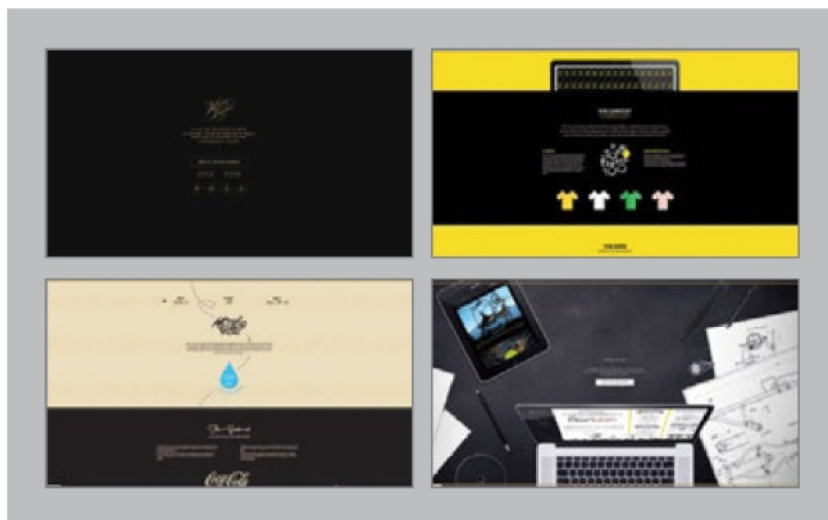
• This is a portfolio rich in colour and graphical touches, featuring subtle animations to add genuine charm that is full of character

### <Below>

• The site's horizontal navigation gives every section and featured project a new identity, with a distinctive page header for each







**<Top left, clockwise>**

- Kévin establishes his own identity at each end of the site, opting for gold colours and classical typographic styles
- Featured projects are boldly styled and illustrated, introducing nuggets of motion and interactivity as you scroll
- This section for client Partech blends photographic elements with line-drawing diagrams for a real visual punch
- The showcased work has been predominantly created as part of Kévin's studies at Hetic

**<Below>**

- Lavanderia is a script font by James T Edmondson and has a very dramatic, fancy style

abcABC  
1234567890  
abcABC  
1234567890

**<Above>**

- Mostra Nuova by Mark Simonson provides an Art Deco poster feel synonymous with the Thirties

Slide 2.  
(Scroll left or right)

## Code the horizontal slider-based navigation

Full code found on the resource CD

Developer Florentin Monteil reveals the technique behind the distinctive full-page sideways sliding navigation deployed on [lagier-kevin.com](http://lagier-kevin.com)

### 01 Basic page setup

Florentin's full-page slider is built on jQuery, so the first step is to add the latest CDN `<script>` link before the closing `</body>` of your page. The subsequent JavaScript must be listed inline or attached below. In the HTML document `<body>`, start by adding a `<section>` element containing a `<div>` with a class "slider-container" as shown in the following code.

```
001 <body>
002 <section>
003 <div class="slider-container"></div>
004 </section>
005 <script src="http://code.jquery.com/jquery-1.11.0.min.js"></script>
006 <script//JavaScript to go here
007 </script>
008 </body>
```

### 02 Insert the slides

The slide `<div>` elements go inside the container `<div>` and here we are adding three. You can add more by repeating as required. Note that the `<!--` and `-->` we are using are hacks to remove small unwanted spaces between each one once we have set them to display as inline-block in our "slide" CSS class:

```
001 <div class="slide">Slide 1.
002 </div><!--
003 --><div class="slide">Slide 2.
004 </div><!--
005 --><div class="slide">Slide 3.
006 </div>
```

### 03 The basic CSS

Some fundamental styles set up the elements, before the script calculates sizing and so on dynamically. The slider-container will move when you release a mouse click, but we don't want the '1s' transition when we click and move the mouse. This `noTransition` class will be attached by our code based on the current mouseEvent.

```
001 .slide{
002     display:inline-block;
003 }
004 section{
005     width:100%;
```

```
006     height:100%;
007     overflow: hidden;
008 }
009 .slider-container{
010     /* vendor prefixes here */
011     transition: all 1s ease;
012 }
013 .slider-container.noTransition{
014     /* vendor prefixes here */
015     transition: none 1s ease;
016 }
```

### 04 Initialise your JavaScript

We start our JavaScript by setting some global variables used throughout. We then have a function for initialising the slide and slider container size once the DOM is ready. The sizes are based on the current window height and widths. It then calls the `initSliderEvents()` function, added next.

```
001 var currentPosition=0;
002 var intervalSlide=100;
003 var windowWidth, windowHeight,
004     mouseX;
005 jQuery(document).ready(function($)
006 {
007     windowWidth=$(window).width();
008     windowHeight=$(window).height();
009     $('<div>').width($(window).width()).height($(window).height());
010     var sliderContainerWidth = 0;
011     $('<div>').each(function
012     (index, elem){
013         sliderContainerWidth+=$(elem).innerWidth();});
014     $('<div>').width(sliderContainerWidth);
015     initSliderEvents();
016 });
```

### 05 Initialise mouseEvents

We then launch `initSliderEvents` to initialise the various mouse events, crucially `mousedown`, `mouseup` and `mousemove`. It will dictate how the slider behaves based on the type of gesture and you'll see it toggles the `noTransition` class on instances where we don't want the effect. For the full code with comments make sure you check the resource disc.

```
001 function initSliderEvents(){
002     $('<div>').on("mousedown", function(e){
003         mouseX=e.clientX;
004         $(this).addClass('noTransition');
005         $(this).on('mousemove',
006         function(e){
007             var position=-
008             currentPosition*windowWidth+e.
009             clientX-mousePositionX;
010             $(this).css({
011             //vendor prefixes here
012             'transform':'translate3d
013             ('+ position +'px, 0px, 0px)'
014             });
015             $(this).on('mouseup', function(e){
016             $(this).unbind('mouseup mousemove').
017             removeClass('noTransition');
018             if(e.clientX>mousePositionX+intervalSlide && currentPosition!=0){
019                 currentPosition--;
020             } else if(e.clientX
021             <mousePositionX-200 && current
022             Position!= $('<div>').length-1){
023                 currentPosition++;
024             }
025             moveToPosition(currentPosition);
026         });
027     });
028 }
```

### 06 Add the final function

Lastly we have the `moveToPosition()` function, passed the `currentPosition` value to make the movement by attaching a transform. As before, we've removed the CSS vendor prefixes for readability but you will find them within the step code. Go on by adding your own styling or content within each slide - save, preview and drag!

```
001 function moveToPosition(position){
002     $('<div>').css({
003         //vendor prefixes here
004         'transform':'translate3d('+
005         -position * windowWidth +'px, 0px, 0px)'
006     });
007 }
```



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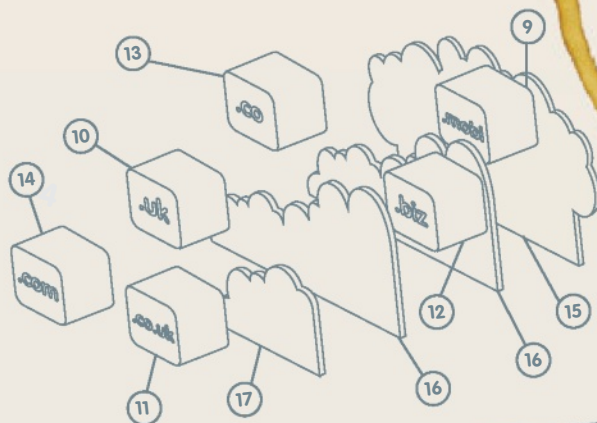
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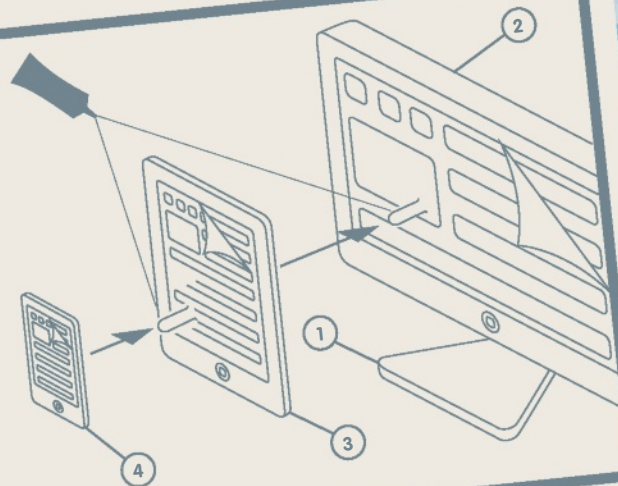
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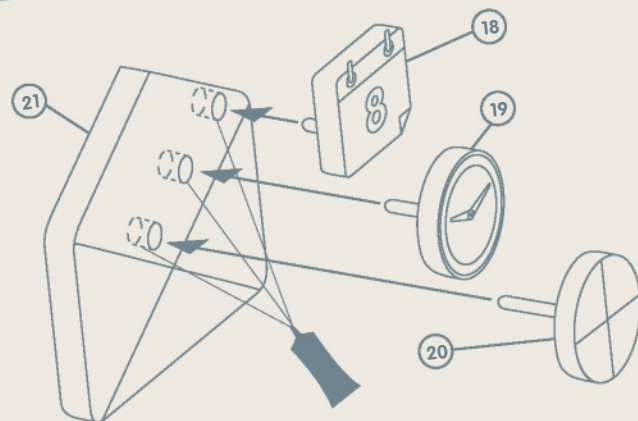
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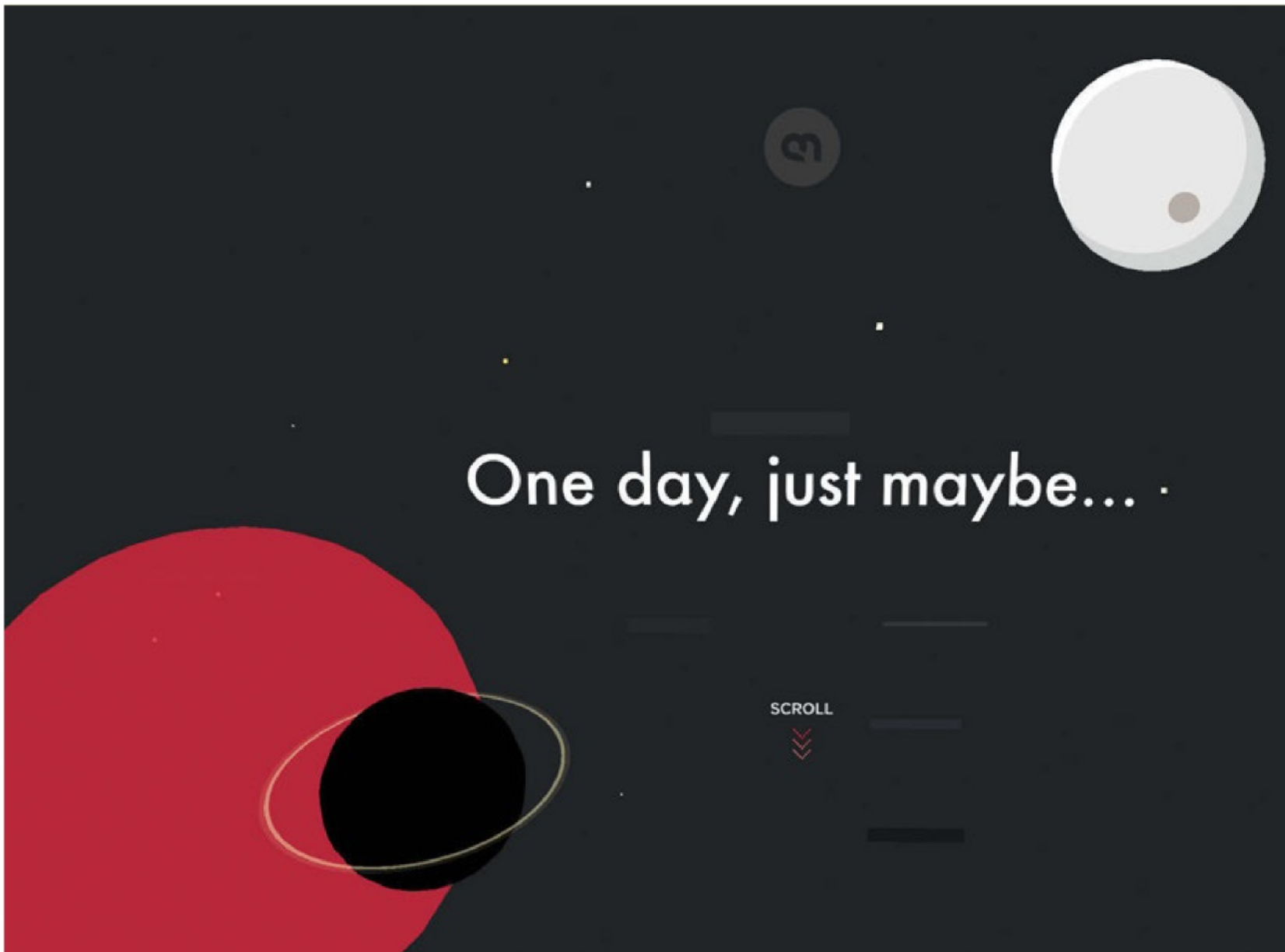
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**<Above>**

- Like so many sites for 2014, Dream On is a timeline-based experience that unfolds as you scroll



#B72639



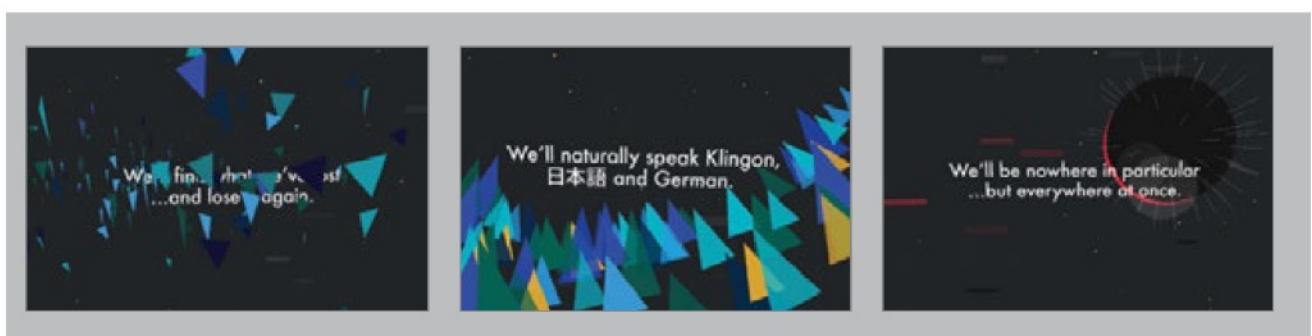
#FCE26B



#0FB3C5



#0022AE



**<Above>**

- Looped bursts of dynamic animations orbit the browser, leveraging WebGL's JS API for rendering 2D and 3D graphics

**<Above>**

- The second slide is a festival of flying shards, culminating in an array of colours as they collide

**<Above>**

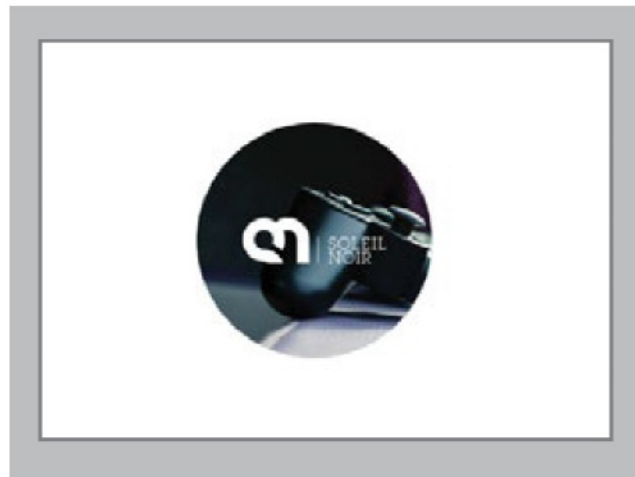
- A breadcrumb trail navigation down the right side enables users to jump through each section



# Soleil Noir Dream On

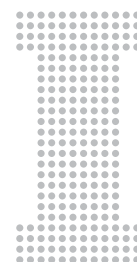
[www.soleilnoir.net/dreamon](http://www.soleilnoir.net/dreamon)

**Development technologies** HTML5 Canvas, SASS, WebGL, Three.js, jQuery, Modernizr



Designer/Developer **Soleil Noir**  
[www.soleilnoir.net](http://www.soleilnoir.net)

Call it a microsite or 'wishcard' but this tech demo for Soleil Noir is a joyous celebration of progressive design



f visions of the future could actually be trusted, we would probably be flying around on jetpacks by now. We might not be there yet but one thing is for sure, the internet has evolved in ways few dared to imagine.

This is what Dream On is all about, celebrating modern web development today and what form it it could take tomorrow. French agency Soleil Noir calls it a 2014 'wishcard', a mixture of 'indie videogame and humanistic manifesto' for road-testing progressive techniques: "This project was a perfect occasion for testing new design processes, where code plays a huge role in the final aesthetic," says

designer Thomas Buffet. "Every image was designed within 3D software before being entirely re-created and animated in code using Three.js. The soundtrack is the icing on the cake."

Combining powerful web technologies including CSS3 and HTML5's canvas, most crucially it was a JavaScript API at the heart of this incredibly rich graphical experience. "We chose WebGL because it was the perfect way to provide best performance and slickness in our application," explains technical director Panagiotis Thomoglou. "It also allowed us to achieve an illusion from placing 2D elements within a 3D space using custom shaders. We then rethought scrolling as interactivity and we came up with the idea to not really scroll but to float in the y-axis of the space." Who really needs jetpacks anyway?

☼☼ We chose WebGL because it was the perfect way to provide best performance and slickness in our application ☼☼

abcABC  
1234567890  
abcABC  
1234567890

**<Above>**  
• The few snippets of text are styled in Futura PT by ParaType, providing a bold geometrical look



## Play and mute background sounds with SoundJS

Among the many plug-ins attached to Dream On is SoundJS, a great library for consistently handling HTML audio across your pages

### 01 Attach SoundJS CDN

SoundJS is a JavaScript API for handling cross-browser audio, simplifying the process of adding sound samples to your pages. You can find more documentation on it by visiting [www.createjs.com/#!/SoundJS](http://www.createjs.com/#!/SoundJS). Here we'll begin working with it by attaching the latest CDN link in the <head> or before the end <body> tag of an HTML document.



```
001 <script src="http://code.createjs.com/soundjs-0.5.2.min.js"></script>
```

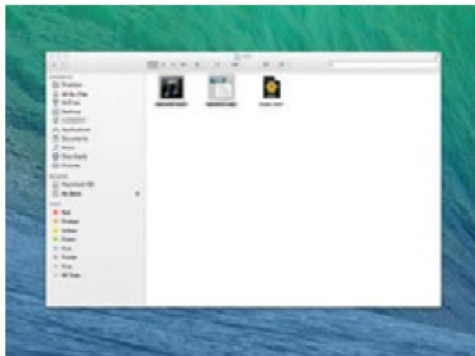
### 02 Function init0 part 1

Following some basic first steps with SoundJS, we start by writing an init0 function called on page load. The first part of the function checks that certain default plug-ins can be loaded, otherwise sound cannot be played. We then have a method call for defining alternate file extensions such as MP3. For our particular example, we ensure that 'ogg' and 'mp3' audio files are in the root of the HTML page.

```
001 <script>
002
003 function init() {
004
005 if (!createjs.Sound.
006   initializeDefaultPlugins())
007   {return;}
008
009 // When 'false' sound cannot play
010
011 createjs.Sound.alternateExtensions
012 = ["mp3"];
```

### 03 Function init0 part 2

We finish the init0 function with a registerSound0 method passing a unique id and filename src item for the audio file 'sample1.ogg' we wish to load. The next method will call a second function once the sound file has finished preloading, which we'll write next.



```
001 createjs.Sound.registerSound
002   ({id:"Loop", src:"sample1.ogg"});
003 createjs.Sound.addEventListener
004   ("fileload", handleLoad);
```

### 04 The handleLoad0 function

Adding this function ensures the sound won't be played until it is ready. It basically contains the crucial play0 method, which has a series of option parameters for controlling playback. Here you can set a millisecond delay and offset, as well as setting the loop amount. Setting this to -1 makes it loop infinitely, while the volume amount ranges from 0 to 1:

```
001 function handleLoad(event){
002
003   createjs.Sound.play(event.
004     src, {delay:50, offset:100,
005     loop:-1, volume:0.5});
006 }
```

### 05 Links for muting

On our page we also have a pair of <a> tags for toggling the muting of the sound. These on/off links will call a myMute0 function upon click, passing the element and a Boolean flag so that we know exactly how and when to toggle the mute operation and also how to restyle the correct link.

```
001 <a href="#" id="mute_false" onclick=
002   "myMute(this, false);">on</a> /
003 <a href="#" id="mute_true" onclick
004   ="myMute(this, true);">off</a>
```

### 06 Mute and toggle

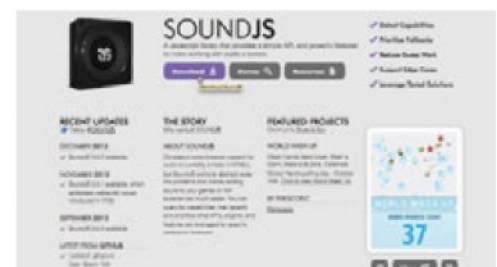
In our myMute0 function we only do anything if it is the opposite of the current state. So we use the passed flag checked against the Sound getMute0 method to see they are different, before calling the setMute0 method using flag. We then switch the CSS styling of our <a> links to reflect the new mute state.

```
001 function myMute(obj,flag){
002   if(flag!==createjs.Sound.getMute()){
003     createjs.Sound.setMute(flag);
004     obj.style.
005       textDecoration="underline";
006     obj.style.color="#FF3";
007     flag=!flag; obj=document.
008       getElementById("mute_"+flag.
009       toString());
010     obj.style.textDecoration="none";
011     obj.style.color="#888";
012   }
013 }
014
015 </script>
```

### 07 Add onload and play!

To finish, add the crucial onload call to your page body. Save, preview in your browser and the sample audio should start and loop automatically, with the link buttons muting and toggling accordingly.

```
001 <body onload="init()">
```







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# Volkswagen Mexico - Think Blue

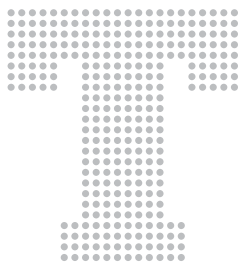
[grupowprojects.com/vw/thinkblue/site](http://grupowprojects.com/vw/thinkblue/site)

**Development technologies** HTML5, CSS3, Modernizr, jQuery, Google Chrome



Designer/developer **Grupo W**  
[grupow.com](http://grupow.com)

Volkswagen Mexico looks to the future of engineering by going back to basics with a dynamic homage to folded paper



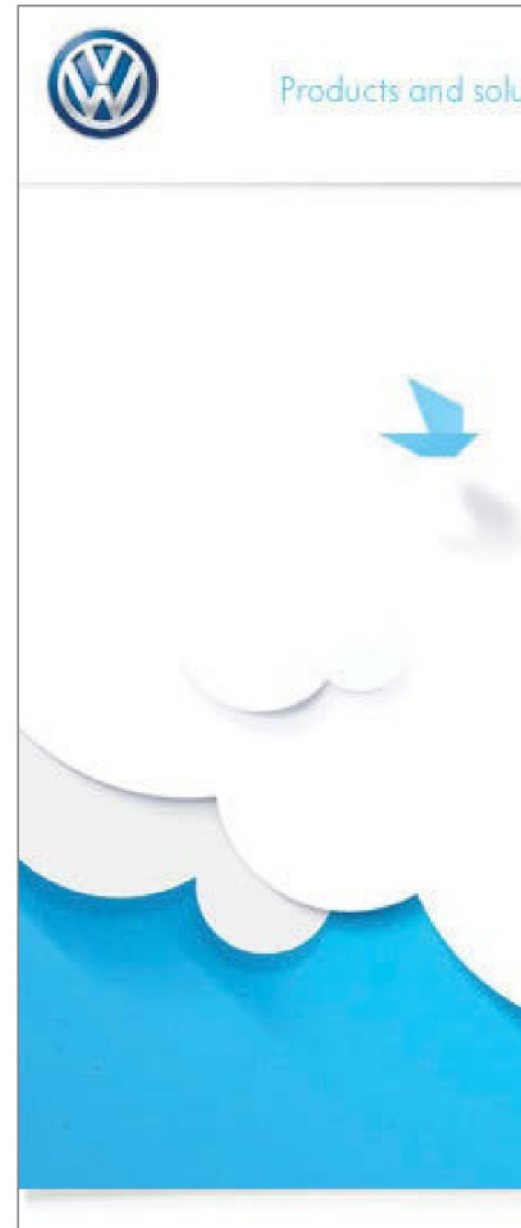
his promotional site experience unites the creative talents of Mexico's Grupo W agency with the forwardthinking of Volkswagen. Built for the carmakers' Think Blue campaign, it has a bright and clean feel indicative of a more eco-friendly message. Optimised for Google Chrome, the overall look features a distinctive origami, cut card and folded paper aesthetic.

An evocative and richly detailed visual design is augmented by delicate snippets of interactivity that bring the content to life. This dynamism is largely supported by an array of freely available

plug-ins. Like so many 'on trend' designs, parallax scrolling features, but more for triggering animation events. Favourites such as Superscrollorama, powered by Greensock's TweenMax can be found alongside skrollr.js.

Zooming functionality for various elements comes courtesy of fancyBox, slideshows from Cycle2, while the lovely crunched paper sound samples are delivered via SoundManager 2. However perhaps most recognisable is pfold.js, available at [github.com/codrops/PFold](https://github.com/codrops/PFold). This neat plug-in offers the unfolding effects to reinforce the papery template theme. Still, much of the appeal here is already achieved with pastel colours, subtle gradients and some well-placed drop shadows to achieve an arresting 3D effect.

**Optimised for Google Chrome, the overall look features a distinctive origami, cut card and folded paper aesthetic**

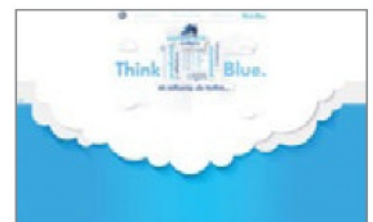


#### <Above>

The site template utilises a trendy folded paper look, using subtle drop shadows that help give the impression of a 3D effect

#### <Below>

As you hover or scroll, surprise elements 'unfold' themselves into view, accompanied by charming rustling paper sound effects



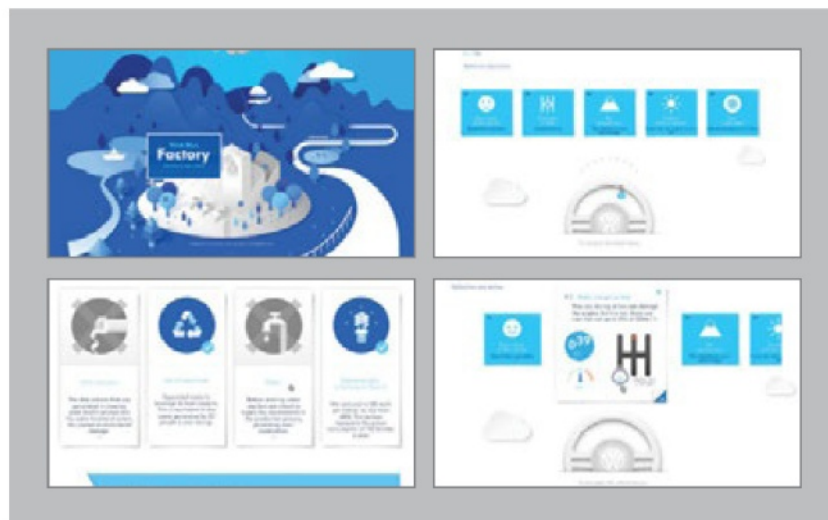




# Think Blue.

Conservar lo verde, es pensar en azul.

Acciones eco-amigables generadas por Volkswagen,  
para asegurar un futuro puro.



#00BDF6



#2254AD



#F2F2F2



#C7C7C9



#00ABF5



#245FB5

**<Top left, clockwise>**

- Bold colour and more drop shadows make this section appear as though it's been assembled using scissors and coloured card

- Subtle hints of interactivity transform some fairly dry technical concepts into something more engaging

- Unfolding pop-ups, delicate animations and bursts of sound combine beautifully throughout Think Blue

- Using Chrome to browse the site also provides excellent translation to English for those who require it

**<Below>**

- VW Headline is a Volkswagen corporate custom font and is used to reinforce brand identity

abcABC  
1234567890  
abcABC  
1234567890

**<Above>**

- The typeface Montreal is very similar in style and is used in regular, bold and light weightings

## CSS3 'Paper Curl' effects

# Apply CSS3-based curled paper effects to page elements

Inspired by Think Blue, we demonstrate how combining pseudo-elements can be used to add multiple drop shadows to page objects

## 01 What are paper curls?

Curled paper effects are fairly trendy in web design these days. Basically, we're referring to the illusion of adding subtle drop shadows to the corners of a flat page element. This makes the corners appear raised from the webpage, adding a sense of 3D. Typically performed using images, thanks to CSS3 we can now do it with just a few lightweight lines instead!

## 02 Nested <div> boxes

The trick is formed using the .before and .after pseudo-elements attached to a <div> object. You can only have two of these per element, so we will overlay a pair to add shadows to the bottom and right edges (four corners). Start by adding the nested <div> objects named 'paper1' and 'paper2' into the <body> of your HTML document, with basic styling as follows:

```
001 <!-- HTML -->
002 <body>
003 <div class="paper1">
004 <div class="paper2">
    Your Content Here</div>
005 </div>
006 </body>
007
008 /* CSS */
009 div {
010 position: relative;
011 height: 600px;
012 width: 1000px;
013 }
014 #paper1
015 {
016 margin: 300px auto;
017 background: radial-gradient
    (circle, white, #00ABF5);
```

## 03 The initial pseudo-elements

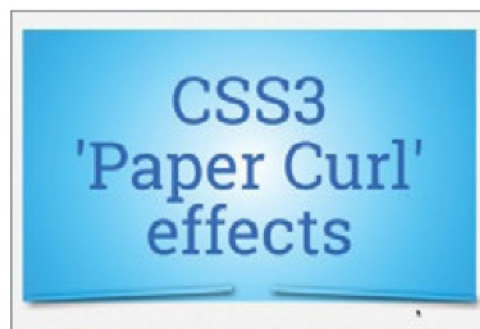
The first pseudo-elements for our 'paper1' <div> will form thin strips, providing shadow for the bottom left and right corners. Our CSS class sets the size and positioning. Crucially, we then use a 2D transform to angle the black drop shadow upwards and inwards from the corner points. The z-index property then hides the pseudo-element below.

```
001 #paper1:before, #paper1:after
002 {
```

```
003
004 position: absolute;
005 width: 45%;
006 height: 10px;
007 left: 10px;
008 bottom: 12px;
009 content: "";
010 box-shadow: 5px 6px 15px black;
011 transform: skew(-5deg)
    rotate(-3deg);
012 z-index: -1;
013 }
014
```

## 04 Override the .after class

Next we override the styles for #paper1:after so that the second pseudo-element appears on the bottom-right corner. It also adopts an inversion of our last transform, so it is essentially flipped with positive degrees of skew and rotation.



```
001 #paper1:after
002 {
003
004 left: auto;
005 right: 3px;
006 transform: skew(5deg) rotate(3deg);
007 }
```

## 05 Right-edge shadows

We apply the exact same principle to style pseudo-elements for our 'paper2' <div> box. This time the edge strips and shadows are oriented to point out from the right edge's top and bottom corners. In this instance we make the shadow grey in colour, with some new transform adjustments:

```
001 #paper2:before, #paper2:after
002 {
```

```
003 position: absolute;
004 width: 1.5%;
005 height: 50%;
006 top: 10px;
007 right: 6px;
008 content: "";
009 box-shadow: 5px 6px 16px grey;
010 transform: skew(-8deg)
    rotate(-6deg);
011 z-index: -1;
012 }
```

## 06 Bottom-corner shadow

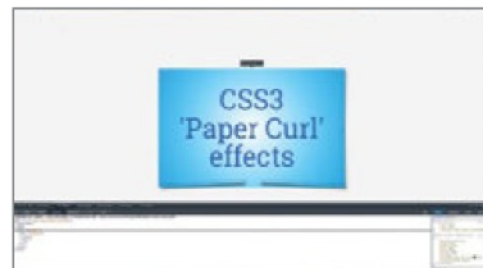
Once again we override the .after pseudo-element to position accordingly, before inverting the transform as we've done before. It can take some tweaking here to ensure that each of the shadows appears exactly where you want them, as you won't want to see any of the pseudo-elements sticking out beyond the edge of your <div> box.

```
001 #paper2:after
002 {
003 top: auto;
004 bottom: 3px;
005 transform: skew(8deg) rotate(6deg);
006 }
```

## 07 Preview and tweak

If your browser natively supports the standard CSS3 syntax you should now be able to preview successfully. Otherwise, you will need to add vendor prefixes for box-shadow and transform. Also, if you toggle the two z-index properties in our CSS by commenting, the four pseudo-elements appear visible. This can be helpful when adjusting, positioning and transforming, if you wish to edit the effect.

```
001 /* z-index: -1; */
002
```





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# EXTERIOR

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SCROLL

Project  
**Incredible Thinking  
Starts Here**  
(GMC Sierra 2014)

Web  
[www.gmc.com/  
incrediblethinking](http://www.gmc.com/incrediblethinking)

Agency  
**DigitasLBi  
MediaMonks**

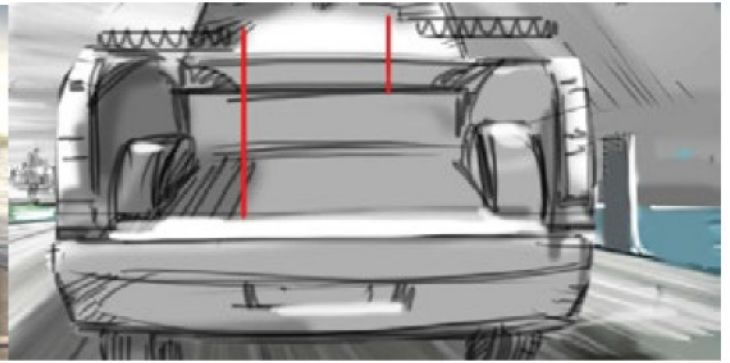
Web  
[www.mediamonks.com](http://www.mediamonks.com)

Duration  
**12 weeks**

People involved  
**32 Monks**







# THE START OF INCREDIBLE THINKING

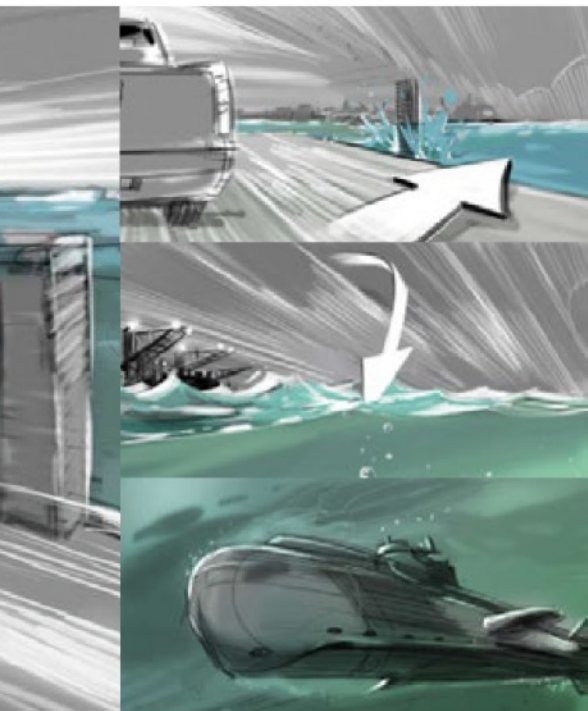
When car maker GMC called for a heavenly digital campaign for the all-new 2014 Sierra, they happened upon a holy union. We discover how MediaMonks worked its magic for its new pickup partner...

**T**his month's Design Diary starts here. No really, it's already started now. We reference of course, rather facetiously, our latest featured project – a triumph of 'Incredible Thinking' from one of the world's hottest agencies. American pickup and utility vehicle manufacturer GMC worked with DigitasLBI and crucially MediaMonks to conjure a divine web experience for the 2014 Sierra.

Christened to signify the technological innovations being marketed, the project immediately demanded a new way of thinking. Flat, single pages filled with uninspiring lists of specifications and accessory options were rejected in favour of something much more ambitious. "Our design, animation and film departments set about creating a Hollywood-calibre CGI Sierra and 3D environments, entirely from scratch," MediaMonks enthuses. "The result is a carefully sculpted video experience that can be explored in depth and detail as

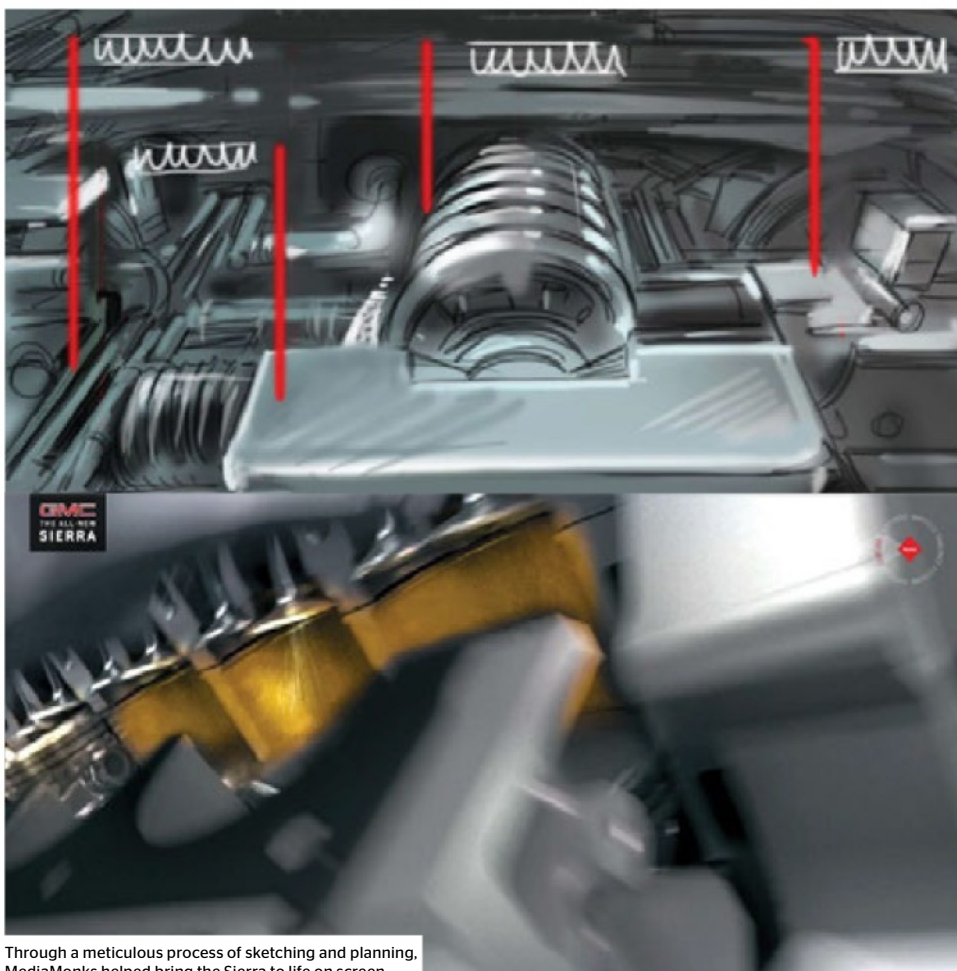
well as across devices thanks to HTML5." The eventual solution would embrace bespoke mobile and tablet versions, scooping double FWA accolades for setting new standards across desktop and beyond.

MediaMonks is no stranger to industry awards however, with work recognised by the BIMA, Cannes Lions and Webby's to name just a few. Boasting an in-house team of 200 'Monks' scattered across global offices, they work with leading advertising agencies to craft content for web, film, gaming and mobile. "When it came to the Incredible Thinking Starts Here campaign, the collaboration blossomed from a meeting of minds over the potential for digital innovation. "We pitched to work alongside DigitasLBI in their quest to push the boundaries of the scrolling website experience," begins COO and co-founder Wesley ter Haar. "They felt we shared an affinity for their thinking and asked us to join them on the job." More specifically, the two parties agreed that the traditional paradigm for a scrolling website

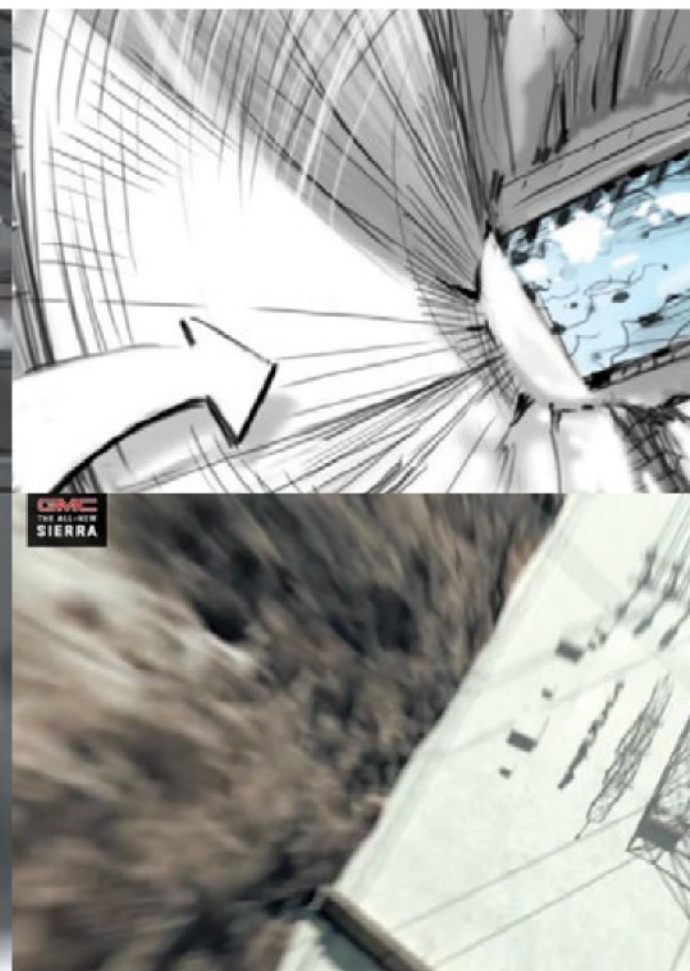


When it came to campaign, the collaboration blossomed from a meeting of minds over the potential for innovation





Through a meticulous process of sketching and planning, MediaMonks helped bring the Sierra to life on screen



## THE BRAINS BEHIND THE BUILD



needed shaking up a little bit. While doubtlessly useful for visual storytelling, the feeling was that they can seem lightweight, two-dimensional and thin. "Therefore, from the very beginning, Digitas and MediaMonks agreed that we needed to, literally, add a new dimension to HTML5 scrolling sites," Wesley continues. "Using some clever 3D animation, the experience takes you in and around every element of the truck across six different environments and stories. Therefore, as opposed to a single, linear page – or even the currently trending, illusory parallax effect – the storyline for the GMC uses video scrubbing to scroll through the 3D-rendered truck and its environments, to tell its story from six entirely different angles."

Of course before all this could be realised, the project would naturally require a high level of communication between all involved. MediaMonks, Digitas.LB and the client brand GMC would engage in a truly three-way dialogue continuously to arrive at a shared vision. "MediaMonks' specialty is enhancing a Big Idea right from the initial concept stage, so we're usually brought in to help very early on," says producer Xander Amo. "In these instances we can be given quite a lot of freedom regarding direction, in exchange for being extremely flexible when it comes to feedback. As a production company, it's important to understand that the goal posts can often move mid-game – it's part and parcel of the work. The trick is to be as transparent as possible from the very beginning, so that you create opportunities for change well before the deadline!" In fact when it came to





## 🔵 We can be given quite a lot of freedom regarding direction, in exchange for being flexible when it comes to feedback 🔵

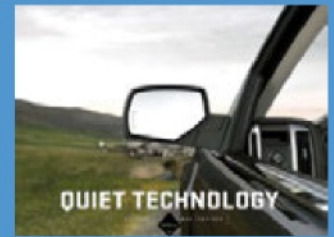
this particular project, MediaMonks and DigitasLBi opted to take these chats a stage further and bring the two together. A Digitas art director, creative director and head of production would fly over from Boston and stay at the Amsterdam HQ for a week to establish a smoother workflow. "This sort of close collaboration was extremely important, as the user interaction and interface went through some substantial changes and iterations as we discovered what worked and what didn't."

The chatter from the early stages wasn't purely all talk, neatly enough. MediaMonks animators had in fact been building 3D models for emulating the potential paths for the story prior to the initial pitch. Not only did this help to practically describe engineering concepts from day zero, but also with testing the feel and functionality within the crossfire of constant innovation. "Taking UX into careful consideration in this way also allowed us to connect the action of scrolling to specific scene transitions," elaborates Wesley. "We wanted to make the user's actions feel purposeful when interacting with the story, so scrolling became a tool for submerging the user's point of view underwater (to experience the truck's submarine steel); a tool for replicating the motion of closing its window (to test the soundproof cabin against the blades of a

chopper); and a tool for breaking through bedrock to experience the Sierra's brakes, amongst other things. In other words, we wanted your interactions with the website to feel like their own forms of the functional, professional-grade thinking behind the GMC truck."

Speaking of user interactions, the ways in which visitors would engage with the site was always of paramount consideration. The progressive, future-thinking ethos of GMC's Sierra really demanded a matching outlook when it came to catering to modern web consumption: "Ensuring the experience accommodated all forms of user interaction was a primary concern of the project from the start," confirms Arthur Dam, senior creative technologist. "We wanted to deliver an end product that excelled in each platform environment, tailored to the capabilities of each. To do this, we broke the entire site down into four categories: high-end desktop, low-end desktop, tablet and mobile. After some early prototyping, we made the decision to separate mobile from the rest of the build in order to maintain quality and consistency. We animated in Flash, exported via CreateJS and finally implemented in Canvas."

This strategy, however, would not prevent the website from representing an enormous visual and graphical



## THE VICES OF VIDEO

As anyone will know only too well, video assets within web content have become more and more vital. More recently though, we've seen video migrate out from the confines of embedded player objects to stake a claim within website design. HTML5 has done so much here with the <video> and <canvas> tags to allow designers or developers the option of weaving video playback into the bricks and mortar of a page. 'Incredible Thinking Starts Here' so seamlessly places video at the heart of the experience, you would expect it to cause numerous headaches along the way. So with large video backgrounds chewing up bandwidth, what problems did this aspect of implementation present to the project and how were they resolved?

"More than just large video backgrounds, we knew that each video also had to be able to be scrubbed, which involves bringing up the amount of keyframes in the video and therefore increasing the file size," senior creative technologist Arthur Dam explains. "Since bandwidth in our main market the United States isn't always great, this was clearly a big concern. We ended up resolving it with the time-tested method of trial and error. We rendered multiple versions of the video, each requiring different bandwidths, and chose an appropriate size accordingly."



## MOBILE BALANCING ACT

From the outset on Incredible Thinking Starts Here, there was a desire to echo key themes of innovation. However, this would very quickly be undermined if a consistency of experience wasn't fulfilled across the full gamut of modern web platforms. Starting from a bells-and-whistles desktop ideal, the development would cascade down and shape practical decisions as the constraints inevitably narrowed. Given the brand the site would represent, reliability could not be compromised. "Due to the intensive nature of the full experience, high-end desktop was our first focus," reveals senior creative technologist Arthur Dam. "Starting out with Chrome and working our way down the browser matrix, prototypes showed that the easiest implementation - using the <video> tag - would be most suited to this project. Obviously at the lower-end, chiefly tablet, this wasn't an option."

Despite factoring all of the limitations, the mobile and tablet versions would obviously be required to follow the same story experience. Primarily this would mean incorporating gesture controls and mobile-specific 3D animations to ensure that the site would also leave a lasting impression on even the least powerful of small-screened devices: "For these devices, we knew we needed to replace this with image sequences and Apple's 'Mac Pro' site provided some great inspiration for this. We also filled in any browsers that didn't have appropriate video support with the image sequence version as well. Although this option is lower in quality, it really made up for it in stability, which we felt was important to ensuring success in the sort of market the GMC Sierra is catered towards."

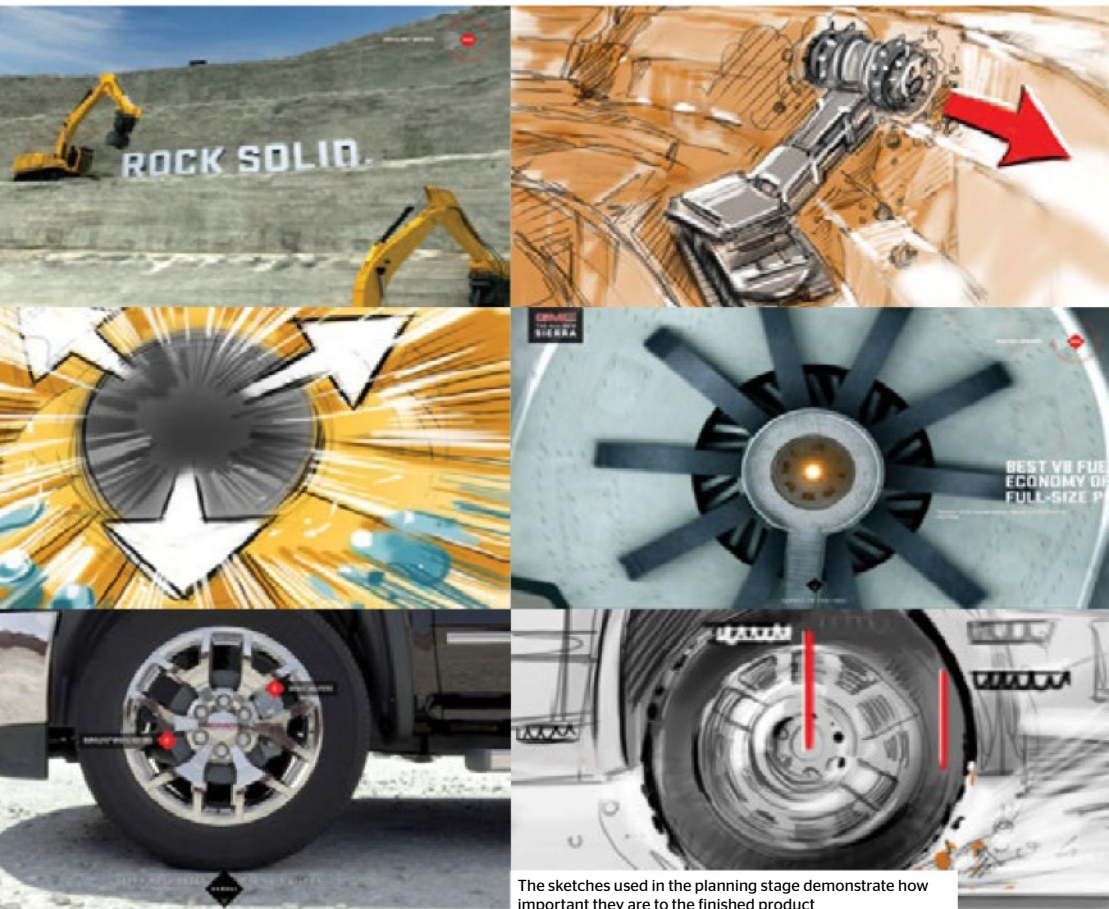


challenge. Anyone looking at it can appreciate that it is extremely front-end heavy, based largely around a continuous interactive film of CGI-based footage. The experience is really a journey through wild and varied environments, alongside cameos of the vehicles that are so essential to the Sierra story: "Everything was drawn and built from scratch by our visual designers, and made to move in three dimensions by our 3D animators," reveals creative director Jouke Vuurmans. "This

included a full 3D render of the truck, both inside and out, so we could tackle each of the six scenes from different perspectives. In order to improve the quality and realism of the final product, a few shots were filmed and then composited into a final render. For example, in the 'Exterior' story, the viewpoint of the user transitions underwater. MediaMonks Films department shot a live-action backplate of an immersion blender churning water bubbles through the clear walls of a fish tank. We then used this in composite for the realistic bubbles and fluid dynamics."

From this you can appreciate how valuable the multi-disciplinary skill set that MediaMonks has at its disposal is. The ability to leverage such expertise for front- and back-end production would be pivotal from planning right up to final build. "From a design and film perspective it all started with sketching in Illustrator and moving into Photoshop for the end-quality, blockbuster-like graphics," Arthur Dam explains. "Next to this, MediaMonks Films utilises a large array of tools for their work, the main ones being Maya (the V-Ray extension





The sketches used in the planning stage demonstrate how important they are to the finished product

Consumers increasingly do their research on the move, so we wanted the mobile website to leave its own lasting impression

was used for production renders), Final Cut, Houdini, After Effects, Nuke and Da Vinci Resolve – pretty much implemented in that particular order. From a development perspective, we built the entire site with TypeScript (a superset of JavaScript), using an MVC engine we built in-house, which was quite heavily modified to accommodate the site's unique structure. Alongside this, we leveraged JavaScript engines such as jQuery, RequireJS, TweenLite, PreloadJS to name a few – which helped save the development team a lot of time!

With what only constituted a three-month project cycle, time was certainly of the essence with 'Incredible Thinking'. Fortunately in the lead up to delivery MediaMonks knew that distribution and marketing would at least be handled by the agency partners, even if the mobile elements were invaluable tools here: "We obviously did make sure that the experience is available on all platforms, including a mobile version that really holds its own," insists producer Xander Amo. "Consumers increasingly do their research on the move, so we wanted the mobile website to leave its own lasting impression, not just prompt you to make your way to the desktop version. We therefore carefully recreated all of the key animations specifically for mobile, to ensure that they ran as smoothly as possible on handheld devices."

So what happened with the big, eventual handover? That three-way system of communication and workflow at the planning phases remains just as relevant during delivery. This really becomes as much a process of integration for everyone involved, moving into a period of iteration and content support.

"The way we operate means completed projects aren't simply passed from agency to company client," explains Wesley ter Haar. "Instead, there is an extremely integrated workflow process, where in this case strategy and concept from DigitasLBi is interfaced with design, development, animation and 3D elements produced by MediaMonks. Then when campaigns like GMC first go live, we like to employ a method known as a 'tweak week'. Tweak weeks are an important aspect of the production process for projects of this size; after launch, we perform a stringent review and collate a list of feedback from all parties involved. This review and feedback is then used to polish the final product to perfection, and push out a second version. The great thing about this way of working is that it allows you to address any unforeseen issues in the first offering, while bringing the final product up to a level that often surpasses even the original, envisioned outcome." With such unfaltering attention to detail, it's no wonder that the site turned out so incredible.



## THE BIG QUESTION...

The GMC journey is an extravaganza of visceral moments. We ask the MediaMonks team, what do you love about the journey?



Building it from scratch! GMC was an awesome opportunity to do whatever we wanted with our Wacom pens to enhance each environment and scene.

**MASSIMO MELJER**  
ART DIRECTOR



The entire journey: from designing to win the pitch to actually setting the overall look and feel of the experience.

**KJEGWAN LEIHITU**  
SENIOR DESIGNER



How often do you have the chance to create an awesome car, helicopter, airport, mining site and the Hoover Dam, all in one video?!

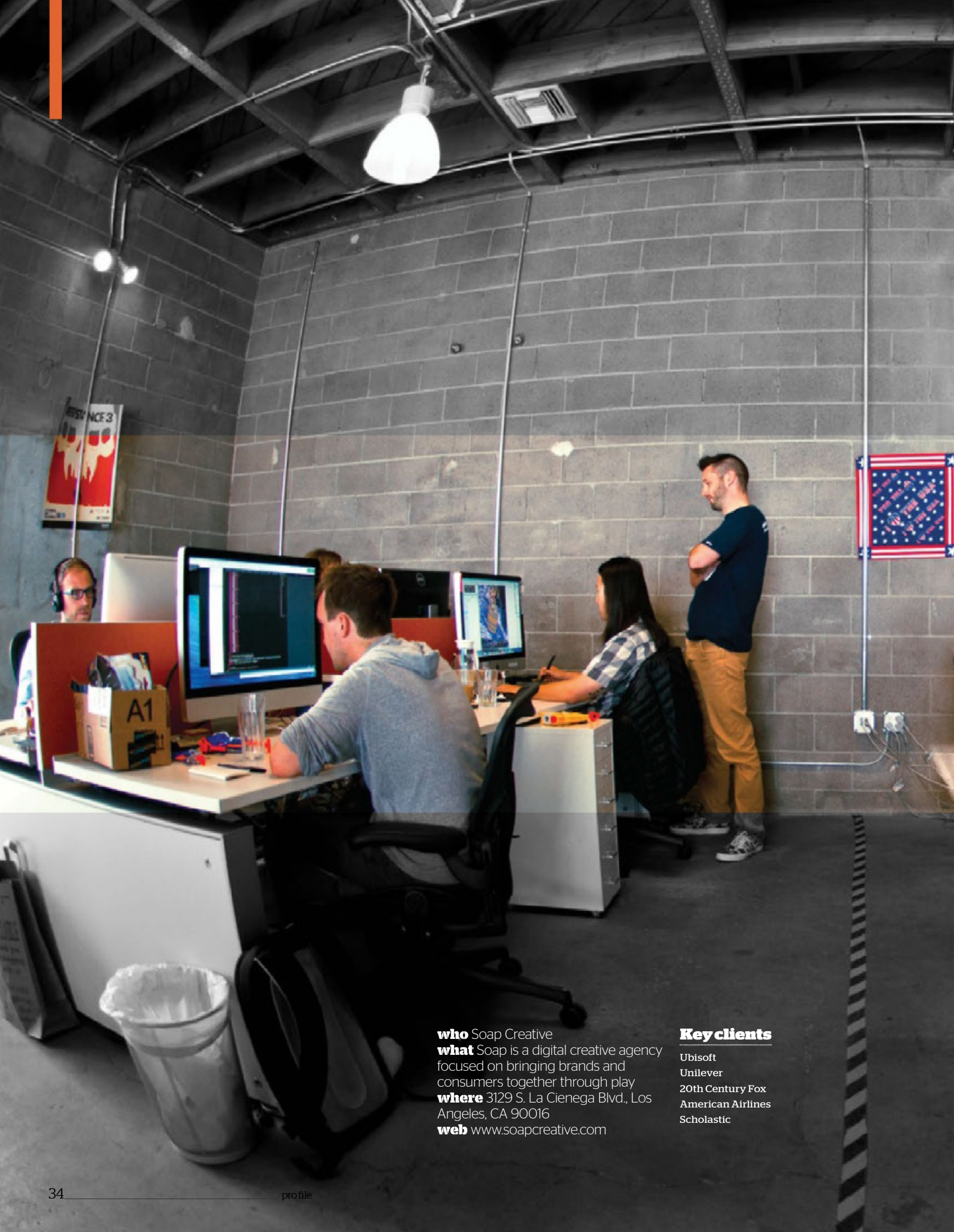
**OKKE VOERMAN**  
HEAD OF POST PRODUCTION



Maintaining the quality of high-end 3D and 2D animation, while seamlessly transitioning from video to HTML (and back), was certainly a long and emotional journey of its own. I love the feel of the end product, it's a great mix of sound, sight and interaction that becomes more than the sum of its parts.

**WESLEY TER HAAR**  
COO/CO-FOUNDER





**who** Soap Creative

**what** Soap is a digital creative agency focused on bringing brands and consumers together through play

**where** 3129 S. La Cienega Blvd., Los Angeles, CA 90016

**web** [www.soapcreative.com](http://www.soapcreative.com)

### **Key clients**

Ubisoft  
Unilever  
20th Century Fox  
American Airlines  
Scholastic





# Good clean fun

With play at the centre of Soap Creative's mission, this agency places the user experience at the heart of their diverse output that has seen them work with international brands, as well as developing their own bespoke projects



**The original office in Sydney, Australia was co-founded by Ash Ringrose and Rob Dennis in 2002.** Their first US studio opened a few years later with a renewed focus on defining play in a broader context, continuing to work across leading brands and entertainment properties. Most recently, Soap expanded to launch a studio in Dallas focused on bringing play into consumer mobility.

Ash named the agency, as Matt Griswold, managing partner at Soap Creative explained: "Ash Ringrose came up with the name in what now seems like an act of random genius. The real beauty of the name is that it's clean – and that's not just a pun. It didn't have any real meaning or preconception, so it was ours to own and define. We get to add meaning to the name through our work over time, and that meaning has grown as organically as the agency."

As Soap is now more than a decade old, it has a great deal of perspective on how the agency has evolved in that time, and how digital marketing itself has changed. Matt explained how, throughout the agency's life, play and the desire to create groundbreaking work has helped guide Soap: "We have always been very open and flexible, which has let the business evolve organically. I think the flexible approach we take comes from our background in gaming and prototyping. The open and ever-curious culture has guided us to many new opportunities we wouldn't have otherwise targeted."

"We are looking for great opportunities where we can do great and interesting work that pushes the web forward. We are happy to do that with a number of different clients, but we don't have a rigid business plan that says we will be at point 'X' in five years' time. We certainly have a vision for what the agency stands for, and we use this day to day to guide us when we are choosing partners to work with, and people we bring onto the team."

The agency's website has also evolved with Soap. "We tend to place our focus on our work with clients, so the agency's site serves a limited and singular purpose: to give a quick view into the ethos of the company and our work."



Soap looks for the 'tinkerer' mindset when it comes to its staff, showing that they can experiment, play and be creative

### industry insight

Danny Bluestone, founder and managing director



“I think agencies are collections of artists that iterate within the culture of their companies, and it's important that these people work together on creative challenges. Our culture is built on play, so that's our lens for creating great experiences and driving the web forward. Others will have their own way”

Nothing more,” said Matt. “We want visitors – be it potential clients or new ‘Soaperheroes’ – to discover our personality through our work and decide for themselves if Soap seems like a fit for further conversation. We are candid, playful, and obsessed with our craft, so on that front I think our most recent site does a pretty good job of conveying the spirit of the agency.”

Gaining work for Soap has certainly not been too much of a problem; Matt explained how Soap has developed long-standing relationships with its clients, but is also sought out for its unique take on problem solving. “We are blessed to have many great opportunities (and people) seek us out. I believe this is a natural consequence of always staying focused simply on making awesome work for amazing clients. We do pitch on work, particularly to push ourselves into new industries and types of challenges, we’re always interested in new opportunities. In either event, we’re able to pick jobs

that are a good fit for the culture and where we believe we can add disproportionate value to the mission. When we decide to pitch or pursue a project on those criteria, we’re all in. The way I see it we spend every day building our reputation through action, and the result of that choice is often loyal clients and more great opportunities.”

But how does Soap evaluate potential new clients? “It can be a challenge to evaluate new client opportunities,” Matt continued. “We do this in a couple of ways: We look first at the work that is on offer: Is it something we can get excited about? Can we do our best work under the parameters? Is it a large challenge? And is there enough trust on the client’s side? These are important questions for us to answer before we move forward with a new client.

“We look for challenges where we can be the best in the world given our perspective and skills. I want to look across the table at the client and know we can do something unique for them. And when we

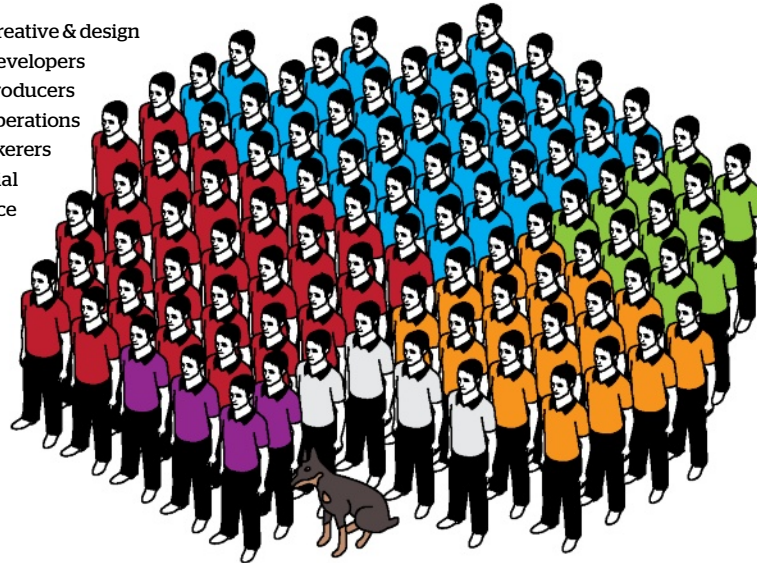

 We look for challenges where we can be the best in the world given our perspective
 





# AGENCY BREAKDOWN

- 30 Creative & design
- 26 Developers
- 16 Producers
- 10 Operations
- 4 Tinkerers
- 4 Social
- 1 Office dog



win new business from that premise, the work we do is more interesting and innovative. I think agencies are collections of artists that iterate within the culture of their companies and it's important that these people work on creative accounts, as this will drive the web and the user experience forward. We want to continually push the medium - and our clients - to evolve. That's our role in the agency ecosystem.

"At the end of the day, quality is the business model. We form lasting partnerships with our clients by consistently delivering great work. You never know where that relationship may begin - many have started from small, one-time projects. We're not predisposed for or against any particular type of client either... I wasn't always of that mind, but great clients have reshaped my perspective in recent years. Yes, we get to play with some amazing IP; but I think everything we touch has a certain fun to be found.

"We do have flexibility in deciding what we decide to jump into and we've consciously decided to focus on quality over scale. We don't focus on the size of the opportunity as much as the fit. Can we bring a significant advantage over what another agency could do? Are we leveraging our unique strengths?

Is there freedom in the brief? Is this something that excites and challenges us to be better, as well as make the client's business better? It's not that we 'get' to choose our projects; I believe we 'have' to in order to focus and make sure we deliver our best for every client we take on."

Soap Creative prides itself on developing unique user experiences that use play as the central foundation for all of their work. But is there a particular project that sums up the ethos that Soap lives by? Matt outlined why their Pac-Man initiative speaks volumes about who Soap are: "I think 'The World's Biggest Pac-Man' is a shining example of play at work and captures the ethos of the agency well. For one thing, it obviously comes from the power of play that shapes everything that we do. It invites people in. It expects the audience to participate. We really love making things that are meant to be experienced, not just looked at. Second, it's built on an understanding of community, empowering the entire user base to share in the creativity. I think that speaks to our collective spirit well. Finally, it's a great example of partnership and initiative. We instigated the opportunity because the



<Above>  
Soap helped create an interactive experience where fans could morph into the Wolverine and re-create a scene from the film

## The Wolverine experience

[bit.ly/1gRAF4V.com](http://bit.ly/1gRAF4V.com)

20th Century Fox approached Soap to bring *The Wolverine* to life by allowing people to assume the role of its titular character in an exciting experiential activation. The only stipulations were that it had to be activated in 18 different markets across the world... and in only two months. Soap created a Kinect experience that activated when someone stood in front of it, visually morphing the user into Wolverine - their silhouette growing claws as the experience counted down.

Soap manufactured 18 of these seven-foot tall kiosks with 55-inch screens and high-fidelity sound to house the experience. These were shipped around the world. Closely mirroring a scene from the film, they were transported atop a speeding bullet train on the outskirts of Japan to fight a lethal Yakuza soldier who must be defeated. To make the experience more convincing, the agency re-created the surrounding cityscape in 3D down to minute detail - even creating billboards advertising Japanese products that became part of the fast-moving scenery.

Soap also leveraged the Microsoft Kinect platform so that the user controlled Wolverine's claws with their hands in a fierce and competitive battle. Physics was added to game objects for a level of random reactivity to each player. In order to harness the power of word of mouth, a camera was added that recorded a photo of participants during their game and gave them the option of sharing it on *The Wolverine* Movie Facebook community pages.

Each country was supported in real-time, providing updates to units while they were in cinemas/malls across the world. For Soap, activating in 18 different markets was a logistical achievement within such a short time frame and the success of the experience led to it being adopted by 20th Century Fox as an international platform to be used for future releases.



2012

Soap gets a BAFTA nomination for *Global Resistance*, an unprecedented companion game for the PlayStation 3.



2013

Soap expands east with a new studio in Dallas, TX.

Number of employees  
**85**

Number of employees  
**67**







<Above>

The ability to create Pac-Man mazes engaged users worldwide

## World's Biggest Pac-Man

[worldsbiggestpacman.com](http://worldsbiggestpacman.com)

Working with the Microsoft team around the release of Internet Explorer 9, Soap wanted to showcase the power of HTML5. The timing happened to coincide with retro favourite Pac-Man's 30th birthday, so the agency called up Namco Bandai (an existing client) to see if they could celebrate it in grand style around the globe. They agreed and Soap began to figure out exactly how to bring the vision to life.

They decided to let the global Pac-Man community create and play their own maze to become part of the 'World's Biggest Pac-Man' game. The ever-expanding maze provided endless fun for Pac-Man fans worldwide. Pac-Man, arguably one of the most iconic videogame characters ever, was combined with a unique and engaging idea to become an instant online hit.

Rather than overcomplicate this idea with too much tech trickery, it was kept as simple as possible. Doing this while working within the constraints of what is possible with HTML5 was tough, but the use of HTML5 helped the project stand out and gain media attention. Facebook plug-ins were utilised to provide a simple user account that would offer some security from 'junk' mazes being submitted and the 'Like' button as a simple way to rate and spread the site organically. A simple country leaderboard was updated live based on a player's geo location. From every country and every type of media outlet, the response was very positive.

Media highlights include being picked up by *The Guardian*, CNN, The Huffington Post, ABC News, CNET, Gizmodo, Engadget, Geekologie, News.com.au and almost every major games site. Radian 6 reported over 16,000 tweets in the first week with major influencers in the mix as well. The site had 1.5 million visitors in the first three weeks, and one huge hosting bill - all without any media spend. Even today, the site continues to get hundreds of thousands of visitors each month.



It's clear that Soap enjoys emphasising the element of play, in both its work projects and office environment

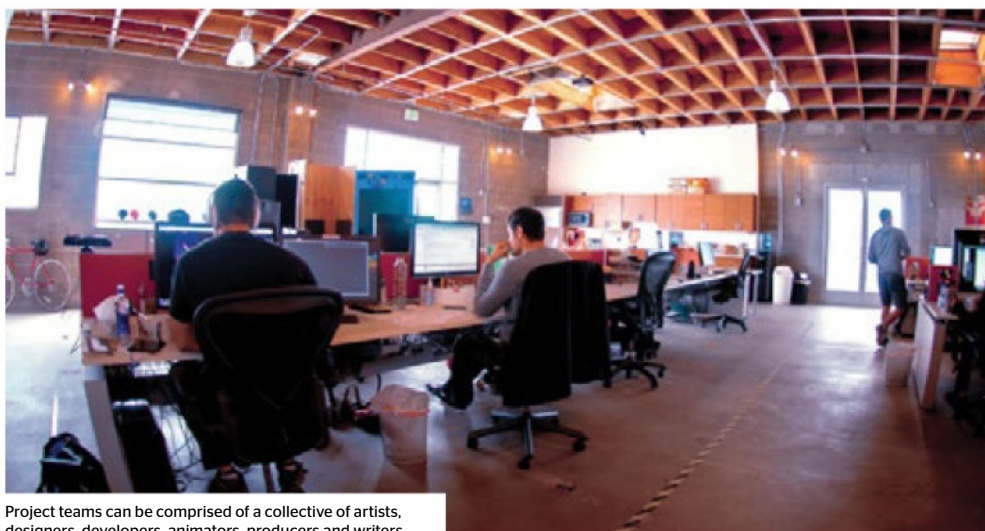
idea was too good not to be born, and we're thankful that Microsoft and Namco Bandai were so awesome and trusting to support it from the outset.

"The project was very much home grown, as we approach the participants with the idea. The project really speaks to the ethos of Soap, as we are a self-starter agency that will develop new projects when we see an opportunity. At the time, this was one of most ambitious HTML5 experiments around; Pac-Man pushed us to embrace HTML5 much faster and required us to put both arms around it to make sure we delivered an experience worthy of the millions of Pac-Man fans around the world."

Each creative agency tends to have its own approach to working practices. Matt outlined their approach: "A typical project timeline for us ranges three to five months. There are several notable outliers on either side, of course, such as The

World's Biggest Pac-Man (two months) or *Splinter Cell Blacklist* (ten months). We move quickly and put a lot of emphasis on iteration, which means it's better to keep teams small, 100 per cent dedicated to the project throughout and as close together as possible. We shuffle the studio around every six weeks as projects change to bring people closer.

"Teams are composed of designers, developers, artists, game designers, animators, producers, and writers - whatever the project requires. Across three studios, we have considerable and diverse talents to draw in to get the best possible team - and everyone is tapped into the same culture, which makes it easier. We don't have an isolated account team, so our producers are the key interface within the team and with our clients. This flat structure gives the team better access to the client's insights and gives our clients more visibility into the process.



Project teams can be comprised of a collective of artists, designers, developers, animators, producers and writers





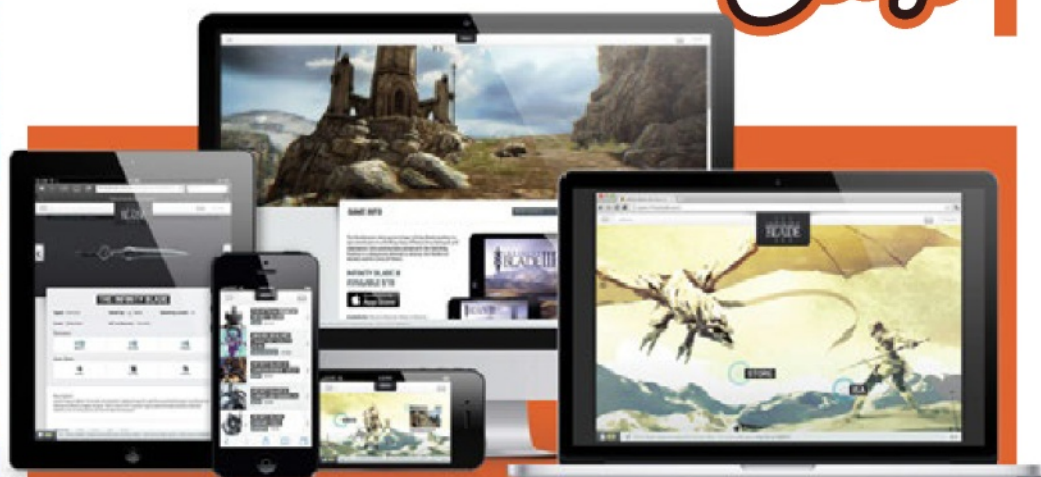
**<Above>**  
A wall of art  
references the era  
of classic games

"The most time-consuming part of any project is really the polish. That is, everything that is not expected or documented but makes the experience better. It's as essential as it is tough to predict, so we've come to build it into our process throughout."

As an agency that constantly pushes the envelope of what is possible with today's tools, Soap uses HTML5 and Unity as primary tools. "We've spent a lot of time refining our tools and knowledge around HTML5. This year we are aiming to make more use of WebGL and recent JavaScript frameworks to focus on delivering more compelling game experiences to the web, as we believe this is an area that is under-developed," said Matt. "We do think that we are still pushing up against what the browsers are capable of and which standards they are supporting. There is still too much ambiguity with the adoption of these standards, which hampers the speed of innovation in user experience - especially when planning across multiple devices."

And how do these tools allow Soap to support the burgeoning use of mobile devices across their designs? "A lot of our work over the past year has been led from a mobile-first philosophy. We're thinking first and foremost about the on the go, touch interaction before the 27-inch iMac experience. It has really improved our appreciation of context and design across all of our projects, whether they're mobile or not."

"In terms of our approach to design, whether it's responsive or bespoke, we try not to get obsessed with a particular technology, because the right answer is based on the individual project needs. At the moment, we're engaged both in a completely responsive approach that works across all screens, and another very bespoke experience, because that's what each challenge really demanded."



#### <Above>

Soap successfully brought the *Infinite Blade* experience to users across all platforms

## Infinity Blade III site [infinityblade.com](http://infinityblade.com)

When Epic Games approached Soap to build the community platform for one of the most celebrated mobile franchises around, they knew the solution would need to be more than 'mobile-optimised'. It needed to be considered first and foremost an extension of the game, as well as a responsive experience. Also, the client wanted to connect the users with the game characters, stories, content and all things affiliated with the *Infinity Blade* franchise, so Soap approached the design as much more than just a nice interface and ergonomic solution.

The agency wanted to show off things like the visually beautiful environments and characters innately as part of the platform experience, so Soap aimed to make the site behave like a native app and even go beyond them. The site features off-canvas

navigation menus, site-wide live search results, live social streams, a notification feed for site updates, social commenting integration, native touch-based gestures and a one-touch home screen launch.

From the moment of entry, a user can tilt their phone to explore the background art. They can then use intuitive navigation systems that make accessing game content pleasurable. The panoramic artwork features the iconic *Infinity Bladesword*, *Infinity Blade III*'s two playable characters Siris and Isa, the imposing tower at Larioth and also includes the menacing Dragon, a mythical enemy debuting in *Infinity Blade III*. With over 600 in-game items, characters, enemies and downloadable content available on one site it was a great accomplishment for Soap to be able to make it all accessible to both mobile and desktop users.

Thinking about mobile-first has really improved our appreciation of context



The Soapheroes all have an insatiable curiosity in common





Soap's office is as clean and contemporary as its agency name

## Splinter Cell: Blacklist

[bit.ly/1eerVRH](http://bit.ly/1eerVRH)

Ubisoft Toronto approached Soap to help them create an engaging companion experience for players of the game *Splinter Cell*, offering them a way of remaining immersed in the game universe ahead of the new release *Splinter Cell: Blacklist*.

Soap's goal was to connect seasoned players to the console game across every screen, in any location. Working closely with Ubisoft Toronto, the agency created a seamless extension of the game's iconic Strategic Mission Interface (SMI) with a multi-platform HTML5 experience and three AAA mobile games that each lends a new perspective to the franchise.

The mobile games feature one of the lead character (Sam Fisher)'s most advanced gadgets, Spider-Bot, a covert, spider-like drone geared for both stealth and destruction. They also provided an independently fun mobile gaming experience and a low-barrier of entry to the console game. The currency earned in each could also be used in the console version.

Extending the SMI from console game to web and mobile was another collaborative piece of work with Ubisoft. Soap's HTML5 platform connected players to weekly challenges, stat comparison against the community and performance tracking for their console activity. Soap's mission with this project was to push the boundaries of companion gaming and connectivity, giving players new touch points to keep them immersed in the game, and by all accounts that goal was achieved.



Spider-Bot allowed users to remain immersed in the game, even when away from their consoles

"I think we're at an interesting point in technology in that everything has gotten easier. Server-side services are abundant, APIs are battle-tested and cloud hosting makes scaling much easier and cheaper. That's great, as it means more attention can be granted to the user experience: the 'what' and 'why' rather than the 'how'. The latent energy that used to get absorbed building a foundation is now free to innovate. I think this is a primary catalyst to the way all industries are now celebrating user-centred design. It's not as though everyone suddenly decided they too could be cool; the advance of tools and technology has freed energy for new pursuits, like play."

With so many people looking to get involved with web design and development, it seems to be getting increasingly more difficult for the agencies themselves when it comes to deciding exactly who to take on; Matt outlined what Soap is looking for when recruiting new team members: "One of the defining traits of the great team that calls Soap home is an insatiable curiosity - of people, of culture, of technology. We also look for tinkerers: people who want to play with technology in new ways and know how to fuse that with an understanding of the mission. It's not enough to dream big - start building, stay curious and see what works! It's also not enough to create something novel for the sake of it - our clients are asking us to solve real challenges, so the user and business outcomes need to be at the forefront of the solution."

"When we consider recruitment, we see all kinds. The collective talent of the industry is accelerating,





Soap brings its own sense of fun to each project it takes on

## 🔧 The collective talent of the industry is accelerating... skill sets are less rigidly defined 🔧

and we're starting to see skill sets that are less rigidly defined than they once were. Many graduates today are tinkerers at heart, which is what we are looking for. They may have a great creative portfolio, but they also have an understanding of the technology base and are comfortable doing some coding as well. They are designers that use development as a way to better express their ideas among the team, and help define early prototypes. They likely won't code the final product, but it helps the dialogue among a team of such varied talents. Developers have always been multi-disciplinary by trade but now are much more intimately involved in the design of the user experience.

"We see a number of great portfolios but we now also see people that not only have great work to show us, but they can explain and express their thinking behind each piece of work. They can explain the design they created and the solution they chose to approach that with, which for us is a shift in what we saw only a few years ago. We look for the tinkerer mindset, which shows that they are experimenting with their craft."

And as our minds turn towards the future, is there anything that Soap is concentrating on in particular? "The future will see us focusing on new ways to bring play into the world," Matt concluded. "We've already grown that sense of play outside of the

browser and into mobile experiences, and outside of discreet devices into experiential executions that populate the world. So, we've been moving from purely digital experiences into bringing play into physical space as well. We will be looking to continue on that bridge; but day in and day out, we will be focusing on making great work. Quality will continue to be our business model."



WEB..... [www.soapcreative.com](http://www.soapcreative.com)  
 YEAR FOUNDED..... 2002  
 CURRENT EMPLOYEES..... 92  
 LOCATION..... Sydney, Los Angeles, Dallas

### SERVICES

- > Games
- > Web
- > Mobile
- > Experiential
- > Strategy



## Pi's Epic Journey

[journey.lifeofpimovie.com](http://journey.lifeofpimovie.com)

To celebrate the home entertainment release of *Life of Pi*, 20th Century Fox invited Soap to explore the depth and craft behind this award-winning film - and to add a little of their own along the way. On the heels of their theatrical campaign, many fans already knew about *Life of Pi*; all that was needed then, was an inviting way to show them exactly what they had missed.

The solution was a scroll-to-discover experience as expansive as the vision of the film, which unfolded across five sections. Each section of the site captured a key theme of the film, building from concept renderings to the finished film over one continuous experience. The team scripted the experience from more than four years of archives and behind-the-scenes reference, also adding original renderings along the way.

As the user navigates through Pi's journey, they are met with interesting facts and content: visual effects progressions, behind-the-scenes clips, rare concept art, footage of the set construction and interviews with members of the crew.

*Life of Pi* not only took home four Oscars at the 85th Academy Awards, but also became one of the top home entertainment releases of 2013. To quote the writer within the film, having heard of Pi's epic journey: "So, your story does have a happy ending".

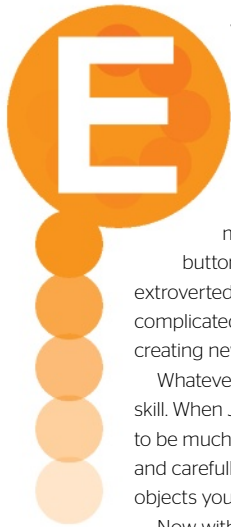




# ANIMATE CSS

Make a move with this full-cream  
guide to the latest CSS and  
JavaScript animation skills





**Everyone remembers the bad old days of Flash; animations took what felt like forever to load and splash pages were often self-indulgent code candy that most users skipped as soon as they could.**

Thankfully, the web has moved on significantly since then, with animation almost being a standard feature of many of today's site designs. Sometimes it's subtle – a menu that sizes up slightly when you mouse over it, or a button that throbs when you click it. Sometimes it's a little more extroverted and looks like a controlled page scroll or reveal, or a complicated slider. Then again, sometimes it's used as an experiment, creating new kinds of user interfaces and experiences.

Whatever the application or end result, animation is a core web skill. When JavaScript ruled the world of web design, animation used to be much more difficult. You had to set up manual animation loops and carefully manage the position, colour and other properties of the objects you were moving around the viewport.

Now with CSS, animation is simpler and far more easily achieved. You tell it exactly when you want it to start, how to stop, what to do and it works automatically. The details are kept locked inside your browser, and you don't have to worry about them if you don't want to.

Basic CSS animation, scripted animation, and 3D animation all work differently. There's some overlap, so you don't have to learn three completely different skills, but there are differences too. To master animation you'll have to master them all – the good news is that we've made it easy for you. Read on for the details...



## EXPERT INSIGHT

*CSS animations are not only simple to create and adjust but also take advantage of the processing power of today's browsers. Compared to JavaScript animations, they transition much faster and smoother, which enhances the user experience. Simple animations can be used now, falling back to either basic state changes or JavaScript animations for those browsers without the support. As these browsers become less and less prevalent with users, it will make interface animations easy to code and we will be finding more complex and creative ways of using these techniques.*

**Luke Guppy**  
Creative director  
redweb.com



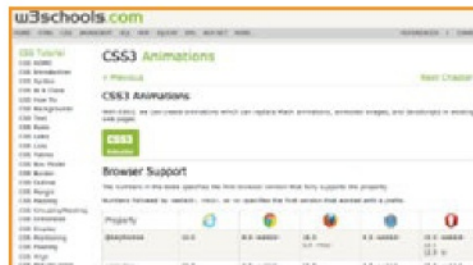
## BASIC BUILDING BLOCKS

CSS animation isn't complicated. You don't need to use JavaScript or jQuery and you don't need to be a maths wizard – but you do need to understand a few basics. The essentials are CSS animations, CSS transitions, CSS transforms and event management.

CSS3 animations make it possible to 'tween' almost any CSS property. You can either specify 'from' and 'to' values, or you can split the animation up into keyframes – animation steps – and set the property values for each step. The browser does the rest, working out the intermediate values and changing them over time.

CSS3 2D and 3D transforms are used to move, scale, skew, stretch and otherwise throw elements all around the viewport. Although you can animate many properties, 2D transforms are the basic building blocks of animations that move. 3D transforms do pretty much the same – but obviously with the addition of the third dimension. You can spin, flip, and create perspective effects. While they're slightly more complicated and difficult to achieve than 2D transforms, they're much better at grabbing a visitor's attention.

Finally, you need to trigger and control animations. CSS3 transitions can work with hover and click events. But this is the one part of the process where JavaScript or jQuery can take you further. The usual trick for animations is to create a separate .animated class (you can name it how you want) and use code to add it and remove it in response to user events. Adding a class automatically runs the animations inside it.



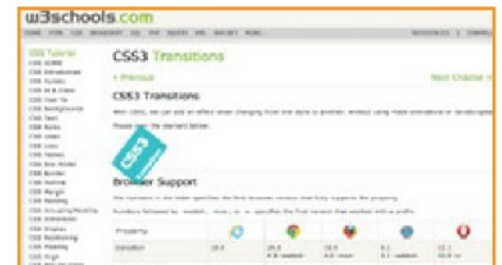
### CSS3 Animation

w3schools.org has some good basic demonstrations of each different animation option. Visit the page to see some movement.



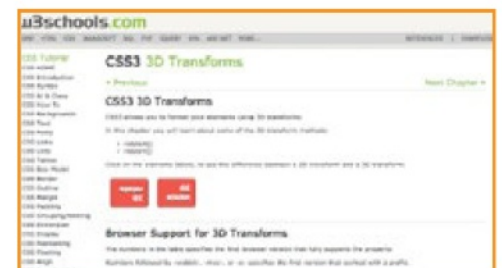
### CSS3 2D Transforms

Use 2D transforms to spin, grow, squash, and expand elements. You can also use the skew transform to warp elements as well.



### CSS3 Transitions

Make use of transitions in order to achieve some seamless but simple on-hover and on-click animations to engage your site visitors.



### CSS3 3D Transforms

3D transforms appear to move elements in and out of the screen. But creating non-trivial 3D effects with many elements can be a lot of work.



# WHAT MAKES A GOOD ANIMATION?

Avoid a user experience that underwhelms by ensuring that your animations inform, entertain and delight your users



**Everyone has seen sites that look like the inside of someone's brain in the middle of a migraine. It's tempting to make everything on your site move just because you can, but animation is a secret sauce and it makes the most impact when it's been used thoughtfully.**

First of all, don't overdo the attention grabbers. You know those sites that put up a modal survey or subscription dialog just when you're about to get to the information you want? Don't do that. Users hate anything that makes them feel like they're not in control of the browsing experience. It's the same story with attention-grabbing animations. Use them to hint to users that they can do something they might have missed, not to distract them from what they're already doing.

You should also make use of animation to highlight context and hint at navigation features. For example, if your site uses a map, you can use an animated sidebar to display useful location information. The sidebar contents change all the time, and the animation can be helpful in reminding users that there's something new and cool they should see. You can also animate breadcrumbs to highlight information you want users to see on each page, while keeping other navigation options visible. Features that resize automatically are a good way to pack a lot of detail into a limited space, without sacrificing relevance.

Consider telling a story. You can do this literally by animating a cartoon - but that's more work than most sites need. A story is a way to control how information is revealed and good stories keep users interested because they become curious

about what happens next. A popular styling at the moment is the full-page scroll. The 'story' suggests that there's more to read. This kind of scroller is better at keeping user interest than a menu tree, because with a menu system there are no surprises and users are more likely to decide to skip some of the content.

Make it physical. You can bounce objects, squash them, shake them and vibrate them. The maths isn't complicated and simple physics modelling helps make animations look convincing by imitating mass and inertia. If your standard animations aren't physically believable, users are going to find them more distracting than rewarding. As an occasional special effect you can also make an object do something believable but surprising, for example, making an image that bobs and floats upwards like a balloon.

## EFFECTIVE ANIMATION IN THE REAL WORLD

### MacPro

Apple's MacPro store page demonstrates how to use attention-grabbers without killing interest; the main product area rotates, reveals and spins. At the same time, the statistics by the side are animated to draw attention to them. You can click the product photo to go to the next page.



Apple's stylish animations use the iOS 7 design language to maintain interest and complement the main product views

### FiftyThree

Today's [fiftythree.com](http://fiftythree.com) pencil site has a number of cool animations. There's an exploded view that reveals features of the pencil product as you scroll down, and a rotating photo that spins as you scroll. It's a good example of storytelling - the user keeps scrolling to see what happens next.



Keep scrolling to see more details. The animations become a feature in their own right and leave the user wanting more

### Polygon

Polygon's Xbox 360 is a good example of animated navigation. Not only is each sketch animated, but the menus briefly scroll out to show you that you can navigate to any section. Mouseover the menu area to show all the sections at the same time for instant go-anywhere clicking.



Polygon's menu system is only visible when you want it - but it reminds you it's there as you scroll down

## BROWSER SUPPORT

Put simply, CSS3 works on all browsers and has done for a while. The minimum versions are:



\* CSS3 includes previous versions of CSS animation and CSS transitions.

## MOBILE BROWSERS

Mobile browser support is good. Only Opera Mini lacks any support, and Chrome for Android was buggy until version 4.0. All other platforms support CSS3 animations with no major issues - although remember that mobile devices don't have fast processors, so very complex scripted animations may still run slowly.



## MAKE IT MOVE

Understand animation from the ground up with this step-by-step guide

STEP  
BY STEP

### 1 MAKE A BOX

We'll start by growing a box and changing its colour. Make a <div> and give it an id of #box. Add some simple CSS to give it a width and a height, then add couple of lines of animation code to run an animation called 'animOne' over five seconds.

```
001 <!DOCTYPE html>
002 <html>
003 <head>
004 <style>
005 #box
006 {
007     width:100px;
008     height:100px;
009     background:blue;
010     -webkit-animation:animOne
011     5s; /* Chrome, Safari,
012     Opera */
013     animation:animOne 5s;
014 }
015 </style>
016 </head>
017 <body>
018 <div id = "box"></div>
019 </body>
020 </html>
```

### 2 MAKE AN ANIMATION

To define what animOne does, add WebKit and standard @keyframe definitions - as usual, you have to duplicate the code. from {...} defines the CSS at the start of the animation while to {...} defines the CSS at the end - and that's all you need. If you're starting with useful default CSS, you don't even need from {...} at all.

```
/* For Chrome, Safari and Opera */
001 @-webkit-keyframes animOne
002 {
003     from {width:0px;
004           height:0px;
005           background:red;}
006     to {width:100px;
007         height:100px;
008         background:blue;}
009 }
```

```
/* For everything else */
001 @keyframes animOne
002 {
```

```
003     from {width:0px;
004           height:0px;
005           background:red;}
006     to {width:100px;
007         height:100px;
008         background:blue;}
009 }
```

### 3 RUN IT

Load the page into a browser and the animation should run on load. That's about all there is to know about basic animation. You can animate most CSS. For a detailed list of animatable properties, see [oli.jp/2010/css-animatable-properties](http://oli.jp/2010/css-animatable-properties).

```
001 #box
002 {
003     width:100px;
004     height:100px;
005     background:blue;
006     -webkit-animation:animOne
007     1s; /* Chrome, Safari,
008     Opera */
009     -webkit-animation-delay: 2s;
010     -webkit-animation-iteration-
011     count: 4;
012     -webkit-animation-direction:
013     alternate;
014 }
015 }
```

### 4 MORE CONTROL

You can delay the animation and repeat it, or even try playing it in reverse with the animation-direction property. Each forward or back change counts as one iteration. Set the count to infinite if you never want the animation to end. The total running time is the count multiplied by the duration.

```
001 #box
002 {
003     width:100px;
004     height:100px;
005     background:blue;
006     position: relative; /*
```

Need relative or absolute for movement \*/

```
007 -webkit-animation:animOne
008 1s; /* Chrome, Safari,
009 Opera */
010 -webkit-animation-iteration-
011 count: 4;
012 -webkit-animation-direction:
013 alternate;
014 }
```

/\* For Chrome, Safari and Opera \*/

```
001 @-webkit-keyframes animOne
002 {
003     0% {background: red;
004         left:0px; top:0px; width:
005         100px; height: 100px;}
006     25% {background: yellow;
007         left:200px; top:0px; width:
008         0px; height: 0px;}
009     50% {background: blue;
010         left:200px; top:200px; width:
011         200px; height: 200px;}
012     75% {background: green;
013         left:0px; top:200px; width:
014         0px; height: 0px;}
015     100% {background: red;
016         left:0px; top:0px; width:
017         100px; height: 100px;}
018 }
```

### 5 BREAK IT UP

Instead of from/to, you can define animation stages with percentage markers. Add as many as you like, each sets the CSS properties for that step. This gives you a lot more control because you can define movement paths and colour transformations with as much detail as you want.

### 6 RUN IT AGAIN

Save the file and load the HTML. You'll see the square bouncing around the screen and changing colour like crazy. At the end, the animation defaults to the initial properties. If you want it to finish with different values, use animation-fill-mode to set them.

## CSS vs JavaScript

Which one is better? What are the differences between them and are they really in competition?

In official web-lore CSS animations are always faster than JavaScript animations. CSS 'just works' while JavaScript and jQuery need custom animation handlers and need to repeat thirty or even sixty times a second. So a browser always works harder running scripted animation code than running a plain CSS equivalent.

It's usually a good idea to use vanilla CSS for simpler animations. In 2D, you can do most of what you need with CSS, and you only need scripting for complicated timeline-based effects, or for effects where you need to manage the position and movement of a lot of different elements at the same time.

3D is more complicated. 3D animations stress the browser harder but JavaScript has some useful features - like 3D matrix operations - that just aren't possible in CSS. So, a good rule of thumb is to see if you can achieve what you want in CSS first. If you can't, fallback to JavaScript and custom code.

Either way, test your animation on low-powered hardware to check that it works. You may find it runs fine on your MacBook Pro i7, but don't forget most users will have older, cheaper hardware and you need to be aware of what they can realistically deal with.



JavaScript isn't always slower than CSS but you should always test animations on low-powered hardware anyway

# FALLBACK CODE

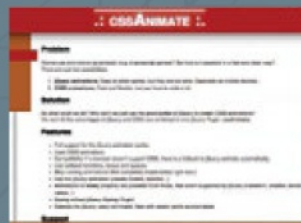
You don't have to limit animation support to newer browsers, but fallback code does take some extra effort

If only fallbacks weren't needed. Unfortunately, they usually are, so you have find different ways to work around them.

The simplest way to manage fallbacks is to include the usual browser-checking code using something like Modernizr. For a CSS-only solution you can use Modernizr to select animation-free code using the usual '.no...' prefix to create fallbacks when features aren't available. You can also check if CSS properties are available by asking the Modernizr JavaScript object to check and report back to you.

A simpler but less flexible option is a hybrid framework like `cssAnimate` ([cortys.de/cssAnimate](http://cortys.de/cssAnimate)). It runs CSS animations if a browser supports them, but falls back to slower jQuery effects if it doesn't. The framework runs and selects the correct effect automatically, so it (mostly) 'just works'.

The most reliable but slowest option is to do everything in jQuery. jQuery's animation effects are powerful and open-ended but they're not very efficient. This can cause problems with mobile support. Because the world, its dog and iPhone are expected to support mobile sites now, jQuery can be risky and you'll have to decide whether it's worth taking a chance on the performance of your target devices. The upside is that you can write once and create complex effects that are challenging with pure CSS.



`cssAnimate` is an interesting hybrid fallback framework that's worth a look. It's not bulletproof, but it can solve some common problems

## EASINGS AND BEZIER

Get ultimate control of positioning and timing with expert-level animation easing management

STEP  
BY STEP

### 1 SMOOTH MOVES

We'll create a simple but non-trivial text animation using motion control. Make a `<div>` with a single letter in it (this example uses some gratuitous Google font code). Create an animation called `animX`. To avoid duplication, we only include the WebKit code. Copy it and remove '-webkit-' to support IE.

```
001 <!DOCTYPE html>
002 <html>
003 <head>
004 <link rel="stylesheet" type="text/css" media="all" href="
//fonts.googleapis.com/css?family=Lato"/>
005 <style>
006 #textX
007 {
008   left:100px;
009   top:100px;
010   font-family: "Lato";
011   font-size: 100px;
012   position: absolute;
013   -webkit-animation: animX 1s;
014   /* Chrome, Safari, Opera */
```

```
/* Chrome, Safari, Opera */
001 @-webkit-keyframes animX
002 {
003   from {left:0px;
004         top:0px;}
005   to {left:100px;
006       top:100px;}
007 }
008 </style>
009 </head>
010 <body>
011 <div id = "textX">X</div>
012 </body>
013 </html>
```

### 2 STRAIGHT LINES

Run the animation. By default, animations use an in-out motion curve that accelerates into the movement before slowing down. The curve is set using an easing function, which defines how the animated property moves from start to finish. Try replacing the easing function with `linear` to see how the movement changes.

```
001 #textX
002 {
003   left:100px;
004   top:100px;
005   font-family: "Lato";
006   font-size: 100px;
007   position: absolute;
008   -webkit-animation: animX 1s;
009   /* Chrome, Safari, Opera */
010   -webkit-animation-timing-
011   function:linear;
```

### 3 CRASH STOP

The two other options are `ease-in` and `ease-out`. The first starts slowly and then stops quite suddenly, making it look as though the element has crashed into an invisible wall. The second starts suddenly and stops slowly, as if the element is gliding to a stop. The default `ease-in-out` uses both to speed up and slow down.

```
001 #textX
002 {
003   left:100px;
004   top:100px;
005   font-family: "Lato";
006   font-size: 100px;
007   position: absolute;
008   -webkit-animation: animX 1s;
009   /* Chrome, Safari, Opera */
010   -webkit-animation-timing-
011   function:ease-out; /* Or
ease-in */
```

### 4 CUSTOM CURVES

What if you want to roll your own easing? You can use the `cubic-bezier` curve option to define the movement with a series of four numbers. As a demonstration, the numbers in the code copy the `ease-in-out` curve - but you can change them to create your own custom easing if you like.

```
001 #textX
002 {
003   left:100px;
004   top:100px;
005   font-family: "Lato";
```

```
font-size: 100px;
007 position: absolute;
008 -webkit-animation: animX 1s;
/* Chrome, Safari, Opera */
009 -webkit-animation-timing-
function:cubic-bezier(0.4, 0
,0.36,0.66);
010 }
011
```

### 5 CONTROL HORIZONTAL AND VERTICAL

How do you know what the numbers do? You can experiment with them at random and end up getting utterly confused. Or, you can visit the handy [cubic-bezier.com](http://cubic-bezier.com) site, which has a cool preview feature with blobs and curvy lines and handles you can drag. Click GO! to preview your custom curve.



```
001 #textX
002 {
003   left:100px;
004   top:100px;
005   font-family: "Lato";
006   font-size: 100px;
007   position: absolute;
008   -webkit-animation: animX 1s;
009   /* Chrome, Safari, Opera */
010   -webkit-animation-timing-
011   function:cubic-bezier(0.8,
1.82 , 0.36, 0.66);
```

### 6 BOUNCE EFFECT

With some fancy tweaking and some out of range you can simulate a simple bounce effect. The other way to make a bounce is to use percentage keyframes to move an object past its target position back again. Repeat this a few times with decreasing durations and distances for the smoothest effect.





## 3D ANIMATION

Take your animations into the next dimension with 3D transforms

**CSS 3D transforms make complicated effects look easy. The key thing to remember is how to work with X, Y, and Z co-ordinates. X runs left to right, Y runs up and down, and Z runs in/out of the screen.**

An X rotation flips an element vertically. Because this is a 3D rotation, it looks as if it's spinning in and out of the screen around its horizontal centre line. A Y rotation does the same thing around a vertical centre; it looks like it's twirling around. A Z rotation simply spins an item around in the plane of the screen.

As you might expect, things get a little more complicated when you combine X, Y and Z. You can create a combined transform that spins something in all three axes at once. This makes most users feel

seasick, while most developers feel like their brain is on fire trying to keep up with the movement - but you never know when that's what you want!

You can also translate elements in 3D, which simply means moving them. A Z translation is a zoom in/out. X and Y are familiar left/right and up/down movements and you can scale them to stretch them in different axes - and you can move the 3D reference point (origin) and change the perspective view.

So how do you make cool 3D box spinners? With a lot of code, for one thing. You need to place at least four, perhaps six, elements at right angles to each other, then you can apply a common transformation to rotate or move them all.



Spinning and twirling transforms - you have to see this in action to really appreciate it

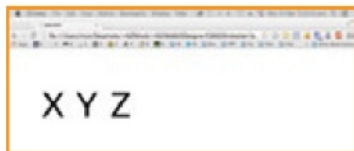
## MOUSE CONTROL OF 3D EFFECTS

STEP  
BY STEP

Spin and rotate elements under mouse control with CSS 3D transforms and not much jQuery at all

### 1 GET MOUSE CONTROL

Transforms and animations look great but creating animations that fire under mouse control instead of onload() is difficult in pure CSS. Some effects are challenging, while others aren't possible at all, so we'll combine 3D transforms with jQuery to create animations with the best features of both.



### 2 NOW IN 3D

Begin by creating a <div> with a letter X in it, and setting up a rotateX transform (the example code skips the duplication for IE to save space). A linear timing function and infinite repeats make the X rotate vertically forever. The effect starts as soon as the page loads.

```
001 <!DOCTYPE html>
002 <html>
003 <head>
004 <link rel="stylesheet" type=
    "text/css" media="all" href=
    "http://fonts.googleapis.com/
    css?family=Lato"/>
005 <style>
006 #textX
007 {
008   left:100px;
009   top:100px;
```

```
010   font-family: "Lato";
011   font-size: 100px;
012   position: absolute;
013   -webkit-animation:animX
        2.2s; /* Chrome, Safari,
        Opera */
014   -webkit-animation-timing-
        function:linear;
015   -webkit-animation-
        iteration-count:infinite;
016 }
017
```

### 3 SPIN ME ROUND

Add another couple of <div>s for Y and Z, and create rotateY and rotateZ transforms for them. As for X, the animations launch as soon as the page loads. You can see how the transforms do different things on each axis.

### 4 ON-CLICK CONTROL

To set up on-click control of the animation, simply move the animation code to a separate .animateX class. Load jQuery in the header and add a function that adds .animateX to the #textX <div> on click, and then removes it after one animation period. Note that you have to set the target id explicitly in the timeout.

```
001 <script>
002 $(document).ready(function(){
003   $("#textX").on("click",
004     function() {
005     $(this).addClass
```

```
    ("animateX");
005     window.setTimeout(
    function(){
006       $("#textX").
    removeClass("animateX");
    }, 2300);
007   });
008 });
009 </script>
010 <style>
011 #textX
012 {
013   left:100px;
014   top:100px;
015   font-family: "Lato";
016   font-size: 100px;
017   position: absolute;
018 }
019 .animateX
020 {
021   -webkit-animation:animX
    2.2s; /* Chrome, Safari,
    Opera */
022   -webkit-animation-timing-
    function:linear;
023 }
024 }
025
```

### 5 MOUSE ENTER

Add another handler for mouse-enter events for the Y <div>. This works in similar way to the on-click event that we looked at earlier, but instead spins the <div> when the mouse enters it. Note that you can't use a mouse hover event because it triggers the spin on mouse entry as well as exit.

```
001 $(document).ready(function(){
002   $("#textX").on("click",
    function() {
003     $(this).
    addClass("animateX");
004     window.setTimeout(
    function(){
005       $("#textX").
    removeClass("animateX");
006     }, 2300);
007   });
008   $("#textY").on("mouseenter",
    function() {
009     $(this).
    addClass("animateY");
010     window.setTimeout(
    function(){
011       $("#textY").
    removeClass("animateY");
012     }, 2100);
013   });
014 });
015
```

### 6 FULL CIRCLE

All of that looks okay, but what if we want to have a lingering mouse hover animation that completes a full cycle after mouse exit? To achieve that we need to trap the secret animationIteration event, which arrives after every complete animation cycle. We can then remove the animation after the mouse has exited and the animation has finished, which looks very cool. There you have it, mouse control of your effects in no time!

# NATIVE HARDWARE ACCELERATION

You can speed up animation if you know the magic words - but only sometimes

It shouldn't be a surprise that animations put the browser under quite some stress. Behind-the-scenes animation code is rendered down to the local machine's graphics sub-system, which is eventually piped through the graphics driver.

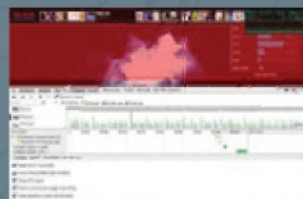
Graphics cards have features that can speed up animations. If your browser is using the main processor instead of the graphics card, it's working much harder than it needs to.

The catch is that if you're writing a game using native code - which will usually be in a graphics language called OpenGL - you can control what the graphics card does and when it's used. If you're trying to write browser animation code, the graphics system is buried under the browser and the local operating system.

There's a risky fix for this. It doesn't always work, but it may be worth experimenting with it. Add the following code to an element if you want it to be rendered by the graphics card:

```
001 transform:
    translate3d(0,0,0);
002 font-smoothing:
    antialiased;
```

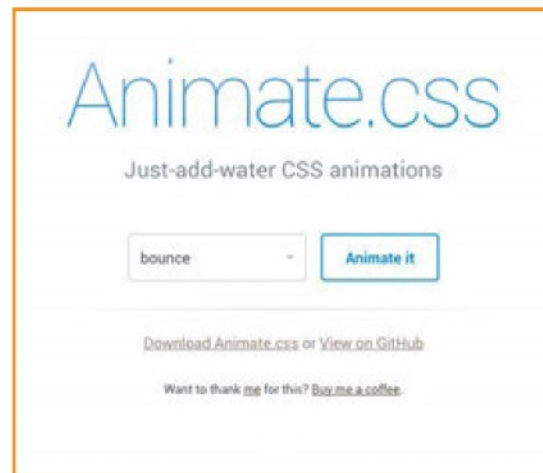
This works - but only sometimes - because the null transform forces the graphics system to load the element and process it in harder. The catch, as you may have guessed, is that it can kill sub-pixel font smoothing, so your fonts may not render how you expect.



Don't forget you can use the timeline in Chrome's Developer Tools to profile graphics hardware and render speeds

# TOP FRAMEWORKS AND PACKAGES

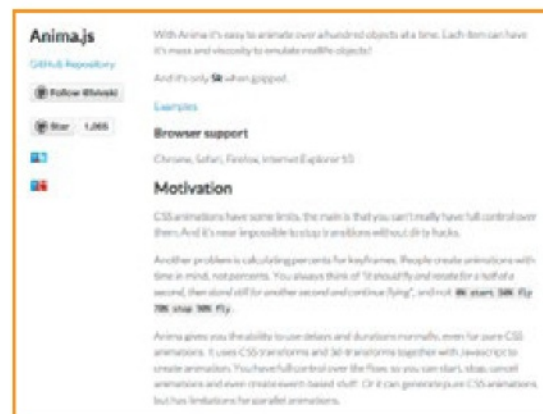
Make your animations look effortless with these top drop-in animation frameworks



## Animate.css

URL [daneden.github.io/animate.css](https://daneden.github.io/animate.css)

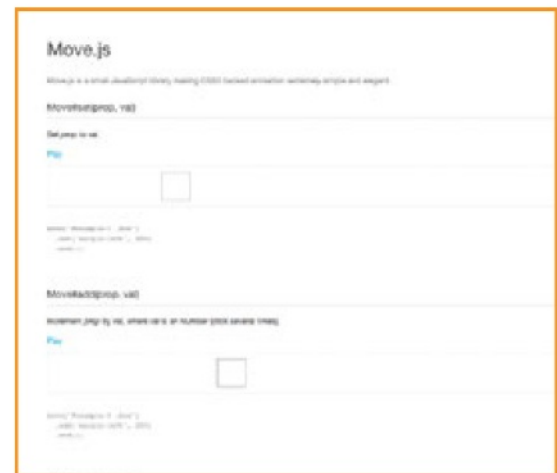
A lightweight but powerful collection of ready-to-roll CSS animations, you can download this framework directly from the site or from GitHub, drop into a project, and get instant access to a huge collection of animation effects. The list includes entrances, exits, fades, flips, hinges, and even a few sliders. The code is simple so it's easy to customise it with your own easings and other additions but for most projects you won't need to, because the basic effects are so useful right out of the box. Plus, the subtle colour fade on the site looks lovely.



## Anima.js

URL [ivivski.com/anima](https://ivivski.com/anima)

Anima is a combined CSS/JavaScript animation framework with physics support. It handles the usual chained/delayed animation options available in other frameworks, but also includes features that make it easy to squash and bounce items as you animate them. The framework is only 5k, so it's lightweight enough to add to any project. The only catch is that it's more of a full animation API than a simple drop-in library of canned effects. You may want to master a less complex framework before trying to use this one on a production project.



## Move.js

URL [visionmedia.github.io/move.js](https://visionmedia.github.io/move.js)

Move.js packages a collection of CSS animations and makes them accessible with a few lines of code. Don't be deceived by the bare site, this is more of a toolkit than Animate.css, so some assembly is required. You can use the animations as is, but things get a lot more interesting with the conditional options. Use them to chain animations together, select animations depending on other events, set up callbacks and customise different easings. The site's design doesn't make it obvious that each feature has a demo under it but it does, so check it out.



## Greensock GSAP.js

URL [www.greensock.com](https://www.greensock.com)

Making a bid as the next Flash, Greensock's GSAP.js framework is a fast and efficient HTML5 library for professional animation applications. It's a streamlined alternative to jQuery animation, optimised for speed and with added timeline management and optional plug-ins. The good news is that it does a lot. It's much more powerful than plain CSS animation, which has helped it find a home in high-end commercial projects. The bad news? It costs up to \$150 per year if you use it in games or subscription sites. Still, basic use is free, so it's definitely worth a look.





# ANIMATION IN ACTION

Are you ready to take on the best? Get inspired and discover what the competition is getting up to with these must-see examples of CSS animation

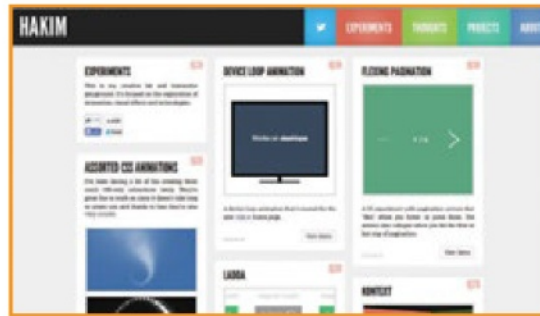
## URL [dataveyes.com](http://dataveyes.com)

DataVeyes skirts the dangers of the retro-Flash swamp to produce a splash page that's worth loading. The animation looks simple - it's just dots and lines - but some clever coding and physics modelling take it a couple of steps beyond the basics. The result is a coherent presentation that appeals to the eyes and mind and sells the skills of the design team. There's enough visual ingenuity to make the site stand out, but not so much that the design falls over the edge into being self-indulgent eye-candy glued on for the sake of making something move.



## URL [bit.ly/1IH9GNk](http://bit.ly/1IH9GNk)

This outstanding animated periodic table throws tiles around the viewport, shaping them into a flat 2D table, a sphere, a helix/carousel and a grid format in full 3D, with mouse control of zoom and rotation. You probably wouldn't use this design in a typical business project but it's a brilliant example of what's possible with CSS 3D, coded with the three.js framework.



## URL <http://hakim.se/experiments>

Hakim El Hattab's experiment pages have breathtakingly creative examples of the art in CSS animation. Highlights include fold-out 3D menus, 12 different table effects, a collection of mini JavaScript frameworks for zoom effects and web presentations and even an animated DOM Christmas tree. Most of the code is on GitHub, so you can download it for use in your own projects.

# RESOURCES

## SPECKYBOY'S TOOLS & TUTORIALS

[speckyboy.com/2013/09/30/css-animation-tools-tutorials](http://speckyboy.com/2013/09/30/css-animation-tools-tutorials)

A fabulously rich and detailed collection of frameworks, tools, tutorial links and other goodness from the speckyboy blog and online design magazine. Links, transitions, fallbacks, frameworks, examples, previews, and nice pictures - it's all here, free for the price of a few mouse clicks and perhaps a new mug of coffee.



## BENJY STANTON'S WEB ANIMATION RESOURCES

[www.benjystanton.co.uk/work/side-projects/web-animation-resources](http://www.benjystanton.co.uk/work/side-projects/web-animation-resources)

More a collection of whys than hows, this handpicked resource directory includes articles and demonstrations exploring animation design from the UX point of view. It includes details of books, courses and even conference talks - as well as a handy collection of tool and framework links.



## CSS3 ANIMATION CHEAT SHEET

[www.justinaguilar.com/animations](http://www.justinaguilar.com/animations)

As the name says, this is a handy cut-out-and-keep cheat sheet of canned CSS3 animations. There's a collection of buttons, a pile of code and a quirky demo area so you can see what each animation does. There are also some notes about creating more sophisticated effects by linking the animations into jQuery scripts.



# FUTURE DEVELOPMENTS

The W3C seems to have some interesting plans in the pipeline for animation on the web...



Is this the future of web animation?

So what's the future of animation on the web? CSS3 has been a success and WebGL certainly has potential, even if it hasn't quite made its way into every browser just yet.

The W3C is committed to taking animation further. Discussions are in the early stages, and - as always - it's impossible to know which proposals will appear in mainstream browsers or how widely they'll be supported.

Still, as a heads-up, the Web Animation 1.0 discussion proposal suggests expanding the core features of web animation to make them more powerful. The biggest change is the addition of a timeline. As and when this appears in browsers, you'll be able to specify

and control a series of animations. You'll also be able to repeat some of the animation steps and even have multiple unsynchronised animation streams working at the same time.

But with increased power comes increased confusion. The Web Animation 1.0 spec can do a lot, but it's not the simplest API in the world to master. Future changes may make it more streamlined. At the moment it's perhaps better suited to the complexities of audio and video editing than to motion graphic design.

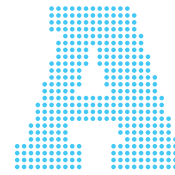
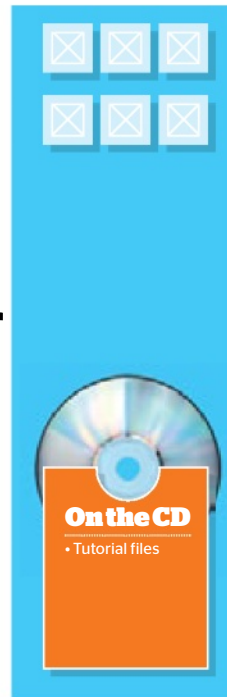
Even so, the future looks exciting. A few years from now you'll be able to create more complex and creative animations than ever before - and that can only be a good thing.



# Create a 3D direction-aware hover effect

Present your portfolio using JavaScript and CSS to create an interactive 3D effect

**tools | tech | trends** HTML, CSS and JavaScript  
**expert** Jayson Winters



At the heart of all digital technology everything is just on or off. Ultimately, it all reduces down to a binary state; a one or a zero. Hover states are like this as well because either you are hovering over something or you

are not. The demonstrated technique uses a small amount of JavaScript to determine the cursor's direction of travel and trigger 'direction-aware' animations.

This creates a new experience for the user that cries out for the user to interact with it. A little like trying to eat a doughnut without licking your lips, as soon as you have experienced the effect in action, you can't quite stop yourself from having a little play with it. Like trying to see if the fridge light actually goes out when you close the door, you might even find yourself trying to catch it out. It's certainly interesting to see how the experience changes depending on the speed of the cursor and also the speed of the animations. Interacting with the effect moves the user from passive browsing to being an active and engaged visitor, so maybe by using this technique you'll be able to turn your site visitors from off to on as well!

## 01 CSS first

This technique uses CSS3 animation triggered by a small amount of JavaScript. It doesn't require the jQuery library either, so is very lightweight. The CSS starts by loading suitable fonts for the project courtesy of Google fonts. Next, the widely used 'box fix' technique is added and finally Chris Coyier's Perfect Full Page Background Image technique ([css-tricks.com](http://css-tricks.com)) as well.

```
001 @import url(http://fonts.googleapis.com/
002 css?family=Bangers|Sofadi+One);
003 * {
004   box-sizing: border-box;
005 }
006 html {
007   background: url(../images/bg.jpg) no-
008   repeat center center fixed;
009   -webkit-background-size: cover;
010   -moz-background-size: cover;
011   -o-background-size: cover;
012   background-size: cover;
013 }
```

## 02 Heading and container

A negative pixel value for the text-shadow is used to move the shadow upwards rather than the usual shadow below. The page is styled here at a fixed width but the technique will still work properly with responsive layouts – all you'll need to do is add in some additional code to centre the content on the page.

```
001 h1 {
002   margin: 0 auto 5px;
003   text-align: center;
```

```
004 font-size: 70px;
005 color: #00acac;
006 text-shadow: 0px -4px #fff;
007 font-family: 'Bangers', serif;
008 }
009 .container {
010   width: 840px;
011   margin: 0 auto;
012 }
```

## 03 Header and link styles

The h1 heading and paragraph text will sit inside a <header> <div> and the text is centred here. Some styling is applied to the links. It's worth taking time to look at details such as link styling as it can really improve the usability and visual appeal of your site for not a great deal of effort.

```
001 header {
002   text-align: center;
003   margin: 50px 0 25px;
004 }
005 a:link {
006   color: #fff;
007   text-decoration: none;
008 }
009 a:visited {
010   color: #40eae;
011   text-decoration: none;
012 }
```

## 04 Text styling

Finally the paragraph text in the header is styled. Margins have already been applied around the h1 and the header itself, so the paragraph text margin is set to 0.

When choosing web fonts it's helpful to check how they look on different browsers to ensure you get good results.

```
001 header p {
002   margin: 0;
003   font-size: 13px;
004   color: #00acac;
005   font-family: 'Sofadi One', serif;
006 }
```

## 05 The unordered list

Perhaps not unexpectedly, this technique uses the unordered list as its framework, with each gallery item designated as a list item. The pseudo-element :after is used to apply the Clearfix Hack (also known as the Easy Clearing Hack) described in detail here: [bit.ly/1iiHKeB](http://bit.ly/1iiHKeB).

```
001 ul {
002   padding: 0;
003   margin: 0 0 50px;
004 }
005 ul:after {
006   content: " ";
007   display: block;
008   clear: both;
009   visibility: hidden;
010   line-height: 0;
011   height: 0;
012 }
```

## 06 Style the gallery

The list item (li) is used for each item within the gallery. The various dimensions can easily be changed without breaking the technique. You might want to remove





## &lt;Left&gt;

• Being 'direction aware' isn't a super power, so it's not on the list. However, if it encourages your site visitor to linger a little bit longer, stimulates their interest, or perhaps triggers an enquiry, you might find that the technique has a commercial power for you

the rounded corners (border-radius) if you're going for the full Windows Metro look. You can also opt for a higher perspective value to tweak the 3D effect.

```
001 li {
002   position: relative;
003   overflow: hidden;
004   border-radius: 10px;
005   list-style: none;
006   float: left;
007   width: 200px;
008   height: 180px;
009   margin: 5px;
010   padding: 0;
011   perspective: 500px;
012   font-family: 'Sofadi One', serif;
013 }
```

## 07 Link and heading

If you are using a rounded corner effect it also needs to be applied to the link. Inline-block is used to tell the browser to display each item inline (ie without starting a new line) but to retain their block-level characteristics that means their width and height can be set.

```
001 li a {
```

```
002   display: inline-block;
003   vertical-align: top;
004   text-decoration: none;
005   border-radius: 10px;
006 }
007 li h3 {
008   margin: 0;
009   font-size: 18px;
010   color: rgba(255, 255, 255, 0.9);
011 }
012 li p {
013   font-size: 12px;
014   line-height: 1.5;
015   color: rgba(255, 255, 255, 0.8);
016 }
```

## 08 Style the gallery item

The 'normal' state of the gallery item is the 'mouseout' state. This tutorial uses a full-sized picture so no styling is needed – but if you are going to put text in here, li.normal is where you'd style it. The overlay does have text and has more styling applied.

```
001 li.normal {
002   width: 100%;
003   height: 100%;
```

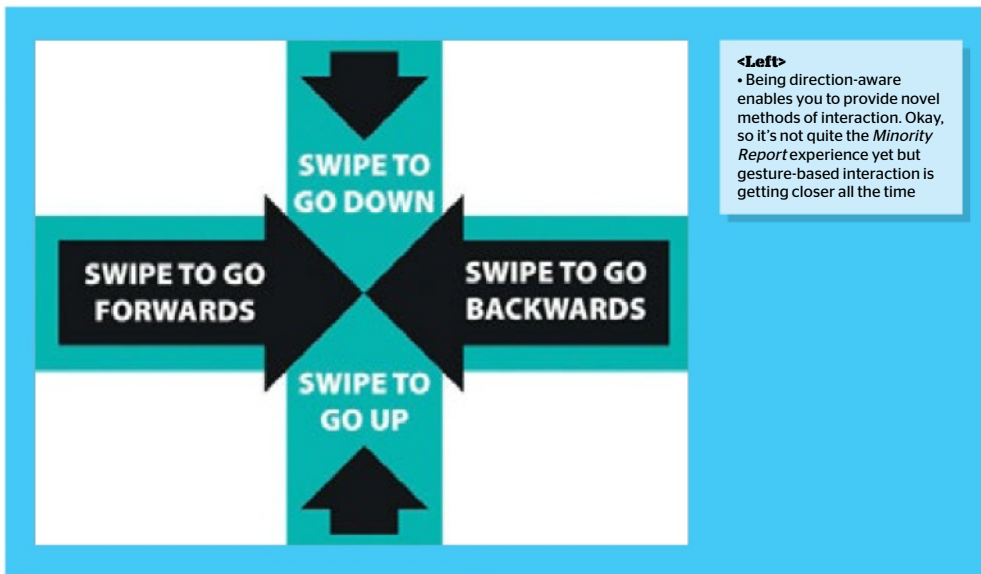
## Playground rules

Hats off to Mexican front-end developer Noel Delgado who published this technique at CodePen ([codepen.io](https://codepen.io)) – the playground for the front-end side of the web.

```
004 }
005
006 li .info {
007   width: 100%;
008   height: 100%;
009   padding: 20px;
010   position: absolute;
```

## 09 Overlay

This element swings into place when it is triggered by the JavaScript, so pointer-events is set to none to avoid the default HTML-targeting behaviour conflicting with the JavaScript. The transform is used to render the overlay invisible until it's needed. If you want each gallery item to be covered initially when the page loads, just remove this line.



## &lt;Left&gt;

• Being direction-aware enables you to provide novel methods of interaction. Okay, so it's not quite the *Minority Report* experience yet but gesture-based interaction is getting closer all the time

## Knowledge is power

Understanding the direction of the mouse movement makes this an interesting technique that you can build on. You can trigger additional animations to provide more functionality, eg making two icons appear: one to provide a gallery image zoom option and the other to link to another page or website. However you could also use this technique to simulate a gesture-based (albeit using the mouse) interface. Swiping the mouse over the hotspot to the left or right might trigger one response (eg paging backwards or forwards) and swiping down or up another response (eg moving deeper or higher in a hierarchical structure). You could even trigger different tooltips based on the direction of your mouseover, for example, mousing from the top for a brief description or from the bottom for a more detailed version.

## Cross-origin requests

You'll need to review this in Firefox unless you want to run a local server or keep uploading and reviewing each change online

```
001 top: 0;
002 left: 0;
003 overflow: hidden;
004 border-radius: 10px;
005 pointer-events: none;
006 background-color: #00acae;
007 transform: rotate3d(1, 0, 0, 90deg);
008 }
```

## 10 The mouseover state

There are four possible mouseover states. The mouse may enter from the top, right, bottom or left. The JavaScript takes care of allocating the correct class and the difference between each `.in` class is the position of the transform-origin. This is the point around which the element will then rotate.

```
001 .in-top .info {
002   transform-origin: 50% 0%;
003   animation: in-top 500ms ease 0ms 1
004     forwards;
005 }
006 .in-right .info {
007   transform-origin: 100% 0%;
008   animation: in-right 500ms ease 0ms 1
009     forwards;
010 }
011 .in-bottom .info {
012   transform-origin: 50% 100%;
013   animation: in-bottom 500ms ease 0ms 1
014     forwards;
015 }
016 .in-left .info {
017   transform-origin: 0% 50%;
018   animation: in-left 500ms ease 0ms 1
019     forwards;
020 }
```

```
011 animation: in-bottom 500ms ease 0ms 1
012   forwards;
013 }
014 .in-left .info {
015   transform-origin: 0% 0%;
016   animation: in-left 500ms ease 0ms 1
017     forwards;
018 }
019 }
```

## 11 The mouseout state

These states exactly match their sisters' mouseover origin points. Imagine a door opening and closing on the same rotation point. The direction of the animation (the opening or closing effect) is set in the following steps.

```
001 .out-top .info {
002   transform-origin: 50% 0%;
003   animation: out-top 500ms ease 0ms 1
004     forwards;
005 }
006 .out-right .info {
007   transform-origin: 100% 50%;
008   animation: out-right 500ms ease 0ms 1
009     forwards;
010 }
011 .out-bottom .info {
012   transform-origin: 50% 100%;
013   animation: out-bottom 500ms ease 0ms 1
014     forwards;
015 }
016 .out-left .info {
017   transform-origin: 0% 0%;
018   animation: out-left 500ms ease 0ms 1
019     forwards;
020 }
```

## 12 Animation keyframes in

The `rotate3d` method enables you to specify the axis of rotation (X, Y or Z) as the first three values and the

last value is the degree of rotation. When the mouse comes in from the top, the animation starts with the element rotated on its X axis at 90 degrees to the screen and then transforms to a non-rotated position.

```
001 @keyframes in-top {
002   from {
003     transform: rotate3d(-1, 0, 0, 90deg);
004   }
005   to {
006     transform: rotate3d(0, 0, 0, 0deg);
007   }
008 }
009 @keyframes in-right {
010   from {
011     transform: rotate3d(0, -1, 0, 90deg);
012   }
013   to {
014     transform: rotate3d(0, 0, 0, 0deg);
015   }
016 }
017 }
```

## 13 Animation keyframes out

Each 'in' animation has its corresponding 'out' version. When the mouse moves out of the list item element the overlay is animated from its non-rotated position to being roughly at right angles to the screen. To have the element fully disappear you need to rotate it just a little more - 102 degrees should just about do the trick.

```
001 @keyframes out-top {
002   from {
003     transform: rotate3d(0, 0, 0, 0deg);
004   }
005   to {
006     transform: rotate3d(-1, 0, 0, 102deg);
007   }
008 }
```



Full code  
found on the  
resource CD

```

009 @keyframes out-right {
010   from {
011     transform: rotate3d(0, 0, 0, 0deg);
012   }
013   to {
014     transform: rotate3d(0, -1, 0, 102deg);
015   }
016 }
017

```

## 14 Set the head

Noel Delgado has provided detailed comments on steps taken to improve compatibility across different browsers, new and old, so if you are considering using this technique and are concerned about compatibility, please do check out the notes with the original solution files on the disc. Prefixfree.js is loaded to avoid having to manually add vendor prefixes to the 'experimental' CSS3.

## 15 Set the header

The HTML has purposely been kept simple to help explain the technique. With a real site you're likely to have a whole interface to load first. This header element is assigned its own <div> and given the 'container' class that fixes the width of the header and centres it on the page.

```

001 <body>
002 <header>
003 <div class='container'>
004   <h1>Most wanted super powers</h1>
005   <p>According to <a href="
http://www.ranker.com">Ranker</a> with some
descriptions from <a href="http://
powerlisting.wikia.com/wiki/Superpower_
Wiki">Superpower Wiki</a><br />Creative
Commons images link to originals at
Flickr</p>
006 </div>
007 </header>
008

```

## 16 Start of list

You can put anything within the anchor tags, in which case you might need to style the li.normal class. The tutorial just uses images sized to the <div> (200px x 180px) so no detailed styling is needed. The content within the <div> class 'info' is what swings into place on hover.

```

001 <div class='container'>
002   <ul>
003     <li>
004       <a class='normal' href='http://bit.
ly/1fZuF9K'>
</a>
005       <div class='info'>
006         <h3>#1 Teleportation</h3>
007         <p>The power to transfer matter or
energy from one point to another without
traversing the physical space between them.
</p>

```

## Code library Extended JavaScript

Got lost along the way? Don't panic, we delve into some of the intricacies of the code below

Each of the list items are selected and converted into an array with the variable name 'nodes'.

```

001 var nodes = document.querySelectorAll('li'),
002     _nodes = [].slice.call(nodes, 0);
003 var getDirection = function (ev, obj) {
004   var w = obj.offsetWidth,
005       h = obj.offsetHeight,
006       x = (ev.pageX - obj.offsetLeft - (w / 2) *
(w > h ? (h / w) : 1)),
007       y = (ev.pageY - obj.offsetTop - (h / 2) *
(h > w ? (w / h) : 1)),
008       d = Math.round( Math.atan2(y, x) /
1.57079633 + 5 ) % 4;
009   return d;
010 };
011 var addClass = function ( ev, obj, state ) {
012   var direction = getDirection( ev, obj ),
013       class_suffix = "";
014   obj.className = "";
015   switch ( direction ) {
016     case 0 : class_suffix = '-top'; break;
017     case 1 : class_suffix = '-right'; break;
018     case 2 : class_suffix = '-bottom'; break;
019     case 3 : class_suffix = '-left'; break;
020   }
021   obj.classList.add( state + class_suffix );
022 };
023

```

The logic for calculating the mouse direction is discussed here: [stackoverflow.com/questions/3627042](http://stackoverflow.com/questions/3627042) but might not be too helpful unless you know your atan2 from your modulo.

The switch statement is used to select which class\_suffix to add based on the returned direction.

An event listener determines whether the mouse is inside a list item element (and adds 'in' to the class) or if it is outside.

```

001 _nodes.forEach(function (el) {
002   el.addEventListener('mouseover', function (ev) {
003     addClass( ev, this, 'in' );
004   }, false);
005   el.addEventListener('mouseout', function (ev) {
006     addClass( ev, this, 'out' );

```

```

008 </div>
009 </li>
010

```

## 17 End of list

The li.info is used for styling the hover overlay. You can create additional classes if you want the overlays to have different coloured backgrounds to each other, for example. A great deal has been written on when and how to load scripts but in this relatively simple page, calling the script at the bottom of the page makes sense.

```

001 <li>
002   <a class='normal' href='http://bit.

```

```

ly/1nDql5n'></a>
003   <div class='info'>
004     <h3>#12 Super Strength</h3>
005     <p>The power to exert super physical
strength.</p>
006   </div>
007 </li>
008 </ul>
009 </div>
010 <script src="js/index.js"></script>
011 </body>
012 </html>
013

```

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# Create a scroll-triggered animation

Give your content beautiful animations for when the user has scrolled to that position – perfect for responsive sites when content can be pushed further down the screen

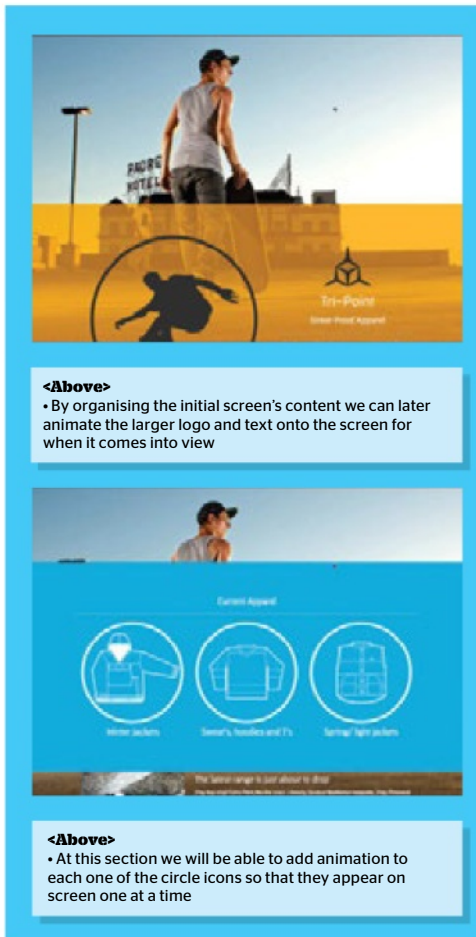
**tools | tech | trends** Brackets, Animate.css, jQuery, appear.js  
**expert** Mark Shufflebottom



animation effects are all well and good but it's not always possible to see them if the user hasn't scrolled to their location on the page when they're being triggered. The problem is, that location is getting harder and

harder to predict, given the sheer multitude of different-sized screens that users can be looking at your site with. Libraries such as Scrollr are great but it's all based on pixel sizes and whether the user has scrolled a certain number of pixels down the page. This isn't possible to predict with responsive devices, as content gets pushed further down the page and those pixel sizes go up the spout.

In this tutorial we are going to take a different approach to animating content on the screen and it will work well with many responsive frameworks such as Bootstrap and Foundation. We've opted to use Foundation but that isn't the main focus here; instead we are focusing on using the free animate.css library of animations. To trigger these we are using the appear.js plug-in for jQuery, which enables us to detect when certain elements will appear on the screen. When they do appear, we will then add in the relevant animation effects so that the user sees the right animation at the right time. This is perfect for anything that you really want to draw the user's attention to.



## <Above>

• By organising the initial screen's content we can later animate the larger logo and text onto the screen for when it comes into view

## <Above>

• At this section we will be able to add animation to each one of the circle icons so that they appear on screen one at a time

## 01 Start the project

From the resource CD, copy the tutorial folder to your web server, your local server or, if you are using Brackets, to anywhere on your hard drive. In Brackets, open the entire folder so that we can use its built-in Node.js server. Open the 'start.html' file and then add the following stylesheets and fonts.

```
001 <link rel="stylesheet"
    href="css/animate.min.css" />
002 <link href='http://fonts.googleapis.com/
    css?family=Gafata' rel='stylesheet'
    type='text/css'>
003
```

## 02 Set up the background

The animate.css file is from [daneden.github.io/animate.css](http://daneden.github.io/animate.css) and we've added it already. We'll start styling the page up now, so add the CSS shown below for the body tag inside of the empty style tags in the document. This adds the background image so that it covers the entirety of the page.

```
001 body{
002     background: url(img/bg.jpg)
    no-repeat center center fixed;
003     -webkit-background-size: cover;
004     -moz-background-size: cover;
005     -o-background-size: cover;
006     background-size: cover;
007 }
008
```

## 03 Link up the typeface

Now add the next lines of CSS, which add the correct typeface from the Google font we added in Step 1 to the heading tags. We also change all the typography to have a white colour that will enable it to stand out against the different-coloured backgrounds that we will add.

```
001 h1, h2, h3, h4, h5, .subheader
    { font-family: 'Gafata', sans-serif; }
002 h1, h2, h3, h4, h5, p, .subheader
    { color: #fff; }/
```

## 04 Style the hero

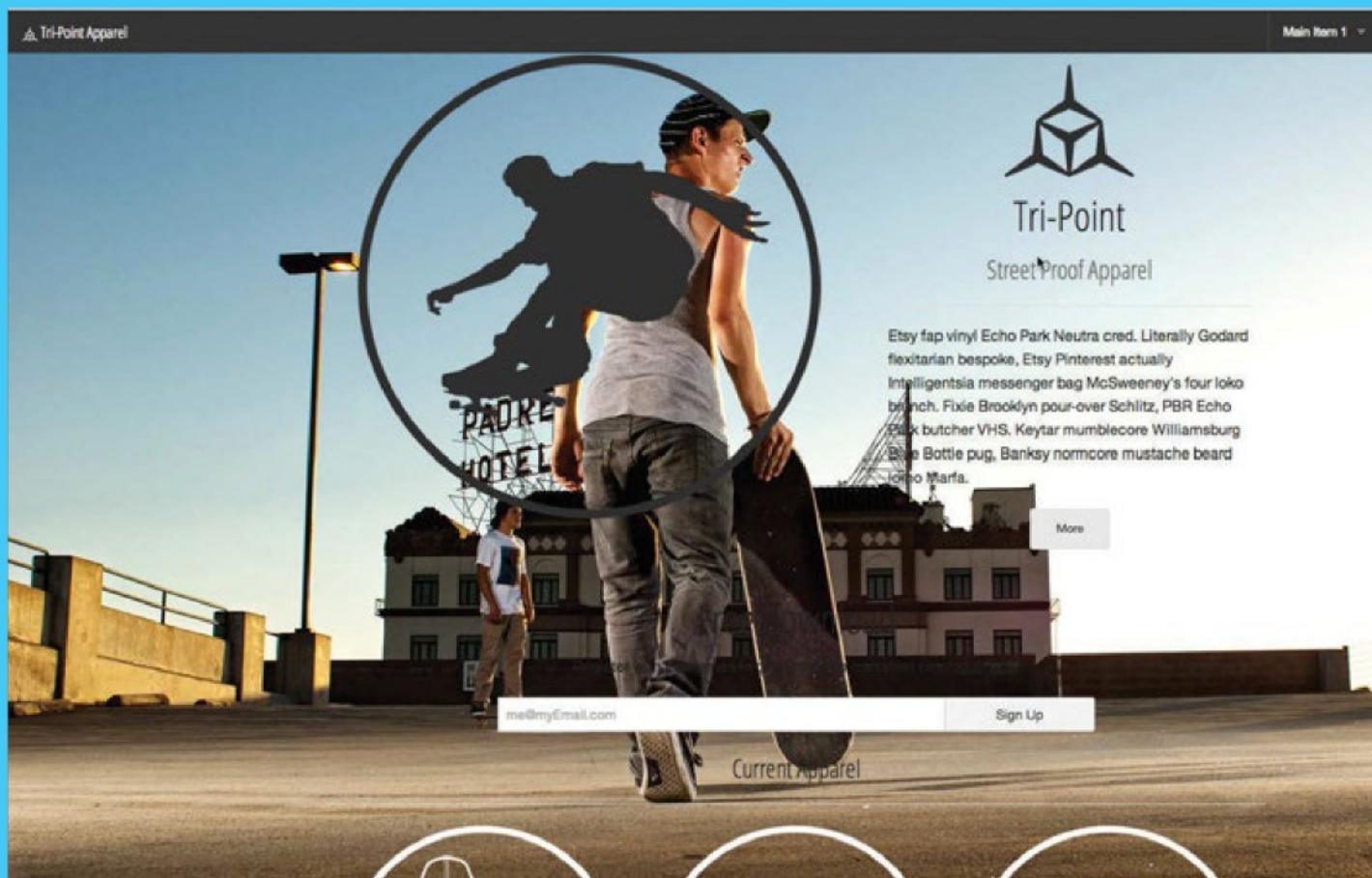
We will add some space between the first content and the menu so that the background image can be seen on the screen. We will make this first block of colour behind our text semi-transparent so that on desktop devices the background can be seen through. The heading and image are also given a little padding at the top.

```
001 #hero{
002     margin-top: 500px;
003     background: rgba(256, 154, 9, 0.7);
004     min-height: 500px;
005 }
006 #hero h1{ padding-top: 20px;}
007 #hero img{ padding-top: 90px;}
```

## 05 Sign-up colours

The next section down in our design is the sign-up section, so we will add the styling for this, which will give the section a light teal background colour. Later we will add



**<Above>**

- Initially the site needs some CSS to style the elements up so that there is more organisation to the page as well as some distance between each element so that they can be scrolled to

animation to the heading to draw attention to the sign-up element within this section of the website page.

```
001 #signup {
002     margin-top: 300px;
003     background: #0ec8b0;
004     padding: 90px 0;
005 }
```

**06 Three-column section**

The next section of the site is the three-column section, so in a similar way to earlier we will add the colours for the background of this section. We are adding plenty of margin top to each section of the page so that the animation can clearly be seen as we reach each section.

```
001 #three {
002     margin-top: 300px;
003     background: #00add8;
004     padding: 90px 0;
005 }
006
```

**07 Finish the page**

Now we add the lower section of the site, which contains an image and text. This has a light purple background and the footer is a dark grey colour. This concludes the backgrounds of the page and spaces our design out ready for us to start thinking about adding the animated elements to the page.

```
001 #lower {
002     margin-top: 300px;
003     background: #df86ca;
004     padding: 90px 0;
005 } #footer {
006     background: #333;
007     padding: 30px 0;
008 }
```

**08 Add the first animation**

Locate the <div> tag with the ID for the 'hero' section. Inside the row that immediately follows is a <div> with a class of 'medium-7 columns'. Change this as shown in the following code snippet and refresh your page in the

browser. You will see the large image automatically animated down from the top of the page.

```
001 <div class="medium-7 columns
    animated fadeInDownBig" >
```

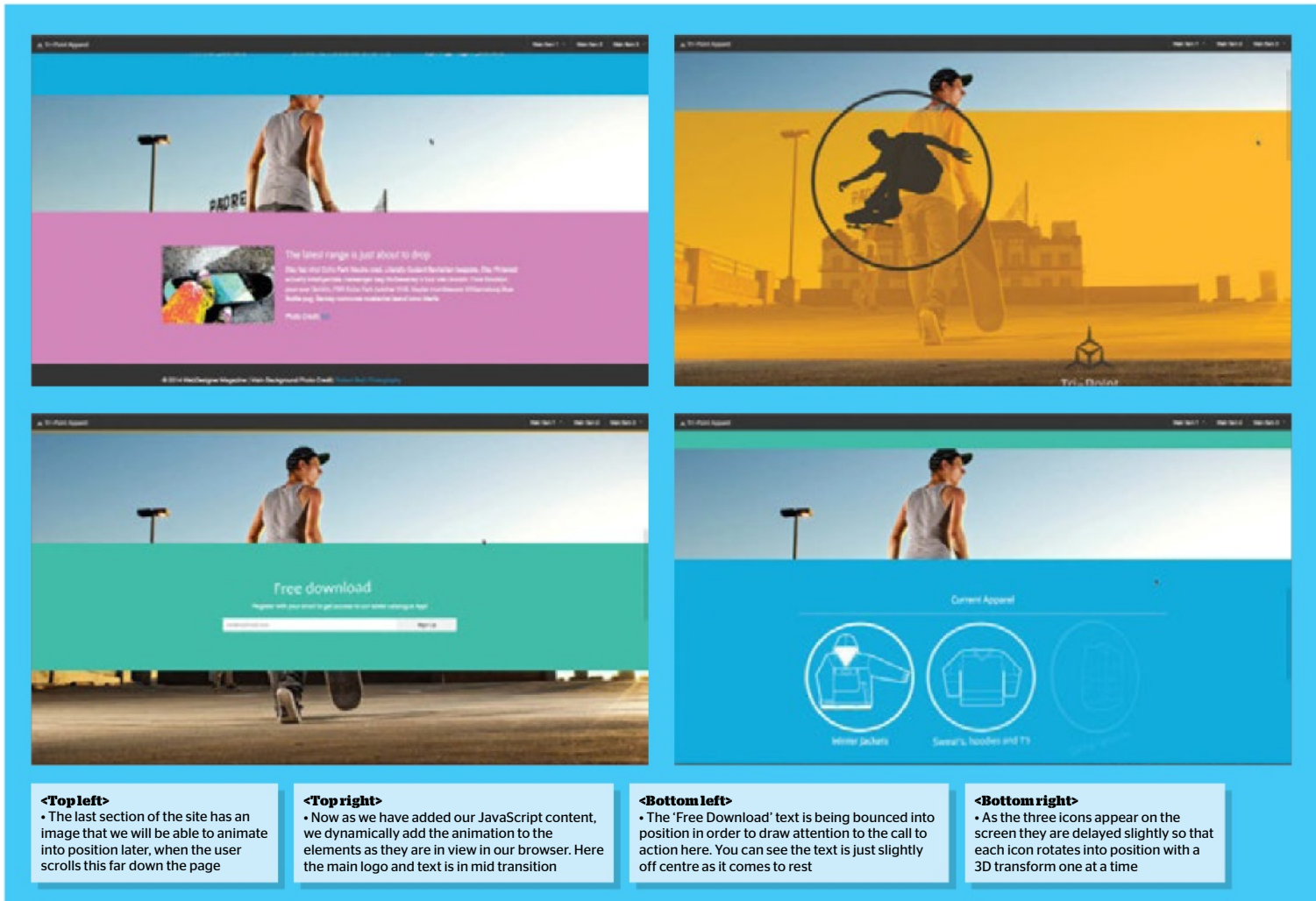
**09 Move in the text**

Find the <div> with the ID 'introText' and change the class as shown below. Again, refresh your browser so that you can see that in action. Now both of the elements on the screen animate into place. This is good but if this were a mobile device this content would likely be off the bottom of the screen, which might cause users confusion when they see the logo fly past.

```
001 <div id="introText" class="medium-5
    columns animated fadeInUpBig" >
```

**10 Use appear.js**

A better way to solve the animation is to only trigger the animation to take place once the relevant parts are on the screen. For this we will use the jQuery plug-in



called `appear.js`, available from [github.com/morr/jquery.appear](https://github.com/morr/jquery.appear), however we've already included it. Add the following code after the Foundation JavaScript library at the bottom of the document.

```
001
002 <script src="js/jquery.appear.js"></script>
003
```

## 11 Readable text

After the line `$(document).foundation();` add the code shown below. Here we are ensuring that any element with the class `'animated'` has the `appear` functionality enabled. When they do appear on the screen we will then store their animation properties from the data element in the `animation` variable.

```
001 $(document).ready(function($) {
002
003   $('.animated').appear();
004   $('.animated').on('appear', function() {
005       var elem = $(this);
006       var animation = elem.
         data('animation');
```

## AJAX loading

Many of the effects used in this tutorial only work when viewed from a server, so ensure your site is on a local server, a web server or being viewed in the live preview from Brackets.

## 12 Save the delay

When the animation is visible, we check if there is any element data for an animation delay and we will use this to chain animations later. If there is, it is stored in the `animationDelay` variable, ready to trigger the correct animation after the delay time has passed.

```
001 if ( !elem.hasClass('visible') ) {
002     var animationDelay = elem.
         data('animation-delay');
```

## 13 Apply the delay

If anything was stored in the `animationDelay` variable that we used in the previous step then here we add a timeout function to wait until the appropriate

amount of time has passed before calling the animation to actually play. This is done by passing through the animation as a class into the element.

```
001 if ( animationDelay ) {
002     setTimeout(function(){
003         elem.addClass
004         ( animation + " visible" );
005     }, animationDelay);
```

## 14 No delay, just animate

If there is no delay stored with the animation then we just want the animation to play, so the `else` statement we're using here simply adds in the animation to the element without the delay ready for it to start. With these in place we can now go ahead and amend our tags that we added to the animation to earlier.

```
001 else {
002     elem.addClass
003     ( animation + " visible" );
004 }
```



```
005 });
006 });
007
```

## 15 Style the animation

Initially we are going to make the animated elements invisible and only turn on their visibility as the page scrolls to them. We can then call their animation from the JavaScript we have just added. Add these two classes to the style tags at the top of the document.

```
001 .animated {
002     visibility: hidden;
003 }
004 .visible {
005     visibility: visible;
006 }
007
```

## 16 Set up the animation

Now we will amend the tag that we changed in Step 8 with the code shown below. Notice how we move the animation class into the data-animation tag? We grab that content in JavaScript once it is on the screen and then add it again as a class; this will trigger the animation and ensure that it only fires when on screen.

```
001 <div class="medium-7 columns animated"
002     data-animation="fadeInDownBig">
```

## 17 Delayed animation

Now amend the tag that we set up in Step 9. This time we also add a data element for 'animation-delay'. As before, this will be picked up by our JavaScript and used to set the timeout function so that the animation is delayed before being called. We are now triggering this animation only when it is fully on the screen.

```
001 <div id="introText" class="medium-5 columns
002     animated " data-animation="fadeInUpBig"
003     data-animation-delay="200">
```

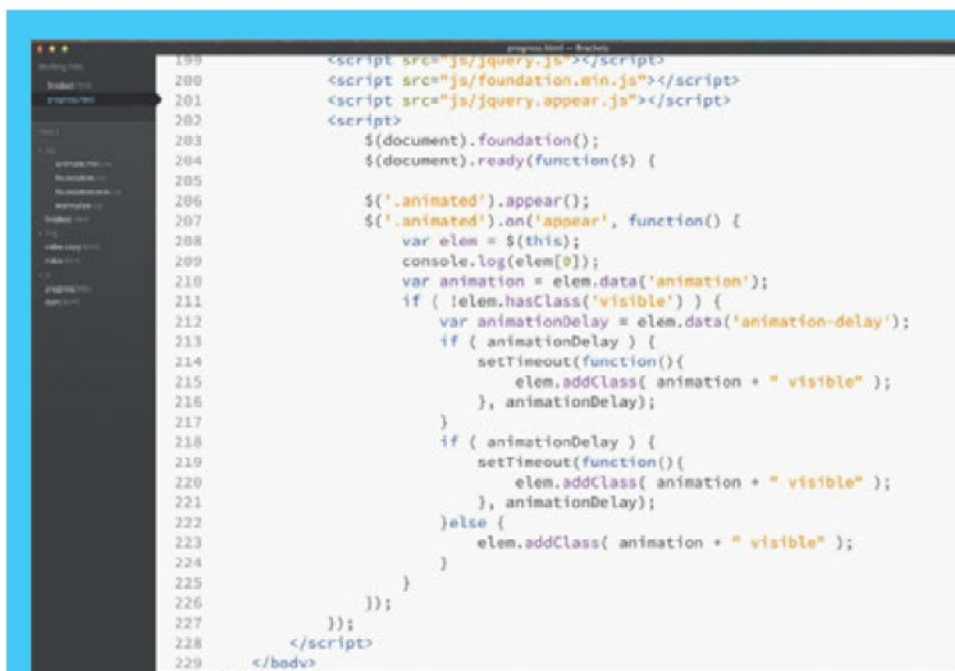
## 18 Throwing a wobbly

Look a little further down the document at the 'signup' <div> id. Inside here you will find a heading 1 tag. Amend the tag as shown below. Here we are adding a wobble animation, which really draws attention to the heading as the user reaches this part of the page.

```
001 <h1 class="text-center animated" data-
002     animation="wobble">Free download</h1>
```

## 19 Three columns of content

A little further down the page in the <div> tag with the id of 'three' are three four-column sections. Change the first as shown below so that it flips in along the y axis. There is no delay on this first one, however we will stagger



## What are we doing with appear.js?

The appear.js library is great at detecting exactly what is on screen. We call it by telling it which classes to work on. In our case it's anything that has the class 'animated'. When something does appear on screen we can use the custom event on('appear'). It's at this point that really interesting things can happen. The main thing we are doing is taking the data-animation properties and writing that in as a class. This triggers the animate.css library of animations. A secondary point we are implementing is checking if the animation should be staggered and calling a 'setTimeout' function to handle this.

What the final result is for the end user is animations that trigger nice and smoothly, as the elements that have animation on them appear in their browser window.

the next couple of columns so that they appear in sequence along the page.

```
001 <div class="medium-4 columns animated"
002     data-animation="flipInY">
```

## 20 Stagger the second column

Now find the second 'medium-4 columns' content and add in the data animation and delay attributes as shown below. This waits almost half a second before this content starts to animate onto the page. By staggering the animation here we can draw far more attention to the content on the page.

```
001 <div class="medium-4 columns animated"
002     data-animation="flipInY" data-animation-
003     delay="400">
```

## 21 Last of the three columns

Find the final column that has the class 'medium-4 columns' and again add the animation and delay, data attributes. Here we are waiting a little longer than before to almost a second before animating. Save the page and scroll to this section of the page to trigger it.

## Add and remove CSS

Rotating an element is very easy with transform, but just remember the origin of the rotation is at the centre of the element.

```
001 <div class="medium-4 columns animated"
002     data-animation="flipInY"
003     data-animation-delay="800">
```

## 22 Animate the last image

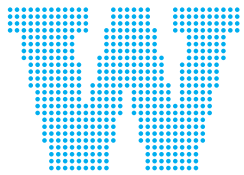
Finally, move down the page to find the image tag of the jeans and add in the class and animation for this element. Save the page and preview this in the browser in order to see this image move in. This is a particularly useful technique for any element that you would like to draw attention to on your webpage.

```
001 
```

# web workshop

## Spinning 3D cube effect with Design Embraced

inspiration [www.designembraced.com](http://www.designembraced.com)



We've seen a number of cubes used across websites and Design Embraced has also used the new CSS transforms and rotations to create a great effect. While the site is initially loading there is a cube on the page that spins

around a full 360 degrees, which is very effective in drawing the user's attention while the rest of the content is still loading.

Once this has loaded the cube remains a part of each page by sitting in the top-left corner of the site. As the background carousel changes, the cube rotates while the new image is sliding across. This offers users a nice piece of animation to enjoy before they go on to explore the rest of the website.

### 1 INSPIRATION

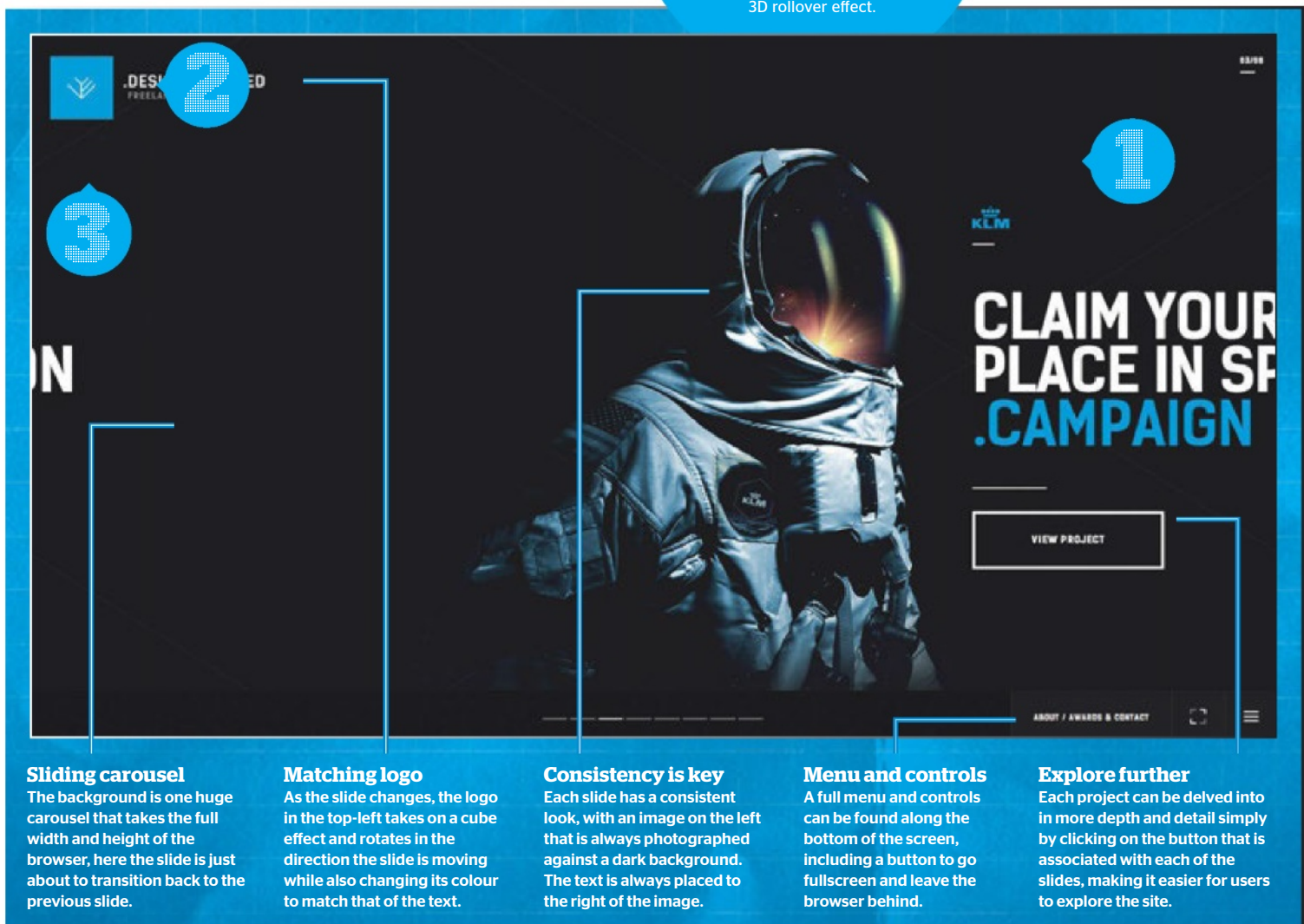
#### Background of the logo

The entirety of the homepage for Design Embraced is really just a giant carousel that takes centre stage with the image and text. What is really striking about the slides is that they have different coloured text highlights on each page. Perhaps there's nothing particularly amazing about that, but when paired with the 3D rotating cube that changes colour to match each slide, this helps the design to achieve a cohesive look.

What is impressive about this is that the coloured effects are easily produced through CSS without resorting to external graphic effects, so it enhances an already pleasing design without adding any extra weight to the load.

#### 3D project view

By default, the projects are viewed fullscreen with or without browser windows, which offers consistency and focus. This makes the individual projects great to look at, but means that the navigation is compromised. Access is easy via the slider menu dashes, but these do not define the project. Switching to the project's menu reveals all projects, which are further enhanced with a 3D rollover effect.



#### Sliding carousel

The background is one huge carousel that takes the full width and height of the browser, here the slide is just about to transition back to the previous slide.

#### Matching logo

As the slide changes, the logo in the top-left takes on a cube effect and rotates in the direction the slide is moving while also changing its colour to match that of the text.

#### Consistency is key

Each slide has a consistent look, with an image on the left that is always photographed against a dark background. The text is always placed to the right of the image.

#### Menu and controls

A full menu and controls can be found along the bottom of the screen, including a button to go fullscreen and leave the browser behind.

#### Explore further

Each project can be delved into in more depth and detail simply by clicking on the button that is associated with each of the slides, making it easier for users to explore the site.





**<comment>**  
What our  
experts think  
of the site

## Clear, uncluttered design

"With a dark background and consistent photography across the site, Design Embraced maintains a consistent look no matter what the subject matter is on each of the slides. This helps give the user clear goals for a site, making it much easier for them to make choices rather than bombarding a user with many messages, which forces them to look further for their goals and potentially even give up and leave the page."

Mark Shufflebottom

3

## TECHNIQUE

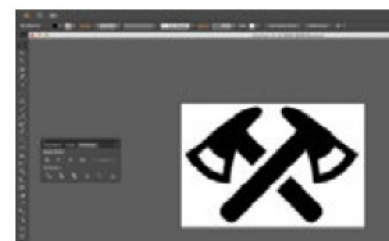
### Transparent logo

The background of the logo for the Design Embraced site changes colour to match each of the pages on the site. The easiest way to achieve this is by creating a transparent image and changing the background <div> colour with CSS.

01

#### Draw the logo

First draw your logo in a drawing package such as Adobe Illustrator and ensure that the logo is pure white. You can temporarily add a background colour behind it while drawing, or change the colour once you've finished drawing.



02

#### Save the logo

There are two ways to use the logo. Your first option is to save as an SVG image straight out of Illustrator, using File>Save - but choosing SVG as the file type instead of Adobe Illustrator's native format.



03

#### Alternative logo

An alternative way to save the logo is to save it as a transparent PNG image. You can do this easily from Illustrator by choosing File>Save for Web and then selecting PNG24 from inside the Save for Web interface screen.



2

## TECHNIQUE

### Create the spinning cube

#### 01 Make the six sides

To start off proceedings, you will need to add six sides to your cube. In the body section of your document add the following <div> tags to wrap the six sides in a spinner and that in turn inside a stage.

```
001 <div id="stage">
002   <div id="spinner">
003     <div class="face1">1</div>
004     <div class="face2">2</div>
005     <div class="face3">3</div>
006     <div class="face4">4</div>
007     <div class="face5">5</div>
008     <div class="face6">6</div>
009   </div>
010 </div>
```

#### 02 Set the stage

In the head section add the style tags and inside add the CSS code shown below to style up the stage <div> tag. Here we're setting the perspective to 500, which enables the cube to have angled edges as it spins. We are positioning the cube a third of the way down the page and a third in from the left.

#### 03 Style each side

Now we turn our attention to how each side of the cube looks. Here we are adding a 1px grey border around the edge of each side, setting the background to red and adding a little shadow around the edge of each side. This helps it to look more realistic in 3D.

```
001 #spinner div {
002   position: absolute;
003   width: 200px;
004   height: 200px;
005   border: 1px solid #666;
006   background: rgb(255,0,0);
007   box-shadow: inset 0 0 60px
008     rgba(0,0,0,0.6);
009   text-align: center;
010   line-height: 200px;
011   font-size: 100px;
012 }
```

04

#### Rotate into a cube

Now we add each of the CSS rotations for the sides so that each one is positioned as a cube in 3D space. The third and sixth sides make up the top and bottom of the cube, which aren't seen but are useful to have in case you want to make the cube transparent.

```
001 #spinner .face1 { -webkit-transform:
002   translateZ(100px); }
003 #spinner .face2 { -webkit-transform:
004   rotateY(90deg) translateZ(100px); }
005 #spinner .face3 { -webkit-transform:
006   rotateY(90deg) rotateX(90deg)
007   translateZ(100px); }
008 #spinner .face4 { -webkit-transform:
009   rotateY(180deg) translateZ(100px); }
010 #spinner .face5 { -webkit-transform:
011   rotateY(-90deg) translateZ(100px); }
012 #spinner .face6 { -webkit-transform:
013   rotateX(-90deg) translateZ(100px); }
014 </div>
```

05

#### Animate the spin

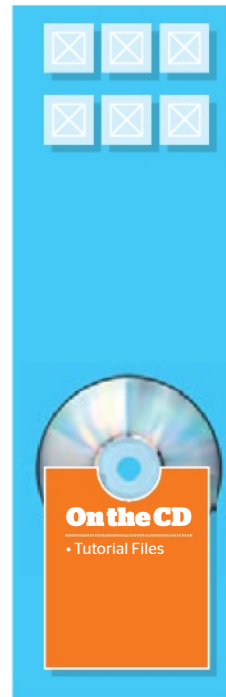
Now we add the keyframes to the cube so that it spins 360 degrees in 70 per cent of the time and pauses for 30 per cent before spinning again. Finally these keyframes are added to the spinner and it is told to repeat. Save this and test it in your browser.

```
001 @-webkit-keyframes spincube {
002   from, to { }
003   70% { -webkit-transform:
004     rotateY(-360deg); }
005   100% { -webkit-transform:
006     rotateY(-360deg); }
007 }
008 #spinner {
009   -webkit-animation-name: spincube;
010   -webkit-animation-timing-function:
011     ease-in-out;
012   -webkit-animation-iteration-count:
013     infinite;
014   -webkit-animation-duration: 1.2s;
015   -webkit-transform-style: preserve-
016     3d;
017   -webkit-transform-origin: 100px
018     100px 0;
019 }
020 </style>
```

# Create an image preview grid in CSS3

Using Google images as inspiration you can create an engaging image preview to allow users to view pictures more clearly

**tools | tech | trends** HTML5, CSS3  
**expert** Neil Pearce



SS3 has come a long way since it was first introduced and there are so many features that can help you to achieve great things – and there's still plenty more to look forward to.

Not so long ago, it felt like we were hiding behind the lack of cross-browser compatibility to avoid learning new techniques – techniques that would actually dramatically improve our workflow and enhance our webpages. Not anymore, as CSS animations are finally available in all major browsers, even in Internet Explorer (since version 10), so now we don't need to hide behind anything anymore. We can achieve many things just through using CSS.

So what we're going to do in this tutorial is use the Google images results page as inspiration and create an expanding image preview grid that will also be responsive. The expanding image preview grid can be used for anything you like, but for our purposes we'll assume this is for advertising a pixel-art game to potential new users. The idea here is that when you click on the images, you will be presented with more information about the game underneath. So, let's get started!

## 01 Get ahead

The first step is to create a new HTML5 file and then add the meta information within the head section. What we need to make sure of is that we have the 'viewport' meta tag included for when we make this responsive, as well as the IE conditional for the HTML5 shiv. Lastly we're going to add in a Modernizr file.

```
001 <head>
002 <meta charset="UTF-8" />
003 <meta http-equiv="X-UA-Compatible"
004   content="IE=edge,chrome=1">
005 <meta name="viewport"
006   content="width=device-width, initial-
007   scale=1.0">
008 <!--[if IE]>
009   <script src="http://html5shiv.
010   googlecode.com/svn/trunk/html5.js">
011   </script>
012 <![endif]>-->
013 <title>Grid Thumbnails</title>
014 <link rel="stylesheet" type="text/css"
015   href="css/main.css" />
016 <script src="js/modernizr.custom.js">
017   </script>
018 </head>
```

## 02 Section grid

In this step, we're going to start adding in some HTML for our product's content. In between the 'body' tag we're going to add a 'section' element that will be used as a wrapper and then within that we will create an 'article'

element. We then give our article element an ID name of '01' and this will, of course, be our first product.

```
001 <section>
002   <article id="01">
003   </article>
004 </section>
```

## 03 Expand the HTML

Now that we have the article element added, let's go ahead and add some more HTML that will allow us to add in the necessary content. The first bit of content will be our images. Within the anchor element we'll add a target ID of '#01' so when we click the image, the browser will move up accordingly. Everything else is straightforward.

```
001 <section>
002   <article id="01">
003     <a href="#01"></a>
005     <div class="info">
006     <div class="description">
007     <h1></h1>
008     <p></p>
009     </div>
010   </div>
011 </article>
012 </section>
```

## 04 List and more button

We have almost finished our skeleton HTML for our first product, and all we need to do now is add in an

unordered list and another anchor tag for a 'learn more' button that we will position at the bottom of our product description. We give this button a class name of 'moreBtn' and in the next step we will add in all the content that is needed.

```
001 <a href="#01"></a>
003   <div class="info">
004   <div class="description">
005   <h1></h1>
006   <p></p>
007   <ul>
008   <li></li>
009   <li></li>
010   <li></li>
011   </ul>
012   <a class="moreBtn" href="#"></a>
013 </div>
```

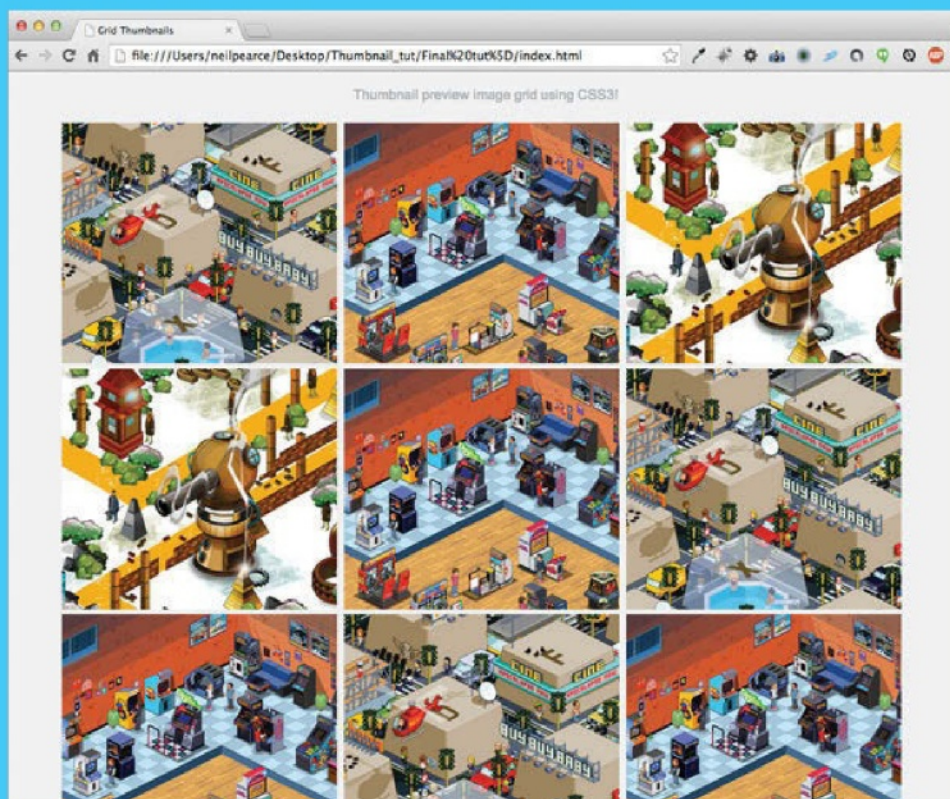
## 05 The image content

Let's finish up our HTML by adding in the content to the markup we added in the last few steps. Firstly we need to give our product description a title. As this will be our first product, it would make sense to call this 'Product #01'. Then, using some dummy text (Lorem Ipsum), we can populate the rest of our product description. Now copy and paste this HTML 15 times or more.

```
001 <article id="01">
002   <a href="#01"><img src="images/
```



## Create an image preview grid in CSS3



## &lt;Above&gt;

- Our finished product; with the media queries now added, we can happily resize our browser window and see it respond nicely. The columns can spread out further to four, five columns and more



## &lt;Above&gt;

- With all the HTML added, we can now start to see the page taking shape

## &lt;Below&gt;

- Each image has been set to 100% of its containing element, and then we gave it a 4px padding all around to allow us some breathing space



```
cover01.jpg" /></a>
003     <div class="info">
004         <div class="description">
005             <h1>Product #1</h1>
006             <p>Lorem ipsum dolor sit
amet, consectetur adipiscing elit. In
in massa ultrices diam lobortis convallis
quis in risus. Phasellus a augue vitae
sapien condimentum condimentum quis at
eros. In nisl lacus, pharetra nec commodo
quis, accumsan ac sapien.</p>
007         </div>
008         <ul>
009             <li>Lorem ipsum dolor</li>
010             <li>Consectetur adipiscing</li>
011             <li>Fringilla libero</li>
012         </ul>
013         <a class="moreBtn" href="#">
learn more</a>
014     </div>
015 </article>
```

## 06 Article white space

When using the 'article' element, we must ensure that we leave no whitespace in between the last closing

article element and the next open one. This is because we will be changing the layout of these elements using 'display: inline-block' and whitespace will cause a 4px gap in between each element when the page is rendered. Also, make sure when you've copied and pasted each article element, you change the article ID and anchor target ID.

```
001 </div>
002 </article><article id="02">
003 <a href="#02"></a>
```

## 07 The CSS reset

Now create a new CSS file, call it 'styles.css' and save it within a new folder called 'CSS'. Then at the very top we are going to add in a CSS reset. The most popular one is Eric Meyer's, which you can find at meyerweb.com/eric/tools/css/reset but the one thing you'll want to add to this is the 'box-sizing' reset.

```
001 *, *:after, *:before {
002     -webkit-box-sizing: border-box;
003     -moz-box-sizing: border-box;
004     box-sizing: border-box;
005 }
```

## CSS transitions

The transition property has four values. The ones we are using are mostly the duration and delay values.

## 08 The body section

Firstly we give our body some default styling and then the section element will be used as a container. We want the maximum width to be no more than a 1,000px wide. This will allow us to have enough room to fit at least three images across the screen. We then centre the grid using 'margin: 0 auto' and just in case we need to position anything absolutely, we can set its position to 'relative'.

```
001 body {
002     font-family: Arial, sans-serif;
003     color: #aaaab2;
004     background: #f1f1f1;
005 }
```



Product #1

Lorem ipsum dolor sit amet, consectetur adipiscing elit, in in massa ultrices diam lobortis convallis quis in risus. Phasellus a augue vitae sapien condimentum condimentum quis at eros. In riset lacus, pharetra nec commodo quis, volutpat ac sapien.

- Lorem ipsum dolor
- Consectetur adipiscing
- Phasellus a augue

LEARN MORE



Thumbnail preview image grid using CSS3

Product #1

Lorem ipsum dolor sit amet, consectetur adipiscing elit, in in massa ultrices diam lobortis convallis quis in risus. Phasellus a augue vitae sapien condimentum condimentum quis at eros. In riset lacus, pharetra nec commodo quis, volutpat ac sapien.

- Lorem ipsum dolor
- Consectetur adipiscing
- Phasellus a augue

LEARN MORE

## &lt;Above&gt;

• Here we're adding in a CSS rule to allow us to reveal our product's information, once we have clicked on the image

## &lt;Above&gt;

• As soon as we add in the media queries and set the minimum width to 400px, our grid becomes a row of three

```
006 section {
007     max-width: 1000px;
008     margin: 0 auto;
009     position: relative;
010 }
011
```

## 09 Section article

We're going to set the product images to 'inline-block', which will force them to sit side by side but also act as blocks, so we can specify their width and height properties. We then make sure they are vertically aligned to the top of their row and give them a 50 per cent width to help make these more responsive for when we finally add the media queries to our CSS.

```
001 section article {
002     vertical-align: top;
003     display: inline-block;
004     width: 50%;
005     margin-bottom: -4px;
006 }
007
```

## 10 Style the content images

Each image will be set to 100 per cent of its containing element, which will be our 'article' element. The height will be based on its width to maintain its aspect ratio. Lastly we will give it a 4px padding all around to allow us some breathing space in between each image.

```
001 section img {
002     width: 100%;
```

```
003     height: auto;
004     padding: 4px;
005 }
```

## 11 Style the information

The information that will be shown underneath our product images after we have clicked the image will be set to 150 per cent wide and hidden. We will also add some padding and margin to give the content some breathing space and then float it to the left.

```
001 section .info {
002     width: 150%;
003     padding: 3em 0;
004     margin: 0 10%;
005     position: relative;
006     float: left;
007     opacity: 0;
008     height: 0;
009     font-size: 0;
010 }
```

## 12 Product content styles

Let's now add some styles to our product information. Firstly we'll make sure we use 'em' values here so everything can become scalable for when we make this responsive. We will give our product title some bottom margin and then combine the 'p' and 'ul' elements to the same rule and give them some bottom margin and then set the 'line-height' to 140 per cent.

```
001 section .info h1 {
002     margin-bottom: .5em;
```

## The nth:child selector

The 'nth:child' pseudo selector allows us to select list items in any order we want. This is a very powerful and handy feature to have on hand.

```
003 }
004 section .info p,
005 section .info ul {
006     margin-bottom: 2em;
007     line-height: 140%;
008 }
```

## 13 List styles

Now let's target our unordered list and give it some left margin that will be a fixed value using pixels. The list items will then be given square bullet points instead of the default circles. This is personal preference, so you may want to leave it as the default. The last thing we're doing is applying a line height of 140 per cent to each list item.

```
001 section .info ul {
002     margin-left: 20px;
003 }
004 section .info li {
005     list-style: square;
006     line-height: 140%;
007 }
```



## 14 Learn more button

The 'Learn more' button will be placed at the very bottom of our product information and we will make sure that it has some breathing space by giving it a little margin and padding. The button will be blue with white text and we will also give it a nice transition into a lighter blue for when users hover over it.

```
001 section .info .moreBtn {
002     display: block;
003     margin-top: .4em;
004     padding: .4em;
005     background: #006699;
006     text-align: center;
007     font-size: 1.1em;
008     color: white;
009     text-decoration: none;
010     text-transform: uppercase;
011     transition: 0.3s background-color;
012 }
013 section .info .moreBtn:hover {
014     background: #0672a8;
015 }
```

## 15 nth-child selectors

In this step, we will use 'nth-child()' selector to select the first 'info' of every two and the second 'info' of every two. The first 'info' can remain where it is, but the second should be moved to the left by adding a negative value of -100 per cent, which will make it appear in the same position as the first.

```
001 article:nth-child(2n+1) .info {
002     left: 0;
003 }
004 article:nth-child(2n+2) .info {
005     left: -100%;
006 }
```

## 16 Reveal the info

In this step, we're going to add in a rule that will allow us to reveal the product's information. Firstly we will set its height to 'auto' so it will change from '0' to whatever value is required to contain all of its content. The font size will also go from '0' to 100 per cent and then we'll set the opacity to '1' to reveal our content. Finally we give it some animation by using 'transition'.

```
001 section article:target .info {
002     height: auto;
003     font-size: 100%;
004     opacity: 1;
005     transition: .4s .4s opacity;
006 }
```

## 17 Image identifier

To make it obvious which product image the user is looking at, we can add a nice subtle drop shadow to the bottom of our image. So, when we click on that image, using the 'target' pseudo-selector (as we did in the

previous step) we can make sure the drop shadow is added to that clicked image. Let's polish it off by adding some animation to the shadow.

```
001 section article:target img {
002     box-shadow: 0 8px 3px -4px
003         rgba(0,0,0,.5);
004     transform: scale(1.1);
005     transition: .5s;
006 }
```

## 18 Info elements

Now because there are three products per row, the 'info' elements need adjusting again so they always start on the screen's far left. Here we've moved the second of three products 100 per cent to the left and the third 200 per cent to the left. It's important to use percentages here for our page to be responsive.

```
001 section article:nth-child(3n+1) .info {
002     left: 0;
003 }
004 section article:nth-child(3n+2) .info {
005     left: -100%;
006 }
007 section article:nth-child(3n+3) .info {
008     left: -200%;
009 }
```

## 19 Finish the more button

We have already added some styles to the 'Learn more' button in an earlier step, but let's add some more to help with how we position it and to resize it. To achieve this we will give it a display value of 'inline-block' and float it left. We're going to clear the float and then specify its width as 'auto'. Lastly we will use margin-top to give us some space.

```
001 section article .moreBtn {
002     display: inline-block;
003     float: left;
004     clear: both;
005     width: auto;
006     margin-top: 2em 0 0 0;
007 }
008
```

## 20 Position the content

One of the last steps to complete is positioning our product content properly using the 'float' and 'width' properties. As we have mentioned before, we want this to be responsive, so we will need to use percentages here. The description will be 50 per cent of the width of the article element and the unordered list will be 30 per cent. This will give us lots of white space.

```
001 section article .description {
002     float: left;
003     width: 50%;
004 }
005 section article ul {
```

## Semantic (but pragmatic) coding

As web designers, we often use 'fragment identifiers' in our code - usually to point to a specific element on a page, represented by a '#' tag and an anchor. When we click on a link that ends with a fragment identifier, then that element we are pointing to becomes the 'target' and this is what we used throughout this tutorial.

The 'target' selector can be styled, just like we style the 'hover' or 'active' pseudo selectors. So if you wanted to add a different coloured border on the targeted element, then we can do so as shown:

```
001 section > div:target {
002     border: 1px solid #efefef;
003 }
```

In the web design industry, we talk a lot about separating presentation and behaviour and there is a debate over this as to where does one stop and the other start? By adding the 'target' selector into your CSS, you are styling the HTML based on the behaviour of the browser and the users, blurring that line between presentation and behaviour.

```
006     float: right;
007     width: 30%;
008 }
```

## 21 Media queries

To make our project fully responsive, we need to add some media queries with a minimum width of 400px. When the browser window reaches a minimum width of 400px, each product will then be made 30 per cent wide and the product information will be made 280 per cent wide. This will also cause the grid to become a row of three instead of two.

```
001 @media only screen and
002     (min-width: 400px) {
003     section article {
004         width: 33%;
005     }
006     section article .info {
007         width: 280%;
008     }
009 }
```

## 22 Final thoughts

Now we can resize our page and be happy that our page renders well in different-sized browser windows. As you can see, using CSS3 for things like image grids can be very easy to achieve and also very effective. As a web designer, you have to ask yourself whether or not you really need to use jQuery all the time for animated elements. This tutorial has aimed to show you otherwise - so have fun creating yours!

# web workshop

## Create a fixed image scroll-over effect

inspiration [www.hugeinc.com](http://www.hugeinc.com)



Implicitly is a goal many designers seek but with its 'less, but better' philosophy, Huge seems to achieve so much more than the rest. When redesigning its own website, Huge continued to realise opportunities to evolve, and has masterfully engineered an online experience that powerfully communicates its brand.

Positioning their emblematic 'H' front and centre provides a perfect vehicle for telling the story of the brand and how it works with clients. On arriving at the site, three full-page slides demonstrate the agency's approach and values, and when that message has been delivered, the site flows into a magazine-style presentation of what it means to be Huge. Less, but better it certainly is.

1

### INSPIRATION

#### Huge inspiration

Huge's executive creative director Jon Jackson says, "At Huge, we really try to understand our audience and design for them. So when the time came for our own redesign, we found that the majority of people visiting agency websites fell into two groups: those who want to work with us and those who want us to do work for them. So, we set out to create an experience that showed off the work that we do, with style and simplicity for both groups.

#### Share and learn

Huge's Wes Hatch discusses the fullscreen scroller at [bit.ly/1jxw2HY](http://bit.ly/1jxw2HY) providing a fascinating glimpse into the development process. Some agencies try to hide their code, while others publish examples online for users to learn and enjoy. Which agency do you respect more?

What we came up with is the iconic 'H': a way to celebrate great client work, but always through the lens of the Huge brand and the great people who make it."

**CREATIVE PASSION**  
The strapline 'Make something you love' serves as a reminder that passion is a required part of the creative process. Elsewhere on the site you'll also see mottos such as 'Smart people being blunt'.

**COLOR PALETTE**  
If you're looking for a Huge colour, magenta's not a bad choice. It has a confident, simple purity that is also conveyed through absence of anything remotely round cornered or drop shadowed.

**ACCESSIBLE CONTENT**  
The 'hamburger' menu provides ready access to the content you'd typically see on a main menu without making you have to look at them the whole time.

**KEEP IT SIMPLE**  
There is so much to appreciate in the simplicity of this page. With only one graphic and ten words it communicates so much - what was done, who it was for and how it was received. Job done.

**CANDID MOMENTS**  
Definitely check out the video of the people holding axes! Other candid photos and videos of the Huge team in action also help explain what the agency is all about much better than a traditional 'About' page.

**CONSISTENCY**  
The homepage adopts the popular long single-page approach but by scrolling up in whole page chunks for the first three sections, the simplicity and consistency of the 'H' emblem remains in place.





**<comment>**  
What our  
experts think  
of the site

## Making an impressions

"The images featured in our 'H' are the most important things to our agency: new client work, a cultural event or simply something we're passionate about. We hope people understand the things that are currently leaving us feeling inspired, through an iconic tribute right on our homepage."

**Jon Jackson**

Executive creative director, Huge Inc.

Full code  
found on the  
resource CD

3

## TECHNIQUE

### Initial ideas

In homage to Huge's iconic H's, the workshop files use the World Wide Web's recent 25th birthday for its inspiration. You could choose your own letter or initials, or maybe create an original party invitation, the possibilities are endless!

#### 01 Beauty and the boards

People images are a good choice for creating full-page designs and Flickr's Creative Commons library is a great free source (the model image's attribution appears in the CSS file). You can also find plenty of public domain images online or simply create your own.



#### 02 Consistency and contrast

The key to mastering the effect is to ensure that your central element stays put on each section, so you'll probably want to copy your layer letter into a new Group for each section that you need.



#### 03 Create the unexpected

Do something out of the ordinary if you really want to be remembered. Whatever you do, make it your own. Here we have celebrated the completion of the project with some toast on beans.



2

## TECHNIQUE

### Scroll-over effect using fullPage.js

#### 01 HTML head

This technique uses the jQuery library and jQuery-UI if you want easing effects. The fullPage.js plug-in is well documented in the 'README.md' file. There are more than twenty configurable options and advanced settings. For this workshop the verticalCentered option has been set to false so that the titles can appear at top of the page rather than over the main graphic. The continuous scrolling and page navigation feature have been set to true.

#### 02 HTML body

To simulate the effect used on the Huge site, the layout and functionality has been kept nice and simple. However, you can obviously populate each <div> with whatever content you like and also make use of the many additional options offered by the fullPage.js plug-in, including the addition of a landscape slider just by adding in some nested <div>s. There are ten examples within the plug-in package.

#### 03 Style the content

This example uses only a fullscreen background for each section and a single heading. You just need to create a new class for each background you want to display and then apply the class to the relevant section.



Spanish developer Álvaro Trigo is the creator behind the fullPage.js plug-in. It is well documented and under active development. If you want to extend the functionality you are sure to be able to find support on Trigo's GitHub page, at [github.com/alvarotrigo/fullPage.js](https://github.com/alvarotrigo/fullPage.js).

If you just want to change the background colour of each section you can do this using one of the plug-in configuration options, slidesColor.

```
001 @import url(http://fonts.
    googleapis.com/
    css?family=Righteous);
002 h1{
003     font-size: 70px;
004     line-height: 75px;
005     padding-top: 40px;
006     font-family:
        Righteous,arial,Helvetica;
007     color: #eee;
008     text-shadow: 3px 3px #000;
009 }
010 .section{ text-align:center; }
011 .w1 {
012     background: url(imgs/w1.jpg)
        no-repeat center center fixed;
013     background-size: cover;
014 }
015
```

#### 04 Space out the pips

The jquery.fullPage.css file gives you access to the styling applied by the plug-in. In the tutorial, the navigation 'pips' on the right-hand side have been made much bigger and lighter and these changes were made in the .fullPage-slidesNav li and span. Increasing the height enables the 'pips' to be spaced out.

```
001 .fullPage-slidesNav li {
002     display: block;
003     width: 14px;
004     height: 40px;
005     margin: 7px;
006     position: relative;
007 }
008
```

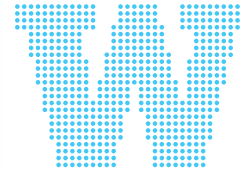
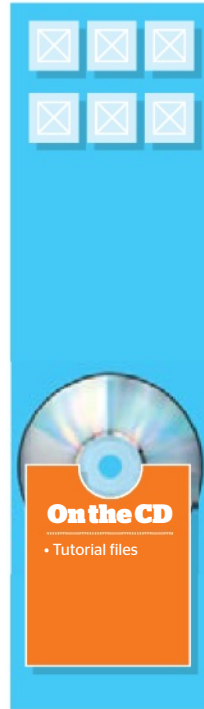
#### 05 Grow and colour the pips

The pip heights and widths have been increased to 30px each. As the border-radius was set to 50 per cent, there was no need to change that value to have it render the square as a circle. RGBa colours with 80 per cent and 30 per cent opacity were used to enable the background to show through the new white controls. There you have it, your scroll-over effect is ready to go!

# Create sticky table headers with CSS and jQuery

Make it easier for visitors to process large amounts of data with sticky table headers on both the X and Y axis

**tools | tech | trends** Dreamweaver, jQuery  
**expert** Pete Simmons



When dealing with large amounts of table data your users can easily become lost, so making things as readable as possible is important.

Using CSS to create

striped table rows and columns will allow the eye to remain in the correct place as a user scrolls through the data. Adding sticky table headers means the headings on your table will follow the user as they scroll through the page, saving them from returning to the start of the document to find out what data each row represents.

In this tutorial we'll look at a pure CSS option for this before moving on to a combination of both jQuery and CSS. The reason for this is that the pure CSS version is only supported by a small number of very modern browsers, by adding in jQuery we can target a larger section of visitors across all browsers. This tutorial assumes you have a development environment already configured to work on localhost or a remote development server. You will not need any server-side platforms enabled on this environment, but check your JavaScript security settings when running locally.

## 01 Generate dummy data

In order to create a table that we can scroll around in, we'll be using a tool called Dummy Data Me, which can be found at [dummydata.me](http://dummydata.me). Add at least ten rows, generating as much data as you need, and export the results to HTML. Create a blank HTML file ready for the data.

```
001 <!DOCTYPE html>
002 <html>
003 <head>
004   <title>Sticky table headers</title>
005 </head>
006 <body>
007 </body>
008 </html>
```

## 02 Import data

Once you have generated the table data, right-click on the page and select view-source. Unfortunately the dummy data code isn't very well formatted, so we'll have to tidy it up a bit before we can actually use it. Copy the source and head over to [www.freeformatter.com](http://www.freeformatter.com), paste the HTML in and you'll get nicely indented table HTML ready to go into a new HTML file.

```
001 <table cellpadding="3" cellspacing="1"
002   id="resultTable">
003 <tr>
004   <th>First Name</th>
005   <th>Last Name</th>
006   <th>Date</th>
007   <th>Phone Number</th>
008   <th>Email</th>
```

```
008   <th>Address 1</th>
009   <th>Address 2</th>
010   <th>State</th>
011   <th>Post Code</th>
012   <th>Country</th>
013 </tr>
014 <tr>
015   <td>Hilario</td>
016   <td>Winter</td>
017   <td>2011-03-17</td>
018   <td>771-581-3017</td>
019   <td>brain.rob@slopeslow.me</td>
020   <td>89 W Blackjack</td>
021   <td>Apt 16</td>
022   <td>VA</td>
023   <td>21450</td>
024   <td>Iraq</td>
025 </tr>
```

## 03 Format table

There is one more step needed before we can use the dummy data; we need to make sure that the HTML used to generate it is semantically valid. We need to ensure that the 'thead' and 'tbody' sections are defined correctly, as we will be referencing these later on in the tutorial. Add the code below around your table headings and body.

```
001 <table cellpadding="3" cellspacing="1"
002   id="resultTable">
003 <thead>
004 <tr>
005   <th>First Name</th>
```

```
006   <th>Country</th>
007 </tr>
008 </thead>
009 <tbody>
010 <tr>
011   <td>Hilario</td>
012   ...
013   <td>Iraq</td>
014 </tr>
015 ...
016 </tbody>
```

## 04 Style the table

As mentioned previously, it is important to make the table as readable as possible. In order to achieve this in a simple way, we will use some CSS to create a striped table. This CSS uses the nth-child element to only apply the style to even or odd rows, however, it is a CSS3 selector and some older browsers may not support it.

```
001 <style>
002   html {font-family: arial, sans-serif}
003   tbody tr:nth-child(odd) {
004     background-color: #cccccc;
005   }
006   tbody tr:nth-child(even) {
007     background-color: #999;
008   }
009 </style>
```

## 05 CSS sticky headers

It is possible to create sticky headers using just CSS, however, this is only supported by bleeding-edge



# Create sticky table headers with CSS and jQuery

First Name	Last Name	State	Phone Number	Email	Address 1	Address 2	State	Post Code	Country
Henry	W	2004-05-26	114 559 4338	henry.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Tracy	W	2004-05-26	204 809 7734	tracy.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Freddie	W	2004-05-26	829 448 4312	freddie.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	827 009 0148	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Reginald	W	2004-05-26	384 448 4338	reginald.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Alan	W	2004-05-26	819 448 4338	alan.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	109 448 4338	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Marlene	W	2004-05-26	524 448 4338	marlene.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Myra	W	2004-05-26	829 448 4338	myra.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Lynn	W	2004-05-26	829 448 4338	lynn.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Robert	W	2004-05-26	829 448 4338	robert.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Arnold	W	2004-05-26	109 448 4338	arnold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Henry	W	2004-05-26	829 448 4338	henry.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	829 448 4338	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Alan	W	2004-05-26	829 448 4338	alan.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
John	W	2004-05-26	109 448 4338	john.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau

**<Above>**

- Combine everything with bold left-hand column headers for a true biaxial sticky table effect

First Name	Last Name	State	Phone Number	Email	Address 1	Address 2	State	Post Code	Country
Henry	W	2004-05-26	114 559 4338	henry.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Tracy	W	2004-05-26	204 809 7734	tracy.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Freddie	W	2004-05-26	829 448 4312	freddie.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	827 009 0148	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Reginald	W	2004-05-26	384 448 4338	reginald.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Alan	W	2004-05-26	819 448 4338	alan.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	109 448 4338	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Marlene	W	2004-05-26	524 448 4338	marlene.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Myra	W	2004-05-26	829 448 4338	myra.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Lynn	W	2004-05-26	829 448 4338	lynn.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Robert	W	2004-05-26	829 448 4338	robert.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Arnold	W	2004-05-26	109 448 4338	arnold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Henry	W	2004-05-26	829 448 4338	henry.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Harold	W	2004-05-26	829 448 4338	harold.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
Alan	W	2004-05-26	829 448 4338	alan.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau
John	W	2004-05-26	109 448 4338	john.w@brown.net	147 B Hwy 200	Suite 1433	CA	94303	Tokelau

**<Above>**

- The dummy data in its rawest form, generated using **dummydata.me** with no style applied to it

**<Below>**

- Using alternating striped CSS background colours in our table data improves its readability greatly. Be careful about compatibility though

browsers for the time being. Adding the following CSS code will enable sticky headers but until it is standardised, it should not be used in a production environment. It is unlikely you'll be able to see the results for now, but we'll address that in the next step.

```

001  Thead {
002      position: -webkit-sticky;
003      position: -moz-sticky;
004      position: -ms-sticky;
005      position: -o-sticky;
006      position: sticky;
007      top: 0;
008  }
009  
```

## 06 Test the CSS

At this stage you will need to download and install either Google Chrome Canary or one of the WebKit nightly builds. We will focus on Canary as we're developing on a Windows machine. Head over to [www.google.co.uk/intl/en/chrome/browser/canary.html](http://www.google.co.uk/intl/en/chrome/browser/canary.html) and grab the latest build. You can run Canary alongside the standard stable version of Chrome. Once installed, run your code to view the results.

## 07 Wider support

Now we have dabbled with some bleeding edge, untested, unsupported and unstable code, it's time to focus on supporting the other 94 per cent of users. Remove the thead CSS element that contains the sticky property and add the CDN-hosted version of jQuery to the <head> section of your HTML using the following code.

```

001 <script src="//ajax.googleapis.com/ajax/
    libs/jquery/1.11.0/jquery.min.js"></script>
    
```

## 08 jQuery cloning

In order to achieve the sticky effect in jQuery, we need to clone the thead HTML elements, and present them on the page separate to the existing table. This way, we can alter the thead element, without affecting the rest of the table. The following code will do just that.

```

001 <script type="text/javascript">
002     $( document ).ready(function() {
003         $('#resultTable').find('thead').
004             clone().appendTo('#resultTable');
005     });
006 </script>
    
```

## 09 Some required CSS

Before we start making our duplicated thead sticky, we need to add some CSS that wraps around our table. Add the following code to your style section, we will programmatically apply this style to our table through jQuery. This is useful if you want to apply the sticky headers to multiple tables on the page.

```

001 .wrapper {
002     overflow-x: auto;
003     position: relative;
004     margin-bottom: 1.5em;
005     width: 100%;
006 }
007 .wrapper .sticky-thead,
008 .wrapper .sticky-col,
    
```

```

009 .wrapper .sticky-intersect {
010     opacity: 0;
011     position: absolute;
012     top: 0;
013     left: 0;
014     transition: all .125s ease-in-out;
015     z-index: 50;
016     width: auto;
017 }
018 .wrapper .sticky-thead {
019     z-index: 100;
020     width: 100%;
021 }
022 .wrapper .sticky-intersect {
023     opacity: 1;
024     z-index: 150;
025 }
026 .wrapper .sticky-intersect th {
027     background-color: #666;
028     color: #eee;
029 }
030 .wrapper td,
031 .wrapper th {
032     box-sizing: border-box;
033 }
    
```

## 10 Wrap the table

The following code snippet will search all of the code for any tables, and then wrap it all with some CSS.

```

001 <script type="text/javascript">
002     $( document ).ready(function() {
003         $('table').each(function () {
    
```

## Create sticky table headers with CSS and jQuery

Name	Year	Address	Phone	Cell	Mail
Candice	Barlet	2011-01-10	808-887-5158	alexandria.alexandria@gmail.com	807-594-5151
Caroline	Maloney	2014-03-02	796-806-5889	amy.brown@mcgraw-hill.com	97-Craft St
Augusta	Shoemaker	2013-07-02	829-898-0591	tyler@abby.law@posslow.edu	45088 Hwy 75 N
Al	Roe	2003-12-31	862-874-2640	kimberly.smith@goody.com	16205 N Pacific St
Jessie	Hood	2010-04-20	236-296-5853	daren.hinton.houston@green.org	1294 FM 1000
Sam	Brooks	2015-08-19	432-973-3262	harriet.henry@arrange.me	739 Loop 402
Lisa	Bayfield	2013-05-17	613-419-0115	carolin.kony.ker@stcloud.edu	211 Las Vegas
Clark	Wolf	2006-05-03	925-266-0060	della.slight@westward.net	47902 Hwy 147
Tia	Gary	2010-06-03	714-413-6990	magpie.carmichael@nation.net	8023 Cedar
Freddie	Hocutt	2005-11-03	822-934-0294	twanna.ora@perpetual.net	820 Cedar St
Shawna	Barnett	2004-07-31	707-535-0481	carl@earthlink.net	8335 Forest Hollow Dr
William	Skull	2012-02-10	632-410-1879	richard.sullivan@peak.org	9275 E Woods Ave
Therese	Grady	2010-05-06	593-255-0963	scott@round4.edu	961 Spr 501
Ellen	Yang	2005-11-17	926-822-8890	jack@twoflag.com	8189 Lone Star Dr

**<Above>**

- This is our appended table data, driven by jQuery. You may notice at this stage that not all the data is present

# CSS colours

When creating a striped table, it is not recommended that the two colours are vastly different from a readability perspective. Keep them to subtle shades of the same colour.

```
004      $(this).addClass('sticky-
        enabled').css({margin: 0,width: '100%'}).
        wrap('<div class="wrapper" />');
005      $(this).after('<table
        class="sticky-head" />')
006      $(this).after('<table
        class="sticky-col" /><table class=
        "sticky-intersect" />');
007
008      var $stickyHead = $(this).
        siblings('.sticky-thead'),
009      $stickyCol = $(this).
        siblings('.sticky-col'),
010      $stickyInsct = $(this).
        siblings('.sticky-intersect'),
011      $stickyWrap = $(this).
        parent('.sticky-wrap');
012    })
013  });
014 </script>
015
```

## 11 Append thead

You may have noticed that we removed the clone step from the previous step in our code, this is because we need to clone the thread and wrap it in some CSS. The following code will do exactly that and needs to replace the code you used earlier on in Step 8.

```
001      $stickyHead. Append($(this).
find('thead').clone());
002      $stickyCol
003      .append($(this).find('thead,
tbody').clone())
004      .find('thead th:gt(0)').remove()
005      .end()
006      .find('tbody td').remove();
007      $stickyInscrt.html('<thead<tr><th>
'+$(this).find('thead th:first-child').
html()+'</th><tr></thead>');
008
```

## 12 Helper functions

Here we are going to add some helper functions to our JavaScript file that we will call at a later date. To keep things neat you can choose to place these functions in a separate JavaScript file or simply keep them within the same code block - it's entirely up to you. This first function will set the widths of the columns.

```
001 var setWidths = function () {
002   $t
003   .find('thead th').each(function (i) {
004     $stickyHead.find('th').eq(i).
      width($(this).width());
005   })
006   .end()
007   .find('tr').each(function (i) {
008     $stickyCol.find('tr').eq(i).
      height($(this).height());
009   });
010   $stickyHead.width($t.width());
011   $stickyCol.find('th').add($stickyInsect.
find('th')).width($t.find('thead th').
width());
012 },
```

### 13 Move header function

This next function will do the actual moving of the header; the if statement will check to see if the user is at the top of the page, and hide the cloned header if they are. Otherwise, it will display the cloned header and move it accordingly with a smooth scroll.

## 14 Move columns

To create the biaxial scrolling headers, we need to move the column headers as well. This next function does pretty much the same as the last, but it is applied to the column HTML, ensuring the left-hand headers are always visible on the page. You may have to add more data to your table to see this in action.

```
001 repositionStickyCol = function () {
002   if($stickyWrap.scrollLeft() > 0) {
003     $stickyCol.add($stickyInsct).css({
004       opacity: 1,
005       left: $stickyWrap.scrollLeft()
006     });
007   } else {
008     $stickyCol
009       .css({ opacity: 0 })
010       .add($stickyInsct).css({ left: 0 });
011   }
012 },
```

### 15 Calculate allowance

This final function will prevent the sticky header from travelling all the way to the end of the table. If we did not place this here, the final rows could be obstructed when we get to the bottom of the page. The function calculates the height of the last three rows and prevents the header from going lower than that.

```
001    calcAllowance = function () {
002        var a = 0;
003        $.find('tbody tr:lt(3)').
004            each(function () {
005                a += $(this).height();
006            });
007        if(a > $w.height()*0.25) {
008            a = $w.height()*0.25;
009        }
010        a += $sticky.height();
011        return a;
012    };
```

## 16 Call the functions

Now we have got all of the functions declared we can start calling them. The first will calculate all the table widths and is a single line; all the hard work is done by our function that we wrote previously. You can customise the CSS to modify the colours, but make sure you do not change any of the fundamental CSS.

## 17 Bind objects

Now we have all the widths calculated we can bind them to the window. This allows them to be called when



the user scrolls down or across the page. You may notice that the below call uses the \$w variable, this is a shorthand, and we'll set this later on in the tutorial.

```
001 $load(setWidths)
```

## 18 Check for resize

As we are calculating the width of the table data, we need to implement a check that recalculates these variables if the size of the window changes. If we did not, the offset would be wrong when it comes to scrolling and our sticky headers would not sit at the top of the table.

```
001 resize($.throttle(250, function () {
002     setWidths();
003     repositionStickyHead();
004     repositionStickyCol();
005 })
```

## 19 Call the scroll

The next call will do the repositioning of the table headers - unfortunately this will be called a great number of times and have a considerable impact on JavaScript performance. To get around this we'll need to implement a throttle to limit the number of calls that are made.

```
001 .scroll(repositionStickyHead));
```

## 20 Implement throttling

Head to [bit.ly/iW78qm](http://bit.ly/iW78qm) and grab the awesome JavaScript throttling library from Ben Alman. Create a new JavaScript file and paste the contents into that file. Save it and add the JavaScript reference in the <head> section of your index page with the following code.

```
001 <script src="JS/throttle.js"></script>
```

## 21 Modify the JavaScript

To implement the throttle, update the line from Step 19 to the following code. At this stage we will pass a time to the throttle function as well, so now the throttle will prevent our page from spamming the jQuery functions with requests. The next step is to define our shorthand variables so that the table actually works.

```
001 .scroll($.throttle(250,
    repositionStickyHead));
```

## 22 Define shorthand

The final step is to hook up our shorthand JavaScript vars. The following code will set these vars at the top of the script and allow them to be referenced throughout the rest of the code. Place the following lines near the top of your JavaScript code block.

```
001 var $w = $(window),
002     $t = $(this),
003     $thead = $t.find('thead').clone(),
004     $col = $t.find('thead, tbody').
    clone();
```

## Code library

# A tidier JavaScript code block

By making some small changes to our code, we can greatly increase the performance that is seen by a user

Full code  
found on the  
resource CD

By placing this entire block at the bottom of your HTML file, you should see an increase in page load times.

The top statement will check for tables and only execute if they are found, rather than executing on document ready.

These shorthand vars mean we can simplify JavaScript functions and call them multiple times throughout the rest of the code script.

The throttle prevents too many calls and drastically improves client-side JavaScript performance. See the resource CD for more information.

```
001 <script type="text/javascript">
002     $(function(){
003         $('table').each(function() {
004             if($(this).find('thead').length > 0 &&
                $(this).find('th').length > 0) {
005                 var $w = $(window),
006                     $t = $(this),
007                     $thead = $t.find('thead').clone(),
008                     $col = $t.find('thead, tbody').clone();
009                 $t
010                     .addClass('sticky-enabled')
011                     .css({
012                         margin: 0,
013                         width: '100%'
014                     }).wrap('<div class="wrapper" />');
015                 $tatter('<table class="sticky-thead" />');
016                 if($t.find('tbody th').length > 0) {
017                     $t.after('<table class="sticky-col"
018                         /><table class="sticky-intersect" />');
019                     var $stickyHead = $(this).siblings('.sticky-thead'),
020                         $stickyCol = $(this).siblings('.sticky-col'),
021                         $stickyInsct = $(this).siblings('.sticky-intersect'),
022                         $stickyWrap = $(this).parent('.sticky-wrap');
023                     $stickyHead.append($thead);
024                     $stickyCol
025                         .append($col)
026                         .find('thead th:gt(0)').remove()
027                         .end()
028                         .find('tbody td').remove();
029                     $stickyInsct.html('<thead><tr><th>'+$t.find('thead
030                         th:first-child').html()+'/><tr></thead>');
031                     var setWidths = function () {
032                         $t
033                             .find('thead th').each(function (i) {
034                                 $stickyHead.find('th').eq(i).width($(this).width());
035                             })
036                             .end()
037                             .find('tr').each(function (i) {
038                                 $stickyCol.find('tr').eq(i).height($(this).height());
039                             });
040                     $stickyHead.width($t.width());
041                     $stickyCol.find('th').add($stickyInsct.find('th')).
042                         width($t.find('thead th').width());
043                 },
044                 repositionStickyHead = function () {
045                     var allowance = calcAllowance();
046                     if($t.height() > $stickyWrap.height()) {
047                         if($stickyWrap.scrollTop() > 0) {
048                             $stickyHead.add($stickyInsct).css({
049                                 opacity: 1,
050                                 top: $stickyWrap.scrollTop()
051                             });
052                         }
053                     }
054                 }
055             }
056         });
057     });
058 </script>
```

# build an online shop

Starting an online store can be overwhelming. We reveal the secrets that can help your first foray into eCommerce be a success

**A**re you still stuck with just selling your products at a local retail store? It probably comes as no surprise that you could be losing out on an incredible stream of online revenue. eCommerce is the fastest-growing retail area in Europe, especially with mobile shopping having already become a booming market. It is estimated that only one quarter of Europe will be looking to reach over £111.2 billion of eCommerce sales by the end of 2014.

Launching an online retail business can be challenging but also highly rewarding as there are multiple benefits to starting up an eCommerce shop. Typically, a start-up online store is considered relatively low cost, as it requires far less capital outlay when compared against a traditional retail shop, which can be costly for hiring business premises. With an online store you are not limited by your geographical location, which can lead you to an increased number of customers - online, the whole world is now your customer base.

SEO plays a major role in marketing successful online shops, as once you start gaining momentum and a higher search ranking, your brand awareness increases in the market. This in turn can then lead to greater customer exposure which then increases your revenue - of course, the more people that know about you, the better.

Besides the aforementioned bonuses for merchants, customers also receive added benefits. Along with not having to queue up for purchases, products are typically cheaper due to lower overheads, which creates a great saving for customers. It's also easier for customers to find products and compare prices online. In the past, more specific products may be difficult for customers to get hold of due to area or availability but online, location is not a real factor.

In this guide, we'll be taking a look at the key points to consider when launching an online shop and also walk through a tutorial on how to set up a Magento Go store, with plenty of tips along the way!



## expert insight

**Richard Stevenson**

Head of PR, 1&1 Internet Ltd [www.1and1.co.uk](http://www.1and1.co.uk)

“While selling online is now a necessity for retailers, fierce competition and tough consumer expectations are a constant challenge to manage. Therefore, it is important that you have a well-defined eCommerce strategy, set of objectives and target audience before launching your online store. With many easy-to-use and increasingly powerful solutions, such as DIY-style packages from web hosts, business owners can now get a shop online in a matter of minutes. But what should you be looking for in order to create the best online presence possible?

There are a now number of basic elements to cover when designing an efficient eShop in order to boost traffic, sales and profits.

**01 THE NAME OF YOUR SHOP** - Choose a clear option relevant to your business while staying under 20 characters.

**02 MCOMMERCE** - A mobile optimised eShop is now essential to improve accessibility and increase sales conversions. Consumers are sensitive - usability from mobile devices needs to be great, not just passable.

**03 CONSIDER DIFFERENT SALES CHANNELS** - Synchronise your professional site with marketplaces like eBay and Amazon and through your social media channels. Integrating Facebook, Google+ and Twitter buttons can also help boost your sales.

**04 SECURE PAYMENT OPTIONS** - Offer multiple online payment options such as PayPal and Billsafe. Businesses can apply for a 'Trusted Shops' seal to illustrate a highly respected award for reliability and security.

**05 SITE PRESENTATION** - Ensure that both the layout and the navigation of your site are clear and structured to encourage visitors to stay and explore the site. Some eShop packages offer rapid conversion for international languages and support for multiple currencies - significant for trade overseas.





# KEY POINTS TO CONSIDER WHEN STARTING AN ONLINE STORE

Get to grips with the essentials of the eShop

1

## DESIGNING AN ECOMMERCE SHOP

When designing a new eCommerce shop, you need to make sure it matches your current brand image. Usability is of utmost importance; the navigation in particular must be easy to use and make it as straightforward as possible for visitors to find products. The design should be attractive and capture the feel of your products. The buying process should not be long and confusing; many shopping cart applications come bundled with ready-made, customisable templates, or you can develop your own – only simple knowledge of HTML and CSS is required in order to customise your own store.

2

## SELECTING AN ECOMMERCE PLATFORM

There are many shopping cart applications out there that can help get you started with selling online. It is much easier and quicker to use a reliable and trusted eCommerce application than to build your own from scratch. When looking for an eCommerce solution, always look for what it can do to help your business thrive and how it can help make your online management easier and hassle free. One eCommerce package may well be brimming with rich features but you may find that you will never fully utilise it all, while a less feature-rich but more user-friendly solution suits your purposes perfectly.

3

## PRODUCT DESCRIPTION

Make sure you have clear and understandable product descriptions that help sell your product and increase your conversion rate. Don't try to write your descriptions for a general crowd of buyers; instead focus on addressing an ideal buyer, this way your content is more targeted and focused. Entice potential customers by highlighting the benefits of purchasing your product. Keep your descriptions short, reducing any long sentences, and use bullet points where necessary. Your product pages should be scannable but key points should be highlighted. Consider allowing customers to leave comments and reviews, as this has been proven to build confidence in your store.

4

## IMAGES AND VIDEOS

The drawbacks of shopping online are not being able to touch, feel, taste, smell or try online products. So the next best thing is a range of clear and crisp images that do your product justice. Don't try to cut corners with imagery – but it isn't vital to spend lots of money for a professional photographer either. Providing videos is another asset that can help sell your products; this has become a growing trend, since providing a moving product gives substantially more information to customers, further convincing them to make a purchase.

5

## PAYMENT OPTIONS

There are many payment gateway providers available to help you accept payments online, some of the well-known ones being PayPal, Sage Pay, and WorldPay. Still, it's worth noting that not all payment gateway providers are created equal. Each payment gateway has different transaction fees (or even monthly fees), so make sure that you do your research and find the most competitive rate for your business. It is also vital that payment gateway providers are PCI compliant and fight against fraud. Support is another factor that is often underestimated and overlooked; if you ever experience any issues, being able to pick up the phone and speak to someone directly in order to resolve your problem is a great benefit.

6

## SHIPPING

The best way to determine shipping rates is to use your shipping carrier's guidelines. Where possible, always try to negotiate better shipping rates with your carrier. Most eCommerce platforms will allow you to integrate shipping services that will auto calculate an order's shipping cost. It is always more preferable to offer free shipping, specifically on orders above a certain monetary amount. This should increase average order value and can potentially differentiate you from your competitors.

7

## CUSTOMER SUPPORT

When looking for an eCommerce platform, try to find one that provides customer relationship management (CRM) as it can make managing any enquiries and support requests easier. A CRM tool can help streamline your support requests more readily when customer information and order details are all located on one system. Setting up a dedicated phone line for customer service is also recommended. Another trend for online retailers is to set up and operate a live chat system to create a virtual online assistant for customers while they shop. Timely responses are also a major factor – getting back to customers quickly is vital in order to not miss out on a sale.



IKEA's customer service page is a great example of providing helpful customer support information

## SECURITY ESSENTIALS

With the increasing number of cyber crimes and hackers, it is imperative that customer details are protected and all data is kept secure – these tips should keep your site safe

### Use SSL certificates for data protection

When handling sensitive customer information, whether it's their personal details or credit card information, you will want to use a Secure Socket Layer (SSL) to encrypt data passing from customers directly to your web server. SSL certificates also aid in authenticating the identity of your business, which helps bring faith to customers when shopping at your store.

### PCI compliance

Make sure your web server, eCommerce platform and payment gateway are PCI compliant. PCI compliance is an industry-set standard for handling credit and debit cards for merchants. To guarantee compliance you must ensure credit card details are heavily protected. Performing quarterly scans will help reduce vulnerabilities to hacking.

### Layers of security

Setting up layers of protection from unwanted intrusions should be considered a necessity. You should set up a firewall, as this is essential in stopping attackers. This, as well as a monitoring system, should be used so that you can be instantly alerted of any suspicious activities.

### Keep systems up to date

New versions of web applications are frequently released, so make sure you upgrade to the latest iteration. Doing so will typically provide bug fixes and security patches which will help protect your site from cyber criminals who take advantage of outdated software.



Enforcing a secure checkout process is vital for any online checkout



Displaying site seals of approval for security vendors can be a huge confidence boost for customers shopping at your store



# GUIDE TO BUILDING A MAGENTO GO ECOMMERCE STORE

Get up and running in no time with the easy-to-use Magento Go platform

## 01 Sign up to Magento Go

Head over to [go.magento.co.uk](http://go.magento.co.uk) and click on the 'Start Your Free Trial' button. Pick your store name (this can be edited later) and enter an email address to sign up for a free 30-day trial account. After the trial period you can upgrade to a paid plan.



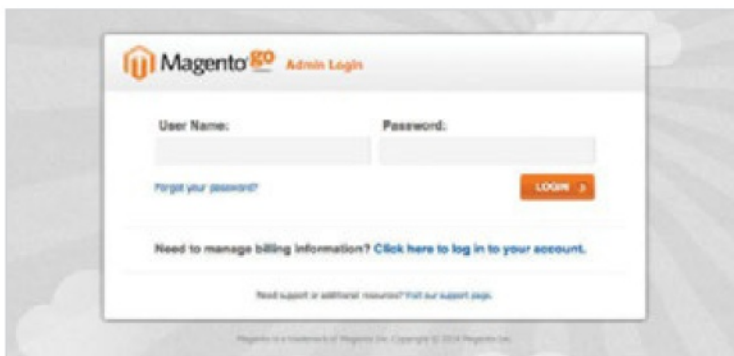
## 02 Fill out your personal details

On the next screen, fill out your personal information including name, phone number, password, location, industry and experience level. You may find you cannot change your username and name if you already have an account set. Once you hit the 'Create my store' button, Magento will begin to assemble everything for you.



## 03 Your store is now set up

Congratulations, your store has now been set up! After signing up, you will be presented with the URL of your store and login information to the Magento Admin Panel. You will also receive an email containing your new store URL and login details, informing you that your store is up and running.

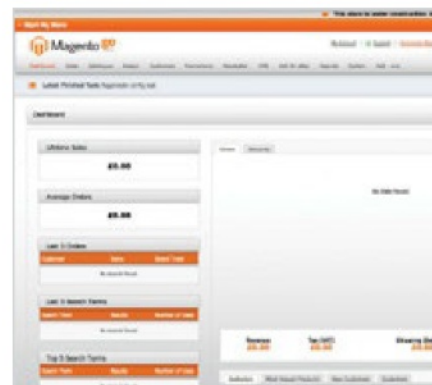


## 04 Log in to your admin panel

Once you have received the confirmation email, head over to the admin panel. Your admin login URL will be [https://<your\\_username>.mygostore.co.uk/admin](https://<your_username>.mygostore.co.uk/admin). Input your personal login information, click Login and you'll be taken to the Magento Go Admin Dashboard, where the fun really begins!

## 05 Magento Go dashboard

When at the Magento Go Admin Dashboard, you will be presented the latest order information from your store. Because we have just set up our store, there will be no orders and therefore none displayed. Familiarise yourself with the Magento Admin dashboard because you will likely be spending a bit of time in here.

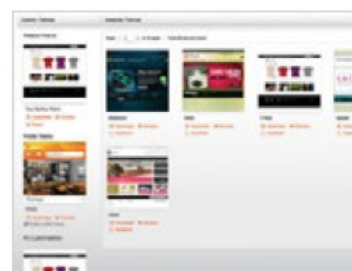


## 06 Store theme

If you head over to frontend of your store (the URL will be [http://<your\\_username>.mygostore.co.uk](http://<your_username>.mygostore.co.uk)), you will notice that it is currently very plain, with a simple black and white design. This is because we are yet to upload our own products and it's set to using the default T-Shop theme.

## 07 Theme editor

Let's change that by choosing our own store theme. Navigate to Design>Themes Editor. In here are 39 pre-made designs you can select from. Pick the design you prefer, give this theme a new Theme Name, add in a description and click Save. Your store has now been updated with this new theme design.



## 08 Customise store theme

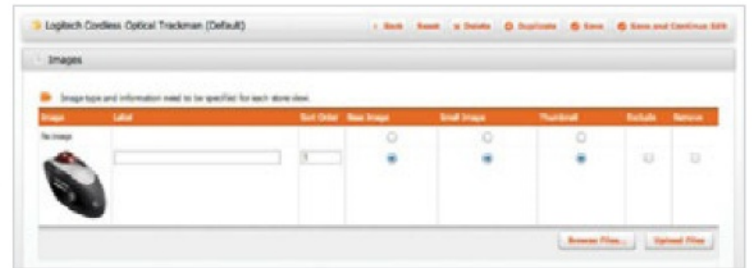
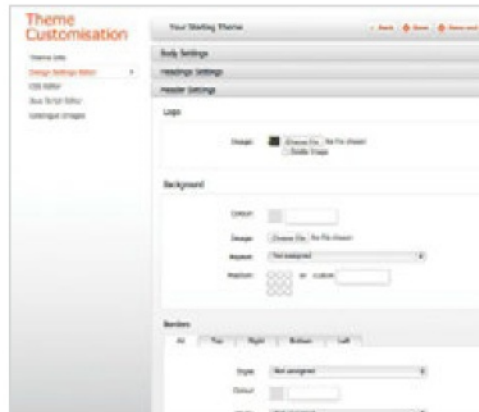
You can customise your chosen theme and style it with your own brand. In the Theme Editor, click on 'Customise'. On the right side bar of the Theme Customisation screen, you have options to change the design settings including headings, header, footer as well as having the ability to add in your own CSS styles, JavaScript code and catalogue image sizes.





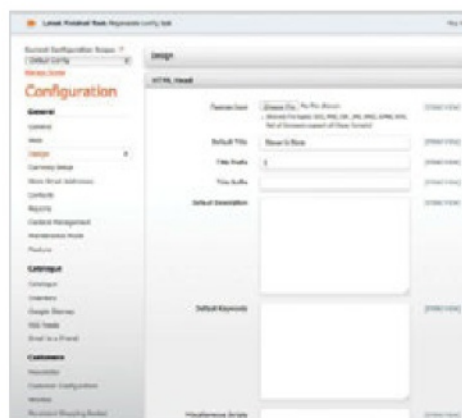
## 09 Upload your own logo

As well as branding your theme, let's upload a logo. To achieve this, navigate to Theme Customisation, select Design Setting Editor and open up the Headers Settings tab. Under the Logo section, select Choose File, browse and find your logo before clicking the Save button.



## 13 Upload product image

To upload your product images, under the Images tab, select Browse Files, locate your images and then simply click on Upload Files. Once uploaded, you can add an alt text to each of the images in the label field. You will want to assign an image as your base, small and thumbnail. Finally, click Save.

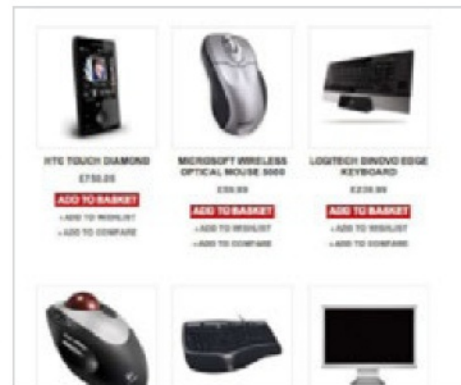


## 10 Upload your own favicon

You can also upload your own favicon. To do this, head over to System > Configuration > Design and expand the HTML Head tab. In the Favicon Icon section, choose your favicon and click Save. In this section you are also able to edit the default store title and, in the Header tab, you can apply an alt text to your own logo image.

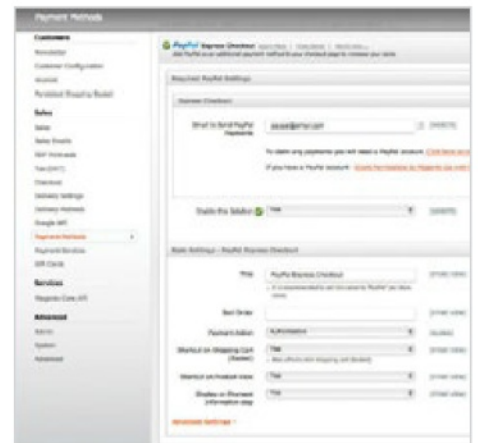
## 14 View your store

Now that the products have been imported and the theme customised, you can preview your store by going to [http://your\\_username.mygostore.co.uk](http://your_username.mygostore.co.uk). All of your custom design changes (any CSS, JavaScript, design changes) will be reflected on your store including all of your products.



## 15 Set up payment gateway

The easiest form of payment to accept is PayPal. Navigate to System > Configuration > Payment Methods, expand the PayPal Express Checkout tab and click on Configure. You either enter in your PayPal email address or click on the 'Grant Permission to Magento Go with PayPal' button. Make sure 'Enable this Solution' is set to 'Yes' and then click Save.

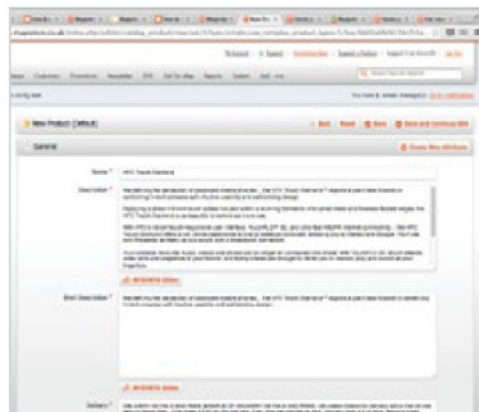


## 11 Add a new product

Let's start importing products to the new store. If you wish to upload a large sum of products in one lot, you can import all via a CSV file. Alternatively, to manually create a new product, head to Catalogue > Manage Products > Add Product.

## 12 Create a product

Leave the Attribute Set on Default to set up a simple product and click Continue. Now you can create your product by inputting all of your product details including product name, pricing, categories to appear in, URL key, meta information, shipping details, custom options and more.



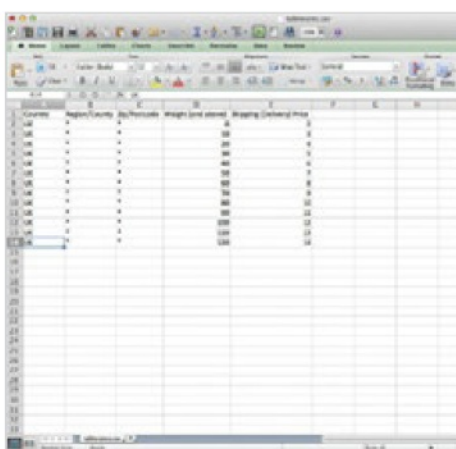
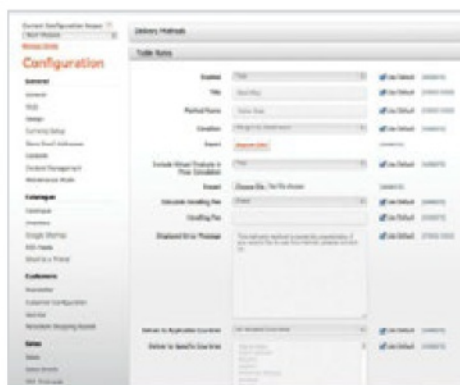
## 16 Set up tax rates

You can set up tax rates under Sales > Tax (VAT). Firstly, you need to create a customer tax class, followed by tax rates for products, then set up tax zones for particular countries and zones. You are then able to combine all these into a tax rule that can be implemented directly for products.



## 17 Delivery rates

With your products created and store design set up, let's create a list of delivery rates. You can set up your own table rates with one of three conditions: weight and destination, price and destination, or number of items and destination. Go to System>Configuration>Delivery Methods>Table Rates and enable this to 'Yes'.

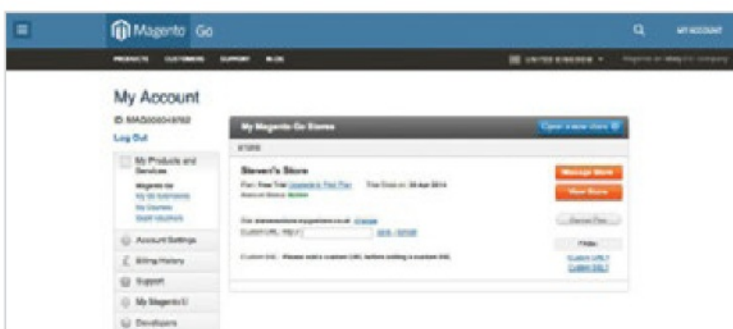


## 18 CSV delivery rates

Under the Current Configuration Scope, make sure you select your store. Once you have you will see an Export CSV button to download the CSV. Open this up in your spreadsheet editor software and you will be able to add your delivery rates within the CSV. After editing and saving any changes, you can import it into Magento Go.

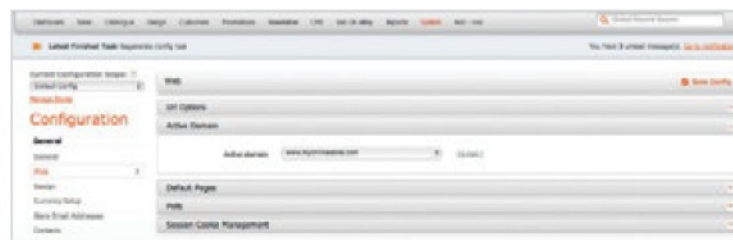
## 19 Royal Mail

If you prefer to use an automated delivery service such as Royal Mail to calculate your shipping cost, you can enable this in System>Configuration>Delivery Methods>Royal Mail and enable it to 'Yes'. Ensure when you edit your products under the Shipping tab you assign the Shipping Group to a product.



## 20 Add a custom domain name

Make sure you have already pre-purchased a domain name. Log in to your Manage Your Magento Account, located at: <https://go.magento.co.uk/go/index/stores>. Click on the Magento Go link on the left side bar menu, click on the 'Add link' button next to 'Custom URL', type in your domain name and click Save.



## 21 Activate domain name

With your domain name added, you will need to make sure you configure your DNS to point at the IP address supplied by Magento. Once this is complete, jump to your Magento Admin Panel and navigate to System>Configuration>Web>Active Domain and select your custom domain name before clicking Save.



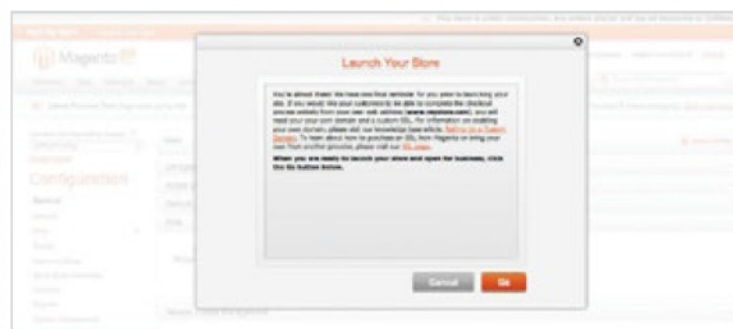
## 22 Purchase SSL certificate

Back in the 'Manage Your Magento Account' section, under the custom domain, click 'Purchase SSL'. You'll be directed to the 'Purchase an SSL certificate' page. Select the SSL provider you wish to purchase and fill out your organisation details and admin contact information to continue through to payment.



## 23 Register SSL certificate

After purchasing an SSL certificate you will be required to change the A record of your custom URL to point to the new IP address provided by Magento. This will vary depending on your DNS manager and registrar. Once the A Record has been updated, click 'Confirm DNS Change' to certify that the A Record has been updated.



## 24 Go live!

Now all of that's out of the way, you're ready to launch your store for production. In the Magento Admin Panel, at the top click on 'Start My Store' and select Get Going>Launch Your Store. This will open a dialog box. Click on the 'Go' button and... congratulations, your new store is now live!





# MAINTAIN A SUCCESSFUL ECOMMERCE WEBSITE

Getting your store up and running is just the first step, there are always things to keep improving on – here are the secrets to a successful store

## ONLINE MARKETING

Marketing is vital for any online business. The simplest form of online marketing is SEO. Make sure your content is rich with keywords, optimising your content from titles, headings, friendly URLs and image alt text. Make sure you incorporate social media awareness by sharing your products on Facebook, Twitter, Google+ and Pinterest so that they may spread virally. Be sure to connect with third-party sites to sell and reach a larger audience, such as eBay, Amazon and comparison sites.

## KEEP AHEAD OF TRENDS

Since the web is based on technology, there are always new tools available and new ways to keep your store looking cool; responsive web design, making sure your store is device-friendly and incorporating a CMS to run a blog are just a few suggestions. You should also make use of the latest technology, such as HTML5 and CSS3, to continue improving the user experience for customers while shopping. Incorporating interactive videos will also make for an improved buying experience.

## UPDATES AND FRESH CONTENT

Give reasons for customers to keep coming back to your store. Constantly freshen up your site with new content, – whether that's updating your blog on a regular basis, updating the visuals on your website, or incorporating the latest summer promotions informing customers of a sale or event coming up.

## ANALYTICS

Keep a close eye on your analytic stats, these won't just tell you where customers are coming from but also where they may be dropping out. Consistently improve the user experience to ensure pages are conversion optimised to keep customers on site for longer and ensure they reach the end of the checkout process.

## MONITOR YOUR PRODUCTS

Always keep a look at which products are selling the most and making sure you keep inventory stocked up. If products are out of stock, customers will inevitably go some place else to buy what they want.



Amazon consistently updates their homepage with the latest products that suit customers and keep them coming back

# ALTERNATIVE SHOP SOLUTIONS

Magento Go may not be to everyone's liking but there are many cloud-based alternative shopping cart solutions available to get you selling online



## SHOPIFY [www.shopify.com](http://www.shopify.com)

Launched in 2006, Shopify houses over 90,000 stores and is a great platform for any start-up merchants that want to begin selling online.

### PROS:

- ▲ Not necessary to be an expert web developer or an extraordinary designer, since there are over 100 professional themes to choose from.
- ▲ No third-party payment gateway setup required, Shopify handles all payment processing for you.

### CONS:

- ▼ As your store grows, the monthly cost grows with it – plus Shopify takes between one and two per cent on all transactions.
- ▼ Editing and adding content can sometimes be difficult and less intuitive.



## BIGCOMMERCE [bigcommerce.com](http://bigcommerce.com)

Bigcommerce boasts a wide range of feature-rich tools available to business owners so they can get their store going in no time at all.

### PROS:

- ▲ Provides SEO tools, integration with eBay, Amazon and many other online shopping comparison sites.
- ▲ Includes over 100 professional design templates that are highly customisable using its drag-and-drop capabilities.

### CONS:

- ▼ This platform lacks any multi-language storefront and translation features.
- ▼ There are a large amount of templates to select from but many of them look a little on the outdated side and aren't responsive.



## VOLUSION [www.volusion.co.uk](http://www.volusion.co.uk)

A fully cloud-based eCommerce solution that has an outstanding back-office system with all the features necessary to run a successful online store.

### PROS:

- ▲ Features a wonderfully easy-to-use interface, including many key selling and marketing features such as 'deal of the day'.
- ▲ Seamlessly sell on other popular marketplaces including eBay and Amazon.

### CONS:

- ▼ Advanced and helpful features are only available for the top tier paid-for plans.
- ▼ Expensive over charges when exceeding bandwidth limits, working out at roughly \$7 for every GB over your allocated limit.



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## Make beautiful mobile apps with Ionic

Unleash the app framework to build with HTML5, CSS and JavaScript **Page 86**

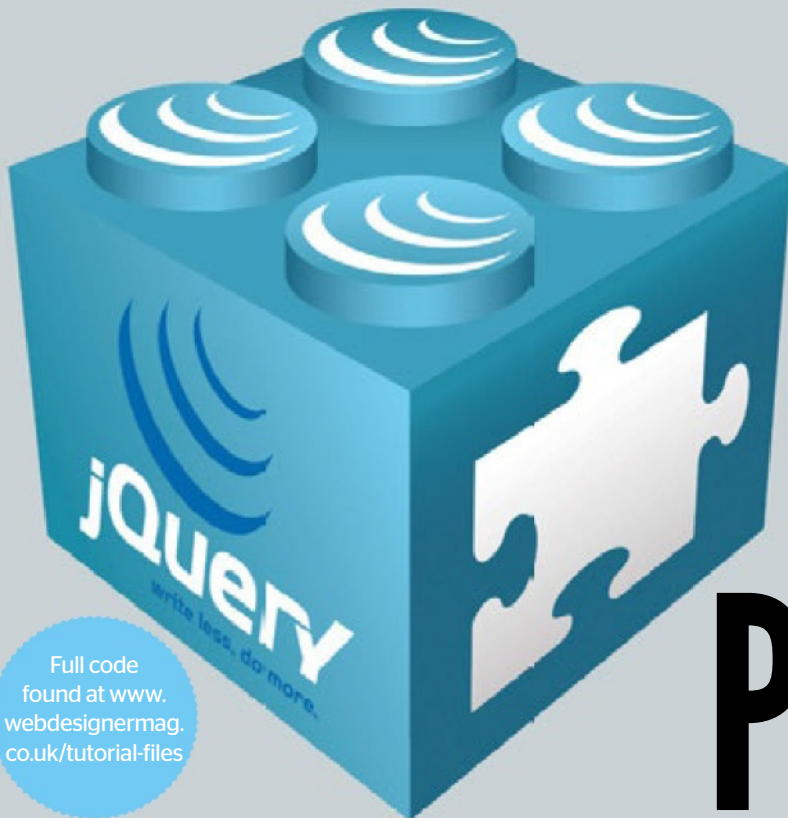
## Build a reminder app with Ember (pt1)

Create the backend with Node.js and get ready for the frontend UI **Page 92**

## 20 best jQuery plug-ins



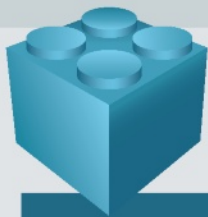
Power up your pages with this essential collection **Page 80**



# 20 BEST JQUERY PLUG-INS

Full code found at [www.webdesignermag.co.uk/tutorial-files](http://www.webdesignermag.co.uk/tutorial-files)

jQuery is an extraordinarily useful framework when it comes to managing the interaction between controls and allows developers to create some great additional functions. Here we reveal the plug-ins that you shouldn't be without



## BEST FOR... CREATING CONTENT CAROUSELS

**Rcarousel** [ryrych.github.io/rcarousel](http://ryrych.github.io/rcarousel)

### BASIC CAROUSEL

Blog and news websites can benefit greatly from providing readers with a bouquet of content

#### 01 Add necessary declarations

Visit the project's website in order to download the distribution package. Then, extract the /widget/ folder to a place where the web browser parsing your website can find it easily. Finally, add the relevant declarations shown in the code accompanying this step.

```
001 <head>
002 <link type="text/css" rel=
    "stylesheet" href="widget/css/
    rcarousel.css" />
003 </head>
004 <body>
005 <script type="text/javascript"
    src="widget/lib/jquery-1.7.1.min.
    js"></script>
006 <script type="text/javascript"
```

```
src="widget/lib/jquery.ui.core.
min.js"></script>
007 <script type="text/javascript"
    src="widget/lib/jquery.ui.widget.
    min.js"></script>
008 <script type="text/javascript"
    src="widget/lib/jquery.
    ui.rcarousel.min.js"></script>
```

#### 02 Add content

In this next step, we are going to add buttons and content elements. Carousels take their content out of a <div> tag with a specific ID, treating each image element as an individual child. The two buttons are then added in order to demonstrate forward and backward scrolling.

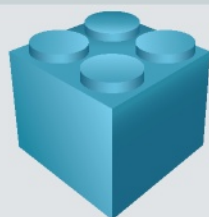
```
001 <div id="carousel">
002   
003   
004   
005   
006   
007   
008 </div>
```

#### 03 Run widget

Rcarousel behaves like any other jQuery-derived control. This means that you invoke the creation function as the webpage loads. Our navigation buttons work by invoking the forward and backward methods found in the control. Configuration parameters can be sent according to the table on the project website.

```
001 <script type="text/javascript">
002   $( "#carousel" ).rcarousel(
    {width: 400, height: 200, step: 1,
    visible:1} );
003   function OnFwd()
004   {
005     $( "#carousel" ).rcarousel
    ('next');
006   }
007   function OnBak()
008   {
009     $( "#carousel"
    ).rcarousel('prev');
010   }
011 </script>
012
```





# BEST FOR... SHOWING NON-MODAL ALERTS

## Alertify.js [fabien-d.github.io/alertify.js](http://fabien-d.github.io/alertify.js)

Malicious coders began exploiting the alert() function only days after it was introduced in one of the first versions of JavaScript. Because of that, most browsers put tight limitations on what you can achieve via this method

These limitations have stifled the development of further overloads for the alert() function. Alertify attempts to work around this problem by creating its own notification system. It pops up a canvas, which is displayed floating over the entire website. A custom drawing engine is used for creating the alert window.

Even though this method provides you with wide-ranging options for configuring the way the actual

alert dialogs look, they cannot be made system-modal under Windows, Linux and Mac OS. On top of that, most recent browsers treat alert() dialogs as non-modal. Due to this, the weakness of the Alertify concept tends to be insignificant – a website that requires modal alerts() will not have wide-ranging compatibility.

The framework's developers clearly strive to make the most of their system. Alerts can be customised

using CSS stylesheets, a Growl knock-off permits you to use Alertify as a notification queue of sorts. Real fans actually use the library as a replacement for the widespread console.log() function.

Alertify is impressive due to its extraordinarily simple API and design. In theory, the framework could even be used in sites that don't include jQuery, making it a very versatile plug-in to have around.

## START USING ALERTIFY

Even though Alertify is not particularly complex, some basic configuration steps are needed to get it all going

### 01 Download and include

First, visit the website of the project ([fabien-d.github.io/alertify.js](http://fabien-d.github.io/alertify.js)) to download the Alertify style and JavaScript bundle before proceeding to include them into your project. The code snippet assumes that the files share a folder with the website responsible for their inclusion.

```
001 <script src="alertify.min.js">
002 </script>
002 <link rel="stylesheet"
003 href="alertify.css" />
003 <link rel="stylesheet"
004 href="alertify.default.css" />
```

### 02 Yes or no?

Invoke the confirm() button in order to show an alert dialog that asks the user to provide a 'binary' yes/no choice. The function expects a method reference to an event handler. It will be invoked with a boolean parameter providing further information on your customer's decision. Keep in mind that the method may return while the dialog is open.

```
001 alertify.confirm("Message",
002 function (e) {
003     if (e) {
004         // user clicked "ok"
005     } else {
```

```
005         // user clicked "cancel"
006     }
007 });
```

### 03 Show a notification

Notifications pop up as rectangular dialogs at the bottom-right corner of the browser window. These windows should be used to inform the user of notable events. An example of that might be a game that informs the player that a unit is now ready.



## BEST FOR... WYSIWYG GUI DESIGN

### Codiqua [codiqua.com](http://codiqua.com)

Creating jQuery Mobile user interfaces by hand tends to be an annoying and tedious process. Codiqua provides a WYSIWYG editor that allows you to assemble the basic structure by dragging and dropping controls onto a pre-provided frame. Layout, code generation and stylesheet planning are then handled by the backend.



Most controls are supported by a wide variety of settings that permit you to adjust the look and feel to ideally suit your preferences. Codiqua even provides you with a ready-made YouTube player widget.

UI designers will be pleased to hear that layouts and websites can be shown on a range of 'simulated' devices. These mimic the behaviour of the various native web browser engines, thereby providing a quick overview of the system's behaviour.

Even though the product is a fully commercial application, a free trial mode is offered. It contains most of the GUI editor's features but does not provide the export mode found in the paid plans. However, you can still look at the HTML markup of the page. This can then be copied to your IDE of choice in order to obtain a basic structure.

## BEST FOR... DETERMINING PASSWORD SAFETY

### Complexify [danpalmer.me/jquery-complexify](http://danpalmer.me/jquery-complexify)



Assessing the strength of passwords is a science of its own – length is not all that matters. This widget offers a sophisticated algorithm that assesses the password as it is entered. A percentage bar provides a live visualisation of password strength.

Complexify can also be used as a gate of sorts; simply provide the control with information about the minimum password strength required. From then on, the login form will reject users who provide passwords that are too weak – keep in mind, however, that determined attackers can modify the source code of your website and remove the plug-in.

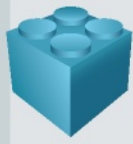
## BEST FOR... VALIDATING CREDIT CARDS

### jQuery Credit Card Validator [jquerycreditcardvalidator.com](http://jquerycreditcardvalidator.com)



Credit card numbers are generated using a set of rules. They enable you to check if the data entered is valid as per the credit card company's rules. This weeds out typos and can be used to prevent fraudulent logins. Normally, jQuery Credit Card Validator finds itself attached to one or more input fields holding the credit card data as entered by the user. In this case, the validity indicators will be refreshed as new information is provided.

Still, developers working on a transaction system must never forget to implement a second level server-side check to prevent credit card fraud from affecting their client's financials.



## BEST FOR... IMPLEMENTING VIDEO

**BigVideo.js** [dfcb.github.io/BigVideo.js](https://dfcb.github.io/BigVideo.js)

**Thanks to the increases in processor power, modern computers can easily decode multiple video streams – BigVideo harnesses this to create an extraordinary wallpaper**

For the most part, videos have been used simply as page content. BigVideo.js changes that, permitting you to use a live video as a background for your website. This means that your content is shown above the video stream, which merrily plays on and on while the user interacts with the controls and texts shown in front of it.

BigVideo is based on the widespread video.js plug-in. Playback is accomplished via the video API found in recent browsers and can be hardware accelerated

on some systems. Video content does not need to be hosted on your own server – BigVideo can pick up content from Vimeo and other video hosts.

BigVideo was created by for an advertising agency seeking an unusual page. Most users visit websites to read their content – a task made more complicated by a constantly changing background image.

Furthermore, keep in mind that decoding live video does not work equally well on all systems. Windows



### Videos are great but should be used sparingly

users should not run into any problems – but under some versions of Ubuntu, a background video can end up being a major performance hog. This is especially true on notebooks and laptops, where the increased power use is much more noticeable and will make your page extraordinarily unpopular.

## BIGVIDEO OPTIONS

**BigVideo is relatively easy to use, but here is a quick walkthrough for the most common scenarios you'll use**

### 01 Fullscreen video

Create a classic fullscreen video that covers the page hosting it in its entirety – any content will not be visible while the video plays. Our code snippet is relatively advanced, as it contains an alternative source for browsers that are unable to decode MP4 files natively (read: FireFox).

### 02 Video, in behind

Embedding of a background video can be achieved by modifying the snippet. Passing a JSON object with ambient set to true will ensure that your video is treated as a background element. The array acts as a playlist container ensuring the sequential playback of multiple clips.

### 03 Video for smartphones

Mobile phones aren't suited to background video: the processors are too weak, the power drain is annoying and the data cost is prohibitive. Combine BigVideo with Modernizr ([modernizr.com](https://modernizr.com)) to swap the video for background JPEG images when a touchscreen is detected.

## BEST FOR... OVERLAPPING GRID LAYOUTS

**Masonry** [visionmedia.github.io/mocha](https://visionmedia.github.io/mocha)

Brick walls are especially charming if the bricks used are not uniformly sized.

Masonry is a grid library that tries to imitate this look on your website. Using it is relatively simple: group up the items you want to display and let the layout engine figure out how to arrange the columns on the screen. Adding



and removing items dynamically leads to some beautiful animations, whose duration can be modified easily.

Developers looking for a more bespoke experience can consult the product's documentation in order to find out more about how to affect the layout design.

## BEST FOR... SHOWING TOOLTIPS TO GUIDE USERS

**qTip2** [qtip2.com](https://qtip2.com)

Users enjoy exploring applications on their own terms. This can be simplified by providing tooltips and other pop-up hints when the user hovers their mouse over a relevant element.

qTip2 is the successor of the now legendary qTip library. It makes creating tooltips as easy as invoking a single function on the element that is to be marked up.

This is achieved by snooping the title attribute from an <a> tag, as shown below. qTip2 also comes with an array of predefined styles that permit you to adapt the look of the tooltip.

```
001 $(document).
    ready(function () {
002     $('a[title]').qtip();
003 });
```

## BEST FOR... RESPONSIVE TEXT

**FitText** [fittextjs.com](https://fittextjs.com)

Web fonts provide an amazing way to spruce up headlines and taglines without having to resort to images that cannot be processed by screen readers. Sadly, the fonts do not change their sizes between mobile and desktop devices.

FitText solves this problem. It analyzes the vector information stored in the font files. This is then

**FitText**

used to resize the glyphs in a lossless fashion, leading to smooth-looking headlines being shown on every computer system.

Be aware, however, the developer warns against the use of FitText for paragraphs or other long text blocks. The resource usage of dynamically rescaling large text strings can bring down most systems easily.

## BEST FOR... REACTING TO USER'S SCROLLING

**SuperScrollorama** [bit.ly/1eiPpuv](https://bit.ly/1eiPpuv)

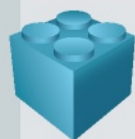
Scrolling is an essential element of site discovery. Users scrolling down a website for the first time can benefit greatly if tooltips are displayed as new elements pop up on the screen for the first time.

Realising this by hand can be a tedious task. Fortunately, SuperScrollorama is a ready-made library providing you with ready-made triggers. They are used to trigger so-called tweens, which are then

used to provide the start and end states for the animation framework.

SuperScrollorama offers a wide range of effects and colours can be changed, faded in and bounced around the screen for additional effects. But be careful when choosing the animations: flashy effects can distract the user from the content of the tooltip, which can be detrimental to the discoverability of the application.





## BEST FOR... CURVY HEADLINES

**ArcText.js** [tympanus.net/Development/ArcText](http://tympanus.net/Development/ArcText)

**Veer from the norm and use curvy text to immediately catch a user's attention by breaking their reading flow in a visually engaging way**

This plug-in can be used in order to break down the content and structure of webpages. An uneven headline is sure to be noticed, telling the reader that a new segment will follow just beneath it.

Traditionally, curved headlines were provided as PNG images. This is unnecessary, as Truetype fonts are stored as vector images, so they can be reshaped and transformed without the blurriness inherent to classic pixel-based graphics of the past.

ArcText uses this property in order to create weird-looking text structures that align themselves to various geometric paths (think circles, arcs and rectangles). The individual letter arrangement can be affected via a variety of parameters as shown in the following steps.

An impressive – and quite amusing – advanced use case involves the use of animated fonts. They change their shape as ordered by the code-behind, thereby creating an interesting and disruptive page element.



**Use ArcText to give your text more visual appeal**

ArcText achieves all of this by invoking CSS transforms. This means the library is highly compatible and should work flawlessly with most modern browsers. Screen readers and other accessibility programs can still read the results, as they are – in principle – little more than text blocks with fancy positioning.

## GET STARTED WITH ARCTEXT

**It's easy to get going with ArcText, we show you how to implement the plug-in in three simple steps**

### 01 Create curved text

Add ArcText to your project via an include tag. Creating basic text is as easy as invoking the arctext function with a radius parameter. It decides how strongly the text should be made to curl up as the rendering is performed.

```
001 $example1.arctext({radius: 300})
```

### 02 Set some options

The rendering engine is flexible. Passing in multiple parameters lets you modify the way the text will be displayed. For example, setting rotate to false will disable the arching of the individual characters.

```
001 $example3.arctext({radius: 500,  
    rotate: false})
```

### 03 Animate me

On top of arching the text, you can draw attention to particularly interesting aspects of your website by highlighting them with an animation. Achieving this is relatively straightforward: simply provide the arctext function with an animation subobject containing further information about the transformation to be performed.

## BEST FOR... HANDLING LONG PRESSES

**jQuery longpress** [github.com/vaidik/jquery-longpress](http://github.com/vaidik/jquery-longpress)

Microsoft's PocketPC introduced the concept of the long press over a decade ago. The gesture of tapping and holding an element was used to bring up a context menu that provided further options. Since then, more developers have taken a liking to the pattern.

jQuery longpress is a library dedicated to detecting click durations. Handling a long press is a question of invoking the

relevant constructor function on the control, which should be sensitive to long-press events.

Remember to keep in mind that long presses are not discoverable for the average user. Using them for commonly used features ensures that many customers will not find them. Adding a tooltip (hint: use qTip2) can help to alleviate the problem to some extent.

## BEST FOR... CHECKBOXES AND RADIO BUTTONS

**iCheck** [fronteed.com/iCheck](http://fronteed.com/iCheck)

Check boxes and radio buttons are essential parts of most non-trivial applications. Sadly, most browsers do a bad job of rendering these components in a visually attractive fashion. iCheck provides a few dozen different checkbox styles that should satisfy the needs of the most demanding users.

The tiny file size of less than 1KB means that the library does not impose

a significant performance penalty. Integrating it into existing code is easy, you don't need to change the markup of the pages to use iCheck. The framework analyzes the page structure during the loading process and embeds each of the <input> tags with a <div> and additional markup. The product also creates all required tags for screen readers and similar accessibility apps.

## BEST FOR... NOTIFICATION QUEUES

**Noty** [ned.im/noty](http://ned.im/noty)

Alertify is ideal for all developers who want to show obtrusive alerts and confirmation messages. Noty is aimed at a different market: it wants to be a notification queue for data that is not of particularly high priority.

The function of such a queue can be explained easily. Your code pushes events into the data structure, where the framework stores them until a slot

on the screen becomes free. If free space can be found, a notification is taken off the stack and pops up in the designated display area. Notifications then fade away as time passes.

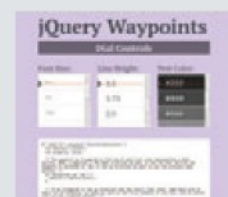
An impressive piece of technology, Noty achieves most of its work via plain CSS3 animations. This leads to smooth performance, so the loading time of your website will not be affected.

## BEST FOR... RUNNING CODE AS THE USER SCROLLS

**jQuery Waypoints** [bit.ly/1mXf4eK](http://bit.ly/1mXf4eK)

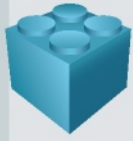
SuperScrollerama is ideal when it comes to animating elements as the user scrolls to unveil them. Sadly, many user interface interactions are not related to animations and can be

handled better via traditional callbacks. This means that the framework analyzes the scrolling behaviour of the user and



informs you of any changes. You can then react to them in any way you see fit.

Our screenshot shows a smart application of the Waypoints library; the three scrollable combo boxes act as slider widgets, which allow the user to customise the font colour and font weight of the text box below.



# BEST FOR... VISUAL REPRESENTATIONS OF GRAPHS

## ArborJS [arborjs.org](http://arborjs.org)

**The world is made up of networked things and visualising the elements of these data structures in an elegant fashion is the speciality of Arbor.js.**

Generating an aesthetically pleasing visualisation of a graph is not necessarily a trivial task these days. This is due to a variety of problems that can pop up, among which is the fact that criss-crossing connectors are considered to be unattractive and layout computations can end up requiring a lot of processing power.

Arbor.js aims to solve this problem using WebWorkers, which can parallelise tasks efficiently across multiple cores on supported browsers.

The actual visuals are not determined by the framework. The Arbor rendering engine accepts a callback that provides information about the size of the individual boxes. After the layout process is completed, each of the callbacks is invoked again with a drawing context. The generation of the visual representation then rests alone in the hands of the developer.

Using Arbor is not always a simple task. It is complete overkill for small charts, which can be handled via a



**Create clean graph representations with Arbor.js**  
variety of other visualisation plug-ins. It should not, furthermore, be used by persons who lack fundamental understanding of graph theory. In the hands of a well-qualified user, however, it manages to achieve some truly amazing visualisations.

## UNDERSTANDING THE BASICS

**Graph theory is highly complex - but the following resources can help you achieve Arbor-graphing bliss**

### 01 A small example

Seeing a library in use can be very valuable in the learning process. The developers provide a basic example, which can be analyzed on GitHub by visiting [github.com/samizdatco/arbor/tree/master/docs/sample-project](https://github.com/samizdatco/arbor/tree/master/docs/sample-project).

### 02 Get going

The ArborJS team provides a very impressive quick introduction explaining how to integrate the library into your project. Following the steps found under [arborjs.org/introduction](http://arborjs.org/introduction) should help you yield a working website.

### 03 More Arbor.js tricks

Creating actual applications requires further knowledge about the way the framework is constructed. Be sure to visit [arborjs.org/reference](http://arborjs.org/reference) in order to find a list of all the calls that are contained in the library.

## BEST FOR... DRAWING ORG CHARTS

### jQuery organisation chart plug-in [bit.ly/1g3HL5F](http://bit.ly/1g3HL5F)

Social structures can be better visualised by putting them into a special type of flow chart and generating these with Visio or Dia is no easy task, as every change in the command structure requires all charts to be remade.

This can be avoided by using the jQuery organisation chart plug-in. It takes a data structure with information about your company and uses it to render a variety of organisational charts.

Colour information lets you change the look of bubbles containing the names of important people. Data can even be broken down to create stacked org charts that fit into small areas.

Developers seeking to give their diagrams a personal touch can do so by providing HTML markup. It will then be placed on the page in lieu of the normal containers, ensuring that your website has a style of its own.

## BEST FOR... FULLSCREEN IMAGE SLIDERS

### Rslider [bit.ly/1gISUVB](http://bit.ly/1gISUVB)

Stages are ideally suited to presenting blog content. When it comes to making pictures stand out, fullscreen sliders tend to be difficult to beat. Their method is relatively simple: the space is filled with a picture, which is rotated programatically from time to time.

Even though RSlider's website isn't the most beautiful, the plug-in itself is highly recommended. As a bonus, the plug-in's developer has taken great

care in order to keep the animations fluid on slower devices.

Developers working on slideshows containing hundreds of images will be happy to find that RSlider can divide the picture database into categories - which is helpful for users as well.

Once images are grouped into <div> tags, calling the initializer method ensures the slider pops up. The developer has an example with further advice.

## BEST FOR... MARKING A MAP

### jQuery Map Marker Plugin [bit.ly/1hdLAX1](http://bit.ly/1hdLAX1)

Interesting spots have always been denoted using a pin or an 'x' symbol and the jQuery Map Marker Plug-in has dedicated its existence to this often-underestimated geographic task.

The data must come from Google's geo API and is combined with locations designated in a latitude-longitude format. After invoking the plug-in function, the map is shown with pins.

Zooming and panning tends to distract manually placed pins. jQuery Mobile Map Maker works around this by providing you with predefined methods that handle these transformations and keep pins in mind.

Developers creating small maps will find their needs well served here but sadly the mapping service can become unaffordable as requests grow.

## BEST FOR... CHOOSING DATES AND TIMES

### PickADate [amsul.ca/pickadate.js](http://amsul.ca/pickadate.js)

At first glance, getting users to enter dates and times is a non-complex task - but working in a post-iPhone world means users will expect to see a well-animated calendar. PickADate is specialised in providing this service.

Using the component is simple. Fit a <div> tag into the page and go on to call the corresponding picker function. From then on, the tag will be replaced by a

small button that pops up the calendar widget on a canvas floating over the page. This approach is preferable to classic pop-up calendars, which can run afoul of client-side advertising blockers.

Dialogs can be extended with a variety of extra markup in order to create advanced input systems. This can be exploited in order to create a from-to date picker for a travel website.



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**This offer expires 30 September 2014.**

# Create stunning mobile apps with Ionic

Build feature-rich HTML or mobile apps using the new Ionic framework, offering both style and substance

**tools | tech | trends** Node.js, Ionic Framework, PhoneGap / Cordova  
**expert** Matt Gifford



**M**obile apps are everywhere nowadays, and as creative professionals we tend to get a lot of requests in from clients to build them. Thankfully there are a number of libraries and frameworks already out there that can help us to

create them - but we are going to inject something new into our next application project.

We are going to explore the new Ionic framework, an open source project that helps you create hybrid mobile applications using HTML5 and Angular.js. Optimised for speed, Ionic behaves well with all the latest mobile devices and is modelled from popular native development SDKs, so if you've built a native app for iOS or Android, this should be a cinch for you.

In this tutorial we are going to take a look at installing the library and using it in conjunction with PhoneGap to create new mobile application builds from the command line. We will also take a look at how to implement a few of the many CSS elements to create an aesthetically pleasing user interface that can be updated, manipulated and revised to suit your needs.

## 01 Install Ionic

Ionic runs on Node.js, so you will need to install this before you proceed. Once installed, open a Terminal or Command Prompt window to install Ionic globally using the Node Package Manager. You may also choose to install the PhoneGap / Cordova command line tools at this stage, once again as global installations using the -g flag.

```
001
002 > npm install -g ionic
003 > npm install -g cordova
004
```

```
npm http 304 https://registry.npmjs.org/sigmund
npm http 200 https://registry.npmjs.org/lru-cache
npm http 304 https://registry.npmjs.org/mkdirp
npm http 304 https://registry.npmjs.org/mkdirp
npm http 304 https://registry.npmjs.org/mkdirp
ionic@1.0.1-beta /usr/local/lib/node_modules/ionic
├─ colors@0.6.2
├─ ncp@0.4.2
├─ q@1.0.1
├─ shelljs@0.2.6
├─ optimist@0.6.0 (minimist@0.0.8, wordwrap@0.0.2)
├─ event-stream@3.0.20 (duplexer@0.1.1, from@0.1.3,
├─ e-stream@0.0.11, map-stream@0.0.4, split@0.2.10, thro
├─ form-data@0.1.2 (async@0.2.10, mime@1.2.11, combi
├─ request@2.27.0 (json-stringify-safe@5.0.0, foreve
├─ qs@0.6.6, tunnel-agent@0.3.0, oauth-sign@0.3.0, c
├─ 1, node-uuid@1.4.1, http-signature@0.10.0, hawk@1.0.0
├─ archiver@0.5.1 (readable-stream@1.1.12, lazystrea
├─ stream@0.1.4, file-utils@0.1.5)
├─ unzip@0.1.9 (setimmediate@1.0.1, match-stream@0.0.
├─ 4, pullstream@0.4.0, binary@0.3.0, fstream@0.1.25)
├─ prompt@0.2.12 (revalidator@0.1.6, pkginfo@0.3.0,
├─ util@0.2.1)
Matts-MacBook-Pro:~ monkehWorks$
```

## 02 Starter applications

Ionic is able to generate a starter application skeleton for you with ease. Using Terminal inside your selected directory location, simply run the command to generate a new application as shown in the code snippet below. In this case we will also select a starting template that has a dynamic sliding menu section. You can optionally choose to create a blank template or one with tabbed navigation elements, it's up to you.

```
001
002 > ionic start killerApplication sideMenu
003
```

```
Matts-MacBook-Pro:Desktop monkehWorks$ ionic start k
Running start task...
Creating Ionic app in folder /Users/monkehWorks/Desk
on sideMenu project

DOWNLOADING: https://github.com/driftyco/ionic-app-ba
ip
DOWNLOADING: https://github.com/driftyco/ionic-start
ip
Initializing cordova project.
Fetching plugin "org.apache.cordova.device" via plug
Fetching plugin "org.apache.cordova.console" via plug
Fetching plugin "org.apache.cordova.statusbar" via p

Your Ionic project is ready to go!

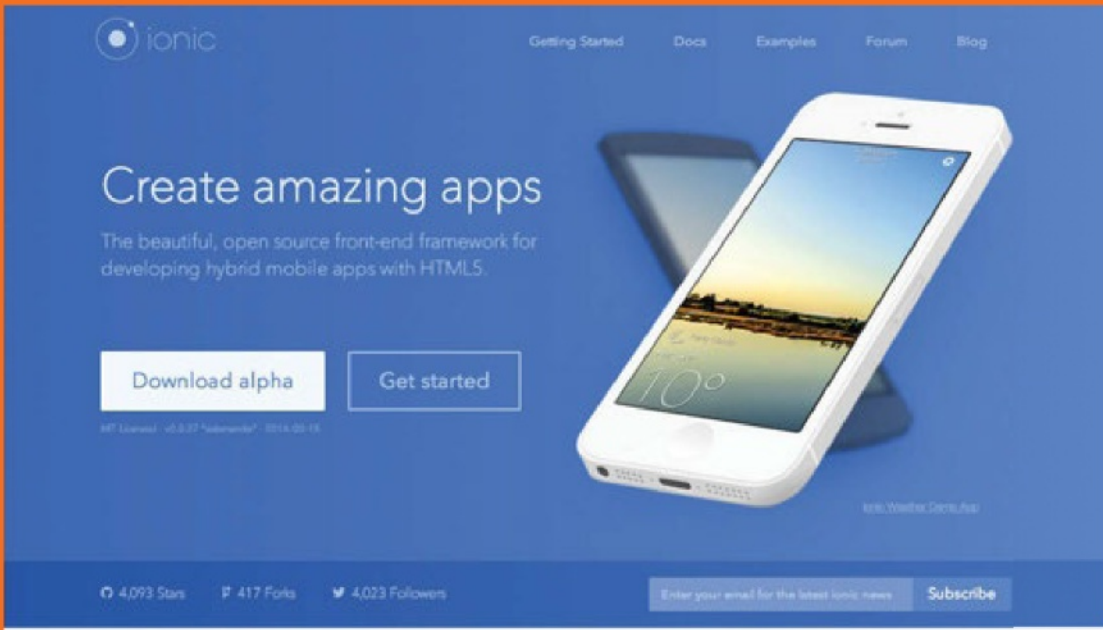
Some quick tips:

* cd into your project directory before running any
cd killerApplication)

* Make sure to add a platform (ios or Android): ion
]

Note: iOS development requires OS X currently
```





The landing page features a blue header with the Ionic logo and navigation links: Getting Started, Docs, Examples, Forum, and Blog. The main section has a large heading 'Create amazing apps' and a subheading 'The beautiful, open source front-end framework for developing hybrid mobile apps with HTML5.' Below this are two buttons: 'Download alpha' and 'Get started'. A smartphone displaying a weather app is shown on the right. At the bottom, there are social media stats (4,093 Stars, 417 Forks, 4,023 Followers) and a 'Subscribe' button.

**<left>**

- The Ionic framework is built for simplicity, speed, aesthetics and great user interaction and experience on the mobile level. The library is open source and contributions are widely appreciated by the community. Get involved and help shape the framework as you use it

**Create hybrid mobile apps with the web technologies you love.**

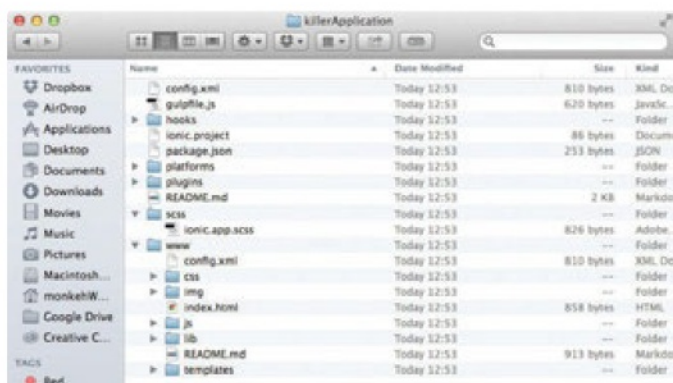
Free and open source, Ionic offers a library of mobile-optimized HTML, CSS and JS components for building highly interactive apps. Built with [Sass](#) and optimized for [AngularJS](#).

**Performance obsessed**

Speed is important. So important that you only notice when it doesn't work. Ionic is built to perform and behave great in the latest mobile devices. With **minimal DOM** manipulation, **zero jQuery**, and **hardware accelerated** transitions, one thing is for sure: you'll be impressed.

### 03 Generated structure

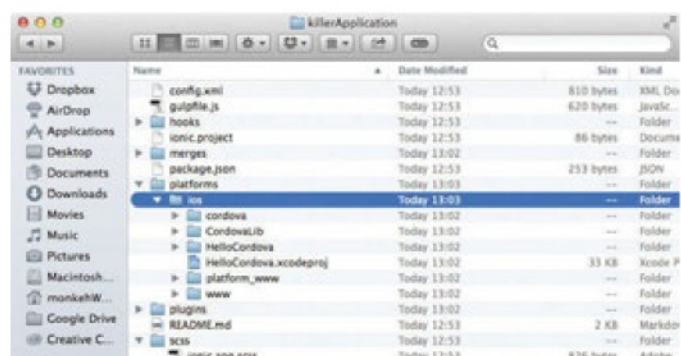
The Ionic command line script generates a new application for you in the requested directory location. The directory structure is designed to match a typical Cordova/PhoneGap 3 structure to incorporate the same elements and to build mobile apps using the service. A Gulpfile is also present to help minify and concatenate files for deployment.

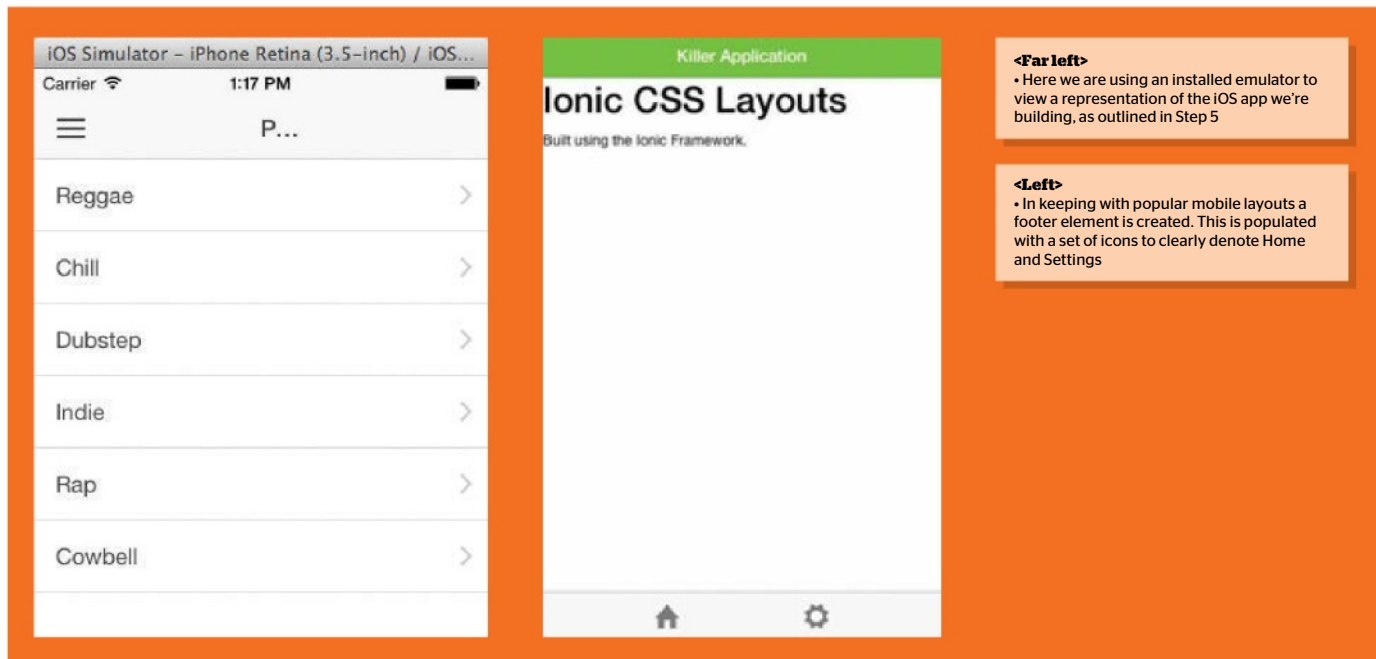


### 04 Add a platform

To use the existing code base/application structure as a PhoneGap mobile application you will need to add a platform entry for each platform you wish to generate a build for. This is easily managed through the command line and Ionic closely emulates the official PhoneGap CLI when dealing with this.

```
001 > ionic platform add ios android
```



**<Far left>**

• Here we are using an installed emulator to view a representation of the iOS app we're building, as outlined in Step 5

**<Left>**

• In keeping with popular mobile layouts a footer element is created. This is populated with a set of icons to clearly denote Home and Settings

**05 Simple build generation**

As Ionic is based upon the Cordova framework and integrates nicely with the CLI tools available, we can easily generate a build of our application and run it on an installed emulator applicable to that platform via the command line. Here we can build the iOS app and run it on the local emulator.

```
001 > ionic build ios
002 > ionic emulate ios
003
```

**Built for Angular.js**

The Ionic framework has been built to work seamlessly with Angular.js to create dynamic applications. If you haven't yet discovered Angular.js check it out at [angularjs.org](http://angularjs.org).

**06 CSS components**

The Ionic framework offers much more than a method to build PhoneGap-based mobile applications. It comes with a detailed and impressive CSS framework that can be added in to any web application, although the majority of elements have been tailored to work with mobile applications by default. Simply import the stylesheet and use the framework for layout styling.

**07 Mobile header elements**

Ionic handles the common mobile layout elements in a very similar way to existing libraries or frameworks you may have used. Here we are simply adding a new header element to the page and assigning it one of the default 'template' colours using a specific class reference applied directly to the HTML.

```
001
002 <div class="bar bar-header bar-balanced">
003   <h1 class="title">Killer Application</h1>
```

```
004 </div>
005
```

**08 Footer and tabbed menus**

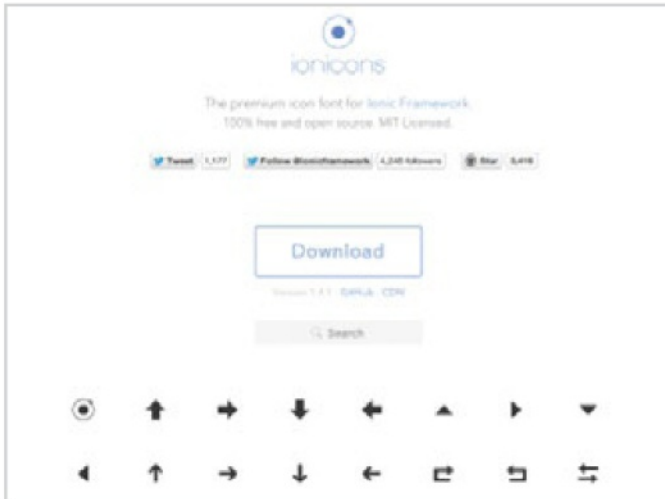
Adding a footer element is exactly the same as the header with a small adjustment to the class name. In this example we have added a tabbed menu interface to the bottom of the mobile layout, complete with icons for visual display. All of this can be customised and tweaked to suit your requirements.

```
001 <div class="tabs tabs-icon-only">
002   <a class="tab-item">
003     <i class="icon ion-home"></i>
004   </a>
005   <a class="tab-item">
006     <i class="icon ion-gear-a"></i>
007   </a>
008 </div>
009
```



## 09 Icons included

Ionic comes with its own icon library built in. These have been designed specifically for this library and contain pretty much everything you should need as standard. It is also available as a standalone font pack for use in any application and can be installed locally or referenced by the provided CDN. Visit [ionicons.com](http://ionicons.com) to find out more.



## 10 JavaScript API

As part of the HTML interface, Ionic contains a detailed and fairly extensive JavaScript API to help you extend the Angular.js implementation to use some of the built-in user interface elements. These can help you to create feature-rich layouts, including loading displays, dynamic lists and modal windows. All functions and optional configuration items are available on the documentation site: [ionicframework.com/docs](http://ionicframework.com/docs)



## 11 Dynamic list creation

In this code sample we create a scrollable content area, which contains a list element item, all of which have ion- tag prefixes. The list will be populated by data from our appController code, included from the Angular.js module. An on-refresh handler is added to run a specific function when the list is dragged to refresh on the device.

```
001 <ion-content class="has-header" ng-controller="appController">
002   <ion-refresher pulling-text="Pull to refresh..." on-
      refresh="refreshList()">
003   </ion-refresher>
004   <ion-list>
005     <ion-item ng-repeat="item in items"></ion-item>
006   </ion-list>
007 </ion-content>
```

## Working with the Cordova/ PhoneGap connections

Ionic has been built to interact beautifully with the Cordova / PhoneGap platform and the local command line interface tools available since version 3 of the respective libraries. This can be seen in the directory structure generated by each new application and how simple it is to build and prepare versions of the application for each platform as requested, as well as to run and emulate the generated build on each platform.

For any developers trying out Ionic who currently use the PhoneGap tooling, some of the command line tooling may differ ever so slightly from what you are used to. For example, you have to declare a specific platform name when running the build command in Ionic, whereas 'vanilla' PhoneGap CLI tooling allows you to run a generic build command that will create a build for all platforms.

## Help is at hand

While still a young framework, Ionic has a number of great resources from which to learn. They even have an online book, which is definitely worth checking out. Find it at [ionicframework.com/docs](http://ionicframework.com/docs).

## 12 Angular controller

To manipulate and manage data on the list element we now need to inform Angular.js of the controller and set the relevant controls to manage the interaction. Here we define the controller and set the refreshList method details, which will be run once the list is refreshed. To complete the interaction we broadcast a refreshComplete command.

```
001 angular.module('killerApp', ['ionic'])
002 .controller('appController', function($scope, $http) {
003   $scope.items = [1,2,3];
004   $scope.refreshList = function() {
005     $http.get('/new-items').success(function(newItems) {
006       $scope.items = newItems;
007       //Stop the ion-refresher from spinning
008       $scope.$broadcast('scroll.refreshComplete');
009     });
010   };
011 });
012
```

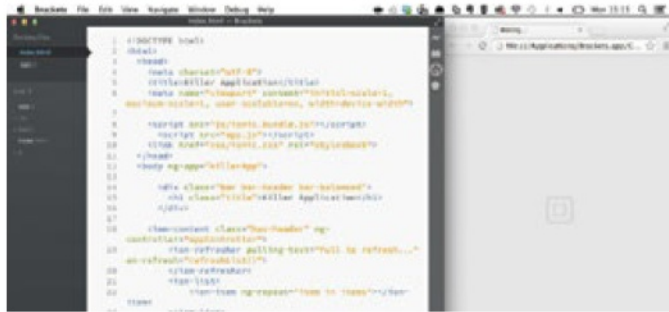
## 13 Angularify your application

We now need to inform the application that it is an Angular app and which controller it should be using. To do so we reference the Ionic bundle JavaScript file (which includes Angular) and amend the body tag to set the Angular attribute to match the name of our controller.

```
001 <script src="js/ionic.bundle.js"></script>
002 </head>
003 <body ng-app="killerApp">
004
```

## 14 Local development testing

As with most HTML applications, the local development phase is crucial and testing on a specific server is highly desired. To help with developing your mobile application you can run a local server using Python if you have it installed, or use Adobe Brackets to run a live preview on a specific port, which will update after any code or style changes.



## 15 Device testing

As our mobile application will be using the Cordova/PhoneGap library, we can now start to use more of the CLI tooling available. Here we can run a build of our current application directly onto a connected Android device for on-device testing. This, of course, assumes that the correct permissions are set on the device to allow this.

```
001 > cordova run android
```

## 16 Community support

The Ionic framework has attracted a big following, even from a very early stage in its life. The online documentation is especially valuable and of great help, but if you ever need the personal touch when it comes to requests, help and ideas, the community are at hand to assist you on the official Ionic forums: [forum.ionicframework.com](http://forum.ionicframework.com).



## 17 Inspiration and existing apps

The Ionic framework has already been used for a number of mobile applications currently available on various mobile markets. Explore the examples on the site and see what others have done with the framework. Some of the projects are available to view on GitHub too, so you can dig into the code. [ionicframework.com/examples/showcase](http://ionicframework.com/examples/showcase).



## A closer look

Let's dig a little deeper into some of the available features and functions on offer through the Ionic framework

```
001
002 ionic.Platform.ready(function(){
003    var thisDevice = ionic.Platform.device();
004    var model = thisDevice.model,
005        platform = thisDevice.platform,
006        version = thisDevice.version;
007
008    console.log(ionic.Platform.isCordova());
009    console.log(ionic.Platform.isIPad());
010    console.log(ionic.Platform.isIOS());
011    console.log(ionic.Platform.isAndroid());
012
013 });
```

### <Above>

- You can obtain platform and device information through the `onReady` function if you have the Cordova device plug-in installed

```
001
002 document.getElementById("exitButton").onclick =
003     exitApplication;
004
005 function exitApplication() {
006     ionic.Platform.exitApp();
007 }
```

### <Above>

- With the platform object exposed, you can call a custom function in order to process data and exit the application gracefully

```
001
002 var app = angular.module('myApp', ['ionic']);
003 app.config(function($stateProvider) {
004     $stateProvider
005     .state('index',
006     {
007         url: '/',
008         templateUrl: 'welcome.html'
009     })
010
011     .state('about',
012     {
013         url: '/about',
014         templateUrl: 'about.html'
015     });
016 });
```

### <Above>

- Making use of Angular.js you can implement the state provider and UI router to manage navigational states



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# Create a reminder app with Node and Ember

Send text messages to remind you of events away from your computer with Node.js and Twilio

**tools | tech | trends** Bower, Node.js, EJS, Express, Twilio, Moment.js, MongoDB, Mongoose, JavaScript, HTML5

**expert** Tim Stone



Over the next two issues we will build a reminder app with a frontend built using Ember.js and the backend provided by Node.js. This app will allow you to create, update and delete reminders and should form a solid basis for expansion if you wanted to add authentication, users, or any additional features. It will also send text messages when a reminder is due.

We'll start by building the backend, where you'll learn how to set up end-points for an API and work with a database. If you haven't built a Node application before but you are familiar with JavaScript then you should follow along just fine.

We'll be using a web framework called Express ([expressjs.com](http://expressjs.com)), which makes working with Node (specifically, working with HTTP) bearable by wrapping common tasks in an easy-to-read format.

This tutorial assumes that you have Node ([nodejs.org](http://nodejs.org)) and Bower ([bower.io](http://bower.io)) installed. Don't fret if you don't, simply follow the getting started guides on their websites and you'll be all set.

## 01 Project structure

Since we are going to be jumping between a number of files, here's a quick overview of the folder structure that we're using for this project; we've omitted folders generated by Bower and npm. All of our files that are being served to the frontend will be under the public directory, while everything at the root level will be for our Node app.

```
001
002 /
003   /config
004   /public
005   /js
006     /controllers
007     /models
008     /views
009   /views
010
```

## 02 Bower configuration

We're going to be using Bower to manage our front-end dependencies. Create a file called 'bower.json' under the public folder and add the following dependencies. Then run 'bower install' from Terminal. This will not only pull Ember from GitHub but also its dependencies, jQuery and Handlebars. You then need to include all of the files Bower installed in index.html.

```
001
002 {
003   "name": "reminders",
004   "version": "1.0.0",
005   "private": true,
006   "dependencies": {
007     "ember": "1.4.x",
008     "ember-data": "1.0.0-beta.7",
009     "moment": "2.5.x"
```

```
010   }
011 }
012
```

## 03 Node dependencies

That's our front-end bits set up, now we'll follow a similar process to configure Node, this time with package.json. Once all of this is done, you can then run 'npm install', which will grab all of the server dependencies. Mongoose is a Node interface that works with MongoDB, Moment is a date-parsing library and EJS is a nice template library.

```
001
002 {
003   "name": "reminders",
004   "dependencies": {
005     "express": "3.5.x",
006     "express-promise": "0.1.x",
007     "mongoose": "3.8.x",
008     "moment": "2.5.x",
009     "ejs": "0.8.x",
010     "twilio": "1.6.x"
011   }
012 }
013
```

## 04 Include modules

Server.js will contain most of our server logic. First we'll require some of the dependencies we installed in the previous step and initiate Express. Database.js simply contains a string that tells us where to connect to a MongoDB database. We've used MongoHQ ([www.mongohq.com/home](http://www.mongohq.com/home)) but there are many other providers - or it can be managed locally.

```
001
002 //server.js
```



```

1. bash
Tims-MacBook-Pro:public timstone$ bower install
Tims-MacBook-Pro:public timstone$ bower list
bower check-new Checking for new versions of the project dependencies..
reminders#1.0.0 /Users/timstone/Projects/timer/public
├─ ember#1.4.0 (latest is 1.5.0-beta.3)
├─ handlebars#1.3.0 (latest is 2.0.0-alpha.2)
├─ jquery#2.0.3 (latest is 2.1.0)
├─ ember-data#1.0.0-beta.7
├─ ember#1.4.0 (1.5.0-beta.3 available)
├─ handlebars#1.3.0
├─ jquery#2.0.3
└─ moment#2.5.1
Tims-MacBook-Pro:public timstone$

```

## &lt;Above&gt;

• Bower is a great tool to manage your front-end dependencies, as project dependencies can be seen at a glance

```

{
  __v: 0,
  _id: ObjectId("531e3c8747508abf11082e7b"),
  end: ISODate("2014-03-10T23:28:23Z"),
  isCompleted: false,
  title: "Change filter"
}

```

## &lt;Above&gt;

• This is what a MongoDB record looks like. Alongside our three properties there's an automatically assigned ID and revision number

```

1. bash
Tims-MacBook-Pro:timer timstone$ npm install
npm WARN package.json reminders@0.0.0-12 No description
npm WARN package.json reminders@0.0.0-12 No README data
npm http GET https://registry.npmjs.org/ejs
npm http GET https://registry.npmjs.org/mongoose
npm http GET https://registry.npmjs.org/moment
npm http GET https://registry.npmjs.org/express-promise
npm http GET https://registry.npmjs.org/express
npm http 304 https://registry.npmjs.org/moment
npm http 304 https://registry.npmjs.org/express-promise
npm http 304 https://registry.npmjs.org/ejs
npm http 200 https://registry.npmjs.org/express
npm http 200 https://registry.npmjs.org/mongoose
Tims-MacBook-Pro:timer timstone$

```

## &lt;Above&gt;

• npm manages the back-end dependencies and ensures that the correct versions are installed to meet our modules' requirements

## reminders

Double-click to edit a reminder

## &lt;Above&gt;

• Our Node application is rendering our 'index.html' file, albeit without any styles - but we'll sort that out next time

```

003 var express = require('express'),
004     moment = require('moment'),
005     mongoose = require('mongoose'),
006     app = express(),
007     port = process.env.PORT || 8000,
008     configDB = require('./config/database.js');
009

```

## 05 Configure app

Next we'll configure our Node app to use EJS to render HTML files (this is the simplest way to serve static HTML files in Node) and require express promise. This means that we can make database queries without specifying callbacks, as well as specifying our static public directory to serve our CSS and JavaScript. Finally we connect to our database with Mongoose.

```

001
002 app.configure(function() {
003   app.engine('html', require('ejs').renderFile);
004   app.use(require('express-promise')());
005   app.use(express.static(process.cwd() + '/public'));
006   app.use(express.bodyParser());
007 });
008 mongoose.connect(configDB);
009

```

## 06 Introduce MongoDB

Now for a crash course in MongoDB. MongoDB stores records in groups known as collections (synonymous with tables). Each record conforms to some sort of pattern (known as a schema), which defines what properties to expect and the particular type of those properties (for example, a string, number, and so on). Mongoose ([mongoosejs.com](http://mongoosejs.com)) is the de facto way of interfacing with MongoDB within Node.

## 07 Mongoose schema

We'll create a schema for reminders; each reminder should have a title, whether or not it's been completed, and when the reminder should expire. We're adding a default value to the end time of one hour from the current time. We convert this schema to a model (with methods like save, update, destroy) by passing the schema to mongoose.model().

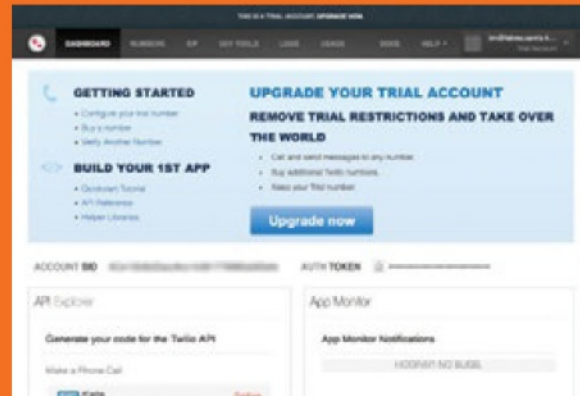
```

001 var reminderSchema = mongoose.Schema({
002   title: String,
003   isCompleted: Boolean,
004   end: { type: Date, default: moment()
        .add('hours', 1).toDate() }
005 });
006 var Reminder = mongoose.model
007   ('Reminder', reminderSchema);

```

```
1. node
^CTims-MacBook-Pro:timer timestone$ node server
connect.multipart() will be removed in connect 3.0
visit https://github.com/senchalabs/connect/wiki/Connect-3.0 for alternatives
connect.limit() will be removed in connect 3.0
The magic happens on port 8000
Title: Create something
Record saved
Title: Shape something
```

```
1. node
There are 5 reminders in the database
Deleted: 5320bb9fbe7ca2435d14e574
There are 4 reminders in the database
```



**<Clockwise from top left>**

- Once the record is saved it will write the changes to the database and we can read the new properties
- The Twilio sign-up process is effortless and you receive your own phone number and access to the API
- Here we're ensuring that the item has been deleted by comparing the number of records in the database

## 08 Run Node

Now would probably be a good time to start our application. Run '\$ node server' from Terminal and navigate a browser to <http://localhost:8000>. You will then be greeted with a blank screen because we haven't configured any routes yet - but it's working! You can pass a custom port number by running '\$ PORT=1337 node server'.

```
001
002 app.listen(port);
003
```

## 09 Render index

Routing in a Node Express app is very simple. It's simply the application name followed by the HTTP verb (GET, POST, PUT, DELETE) and a string with what it should correlate to; so by default (when the browser requests '/') we render index.html. Two arguments are passed to our callback when a route is called: the request and the response.

```
001
002 app.get('/', function(request, response) {
003   response.render('index.html');
004 });
005
```

## 10 JSON response

Our routes correlate to the API Ember.js expects. When it gets a request to /timers we will send back all of the reminders in the database in JSON. We can do this with Mongoose. Calling find() will get all records in the Reminders collection. We then want to send all properties except \_\_v - Ember.js will get a bit confused if it's present.

```
001
002 app.get('/timers', function (req, res) {
003   res.json({
004     timers: Reminder.find().select('-__v')
```

## Ember API spec

All of the details on how to write a REST API that conforms to what Ember expects can be found at [emberjs.com/guides/models/the-rest-adapter](http://emberjs.com/guides/models/the-rest-adapter). Alternatively, you can also configure Ember manually.

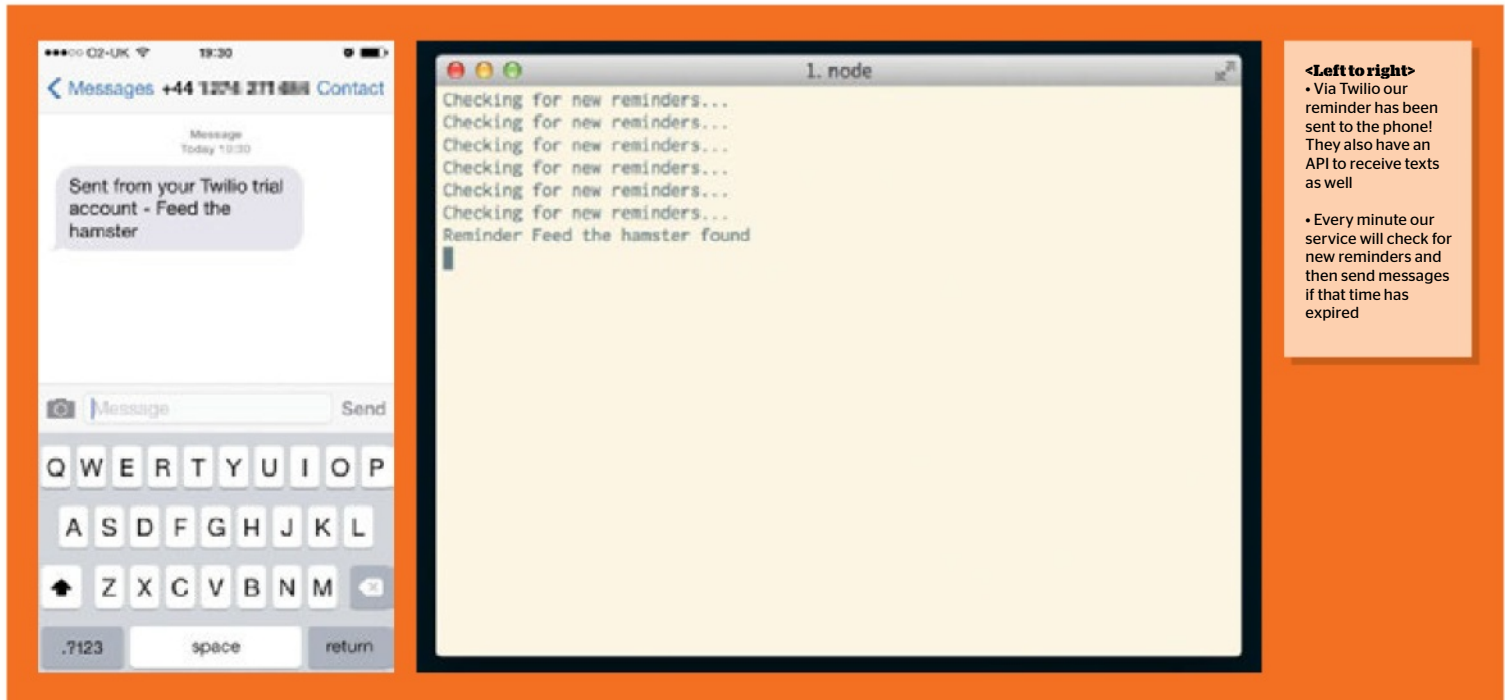
```
005   });
006   });
007
```

## 11 Create a reminder

When Ember POSTs it wants to create a new reminder (notice that it's the same URL but the verb has changed). This time we'll use Mongoose to create a new reminder and access the POST data with req.body. We can then save the new reminder to the database and respond with a JSON representation of the newly created reminder.

```
001
002 app.post('/timers', function (req, res) {
003   var reminder = new Reminder();
004   reminder.title = req.body.timer.title;
005   reminder.end = new Date(req.body.timer.end);
006   reminder.save();
007   res.json({"timer": reminder });
008 });
009
```





## 12 Update a reminder

When Ember updates a record it uses the PUT verb. Again, Express makes it trivial to listen and act on this request. Notice the colon before id? This denotes a request parameter. We can then find the corresponding ID in the database with Mongoose's `findById`, update the relevant properties and save it back to the database.

```
001
002 app.put('/timers/:id', function (req, res) {
003   Reminder.findById(req.params.id, function
004     (err, record) {
005     record.title = req.body.timer.title;
006     record.isCompleted = req.body.timer.
007     isCompleted;
008     record.end = req.body.timer.end;
009     record.save();
010     res.json({"timer": record });
011   });
012 });
```

## 13 Remove a reminder

The DELETE verb is used when – you guessed it – Ember is instructing us to delete the record. We're getting the ID of the record to remove and Mongoose has a helpful method called `findByIdAndRemove()`, which does exactly as it says. The only caveat here is that it must have a callback, otherwise it doesn't execute the query.

```
001
002 app.delete('/timers/:id', function (req, res) {
003   Reminder.findByIdAndRemove(req.params.id,
004     function (err) {
005     if (err) console.log('Error deleting', err);
006   });
007 });
```

## 14 Create Twilio account

Within a new file called `'cron.js'` we'll write some functionality that will check for reminders that need to send a notification to the user. We'll be using Twilio to send the message, so create an account with Twilio ([www.twilio.com/try-twilio](http://www.twilio.com/try-twilio)) and get your SID and authentication token from the account page.

## 15 Create a module

Now that you've got your SID and token you can send messages from Twilio's API. When requiring a file in Node we must specify what our file returns, in this case it's simply a function. We'll pass the module the 'Reminder' model and following that, we will then call the `checkReminders` function both immediately and once a minute.

```
001
002 module.exports = function (Reminder) {
003   var accountSid = 'YOUR_ID',
004       authToken = 'YOUR_TOKEN',
005       client = require('twilio')
006       (accountSid, authToken);
007   function checkReminders () {
008     /* main functionality will be here */
009   }
010   setInterval(checkReminders, 60000);
011   checkReminders();
012 };
```

## 16 Find expired reminders

With Mongoose we can write queries to filter our records. The following will only return reminders that have an end date before now; `$lt` is the keyword for less than. The convention in Node is to pass any errors as the first argument and then other data afterwards, allowing for concise error handling (if error, do this, else continue).

```
001 Reminder.find({ 'end': { $lt: Date.now() } },
002   function (err, reminders) {
```

```

002   if (err) {
003     console.log(err);
004     return;
005   }
006   //next step
007 });
008

```

## 17 Loop over reminders

At this point we will loop through each reminder that needs to be notified; we first check to see if a message has already been sent – if it hasn't then we'll proceed. Otherwise, we'll do nothing. We know the environment that we're working with, so don't have to shim for IE <9, the joy!

```

001
002 reminders.forEach(function(reminder) {
003   if (!reminder.isCompleted) {
004     // next step
005   }
006 }
007

```

## 18 Send texts

Sending a message with the Twilio client is absurdly straightforward. All we need to do is provide what to say, in this case the title of the reminder, the mobile number to send it to and the number it's to be sent from. If you're using a sandboxed Twilio account then you'll need to authorise each number that you want to send a message to.

```

001
002 client.sms.messages.create({
003   body: reminder.title,
004   to: 'YOUR_MOBILE_NUMBER',
005   from: 'YOUR_TWILIO_NUMBER'
006 },
007 //next step
008 );
009

```

## 19 Catching and saving

Once the Twilio server has responded, this callback is invoked. Only then do we update the reminder with a completed state if it's successful. That way if a message can't send for some reason, we can try again the next time the function's called in a minute's time. Ideally, you should have a callback within the save method to make sure it was saved successfully too.

```

001
002 function(err, message) {
003   if (err) {
004     console.log(err);
005     return;
006   }
007   reminder.isCompleted = true
008   reminder.save();
009 }
010

```

## 20 Require the module

To run our 'cron.js' file when the server starts we require() it and pass in the Reminder model so that we don't have to then open a separate

## Managed data in Node applications with MongoDB

There are many ways to store user's data in an application such as this. One option would be to use Local Storage, avoiding the need for a backend at all, but then we wouldn't be able to send text messages when the browser is closed. Another is to use a database and MongoDB is a popular choice for Node.js applications. You can either install it locally on your system ([www.mongodb.org/downloads](http://www.mongodb.org/downloads)) or use a service such as MongoHQ, which provides graphical management tools.

Then Mongoose comes in; Mongoose sits between Node and MongoDB as a middleman (known as middleware) that makes interacting with your database easier than it would be if you were just using the MongoDB driver. Using Mongoose gives us helpful tools like built-in validation.

## Create requests in Firefox

When building your Node API it's useful to be able to test your end-points. Firefox has got a useful Network tab in DevTools that makes, edits and sends requests.

connection to the database. This will then call the exports function and all the functionality within it so that our reminder service is tied to our web service (which is not necessarily a good ideal).

```

001
002 require('./cron.js')(Reminder);
003

```

## 21 Inline promises

Express-promise ([www.npmjs.org/package/express-promise](http://www.npmjs.org/package/express-promise)) has only been mentioned in passing so far, but it is a neat library that enables us to write promises inline. It can be easier to read and it becomes exponentially more useful the more callbacks you have. Below is an example of how it simplified our particular use case.

```

001
002 Reminder.find(function (err, reminders) {
003   res.json({
004     timers: reminders
005   });
006 });
007 //becomes
008 timers: Reminder.find()

```

## 22 Next time...

So far we have built a backend for our reminder application, which not only deals with requests but also checks for expired reminders and sends texts using MongoDB. In the next tutorial we will build the frontend of our application with Ember.js to allow users to add, edit and remove those reminders from within a nice interface.



# FOR THE GNU GENERATION

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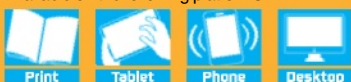
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## Chris Da Sie

web [chrisdasje.com](http://chrisdasje.com)



**Current role** Freelance digital designer  
**Education** Self-taught  
**Expertise** HTML, CSS, WordPress, sketch, pen and paper and Wirefy  
**Clients** Litmus, the government of Newfoundland & Labrador, Rutter Inc, The Learning Partnership  
**Twitter** @chrisdasje

Chris Da Sie is a digital designer working from the east coast shores of Newfoundland, Canada. He started out as a copywriter before falling in love with design. Now with over eight years of experience building web solutions, Chris has passion for solving problems with clear and simple designs. After working for agencies in various roles, he stepped out on his own in 2013 and now works under the studio name of Chris Da Sie Designs.

He advocates that by having clean, sharp designs, you lay the foundation for websites that are elegant and functional. Hence, solutions that are user-focused and solve a real need. Even though there are tons of design

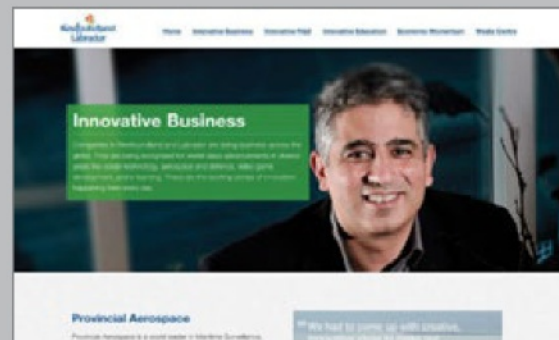
trends, Chris doesn't like to focus on creating in only one style. He believes the style should reflect the company's persona, rather than what can be found in the latest CSS gallery.

Chris has written for several publications on the topic of UX and is currently working on a book alongside his weekly rants to his blog. He created and still maintains the style-agnostic prototyping framework Wirefy, which was built to help designers focus on content and usability rather than styles or screen sizes.

He is motivated by the work done being done on user experience and its relationship to brand personas. He tweets about design under the moniker @chrisdasje.



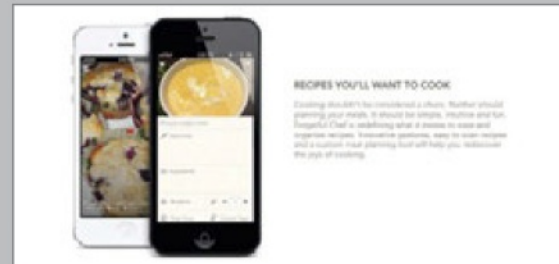
02 [getwirefy.com](http://getwirefy.com)



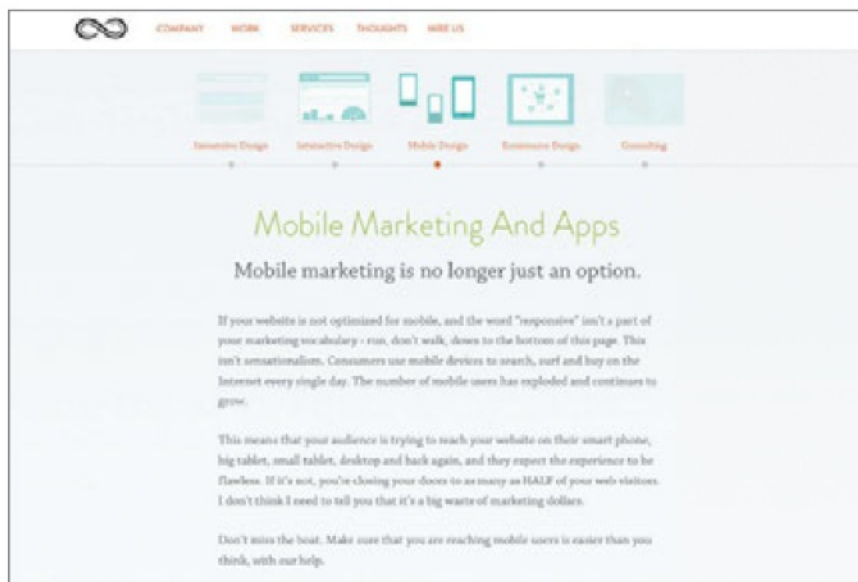
03 [innovationlivesheren.ca](http://innovationlivesheren.ca)



04 [thelearningpartnership.ca](http://thelearningpartnership.ca)



05 [forgetfulchef.com](http://forgetfulchef.com)



01 <http://goinfinitus.com>

### 01

Infinitus is a new agency in Newfoundland that looks at the world differently. Chris brought this to their site with custom icons and a friendly colour palette.

### 02

Wirefy was created as a tool to help web developers create fast, manageable wireframes. It helps to speed up the journey between sketches and final deliverables.

### 03

An initiative led by the Government of Newfoundland and Labrador, this site offers a clean design highlighting each company and its successes.

### 04

Working with the logo, Chris designed UI elements that carried the stacked boxes approach through the site, giving it a consistent tone and identity.

### 05

Using the objective that visuals are the greatest gateway to wanting to cook a meal, Chris focused on an interface that would make your mouth water just to look at.



# André Dubreuil

web [portfolio.shufflepath.ca](http://portfolio.shufflepath.ca)



**Current role** Information architect, UX designer, team lead UX  
**Education** Diploma of College Studies of Fine Arts  
**Expertise** Information architecture, user experience, ergonomics, HCI, HTML, CSS, PHP, jQuery, Axure, Photoshop, Illustrator  
**Clients** CAE, Bombardier, Via Rail Canada, Intact Insurance, Bell Mobility, Rogers Communications  
**Twitter** @shufflepath

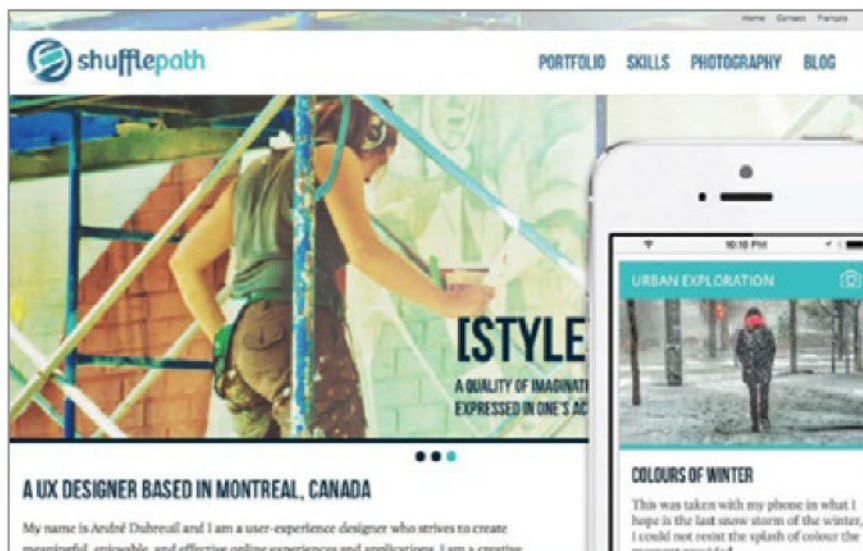
André is a UX designer who strives to create meaningful, enjoyable and effective online experiences and applications. With over 15 years' varied a experience he has taken many roles, which have given him a well-rounded understanding of design techniques and best practices. He has the privilege of working on projects of all sizes and shapes, for local, national and multinational companies and is currently team lead UX at Tink, a well-regarded web agency in Montreal, Canada.

Embracing a user-centred design approach, André believes that putting users first optimises the value of any interactive project, ensuring the most relevant experience and value for all parties involved, be it the end user, the

customer, or the designer. It is his opinion that great digital experiences are achieved by considering the user of your product at every stage of the design process.

The adoption of new methodologies help provide a better toolset for the designer but above all, André thinks that gaining an understanding of context is absolutely critical to good design. The growth of mobile usage, the types of devices used, as well as the different contexts in which a user interacts with an app or site make it even more so.

With the arrival of concepts such as wearable technology and augmented reality bringing their own challenges, André is looking forward to many more years of working in the industry.



01 [portfolio.shufflepath.ca](http://portfolio.shufflepath.ca)

## 01

André's recently launched responsive portfolio website uses a simple colour scheme, clean typography and a mostly flat look and feel to showcase his skills.

## 02

Place des Arts wanted a more current image; it was very important to put the emotional aspect of the UX at the forefront as well as focusing on the events.

## 03

A complete redesign helps Brunet establish a modern brand, while the responsive design brings the brand close to its customers, wherever they are.

## 04

Metro, a leading supermarket chain in Canada, launched an app to renew a deep consumer experience while recreating the shopping process digitally.

## 05

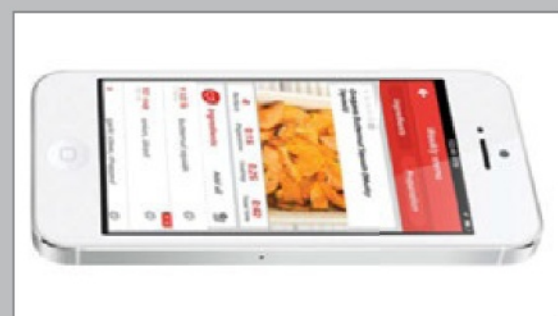
A minimalist layout combined with large images fittingly showcases an architectural landmark that defines Montreal's skyline and dominates the city's downtown area in style.



02 [placedesarts.com](http://placedesarts.com)



03 [www.brunet.ca](http://www.brunet.ca)



04 [www.metro.ca](http://www.metro.ca)



05 [www.le1000.com](http://www.le1000.com)

# Andrew Whittle

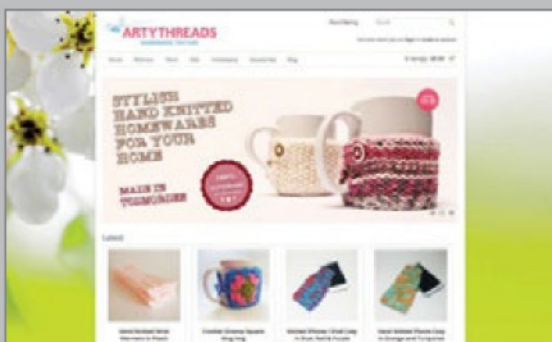
web [www.andrewwhittle.co.uk](http://www.andrewwhittle.co.uk)



**Current role** Graphic / Digital Designer  
**Education** 18+ years' industry experience  
 BTEC ND Graphic Design  
**Expertise** Illustrator, Photoshop, InDesign, digital design, branding and print design  
**Clients** ArtyThreads, Aura, SDA Consulting and Ryder Adams  
**Twitter** @andrewwhittle01



01 [www.andrewwhittle.co.uk](http://www.andrewwhittle.co.uk)



02 [www.artythreads.co.uk](http://www.artythreads.co.uk)



03 [www.aurabeauty.co.uk](http://www.aurabeauty.co.uk)



04 [www.ryderadams.co.uk](http://www.ryderadams.co.uk)

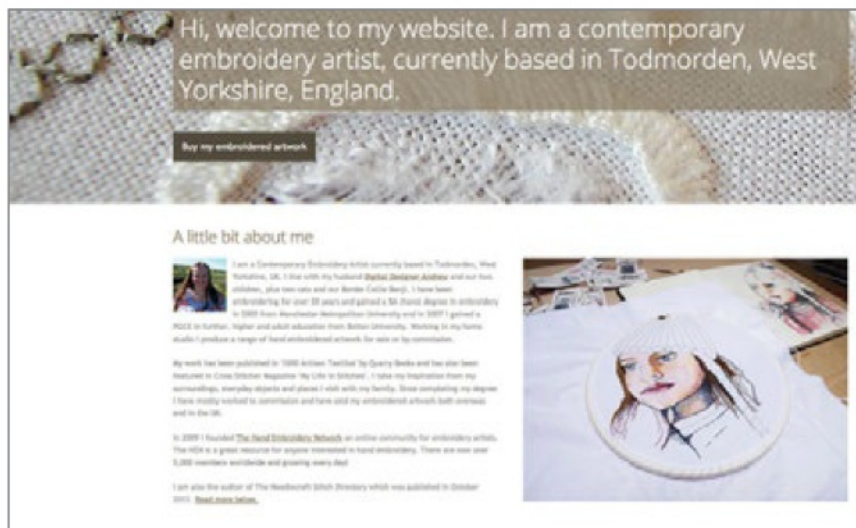
Andrew is an independent graphic/digital designer with over 18 years' industry experience. Andrew helps businesses grow and develop through effective integrated digital and print design.

Working to support start-ups, SME businesses and design agencies across the UK, Andrew combines traditional graphic design methods with modern day digital execution. Andrew's work is clean and contemporary in style yet thoughtful and engaging for the user.

Andrew started designing for the web in 1997, where he was asked to design and build three large corporate websites. This was before CSS, so he used tables and inline styles extensively to build pages. He quickly realised the web's potential and moved on,

working for a Manchester-based ISP where he was tasked with recruiting and managing a team of designers and developers. At this point in his career he gained valuable experience in team leadership and project management, working with clients through the .com bubble and began to build up his own client base. Fast-forward ten years and after working for various design agencies, Andrew is set to become an independent graphic/digital designer in 2014.

Andrew's work involves both web and print design, building brands and maintaining visual identities across channels. He is keen to develop his skills and believes that it's an exciting time for web design, with so much still to learn. He loves how the web allows him to apply traditional design techniques with added interactivity.



05 [www.sarahwhittle.co.uk](http://www.sarahwhittle.co.uk)

## 01

Andrew's site is built on a custom responsive framework and CMS. It showcases his range of print and digital work. Subtle CSS3 effects add a smooth flow through the website.

## 02

ArtyThreads produces unique handmade textiles. The responsive website is built on the OpenCart eCommerce platform and branded to match offline marketing material.

## 03

Aura provides beauty treatments and the new website needed to reflect its high level of quality. The CMS site is regularly maintained by Aura and includes social feeds.

## 04

The Ryder Adams site was designed as part of a company rebrand by Andrew and reflects offline marketing material. The site is built on the CMSMS framework.

## 05

The website for Sarah Whittle is a slick one-page design with tabbed sections that provide quick access to the content. The website is based on a custom responsive system.



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## Your emails, tweets and comments. The social network, but in print

This month we talk about the importance of content, building an app and share a selection of your tweets

### Subject Thanks for Joomla

From Leigh Treleven



I recently purchased a copy of Web Designer 220, the one with the Joomla cover - that being the very reason I bought the issue! Rarely do I see a magazine talking about Joomla, so I thought it was a breath of fresh air.

I think that Joomla has long been overlooked by web designers and developers. I know a lot of people are used to using WordPress, and it is obviously a good platform, but so is Joomla. The CMS has so much to offer and your article showed everyone this. All I can say is keep up the good work and don't forget that there are loads of us out there using Joomla!

Glad to hear you enjoyed the feature. Joomla has over 3.5 million users so we at Web Designer thought it was high time that we gave the CMS some coverage. The platform has been bypassed by many web designers due to the popularity and simplicity of using WordPress. There is no doubt that WordPress is a great platform, but Joomla has evolved to a point where it can now really start competing with WordPress.

As our feature points out, there are 20 reasons to make the switch, but the CMS has much more than that. Joomla may lack the theme support of WordPress, but others should not let this deter them from trying out a very good alternative.



### Tutorials

Create your own inspirational pages



Create fullscreen HTML5 responsive video backgrounds  
[bit.ly/1pHicbN](http://bit.ly/1pHicbN)



Use CSS to create stylish circular navigation  
[bit.ly/1muhr5N](http://bit.ly/1muhr5N)



Create a responsive slider with the bxSlider jQuery plug-in  
[bit.ly/1jTcGFx](http://bit.ly/1jTcGFx)

### Subject Content is king

From Diane Edwards



The web has millions of websites and as a web designer I have noticed that a lot of sites are, frankly, not very good. There seems to be a plethora of sites out there that look pretty, which is good, but a lot of them are seriously lacking in the content department. It seems to be a case of style over substance.

When designing a site I like to create a site that looks good as well as offering plenty of valuable content that is relevant and interesting to the audience it's

aimed at. To make sure visitors come back to a site they need to be engaged - and kept that way, otherwise you risk losing their interest. So, it always surprises me when I don't see sites putting their content first, as it really is so important. All I want to say to any designers reading this is to make sure that your content is worthy of your site. Because people will come back and visit - and Google likes it as well!

We have to agree, content is really important, in fact far more important than it has ever been. The web has matured a lot over the last five years and sites in general are at a far better standard than they were five years ago. This means the assumption that a good-looking site will result in visitors is not true. It may initially draw in some people, but style without substance will soon reveal that fewer and fewer visitors are actually coming back.

Site creators need to make sure that content is frequently updated, is of good quality and relevant. You can guarantee that if you follow these straightforward suggestions, people will keep coming back to your site.

### Subject Appy building

From Samantha Ford



Web apps seem to be big news; whatever I am reading I notice that the word app turns up a lot, including your magazine. I'm not exactly sure what the definition of an app is but from what I can gather it is like a self-contained website. It performs a function and often offers people a service.

I read a lot about building apps and I have decided that it is time I thought about building my own. I am undecided about what my app will be for the moment, but what I want to know in particular is which frameworks or services are out there that can help me start



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WebDesignerMag

got my copy here in  
Australia. #joomla glad I can  
get it here. Love to see more  
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@davguij

Am I the only one to think that Castorgate kerning sucks? <http://www.urbanfonts.com/fonts/Castorgate.htm> ... @WebDesignerMag

putting it all together. Any help you can offer me would be greatly appreciated.

The first consideration when building an app is where you might eventually want to distribute it. The obvious options are the Apple App Store and the Google Play Store. These are governed by some rules and need to be produced in a format that is acceptable to them.

Thankfully, you don't need to be a fully fledged developer to get an app built as there are a number of options that allow web designers to utilise their current skill set to build an app. A popular choice is PhoneGap; build with HTML, CSS and JavaScript and let PhoneGap package everything so it's ready for action. Other great frameworks worth looking out for are Ionic ([ionicframework.com](http://ionicframework.com)), Kendo ([www.telerik.com/kendo-ui](http://www.telerik.com/kendo-ui)), Sencha Touch ([www.sencha.com/products/touch](http://www.sencha.com/products/touch)) and Chocolate Chip ([github.com/sourcebitsllc/chocolatechip-ui](http://github.com/sourcebitsllc/chocolatechip-ui)).

## Subject Responsive commerce

From Shane Rutter



I have my own website that is currently a basic blog. I put up a post every couple of days about stuff I like and I think it's pretty good. Still, I'd like to develop it a little further, so I've decided that I want to create a store to start selling items that are related to what I wrote about. On top of that, I'd really like the store to be as mobile-friendly as possible – but that's about as far as I've got for now.

I want my store to work on all devices, but be especially useful and easy to use on phones and tablets. What I'm after is a few pointers to get me started. I could scour the

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“ Mobile devices are now as popular, if not more popular, than the desktop for accessing the web ”

web for information but I thought I'd start with you and see if there's anything in particular to watch out for.

Mobile devices are now as popular, if not more popular, than the desktop for accessing the web. This means there are millions of potential customers out there if you have a store that is mobile-friendly. If you want to optimise the potential of your store it is essential that it work on all devices.

A few things you will need to consider is who will be using the site, what should your product pages look like, where will people be accessing the site and how easy is it for your audience to purchase a product. Another

consideration that is not so obvious on the purchasing front is security. Any mobile site will need to be secure in order to offer peace of mind to customers. Finally, think of customer service. Poor customer service will drive away customers and ultimately lead to poor returns. Best of luck!



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@WebDesignerMag Could be dull, but nice site

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	<b>1 &amp; 1 Internet Ltd</b> www.1and1.co.uk	1&1 Starter (Linux)	0844 335 12 11	£29.88	5GB	Unlimited	1,000	✓	✓	✓	✓	✓	✓	✓	✓
		1&1 Standard (Linux)	0844 335 12 11	£59.88	50GB	Unlimited	3,000	✓	✓	✓	✓	✓	✓	✓	✓
		1&1 Standard (Windows)	0844 335 12 11	£59.88	50GB	Unlimited	3,000	✓	✗	✓	✓	✓	✓	✓	✓
		1&1 Unlimited (Linux)	0844 335 12 11	£83.88	Unlimited	Unlimited	5,000	✓	✓	✓	✓	✓	✓	✓	✓
		1&1 Unlimited (Windows)	0844 335 12 11	£83.88	Unlimited	Unlimited	5,000	✓	✗	✓	✓	✓	✓	✓	✓
		1&1 Business (Linux)	0844 335 12 11	£119.88	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	Free	✓	✓	✓
		1&1 Business (Windows)	0844 335 12 11	£119.88	Unlimited	Unlimited	Unlimited	✓	✗	✓	✓	Free	✓	✓	✓
	<b>111WebHost</b> 111webhost.com	Budget Web Hosting Pack	N/A	£10	1GB	1GB	5	✓	✗	Add-on	N/A	✗	✓	✓	✗
		WordPress Web Hosting Pack	N/A	£20	5GB	2GB	100	✓	✓	Add-on	N/A	✗	✓	✓	✗
		Startup Web Hosting Pack	N/A	£25	5GB	Unlimited	100	✓	✓	Add-on	N/A	✗	✓	✓	✗
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123-reg (www.123-reg.co.uk)	Plus	0845 859 0018	£59.88	5GB	50GB	500	✓	✓	✓	✓	✓	✓	✓	✓	✓
123-reg (www.123-reg.co.uk)	Pro	0845 859 0018	£107.88	10GB	100GB	750	✓	✓	✓	✓	✓	✓	✓	✓	✓
123-reg (www.123-reg.co.uk)	Bus Pro	0845 859 0018	£179.88	20GB	Unlimited	1,000	✓	✓	✓	✓	✓	✓	✓	✓	✓
123-reg (www.123-reg.co.uk)	Plus (MS)	0845 859 0018	£59.88	2GB	25GB	100	✓	✓	✓	✓	✓	✓	✓	✓	✓
123-reg (www.123-reg.co.uk)	Pro (MS)	0845 859 0018	£107.88	5GB	50GB	500	✓	✓	✓	✓	✓	✓	✓	✓	✓
123-reg (www.123-reg.co.uk)	Bus Pro (MS)	0845 859 0018	£179.88	10GB	150GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓	✓
2020Media (www.2020media.com)	Light User	0870 321 2020	£45	20MB	1GB	3	✓	✓	✓	✓	✓	✓	✓	✓	✓
2020Media (www.2020media.com)	Everyday	0870 321 2020	£100	200MB	10GB	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
2020Media (www.2020media.com)	Business/Pro	0870 321 2020	£275	500MB	20GB	50	✓	✓	✓	✓	✓	✓	✓	✓	✓
2020Media (www.2020media.com)	JAVA Tomcat	0870 321 2020	£300	100MB	3GB	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
2020Media (www.2020media.com)	ASP.Net	0870 321 2020	£275	100MB	3GB	15	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<b>4D Hosting</b> www.4dhosting.com	Big Web Hosting	0207 183 0602	£60	5GB	Unlimited	20	✓	✓	✓	✓	✓	✓	✓	✓
		Bigger Web Hosting	0207 183 0602	£120	10GB	Unlimited	75	✓	✓	✓	✓	✓	✓	✓	✓
		Biggest Web Hosting	0207 183 0602	£180	20GB	Unlimited	100	✓	✓	✓	✓	✓	✓	✓	✓
		Big VPS	0207 183 0602	£204	75GB	500GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		Bigger VPS	0207 183 0602	£360	100GB	1000GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
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Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Home	N/A	£40	500MB	5GB	5	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Business	N/A	£50	1GB	20GB	100	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	eCommerce	N/A	£100	2GB	40GB	200	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blackfoot Hosting Ltd (www.blackfoot.co.uk)	Professional	N/A	£150	3GB	60GB	300	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blacknight (www.blacknight.com)	Minimus	35359 918 3072	£45	10GB	200GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
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Bravo14 (http://bravo14.co.uk)	Business Linux	N/A	£45	4,000MB	4,000MB	4,000	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Business Windows	N/A	£45	4,000MB	4,000MB	4,000	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Ultimate Linux	N/A	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bravo14 (http://bravo14.co.uk)	Ultimate Windows	N/A	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<b>CityCM</b> www.citycm.couk	City250	0330 223 0120	£10.99	250MB	5GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City500	0330 223 0120	£14.99	500MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City2000	0330 223 0120	£29.90	2GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City10000	0330 223 0120	£49.90	10GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		CityR10	0330 223 0120	£120	10GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		CityR20	0330 223 0120	£180	20GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		CityR30	0330 223 0120	£240	30GB	150GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City VPS15	0330 223 0120	£180	15GB SSD	400GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City VPS30	0330 223 0120	£300	30GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
		City VPS75	0330 223 0120	£420	75GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓




## Featured host of the month: 111WebHost 111webhost.com



Getting more out of one of our quality listed hosting providers

111WebHost is a provider committed to making website hosting easy to use while offering the best possible value. It provides solutions for small- and medium-sized businesses as well as individuals – and web designers and developers are high on their list. 111WebHost offers a range of top-value packages starting at

the ridiculously low price of £1 per month. For this, users get 1GB of webspace and 1GB of monthly traffic. For those looking for more, there is 5GB of webspace and unlimited traffic for just £2.50 a month. Unlimited webspace and traffic is available for just £5 a month. They also provide specialist hosting for WordPress, Joomla and Drupal.

NAME AND URL	PACKAGE	PHONE NUMBER	COST PER YEAR	WEB SPACE	MONTHLY BANDWIDTH	POP3 ACCOUNTS	DATABASE SUPPORT	SHOPPING CART	VIRUS FILTER	FIREWALL	PHONE SUPPORT	EMAIL SUPPORT	WEB CONTROL PANEL	SERVICE LEVEL AGREEMENT
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	Starter	0844 372 9848	£30	3GB	20GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	Home	0844 372 9848	£40	10GB	50GB	10,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	Business	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	Windows Unlimited	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	Windows Home	0844 372 9848	£40	10GB	50GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp ( <a href="http://designwasp.com">http://designwasp.com</a> )	CheapHost	0844 372 9848	£10	300MB	100MB	5	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd ( <a href="http://digitalgibbon.com">http://digitalgibbon.com</a> )	Personal	01865 589 990	£12	1GB	Unlimited	10	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd ( <a href="http://digitalgibbon.com">http://digitalgibbon.com</a> )	Personal Plus	01865 589 990	£48	Unlimited	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd ( <a href="http://digitalgibbon.com">http://digitalgibbon.com</a> )	Business	01865 589 990	£108	5GB	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
Digital Gibbon Ltd ( <a href="http://digitalgibbon.com">http://digitalgibbon.com</a> )	Business Professional	01865 589 990	£132	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
 <b>Domaincheck</b> <a href="http://www.domaincheck.co.uk">www.domaincheck.co.uk</a>	Bronze	0191 2612252	£30+VAT	500MB	5GB	5	✓	✓	Optional	✓	✓	✓	✓	✓
	Silver	0191 2612252	£50+VAT	1000MB	10GB	10	✓	✓	Optional	✓	✓	✓	✓	✓
	Gold	0191 2612252	£100+VAT	2500MB	50GB	25	✓	✓	Optional	✓	✓	✓	✓	✓
	Platinum	0191 2612252	£200+VAT	5000MB	100GB	50	✓	✓	Optional	✓	✓	✓	✓	✓
	Small	0191 2612252	£10	20GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Reseller Unix	0845 226 5566	£399.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Reseller Windows	0845 226 5566	£499.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Enterprise	0845 226 5566	£89.99	1GB	2GB	250	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Commerce	0845 226 5566	£179.99	2GB	5GB	500	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Designer	0845 226 5566	£119.99	1GB	2GB	250	✓	✓	✓	✓	✓	✓	✓	✓
Donhost ( <a href="http://www.donhost.co.uk">www.donhost.co.uk</a> )	Developer	0845 226 5566	£259.99	2GB	5GB	500	✓	✓	✓	✓	✓	✓	✓	✓
eHosting ( <a href="http://www.ehosting.com">www.ehosting.com</a> )	Starter	0844 999 4100	£23.88	1GB	25GB	10	✓	✓	✓	✓	✓	✓	✓	✓
eHosting ( <a href="http://www.ehosting.com">www.ehosting.com</a> )	Personal	0844 999 4100	£59.88	2.5GB	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
eHosting ( <a href="http://www.ehosting.com">www.ehosting.com</a> )	Expert	0844 999 4100	£95.88	5GB	Unlimited	250	✓	✓	✓	✓	✓	✓	✓	✓
eHosting ( <a href="http://www.ehosting.com">www.ehosting.com</a> )	Virtual	0844 999 4100	£227.88	50GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase ( <a href="http://www.equipphase.net">www.equipphase.net</a> )	Bronze	0121 314 4865	£30	200MB	2GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase ( <a href="http://www.equipphase.net">www.equipphase.net</a> )	Silver	0121 314 4865	£42	400MB	5GB	20	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase ( <a href="http://www.equipphase.net">www.equipphase.net</a> )	Gold	0121 314 4865	£72	800MB	10GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Equipphase ( <a href="http://www.equipphase.net">www.equipphase.net</a> )	Platinum	0121 314 4865	£114	1,200MB	40GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com ( <a href="http://www.eurofasthost.com">www.eurofasthost.com</a> )	Email Only	02380 249 823	£40	1GB	2GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com ( <a href="http://www.eurofasthost.com">www.eurofasthost.com</a> )	Essential	02380 249 823	£75	2GB	5GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com ( <a href="http://www.eurofasthost.com">www.eurofasthost.com</a> )	Superior	02380 249 823	£140	5GB	10GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com ( <a href="http://www.eurofasthost.com">www.eurofasthost.com</a> )	Premium	02380 249 823	£250	10GB	25GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting ( <a href="http://www.evohosting.co.uk">www.evohosting.co.uk</a> )	Starter	N/A	£29.99	500MB	1GB	3	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting ( <a href="http://www.evohosting.co.uk">www.evohosting.co.uk</a> )	Home	N/A	£54.99	2.5GB	30GB	50	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting ( <a href="http://www.evohosting.co.uk">www.evohosting.co.uk</a> )	Business	N/A	£79.99	6.5GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting ( <a href="http://www.evohosting.co.uk">www.evohosting.co.uk</a> )	eCommerce	N/A	£159.99	30GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	Personal	0808 168 6777	£32.87	5GB	Unlimited	50	✓	✓	✓	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	Business Bronze	0808 168 6777	£58.38	50GB	Unlimited	500	✓	Option	✓	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	Business Silver	0808 168 6777	£76.39	Unlimited	Unlimited	Unlimited	✓	Option	✓	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	Business Gold	0808 168 6777	£101.89	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	WD Starter	0808 168 6777	£149.99	20GB	Unlimited	Unlimited	✓	Option	Option	✓	✓	✓	✓	✓
Fasthosts ( <a href="http://www.fasthosts.co.uk">www.fasthosts.co.uk</a> )	WD Advanced	0808 168 6777	£199.99	Unlimited	Unlimited	Unlimited	✓	Option	Option	✓	✓	✓	✓	✓
Giacom ( <a href="http://www.giacom.com">www.giacom.com</a> )	Business Pro	0800 542 7500	£199	100MB	2GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet ( <a href="http://www.heartinternet.co.uk">www.heartinternet.co.uk</a> )	Starter Professional	0845 644 7750	£29.80	2.5GB	10GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet ( <a href="http://www.heartinternet.co.uk">www.heartinternet.co.uk</a> )	Home Professional	0845 644 7750	£89.99	Unlimited	Unlimited	10,000	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet ( <a href="http://www.heartinternet.co.uk">www.heartinternet.co.uk</a> )	Business Professional	0845 644 7750	£129.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet ( <a href="http://www.heartinternet.co.uk">www.heartinternet.co.uk</a> )	Reseller Professional	0845 644 7750	£349.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Silver	0808 180 1880	£79.50	150MB	3GB	5	✓	Option	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Gold	0808 180 1880	£139.50	300MB	5GB	10	✓	Option	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Gold Plus	0808 180 1880	£189.50	450MB	10GB	30	✓	Option	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Platinum	0808 180 1880	£359.50	600MB	20GB	50	✓	Option	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Platinum Plus	0808 180 1880	£599.50	1.2GB	40GB	10	✓	Option	✓	✓	✓	✓	✓	✓
Hostway ( <a href="http://www.hostway.co.uk">www.hostway.co.uk</a> )	Email Plus	0808 180 1880	£49.95	50MB	N/A	5	N/A	N/A	N/A	✓	✓	✓	✓	✓
ICUK ( <a href="http://www.icukhosting.co.uk">www.icukhosting.co.uk</a> )	Professional	0845 009 9175	£30	250MB	1GB	50	✓	✓	option	✓	✓	✓	✓	✓
ICUK ( <a href="http://www.icukhosting.co.uk">www.icukhosting.co.uk</a> )	Advanced	0845 009 9175	£50	2GB	2.5GB	150	✓	✓	option	✓	✓	✓	✓	✓

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# Hosting listings

Keep an eye on the latest packages and deals with our comprehensive list of service providers

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Continued...

NAME AND URL	PACKAGE	PHONE NUMBER	COST PER YEAR	WEB SPACE	MONTHLY BANDWIDTH	POP3 ACCOUNTS	DATABASE SUPPORT	SHOPPING CART	VIRUS FILTER	FIREWALL	PHONE SUPPORT	EMAIL SUPPORT	WEB CONTROL PANEL	SERVICE LEVEL AGREEMENT
ICUK www.icukhosting.co.uk	Enterprise	0845 009 9175	£80	2GB	500MB	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Professional Plus	0845 009 9175	£90	500MB	5GB	100	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Premium Plus	0845 009 9175	£150	1GB	12.5GB	500	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Enterprise Plus	0845 009 9175	£300	2GB	20GB	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Windows	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Linux	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
ICUK www.icukhosting.co.uk	Reseller Enterprise	0845 009 9175	£500	Unlimited	Unlimited	Unlimited	✓	✓	option	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Mail - M105	0800 043 0153	£15.17	256MB	3GB	50	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Home - H25	0800 043 0153	£24.47	1GB	8GB	50	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Professional - P55	0800 043 0153	£45	2GB	15GB	75	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R25	0800 043 0153	£97.88	2GB	30GB	250	✓	✓	✓	✓	✓	✓	✓	✓
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R105	0800 043 0153	£271.60	4GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Blog	01438 342 490	£20	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Dynamic	01438 342 490	£50	2GB	2GB	20	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Premium	01438 342 490	£80	5GB	5GB	50	✓	✓	✓	✓	✓	✓	✓	✓
LCN (www.lcn.com)	Unlimited	01438 342 490	£120	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Budget (Linux)	07891 235858	£11.88	1GB	1GB	500	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Home (Linux)	07891 235858	£23.88	10GB	10GB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Pro (Linux)	07891 235858	£41.88	50GB	50GB	20,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	LD Unlimited (Linux)	07891 235858	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	Windows Home	07891 235858	£17.88	2GB	2GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
LD Hosts (http://ldhosts.co.uk)	Windows Unlimited	07891 235858	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Media Temple (http://mediatemple.net)	Shared-Server Pro	+1 310 841 5500	£64	2GB	1TB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
Media Temple (http://mediatemple.net)	Shared-Server Advanced	+1 310 841 5500	£109	5GB	1.5TB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Email Only	01604 212 904	£11.99	2.5GB	15GB	10	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Starter	01604 212 904	£36.99	10GB	150GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Home Pro	01604 212 904	£59.99	25GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
NameHog	Business	01604 212 904	£109.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	StartUp Plus	0845 363 3632	£89.99	500MB	5GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Business	0845 363 3632	£149.99	2,000MB	20GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Business Plus	0845 363 3632	£89.99	3,000MB	30GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Designer	0845 363 3632	£239.88	1GB	20GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Namesco (www.names.co.uk)	Designer Plus	0845 363 3632	£479.88	Unlimited	30GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
 <b>Netcetera</b> www.netcetera.co.uk	DEVELOPER	0800 808 5450	£32.89	1GB	Unlimited	500	✓	✓	✓	✓	✓	✓	✓	✓
	ONE	0800 808 5450	£109.99	5GB	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
	RESELLER	0800 808 5450	£274.89	Unlimited	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
	VM500 Server	0800 808 5450	£300	20GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	2200DC Server	0800 808 5450	£720	160GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	3000DC Server	0800 808 5450	£1,200	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	2600QC Server	0800 808 5450	£1,800	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	Shared 100	0207 1000 424	£60	100MB	1GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS100	0207 1000 424	£600	5GB	5GB	5	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS200	0207 1000 424	£1,000	10GB	10GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	VS300	0207 1000 424	£2,000	15GB	50GB	20	✓	✓	✓	✓	✓	✓	✓	✓
Netplan (www.netplan.co.uk)	Dedicated Servers	0207 1000 424	£3,000+	73GB+	1,500GB	100+	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Email	N/A	£25	100MB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Play	N/A	£40	100MB	1GB	10	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Plus	N/A	£65	750MB	5GB	25	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	Power	N/A	£95	2GB	10GB	100	✓	✓	✓	✓	✓	✓	✓	✓
PurplePaw (www.purplepaw.co.uk)	R3 Reseller	N/A	£660	10GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Starter	0843 289 4625	£18	1GB	Unlimited	10	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Business	0843 289 4625	£59.88	10GB	Unlimited	100	✓	✓	✓	✓	✓	✓	✓	✓
Reddex UK (www.reddexuk.com)	Reddex Design Premium	0843 289 4625	£107.88	100GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓



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STRATO Hosting (www.strato-hosting.co.uk)	STRATO BasicWeb	00800 8007 0070	£48	2GB	Unlimited	1,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO PowerWeb	00800 8007 0070	£72	6GB	Unlimited	2,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO AdvancedWeb	00800 8007 0070	£120	20GB	Unlimited	4,000	✓	✓	✓	✓	✓	✓	✓	✓
STRATO Hosting (www.strato-hosting.co.uk)	STRATO EnterpriseWeb	00800 8007 0070	£180	50GB	Unlimited	6,000	✓	✓	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Trial (3 month)	0844 941 1000	N/A	10GB	Unlimited	1,000	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Starter	0844 941 1000	£23.88	500MB	Unlimited	20	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Personal	0844 941 1000	£41.88	3GB	Unlimited	500	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Plus	0844 941 1000	£71.88	10GB	Unlimited	1,000	✓	Option	✓	✓	✓	✓	✓	✓
Streamline.net (www.streamline.net)	Multisite	0844 941 1000	£137.88	20GB	Unlimited	Unlimited	✓	Option	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Email	08445 67 69 71	£18	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Windows Hosting	08445 67 69 71	£66	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	Linux Hosting	08445 67 69 71	£66	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	eCommerce	08445 67 69 71	£90	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Swish Hosting (www.swishhosting.co.uk)	SiteBuilder	08445 67 69 71	£12	-	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Switch Standard	0151 236 9111	£159	1GB	50GB	500	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Switch Business	0151 236 9111	£249	10GB	150GB	1500	✓	✓	✓	✓	✓	✓	✓	✓
Switch Media (www.switchmedia.com)	Business Pro	0151 236 9111	£348.96	20GB	300GB	5000	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Entry	0844 884 9100	£25	100MB	1GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Home	0844 884 9100	£50	500MB	5GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	HomePro	0844 884 9100	£100	1GB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	Business	0844 884 9100	£150	2GB	20GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Tidy Web Hosting (www.tidywebhosting.co.uk)	BusinessPro	0844 884 9100	£250	5GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Basic5S	0845 641 0776	£24	100MB	1,500MB	25	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Standard5S	0845 641 0776	£45	200MB	3,000MB	50	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Business5S	0845 641 0776	£70	500MB	7,500MB	100	✓	✓	✓	✓	✓	✓	✓	✓
TwentyHost (www.twentyhost.co.uk)	Advanced5S	0845 641 0776	£110	1,000MB	15,000MB	200	✓	✓	✓	✓	✓	✓	✓	✓
UK2.NET UK2.Net www.uk2.net	Starter Hosting	0808 168 2427	£24	500MB	1GB	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Business Hosting	0808 168 2427	£54	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	Business Cloud	0808 168 2427	£108	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	Reseller Starter	0808 168 2427	£180	10GB	100GB	10	✓	✓	✓	✓	✓	✓	✓	✓
	Reseller Plus	0808 168 2427	£360	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
	Dedicated Server	0808 168 2427	£704	2x500GB	10TB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
VARIHOST (www.varihost.net)	WordPress Basic	0208 144 7057	£47.88	2GB	10GB	10	✓	✓	✓	✓	✓	✓	✓	✓
VARIHOST (www.varihost.net)	WordPress Plus	0208 144 7057	£71.88	4GB	100GB	100	✓	✓	✓	✓	✓	✓	✓	✓
VARIHOST (www.varihost.net)	WordPress Extra	0208 144 7057	£119.88	unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Professional	0845 130 1602	£107.40	5GB	50GB	1,000	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Business	0845 130 1602	£179.40	10GB	150GB	1,500	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Developer	0845 130 1602	£227.40	20GB	300GB	5,000	✓	✓	✓	✓	✓	✓	✓	✓
WebFusion (www.webfusion.co.uk)	Fusion Reseller	0845 130 1602	£329.99	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z100	N/A	£15	100MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z200	N/A	£21	100MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z500	N/A	£42	500MB	20GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Z-Host (z-host.co.uk)	Z1000	N/A	£60	1GB	40GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Zen Internet (www.zen.co.uk)	Bronze (Linux)	0845 058 9000	£47.88	2GB	10GB	10	✓	✓	✓	✓	✓	✓	✓	✓
Zen Internet (www.zen.co.uk)	Silver (Linux)	0845 058 9000	£95.88	5GB	50GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Zen Internet (www.zen.co.uk)	Gold (Linux)	0845 058 9000	£143.88	10GB	100GB	50	✓	✓	✓	✓	✓	✓	✓	✓
Zen Internet (www.zen.co.uk)	Platinum (Linux)	0845 058 9000	£239.88	50GB	250GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Zen Internet (www.zen.co.uk)	Reseller (Linux)	0845 058 9000	£479.88	150GB	500	250	✓	✓	✓	✓	✓	✓	✓	✓

## Golden rules to top hosting

We identify and explain the key criteria for success...

1

### The best resources for you

Selecting your ideal package is largely determined by the kinds of resources and quantity of features you require from your hosting solution. Key aspects such as web space and monthly bandwidth are important for those services likely to be subjected to heavy amounts of traffic, which is why package solutions for enterprise applications are typically much more expensive. The general rule of thumb is not to buy more than you need or underestimate potential requirements.

2

### Competitive and reliable

The hosting market is big business and hosting providers do try to drive prices down in a bid to entice your custom. Use our chart to compare costs, but be sure to visit the vendor websites to keep track of the latest deals, as they do change. Remember that low price should not always be a deciding factor and that paying a premium for a more reliable, trusted and experienced vendor can offer you much better value for money in the long term.

3

### Putting you in control

Modern hosting is all about giving customers the power to set up, monitor and maintain their web space with minimal fuss. Most commercial vendors offer access to award-winning and intuitive control panels that enable you to log in remotely and intuitively tweak your account - without the need to relay complicated instructions down the phone. Be sure to find out from your potential host as much as you can about the control panel and request a demo.

4

### Fantastic customer support

If all else fails and you need some extra help to get your hosting back online, then a commitment to future customer support is key. Many vendors offer a service-level agreement which outlines what you can expect here, however most will be more explicit about whether phone support is included or email contact is preferred. Think about what you need for your own peace of mind and factor good, comprehensive technical support against the price.

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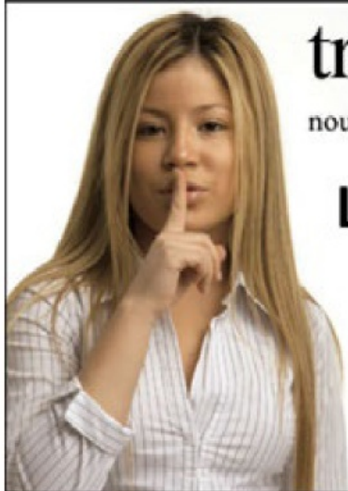


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noun {c} -tréd si kriht - A secret formula, method, or device that gives one an advantage over competitors.

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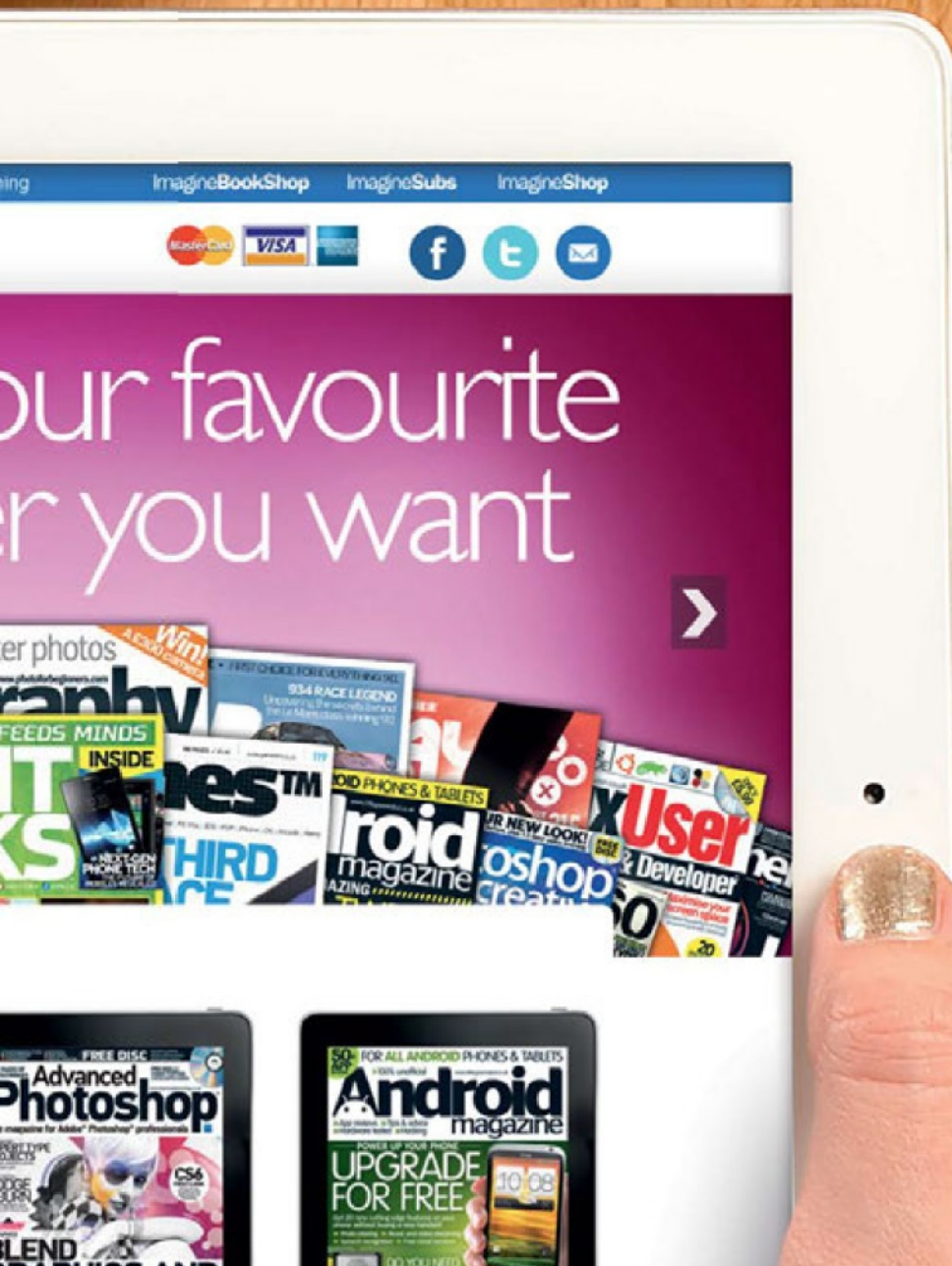
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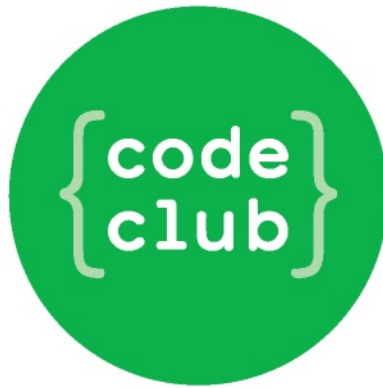
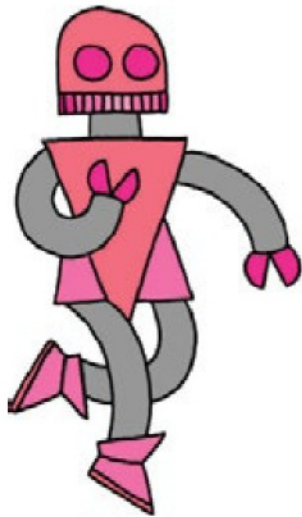
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# Can you volunteer for Code Club?

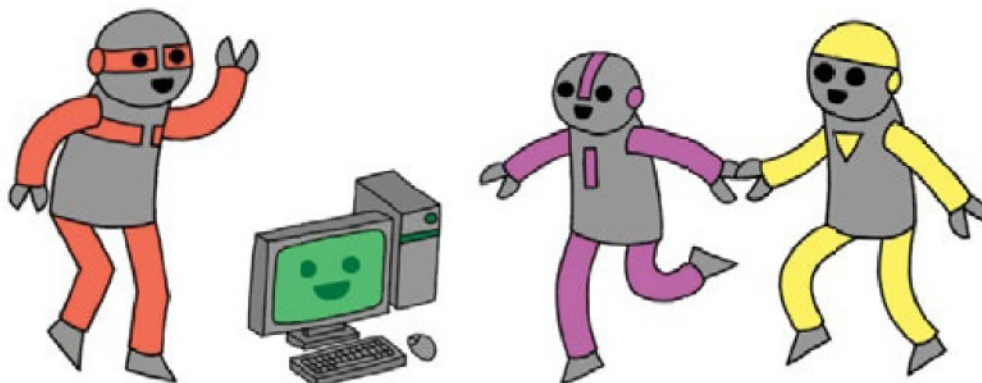
Code Club is a nationwide network of volunteer-led after school coding clubs for children aged 9-11.

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