30 PAGES OF EXPERT TUTORIALS

web
designer

HTML5 | **CSS3** | **jQuery** | **WordPress**

www.webdesignermag.co.uk

BUILD WEB APPS
CREATE AND TEST WITH THE NEW PHONEGAP APP

21 SUBLIME TEXT TIPS
GET MORE FROM THE PRO EDITOR

STYLE & ANIMATE WITH

CSS3

33 ESSENTIAL TECHNIQUES
- UNIQUE TEXT EFFECTS • SMART RESPONSIVE LAYOUTS
- AMAZING ANIMATED PATHS

HOW DOES COLOUR AFFECT UX?
HOW TINT AND TONE INFLUENCE DESIGN

CREATE PERFECT PRELOADERS
ADD MOTION WITH JQUERY

QUICK CUSTOM SITES
FAST MODULAR BUILDS WITH METALSMITH

SPEED UP YOUR WORKFLOW
MANAGE ASSETS WITH BOWER
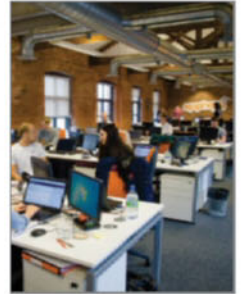
Welcome to the issue

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

❝ We use several tools to improve our dev workflow. Grunt is the build tool of choice at Epiphany ❞

Web Designer talks digital marketing with the team at Epiphany **Page 30**

CSS3: the perfect tool for creative coding

CSS3, it's all about making things beautiful right? Yes, it is, but simply suggesting that is *all* it has to offer is underselling its undoubted power. In our latest lead feature (page 38) CSS3 takes centre stage, but it's not all about styling. Don't panic, there are plenty of styling tips, how to create text effects, how to use different animation techniques, but we have interspersed the style with some substance. Need to know about CSS specificity? Yes you do. How about smart responsive layouts? Yes, that's in there too, so plenty to get your teeth into.
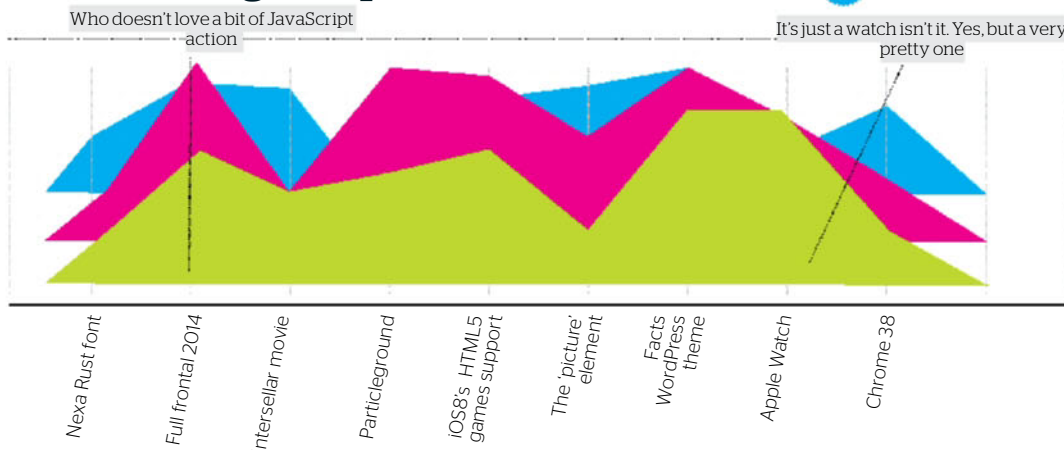
Styling is what makes a site look good, but choosing the wrong colour can have an adverse effect on any project. The humble colour has a big say on how users interact and engage with a site. Did you know that green can represent death in South America? Do you want to know why Facebook is blue? Read our colour guide (page 66) and find out how to pick the perfect palette to engage, entice and excite visitors.

Pro coders all have a favourite editor and this issue we tell you how to power up the very popular Sublime Text with 21 essential tips. Check them out on page 72. Plus, we have a host of contemporary tutorials and interviews for you to enjoy. As always, enjoy the issue and see you next time.

❝ CSS has a strict priority model, and you need to know how it works or you may find that your statements won't work like you want them to ❞

Follow us on Twitter for all the news & conversation 🐦 @WebDesignerMag
Visit our blog for opinion, freebies & more 👆 www.webdesignermag.co.uk

Who doesn't love a bit of JavaScript action

It's just a watch isn't it. Yes, but a very pretty one

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

◢ Steve Jenkins, Editor
◢ Carrie Mok, Production Editor
◢ Ben Stanley, Designer

Nexa Rust font
Full frontal 2014
Interstellar movie
Particleground
iOS8's HTML5 games support
The 'picture' element
Facts WordPress theme
Apple Watch
Chrome 38

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...

❝ According to the CSS animations spec, if you don't include explicit from/0% and to/100% keyframe steps, the browser adds default values for them ❞

STYLE & ANIMATE WITH CSS3

33 ESSENTIAL TECHNIQUES

ARE YOU READY TO TAKE YOUR CSS TO THE NEXT LEVEL? READ ON TO FIND OUT HOW TO ADD MORE STYLE TO COLOURS, FONTS, ANIMATIONS AND RESPONSIVE LAYOUTS

Richard Wentk

Richard is a long-time producer of code and app creation, writing numerous books on the subject. This issue he unveils over 30 of the best CSS3 techniques, demonstrating how to add style to fonts, animations, colours and responsive design. **Page 38**

Mark Shufflebottom

Mark is a professor of Interaction Design at Sheridan College, Ontario. This issue he reveals how to get to grips the latest PhoneGap desktop app. Find out it can be used to code, create and test apps. **Page 52**

Tom Wittlin

Tom is the creative director at retail specialists Folk. He is a keen student of design and this issue he takes a look at how colour is perceived in web design. Find out how hue, shade, tint and tone will affect UX and how to pick the perfect palette. **Page 66**

THE PERCEPTION OF COLOUR

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 offers up a collection of Sublime Text tips to power up the pro code editor. **Page 72**

David Howell

David is an experienced writer, author and journalist who runs his own publishing company. He loves to talk and this issue he takes his interview skills to the office of digital marketing experts Epiphany. **Page 30**

Jayson Winters

The creative lead at Brace Design, Jayson is always looking to give users exactly what they're looking for. This issue he demonstrates how to use the king of styling, CSS, to create an image grid with individual expanding images . **Page 58**

Mark Billen

Mark is a freelance technology journalist with a background in web design and development. This issue he tackles the Lightbox pages and reveals how to create a host of quick-fire techniques you need to know. **Page 14**

Tim Stone

Tim is a front-end developer at Redweb and has a first class degree in Interactive Media Production. Coding is second nature to Tim and this issue he explains how to use the package manager Bower to look after project assets. **Page 78**

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 Metalsmith static site generator for building sites fast. **Page 84**

Got web skills?

We're always looking for the hottest web-design talent. Email **webdesigner@imagine-publishing.co.uk** with examples of your creative work

contents

Cutting-edge features, techniques and inspiration for web creatives

Chat with the team and other readers and discuss the latest tech, trends and techniques. Here's how to stay in touch...

webdesigner@imagine-publishing.co.uk @WebDesignerMag www.webdesignermag.co.uk

Quick look...

Cover focus

STYLE & ANIMATE WITH CSS3

33 ESSENTIAL TECHNIQUES
• UNIQUE TEXT EFFECTS • SMART RESPONSIVE LAYOUTS •
• AMAZING ANIMATED PATHS •

38

30
ProFile: Epiphany
Creating a better understanding of digital marketing

14
Lightbox: The Boxtrolls
An interactive blockbuster web experience

FileSilo

A comprehensive collection of free designer resources!

- 98 mins of expert video guides
- 50+ 3D text creator actions
- 2 Typodermic fonts
- Le Coffeat responsive template

94

THE PERCEPTION OF COLOUR

<header>

The tools and trends to inspire your web projects

> ❝ Generate Image Assets – it was a real game-changer for everyone working in the studio ❞
>
> **Scott Walker**

<tutorials>

Web gurus take you step-by-step through professional techniques

web workshop

web developer

\<header\>

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

webdesigner@imagine-publishing.co.uk   @WebDesignerMag

Are responsive images fixed?

Dealing with images on all devices takes a step forward as the picture element gains more support

Remember web design before responsive design? It was bespoke sites built specifically for big and small screens, but RWD (responsive web design) came along and changed all of that. It was a brave new world where the 'one size fits all' mantra was now king.

There is no doubt that RWD has revolutionised the way we design sites but it wasn't and still isn't perfect. The technique has slowly evolved to be smarter and more succinct, but it has yet to truly fulfil its potential. What has been holding RWD back? The image. The simple solution for responsive images has been setting the width to 100 per cent and letting them fit the parent element. The problem with this approach is that it's simply not a good fit for mobile. Big, beautiful images found on a desktop rarely skimp on the KBs. It's not a problem on a broadband connection, but mobile connections are slower and image-intensive sites that look great on desktop can choke the life out of a mobile connection. It's not just the speed that makes this a poor choice, it's also bad practice.

There are workarounds such as Foundation's Interchange feature, which allows users to "Only load larger resources for devices that can handle it". A great idea but it doesn't belong to the official HTML specification. The solution provided by the W3C is the 'picture' element along with srset and sizes attributes. The RICG has been working on this solution. Check out their website at **responsiveimages.org** for more.

While all three attributes are now part of the HTML spec the issue, as is often the case with new specs, is browser support. New attributes may well provide a solution, but if it without browser support it is dead in the water. Thankfully, the browser vendors are starting to implement the elements and attributes, meaning that designers and developers can finally start looking at picture, srcset, and sizes and see how they operate. It provides the opportunity to test and push new additions' boundaries, and see how effective they really are.

But browser support is not yet complete across all the major browsers. The srcset attribute currently offers better support being implemented in Chrome 34, Safari and Firefox 33. However, the Firefox support needs to switched on by the browser user, it's behind flags. This effectively means that only the more hardcore developers and designers will know how to switch, unlike your average web user. The picture element has just been implemented into Chrome 38, is unconfirmed in Safari and is in the same position for Firefox as browser supports. It won't come as too much of a surprise that Internet Explorer doesn't currently support any of the attributes.

The premise of the new attributes excites us here at **Web Designer**, we just need to see the proof. We don't think we will have to wait long though.

> ❝ Mobile connections are slower and image-intensive sites that look great on desktop can choke the life out of a mobile connection ❞

How do picture and srcset work?

The picture element is described as "a container which provides multiples sources to its contained img element to allow authors to declaratively control or give hints to the user agent about which image resource to use, based on the screen pixel density... and other factors." This means that designer/developers get to choose which image to display via media queries. Srcset and sizes extends the image element providing a list of the available images and their sizes so it chooses the right image for the screen it's displayed on.

Check out the demos on the RICG site (**responsiveimages.org/demos**) to get a better understanding of how the elements and attributes operate.

Get Web Designer digital editions

What are the best web tools and resources? Find out with our latest digital publications

Web Designer's latest digital editions brings designer and developers a new way to consume content. First up we have **10 Amazing Websites and How To Build Them**. This is a collection of truly beautiful web experiences with accompanying techniques on creating key parts of the site. Need to know what the best resources and tools are for web designers and developers. Try the aptly-titled **225 Best Web Tools And Resources**, a specially selected collection that you need to own. You can get your hands on a Web Designer digital edition by heading to **http://bit.ly/1hsGYgl**. Download the free **Web Designer** app and find them waiting for you as an in-app purchase.

<design notes>
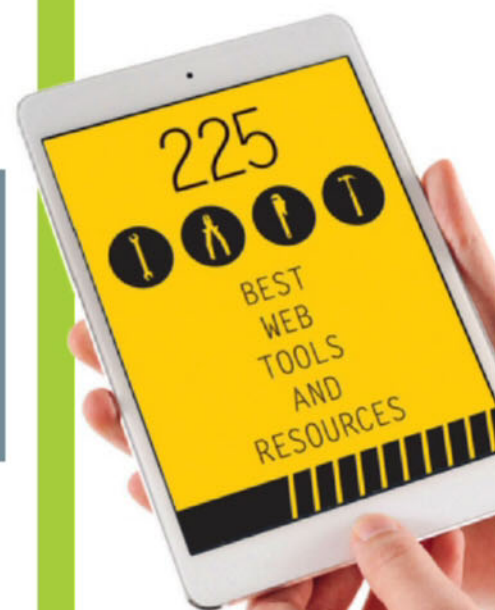
A collection of inspirational visuals

38 ways to make a perfect coffee

bit.ly/1nla2pO

1 The colour palette combines perfectly with the graphic to make it immediately obvious what the subject matter is.

2 Information is all part of the infographic process and a neat addition is the text on the coffee strength and how it should be created and presented.

Colour picker

Hot hexidecimal codes

Mint
bit.ly/1wbCQ8H

| #0DAE4B | #2AA386 | #3B9A78 | #5BB347 | #67C3AO |

Strawberry
bit.ly/1Cy74qO

| #F2F3E8 | #CBD7A4 | #43889E | #1E2O33 | #A11C34 | #FO5566 |

Typesetter

The best fonts you need

ABCabc
modesto
bit.ly/1Cy7Jsk
Recreate vintage painted signs from the 19th Century high street.

ABCabc
mayonez
bit.ly/1IF2Of3
Soft rounded contours add a touch of friendliness to this font.

Graphics

Great visuals to inspire

Joseph & Jospeh
bit.ly/1teH7K3
South African agency MUTI were commissioned to create a retro typographic chopping board. The fonts, colours and layout combine beautifully.

Themematic

Style up your WordPress

JRNY
jrny.wpengine.com
A gorgeous fullscreen featured image theme combined with contemporary typography which is truly captivating when combined with clear photography.

Sites of the month

G www.gonzaloperez.ws
A simple, but beautiful twist on the image slider

Frames bit.ly/1qEJVhs
A sad story exquisitely designed to engage

Travel with Terna bit.ly/1IVDyq5
Glorious illustrations and contemporary design
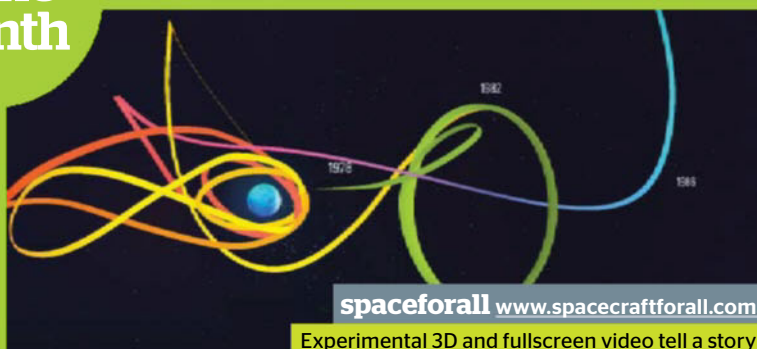
spaceforall www.spacecraftforall.com
Experimental 3D and fullscreen video tell a story

<webkit>

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

Timesheet.js

semu.github.io/timesheet.js
Visualise your data and events with the help of HTML5, CSS3 and a few lines of JavaScript. It's easy just include the script.
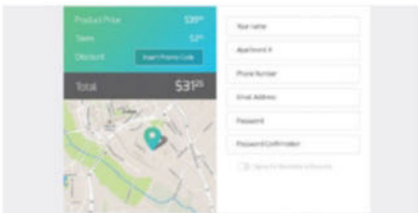
Payment Input Form

http://bit.ly/1Bs9x4H
Making payment forms look engaging and stylish hasn't always been top priority. But, with the help of this free resource you can change that.

```
Creating a Browser in Tint

// Include the widgets we'll need. Note you can
// individually include Application, TextInput, WebView etc.
require('Common');

// Create the widgets.
var mainWindow = new Window();
var urlLocation = new TextInput();
var webView = new WebView();
var toolbar = new Toolbar();
var backButton = new Button();
var forwardButton = new Button();

// Images can be a URL or a string representing a built in OS icon.
backButton.image = 'back';
forwardButton.image = 'forward';

// Attach our webview to the window
mainWindow.appendChild(webView);

// everything else goes into the toolbar.
toolbar.appendChild([backButton, forwardButton, 'space', urlLocation, 'space']);
mainWindow.toolbar = toolbar;

// Set some styling.
mainWindow.titleVisible = false;
```

Tint

www.github.com/trueinteractions/tint2
Tint is a platform that allows users to compile native applications with JavaScript, CSS, HTML5 and node. So what is Tint? It's described as a "slightly modified version of node. It allows [users] to go beyond the shell command of node" turning JS-based node applications into fully-functional desktop applications.

It also contains a set of native components such as Window, Toolbar, Button and Menus amongst many others.

Tint 2 is currently only a preview release and is only supported by OS X, but there are preview releases for Windows, Linux, iOS and Android currently being tested.
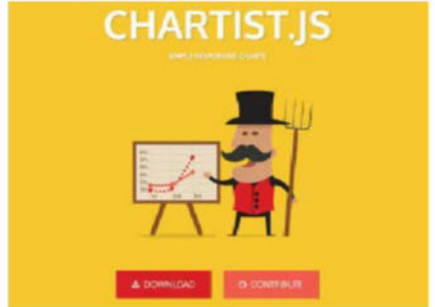
Chartist.js

www.github.com/gionkunz/chartist-js
Want to create highly customisable responsive charts quickly and easily? Try this resource and watch the magic happen.

Vehicle icons

http://bit.ly/1AyrQmn
This hi-res set of outline icons features nine vehicles in vector and PSD formats. Download and add some style and class to your projects.

TOP 5 Colour generators

Create the perfect colour palette with these excellent tools

01

Adobe Kuler

http://adobe.ly/1wfYUPp
Unleash the power of the colour wheel by "Color Rule" to create a palette. Then fine-tune with sliders and numbers, and save for future reference.

02

Paletton

www.paletton.com
Loads of options to choose from with the number of colours, the wheel, viewing the colours and getting a colour list in CSS, HTML, LESS or text.

03

Color Wizard

http://bit.ly/1IVGJhu
Enter a hex code and get instant results. Hue, saturation, and tint and shade are all on offer before choosing the rule of choice for more options.

04
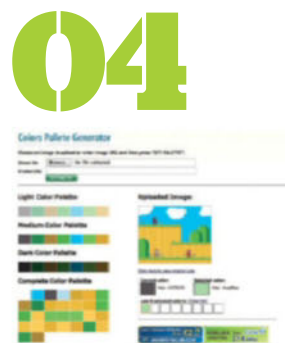
Colors Palette Generator

http://bit.ly/1qLgzwG
Add an image for a selection of colour palettes. Save as either a CSS stylesheet or as a Photoshop swatch.

05

Cubecolors

http://bit.ly/1nLlcDF
A simple alternative to the standard colour wheel. Click at random, build a block, your colour range and a palette appears. Copy the CSS to use.

A new workflow

Rarely does a simple software update truly transform the way a design studio works
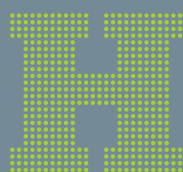
Having been in the business of building the internet for longer than we care to remember (since Macromedia Flash, Adobe Fireworks and Director), we at LEWIS have spent thousands of pounds and countless hours upgrading and installing the latest software updates.

Historically, we used Illustrator to craft our web designs. With features such as Smart Guides and a more intuitive grid system it was far superior to Photoshop, but there was always something that didn't feel quite right.

Handing those complex Illustrator files to the front-end development team was unfair. It made their job more difficult and it would often result in the designers spending extra time refining images to ensure they were pixel perfect.

So, in 2012 we reviewed our process and took the decision to switch to Photoshop. Illustrator had served us well but Photoshop had come a long way and offered a much better workflow. At that point, CS6 was the latest version and after a short transition, we started to see results.

Smart Objects and Layer Comps saved time by allowing us to test multiple layout options for internal and client reviews. Being able to design three or four options for navigation styles and flick between them to make decisions was nothing short of a revelation.

When Adobe announced CC and forced the industry into the controversial subscription model we were hoping for more innovative features. We weren't disappointed when we found Generate Image Assets – it was just a game-changer for everyone in the studio. GIA replaced the cumbersome slice tool that cut images like a sledgehammer and saved so much time for the front-end development team.

It combined slicing, file naming and exporting images for web, all in real time. It had so much potential but it also meant we needed to rethink the way design and technical teams worked in the studio.

Every designer works slightly differently, and so does every developer. So I'd never suggest a one size fits all solution. But figuring out the basics and ensuring that the project teams are on the same page at the outset is crucial.

Our designers are very strict with the naming and organisation of layers. Keeping them in Layer Groups and in a logical and hierarchical structure is critical to taking advantage of Generate Image Assets. Header, navigation, heroes, page content and footers should all flow logically.

For developers, we ensure that naming conventions, image size targets and the requirement for retina and breakpoints for responsive images are all considered. This helps the designers set up documents and gives the developers the assets they need to build the pages into workable HTML. It means they can focus on web standards, framework, browser compatibility and validation rather than having to waste time wrestling with messy PSD files supplied by designers.

The first project that gave us the opportunity to trial the new workflow in full was the XCP Professional website. As usual, we started with UX planning and developed the technical specifications. The design team then began crafting the page designs in Photoshop. We prefer a mobile-first design process but clients often need to see how their brand and products will look on the big screen so we tend to do this in parallel with desktop design. The designs were generated at double size to cater for retina devices. Then, for internal and client review, we maximised the use of Layer Comps. This allowed us to test out colour combinations, typographic treatment, user interactions and navigation options. We used the handy 'Export Layer Comps to files' script to export JPG files and then built prototypes using Invision.

Once all pages were client approved, we were ready to prep our files for Design to Build handover and cue Generate Image Assets. Our PSD files were meticulously organised, all assets were neatly filed in layer groups, image masks were applied where required and all elements were named according to the syntax our development team had specified.

We ran a handy script that allowed us to select multiple layers and automatically add the file extension to layers such as JPG, PNG, GIF. You can try the script here: **bit.ly/R401SE**. We then set up a default setting layer to export assets in multiple sizes for each of the responsive breakpoints. For example: `<default hi-res/@2x + 75% mid-res/ 50% lo-res/>`

This process generated three image assets from a layer: hi-res, mid-res and lo-res. The next step is where the magic happens: File menu>Generate Image Assets. Each asset was directly exported to the subfolders. Our developers used these images to build the site, and if we needed to amend anything we simply reopened the PSD to make the change; the files would then be updated in real time. Bingo, an efficient workflow that saves time and improves the quality of our work. See the result for yourself at **www.xcp-protection.com**.

WEB TYPE
COMES ROUND

Web Designer talks to Monotype's Jim Ford about type design

Q. Welcome to Web Designer. Let's kick off with an introduction. What's your role at Monotype and what does it involve?
Thank you. I'm a type designer at Monotype, where there are at least a dozen of us. Of course there are other sectors of type and font technologies which fall into other hands and departments, but my specialty is drawing, design and marketing.

Q. The advent of web fonts has brought a completely new world of creativity for designers. As someone who is at the forefront of the transformation, what grabs you attention in the world of web type?
Well, web type sure has come around. I remember the discussions when web fonts were uncharted technology. Companies were collaborating to produce something that would benefit the industry as a whole and two industries were coming together as one to make it happen.

I love seeing the variety and quality of web design out there – branding and typography is responsive and adaptable now, carrying over into devices and environments where the type looks even better. Now, a web designer's average job may include a font selection process, or maybe a purchase. As a freelance designer, I always enjoyed shopping for fonts. I then get to be a consumer and discover other designers' work. In the earlier days of the web, there was only a handful of 'system font' choices, which made web design rather dry and limited.

Q. You have recently been involved in creating a custom type family for a
well-known company. How does this process work and do custom fonts typically become publicly available?**
With high profile companies (exception to the software/hardware giants who we have relationships with), there's often an agency between you, running the campaign and presenting the work for approval. I prefer to work directly with a client to see the project through, but there are plenty of times when guys like me are just working with the people who manage these projects.

Some foundries make deals, where a custom typeface is only exclusive for a period of time – but more often than not, there is a confidentiality agreement in place which may restrict us from even mentioning the project. This is even the case with some smaller lettering jobs. Custom type design always happens in a hurry, but you can often expect delays in communication that will extend the process longer than it is actually meant to take.

An art director, for example, usually has some ideas, but the vision is not always clear to them without seeing it executed first. So it seems every job goes through the paces and some trials, and it can be compromising at times. It's very different than designing your own typeface.

Q. What are the major differences you need to consider when creating a font that needs to work both in print and on screen?
It's a thin line, seeing as so much type is consumed on a screen, yet print is not dead at the same time. Looking at how a typeface will render in different environments is a critical part of almost

every design's process. There are some guidelines in designing screen type, and type in general, and there are designs that throw all these principles to the wind…and they can still perform well on screen. With type coming to life by way of software, you see it first on screen where you shape and test it before you get the chance to print. One of these may look better at first. But in tweaking and comparing between screen rasterisers and print, you use each rendering environment as a tool to balance the design.

Q. Looking forward, how do you see web fonts and web typography

evolving? What should we be on the lookout for over the next few years?**
Web fonts and web typography are going to continue to advance, become richer, more enjoyable and feasible for the designer. I think I can speak for most of us in the type industry in saying – we're all watching and working, hoping to see more progress. This has to do with educating the web design community and users about what *else* fonts can offer. Also we will be working with the people who can bring web type up to the state-of-art that's in fonts, I think exciting developments are yet to come. Web fonts are definitely a game-changer.

> Looking at how a typeface will render in different environments is a critical part of almost every design

A domain name
for every occasion

Choose from hundreds of new domains for you and your clients

FROM £3.49 per year ex vat

.photography

.london

Get your clients off to a great start
with a memorable domain name

Domains such as:

.photography   .email   .tips
.guru   .agency   .xyz
.today   .technology   .london

...and many more

Whatever website you are creating, whether it is for a friend, your clients or just yourself, we have a domain that will suit all your needs perfectly.

Why 123-reg?

✓ We host over 1.7 million websites   ✓ Full DNS control
✓ The UK's #1 domain registrar   ✓ UK based support team

.today

1.7 Million Websites hosted

We've registered over 3 Million domain names

Visit www.123-reg.co.uk

123-reg.co.uk

LIGHT🎲

Know a site that deserves to grace these pages? Tweet us now 🐦 **@WebDesignerMag**

<Above>
• Production assets were captured especially to form new backdrops, with rotoscoping techniques also employed

#A56847	#E6CBA2	#98802C	#5F392B
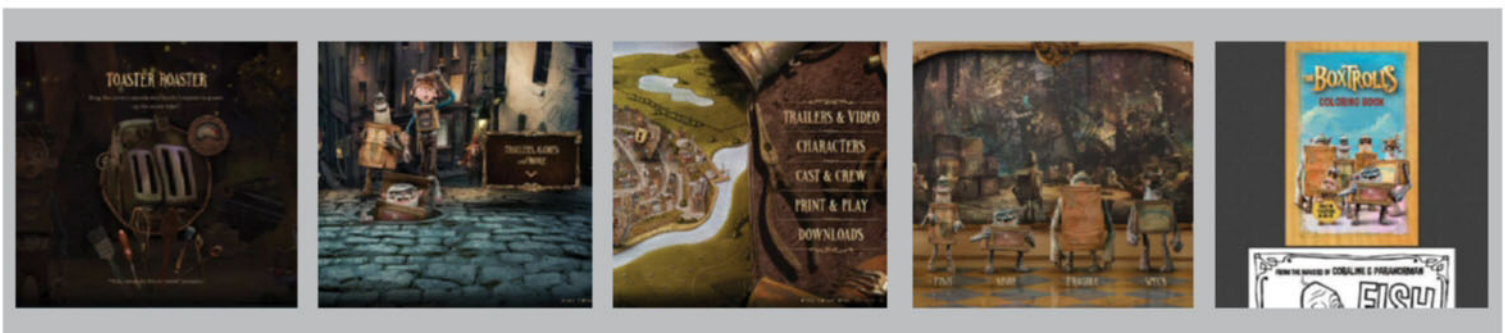
<Above>
• Added interactivity engages the user and helps them absorb the experience and glorious artwork

<Above>
• *The Boxtrolls* is animation studio Laika's latest release, following the successes of *Coraline* and *Paranorman*

<Above>
• A world map-style main menu unlocks a journey for the user through the Boxtroll world of Cheesebridge

<Above>
• Subsequent sections reveal the film's cast of colourful characters and the distinctive actors voicing them

<Above>
• A 'Print and Play' section offers some fabulous PDF assets for kids to download including colouring books

The Boxtrolls

www.theboxtrolls.com

Development technologies HTML5, Modernizr, Photoshop
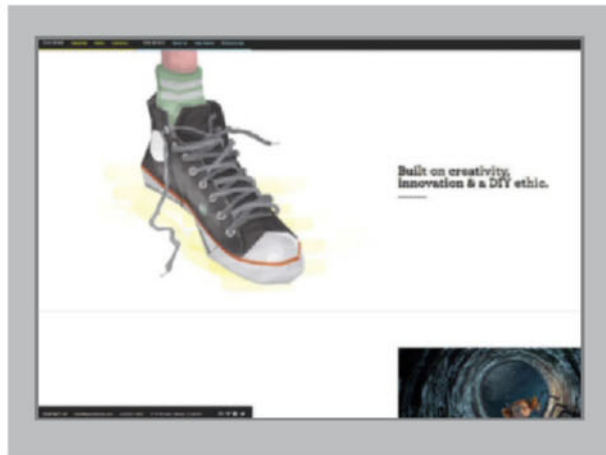
Designer **Legwork Studio**

www.legworkstudio.com

Animation studio Laika calls in a heavyweight creative partnership to weave a fitting web experience for the latest blockbuster
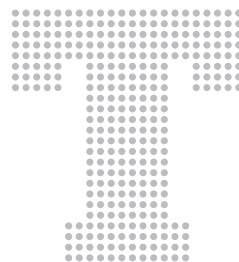
This lavish promo site for new animated movie *The Boxtrolls* combines on and offline content to support the September release. Representing animation studio Laika, a client known for box-office hits *Coraline* and *Paranorman*, the project demanded painstaking attention to detail. Denver's Legwork Studio worked closely with advertising agency Wieden+Kennedy to immerse young fans. A trendier, flatter design UI layered over imagery was jettisoned in favour of something more timeless. Production-like techniques were adopted, culminating in an "interactive trailer"

experience. With movie scenes naturally not shot in layers for easy extraction and parallax, the designers went the extra mile to bring this vision to the web. "'This isn't working' were the first words from [Wieden+Kennedy's] creative director Caio Lazzuri when we presented our initial 'flat design'", reveals Legwork's Dave Soderberg, creative director. "Fast-forward and we were mimicking Laika's craftmanship by painting elements in Photoshop and 3D rendering custom animated interactions. The [agency's] motion team was rotoscoping thousands of frames and had teams shooting custom footage at Laika. [This] production resulted in an experience with games, animated characters, and a narrative introducing kids and adults alike to Laika's next great movie."

> ❝We were mimicking the painstaking craftsmanship of Laika by painting elements in Photoshop and 3D rendering custom animated interactions❞

ABCABC
1234567890

\<Above\>
• The site naturally uses the custom Boxtrolls font used within the film's marketing, with drop shadows applied

ABCABC
1234567890

\<Above\>
• Calluna Sans Regular which was created by exljbris Font Foundry and available via Typekit

Building an interactive trailer

Legwork Studio's creative director Dave Soderberg explains how movie assets were obtained for The Boxtrolls' website

01 Source the elements

The key to our idea was to create the illusion of the trailer slowing and becoming immersive. This was difficult, as the scenes from the movie weren't shot in layers that we could extract and parallax. To get what we needed we had to search the movie for key characters that we could rotoscope and place into new 'fake' scenes. Once we found the right characters and plates for our backgrounds, we created rough scenes for approval on composition.
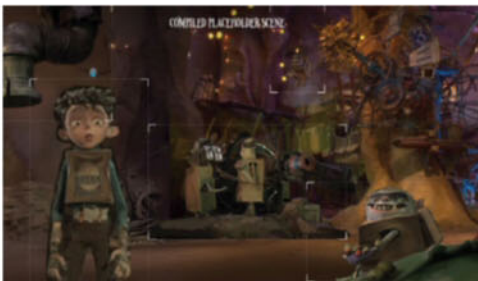
02 Rotoscope the assets

Next, we requested clips at full resolution from Laika. We needed over 20 animated characters with at least 60 frames of animation each. We created templates for our scenes in After Effects while Weiden+Kennedy's team began the arduous task of rotoscoping thousands of frames. As they finished, they'd send the sequences and we'd replace our rough footage. This process happened countless times while we were constantly refining and adjusting positioning, sizing, and lighting.

03 Retouch the backgrounds

Concurrent with Weiden+Kennedy's motion team, the Weiden+Kennedy retouching team was hard at work on compiling the backgrounds of the scenes by combining frames from the movie, patchwork of other parts of the movie, and painting what we couldn't find. As they sent over updates, we would then incorporate them into our master After Effects file, slowly replacing the placeholder assets.
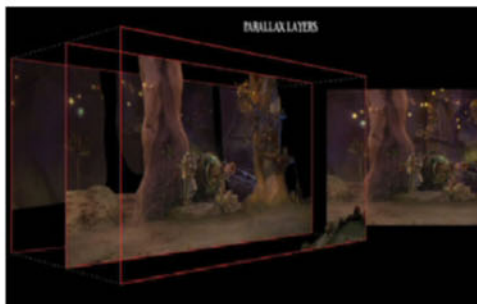
04 Put it all together

Countless asset swaps later, our master After Effects file no longer had placeholder assets. We organised everything into four layers for parallaxing. At this point we were ready to export PNG sequences for all animated sprites, static layers of the retouched/ composited backgrounds for the parallax, and the final intro videos that seamlessly transitioned into our fabricated immersive scenes. It was that easy!
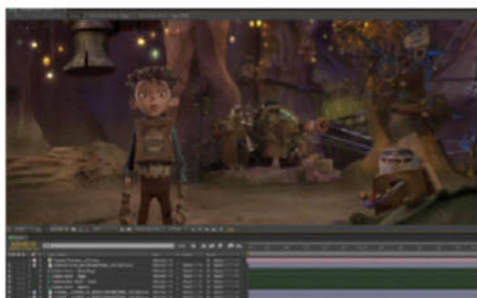
Rotoscoping in After Effects

A look at the basic principles behind using the Roto Brush tool within Adobe After Effects CC

01 The Roto Brush

In Adobe After Effects CC, the Roto Brush is the second to last button within Tools bar in the top-left corner. To rotoscope film you would normally do this against a 'clean plate' which fills in the background masked out by the Roto Brush.

02 Paint your selection

However you're using it, begin by double-clicking your target clip to enter Layer view. You then literally paint the area you want kept in green, switching to deselection (red) holding the ALT key. You'll see the mask outline snap to your object.

03 Adjust the mask

Continue to paint in or exclude the desired areas by toggling the brush. This process takes time to get the very best results, refining the pixel selections. You can then cycle through neighbouring frames to preview and continue making adjustments.

LIGHT

Know a site that deserves to grace these pages? Tweet us now @WebDesignerMag

Adventure.com

Development technologies WordPress, Advanced Custom Fields (ACF) plugin, HTML5, CSS3, jQuery, SVG, Ajax, Photoshop

Intrepid stories from around the globe are sumptuously documented within this photo-rich WordPress-based design

Alongside a centralised, modern internet and cloud, it makes sense that a contemporary travel market has truly flourished. Adventure.com harnesses this potential beautifully by mixing photo-blogging, custom posts as well as an app-like UI to form a gloriously exotic experience. You can use the site to identify and book tours sumptuously described by an incredible 15 gigabytes of imagery. Landmarks and itineraries are represented seductively via wide aspect templates, balancing swathes of colour against white space. WordPress underpins CMS features for facilitating future posts, leveraging the Advanced Custom Fields

(ACF) plugin for design flexibility. Makers Digital Telepathy settled quickly on the desire to place the adventurer at the centre of the story.

"Seeing the world with your friends isn't something that you have to sell people on, you just have to compel them with enough inspiration to light that adventure-seeking fire in their hearts", explains Jessica Moon, art director at Digital Telepathy.

"With Adventure.com, our approach was simple: leverage the client's stunning photography and pair it with a clean editorial style in order to create an experience that lets the destinations speak for themselves. We created a modularised visual UI that, [when] backed by a customised CMS, empowered the client to create unique visual storytelling experiences on every detail page of the site, from product page to blog post."

Designer
Digital Telepathy
www.dtelepathy.com

<Above>
• The Goodfoot font family provides the brush-like typography adorning the main header

<Above>
• Bebas Neue by Dharma Type adds a blockier, bolder style to the more prominent section headings

<Above>
• Brandon Grotesque handles the rest of the page text in regular and bold italic varieties

#242424	#A42418	#4A8DAC	#434343	#666666

"Seeing the world with your friends isn't something that you have to sell people on, you just have to compel them"

Create consistent imagery treatments for the web

Photoshop is a key player in the photographic techniques utilised across Adventure.com, learn how to use it to its full processing potential here

01 Consistency is key

On a website where photography is integral, the images had to be processed seamlessly. This involved a keen eye and stages of Photoshop work, as account strategist Brent Summers confirms. "That's why the pictures all play well together even though they're sourced from literally hundreds of photographers around the globe." Over the next few steps art director Jessica Moon describes the basic principles applied to making Adventure.com's imagery look consistent.

02 Selection and composition

Great feature photography starts with selection. Before choosing, consider what's best for the brand and what the audience will respond to. For Adventure.com we wanted photos that evoked a visceral reaction: vivid colours, interesting subject matter, and a human connection wherever possible. The first stage is cropping to fit a container. Consider it in context of the other UI elements surrounding it. Will text be overlaying it? Where on the screen will the user's attention be? Make an ideal photo crop with the context available.

03 Blend in photo styles

Next comes adjustment of the photographic style to match the site layout and other photos used elsewhere. In Photoshop, a simple color overlay can go a long way in helping accomplish this. Begin by opening the Layer Styles of your photo and navigate to Color Overlay. Here we're changing the colour of the overlay to a soft slate tone (#606167). Afterwards the Blend Mode is set from Normal to Exclusion before reducing the opacity of the Colour Overlay to 30 per cent or so.
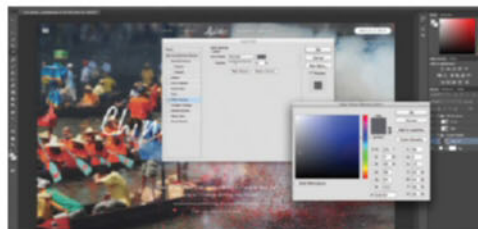
04 Add additional polish

Depending on the photo's contrast and the UI elements that will be surrounding the photo (like typography), more or less opacity may be required in the Colour Overlay. You can also experiment with using other colours to bring out different attributes in the photo. Try adjusting warm and cool colours to fine-tune your photo's appearance. Once happy with your styles, hit OK on your Layer Styles and save/export!

Advanced Custom Fields

Digital Telepathy used the ACF WordPress plugin to allow editors to make compelling, consistent stories

01 Download the plugin

Advanced Custom Fields is crucially an enhanced GUI layer for defining custom fields within WordPress. Created by developer Elliot Condon elliotcondon.com, it can be downloaded for free at advancedcustomfields.com and the ZIP archive installed via the WordPress Dashboard as normal.

02 Add new fields

With the plugin installed you'll find the Custom Fields editor added. Here your defined Field Groups are itemised like posts, allowing you to Add New and stipulate Field Label, Name, Data Type, Instructions and default values and more.

03 Laying down rules

With Custom Fields defined, you can easily reorder them within the list or set rules for how they appear. This is particularly useful for only allowing those with suitable permissions at levels such as contributor, editor or administrator. For more detailed guides on ACF, visit advancedcustomfields.com.

LIGHT

Know a site that deserves to grace these pages? Tweet us now @WebDesignerMag
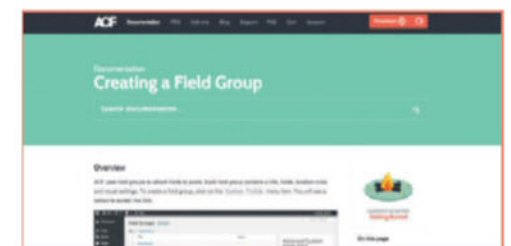
BOOK ROOM

<Above>
• Volkshotel opens with a cartoonish recurring character motif, adding a dash of colour to a restrained template

#FFE5AF #19B1B5 #9C88BE #7E8980 #454345 #0202OF #F1F1F1 #B83615 #82AOAF

<Above>
• The website feels very bespoke, unique and the antithesis of a typical and generic hotel chain

<Above>
• Checking availability and actually booking with Volkshotel is still easy, as it links out to a secure booking system

<Above>
• The strong social and event-filled appeal of the hotel is communicated via blog and agenda sections

<Above>
• A stark, classic styling again parallels the design aesthetic typically reserved for artistic institutions or galleries

The Volkshotel

www.volkshotel.nl

Development technologies HTML5, CSS3, SVG, WordPress, CoffeeScript, Sass, Gulp/Compass

Designer **Your Majesty (Amsterdam)**

www.yourmajesty.co

A public display of affection for a hotel website brimming with enough character to inspire "getting a room"
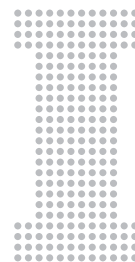
n 1981 the BBC's Arena programme took its cameras into the hallowed halls of New York's Chelsea Hotel. As a residence famously favoured by artists, musicians, socialites and eccentrics, what followed was a fascinating insight into the stories such a building might possess. This is precisely the vibe you get from this new site for Amsterdam's Volkshotel which underlines a fierce sense of individuality. Quirky, sketchy visuals and slightly comical animation kicks off the intrigue, before the content seems to focus most on projecting Volkshotel as a creative hang-out. Is it a gallery, a library, nightclub or place to sleep?

As convenient to book and enjoy maybe, but Premier Inn this isn't. "The hotel has many facets to highlight, thanks to the diversity of building-tenants as well as the history of the newly restored building", says Magnus Löwing Swahn, design director at Your Majesty Amsterdam. "We decided to approach the project from a heritage point of view, which means we applied a publishing platform solution rather than a traditional hotel website structure. We created a framework that provides each of the tenants their own space to express themselves, while still residing within the Volkshotel brand. In addition, we invited local artists to create videos that highlight and distinguish each tenant. Using CoffeeScript, SASS and Compass through Gulp, we were able to work fast and iterative."

❝❝We created a framework that provides each of the tenants their own space to express themselves ❞❞

abcABC 1234567890

<Above>
• Bodoni typeface delivers some classic elegance to the various section headings punctuating the page

abcABC 1234567890

<Above>
• DIN Light provides the styling for the subsequent small snippets and paragraphs of page text
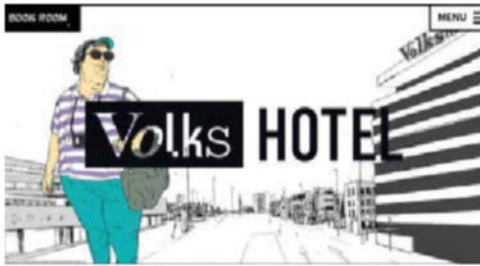
Glitch-style link effects inspired by Volkshotel

Emulate the distinctive 'glitch' effect applied to the rollover links found across the site using simplified HTML, CSS and JavaScript

01 The glitch links

Hover over a menu link on **Volkshotel.nl** and you'll notice how a 'glitch' effect is applied on rollover. Your Majesty developer Hugo Wiledal and designer Sjoerd van Rijen achieved this by dynamically generating multiple <span> elements just a few pixels thick, using them as masks to form a spliced link. Applying a random x-offset to the left or right positions of each <span> then forms the effect, as Hugo kindly demonstrates here: **http://bit.ly/1v8cFio**

02 Stack those spans

To illustrate this technique, our example simplifies the idea but crucially again uses stacked <span> elements. Instead we use just five with each assigned a background image positioned at intervals. The background image is our link text and is a transparent PNG of 145 pixels high. We divide this by five to get the height of each <span> and then set the 'top' positions at increments of this height. The span stack is then wrapped in a link.
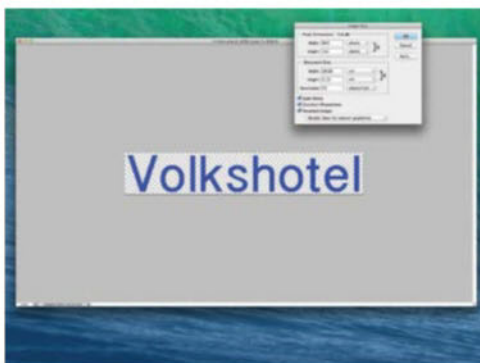
```
001 <div>
002 <a id="myLink" href="#">
003   <span></span>
004   <span style="top:29px; background-
position: 0px -29px;"></span>
005   <span style="top:58px; background-
position: 0px -58px;"></span>
006   <span style="top:87px; background-
position: 0px -87px;"></span>
007   <span style="top:116px;
background-position: 0px -116px;"></
span>
008 </a>
009 {
010 </div>
```

03 Set the CSS

Our styling is simple, focused most on defining the <span> elements. They must be positioned 'absolute' to stack perfectly vertical and as empty, we set display to 'block' to adopt our set dimensions. We then attach the background image, make the overflow hidden so they function like the masks we require. Each is set to the required 29px high, stipulating the width as 100%. Here we've wrapped everything in a <div> container purely for page positioning:

```
001 div {
002
003   position:relative;
004   border:10px solid #0000FF;
005   margin:20% auto;
006   width:840px;
007   height:145px;
008 }
009
010 span {
011   position:absolute;
012   display:block;
013   background-image:url(text.png);
014   background-repeat:no-repeat;
015   overflow:hidden;
016   height:29px;
017   width:100%;
018   }
```

04 Code called on rollover

The first part of our JavaScript, placed just before our closing </body> tag, is called when our link wrapper is rolled over (onmouseover). We get the element by the id 'myLink' and call our function. Here each of the spans is placed in an array, before a Boolean variable initialises as 'true' for left. We then loop the array, shifting each in left or right directions by a set amount of pixels, toggling the 'left' Boolean for the next pass left or right:

```
001 <script>
002 document.getElementById("myLink").
onmouseover = function(){
003 var spans = document.
getElementsByTagName('span');
pageVerticalPosition) + "px";
004 var left = true;
005 for(var i = 0; i < spans.length;
i++) {
006   if(left){
007   spans[i].style.left = "-3px";
007   } else {
008   spans[i].style.left = "3px";
009   }
010 left=!left;
011 }};
```

05 Code called on roll-off

The last part of our code is triggered on roll-off of our link (onmouseout). We grab the element id again as before and run a much smaller function this time. Looping the spans array once again, all we do is reset the left position to zero pixels and returning it back to normal – and that's it.

```
001 document.getElementById("myLink").
onmouseout = function() {
 var spans = document.
getElementsByTagName('span');
002 for(var i = 0; i < spans.length;
i++) {
003   spans[i].style.left = "0px";
004 }};
```

06 Simplify by splicing

Make no mistake, Your Majesty's method for **Volkshotel.nl** is far more elegant and sophisticated. However our simplified effect can be enhanced by using more <span> elements thus splicing the link more thinly. Try experimenting with this and the left or right shift values to achieve more glitch-like results!

bet365affiliates.com

CASH IN ON YOUR DESIGN SKILLS

CAN YOU ADVERTISE bet365'S PRODUCTS ON YOUR WEBSITE?

- For every player you refer to bet365 from your site, earn 30% profit share

- There's a range of products you can promote including Sports, Casino, Poker, Bingo and Games

- It's free to join, with a fantastic portfolio of professional-looking marketing content available

For more information, contact:
support@affiliates365.com

WELCOME TO bet365.com AFFILIATES

www.gambleaware.co.uk
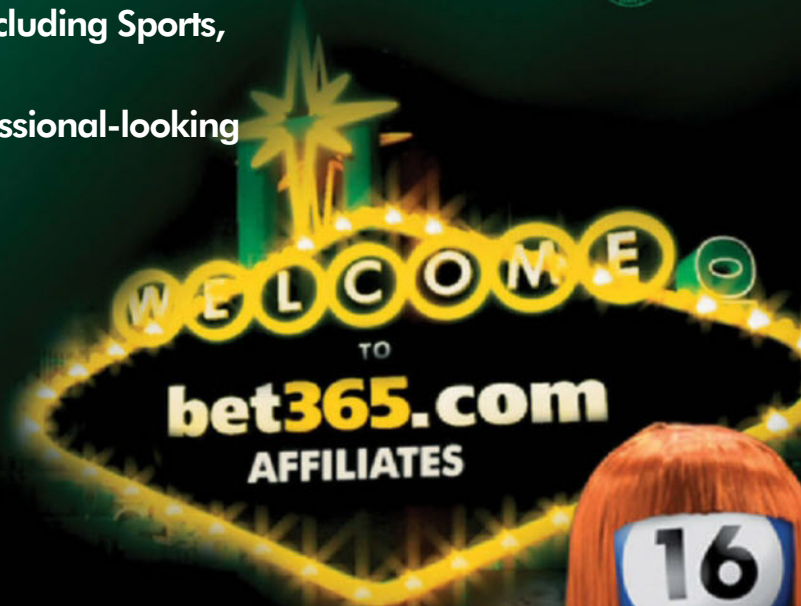
Project	**Stylepit SS14 Lookbook**
Web	www.stylepit.com/lookbook
Agency	**UncleGrey**
Web	**unclegrey.dk**
Duration	**6 weeks**
People involved	**20**
Total hours	**300 man hours**

A SENSE OF STYLE

THE SMART GUYS AND GIRLS AT UNCLEGREY AND B-REEL STEP UP TO BRING TOGETHER A UNIQUE AND COMPELLING TWIST TO ONLINE FASHION BRANDING

Looking good: it's second nature and creating a unique and jaw-dropping online experience is no easy process. The need to rise above the average is even more intense as a site fights through the masses, all vying for a single space on the first page of the rankings.

How do you stand out in a crowd? Create an experience that is engaging, create something that grabs attention and this is exactly what the good folk at UncleGrey have done. They have embraced the Stylepit project and added a twist of their very own passion to help bring the online experience to life.

A fashion conscious collective, UncleGrey believes in an open collaborative approach with all the parties involved in a project. How do they do this? They present the process to each other whilst looking for constructive criticism to raise the level and standard of any work. Respecting decisions is crucial, simply so members don't run off at some obscure tangent and produce work that doesn't quite fit the criteria.

The need for collaboration was very much a point in case with the Stylepit project as UncleGrey took up the challenge with more than just themselves. Also on board for the project were creative innovators and storytellers B-Reel. With both ready to add their own sense of style and imagination it was time to think about how to bring the

project to life as UncleGrey art director Carl Angelo explains: "We started off with the brand's original name SmartGuy and SmartGirl. It was one of the early eCommerce fashion sites in Denmark

"[Overtime], updates and changes [meant that] the SmartGuy brand had lost some grasp of their customer base in relation to other competitors. The initial thoughts were to completely disband the old way of communicating with the customer base and reestablish SmartGuy as the reemerging giant.

"By doing that we first of all needed a new name, new visual style and approach. The holding company of SmartGuy was Stylepit. After a couple of meetings with the client, it was decided that it would be the perfect name and foundation of the new brand."

With a new name and the first step to a new brand ready to go, it was time to start the communication process. UncleGrey digital director Karsten Kirkegaard reveals how the teams behind the project made sure that they were on the same page: "At UncleGrey we believe in an open collaborative process where we work closely with our clients at each stage.

"In this case we worked across three key parties, the client and their various departments, the production company, and the creative agency. This close collaboration ran all the way through to deployment of the project."

JIMMY BLOM
executive creative director

KARSTEN L. KIRKEGAARD
digital director

LARS DYHR
executive creative director
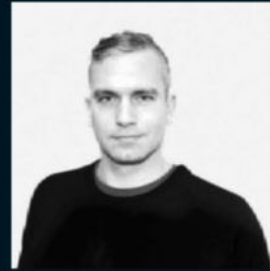
MICHAEL MANDRUP
design director

LARS SAMUELSEN
chief strategy officer

LOVE FOR A COMMON CONCEPT

The Stylepit site, while looking gorgeous on the outside suggests there may be a lot of heavy lifting going on behind the scenes. The imagery and effects make up the uniqueness of the site but it's the eCommerce element that is the most critical component. This needed to integrate seamlessly into the design and as such a lot of the work wasn't the responsibility of UncleGrey alone as digital director Karsten Kirkegaard explains: "The development and framework was initially prototyped by B-Reel in a very raw form to display the basic interaction method, subsequently this base was refined in several iterations between B-Reel and UncleGrey.

"A key point in the development was bringing [Stylepit's] technical team into the development in order to have a deep integration into the business logic of the main eCommerce property.

"With all three development parties on board, the final stages of the production were quite vulnerable to any changes needed to be included. This required a high degree of mutual understanding and respect. Despite working across countries and cultures, this critical phase of the production went quite well due to a common love of the basic concept."
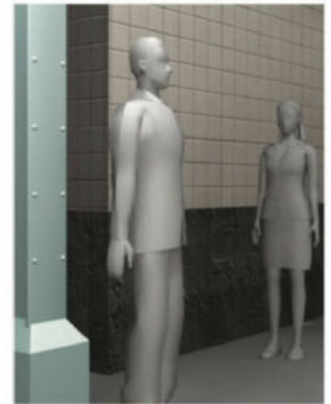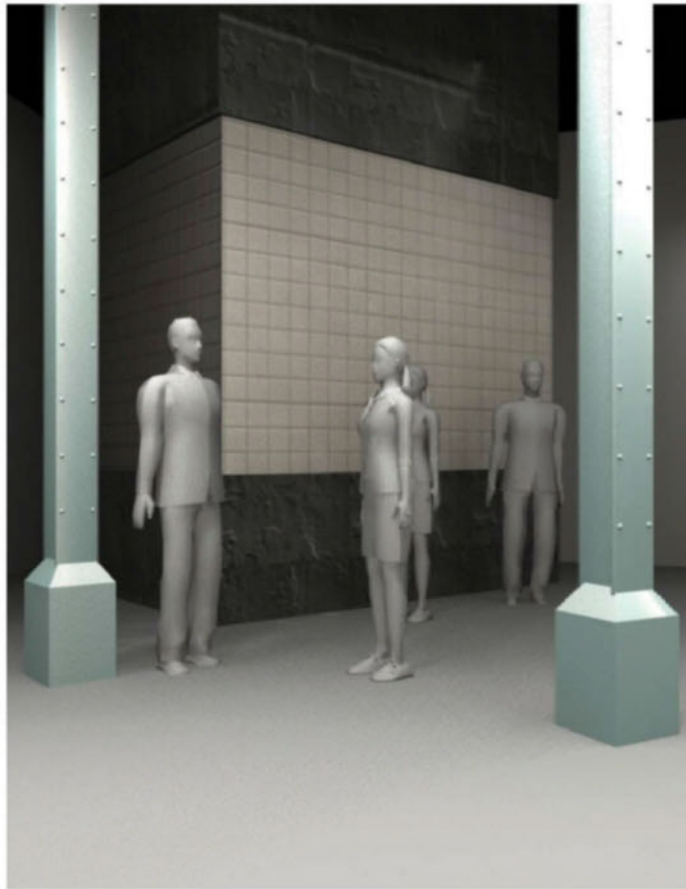
The project used 3D mock-ups to work out placements for the real models

The unique design and style of the Stylepit Lookbook was no easy decision. Ideas needed to be formulated so it was time to delve into the minds and imaginations of the UncleGrey crew and bring together fashion genres in a single space. How was this done? Art director Carl explains: "A giant mood board of how we perceived what the style of the actual clothes should be. It became clear to us, the separate websites of SmartGuy and SmartGirl represented all types of people from every walk of life and they would all need to be represented in the lookbook. Each member of the team piled in their individual knowledge of subcultures, genres, music and so on. As we gathered all the various types, we could see we needed a common place where all these people would be at the same time and place. No matter how different they were.

"We also wanted to put an emphasis on the unique style of each person and we wanted to make sure everyone could be appreciated for who they were.

"[We looked for contenders for] places where many types of people [could] gather – famous streets, parks, festivals, train stations and other public spaces where every single type of individual would be represented.

"After looking at countless of inspirational material

> ❝ SmartGuy and SmartGirl represented all types of people from every walk of life and they would all need to be represented ❞

JOSEPHINE
WINTHER-POUPINEL
account director

CHRISTIAN RAHN
digital art director

CARL ANGELO
art director
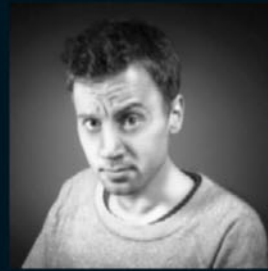
MATHIAS NIELSEN
junior creative

RASMUS VEGGERBY
art director
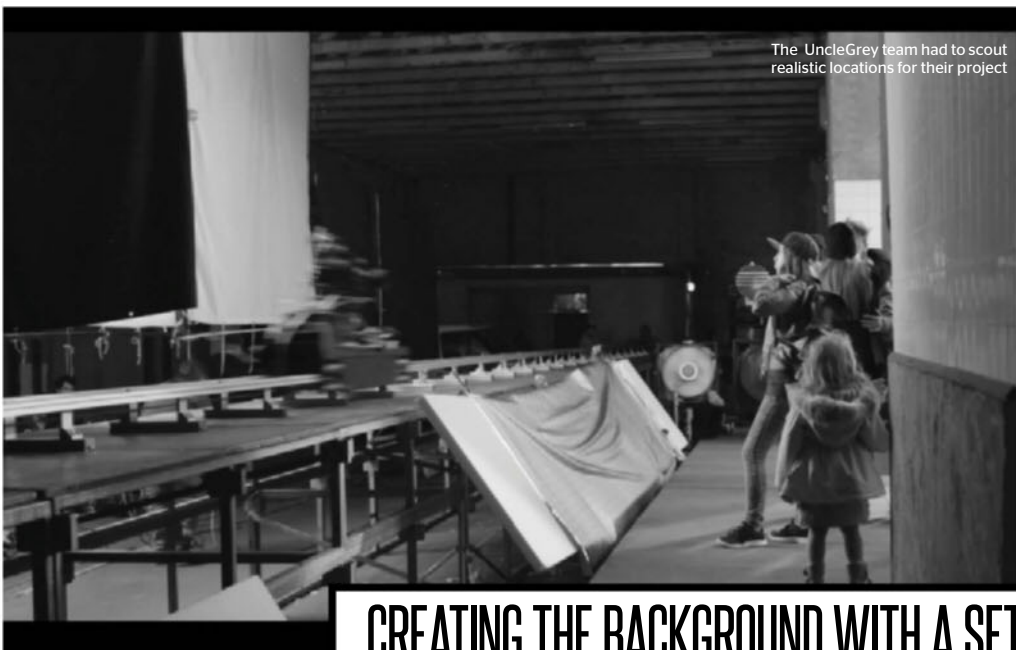
The UncleGrey team had to scout realistic locations for their project

CREATING THE BACKGROUND WITH A SET LOCATION
UNCLEGREY FILMS WITH MODELS

we were really drawn to the work of the talented artist Adam Magyar. From this inspiration we chose a train station as the location.

"We wanted more than just a flat narrative and experience that would just start and end at fixed points. We wanted the user to be able to be a spectator in the varied universe and be able to go back and forward to find new details if more time was spent investigating. Every single moment down to each millisecond would have to be recorded in as high a resolution as technically possible.

"The presentation and final work would have to be layered and compacted to allow for an immediate experience, without overly long loading times. The music also had to be an adaptable experience and had to follow the users pace and experience."

"With concepts, code and design in the bag, the final step in any project is to bring it to the masses. A site launch

❝ We wanted more than just a flat narrative and experience that would start and end at fixed points ❞

needs to be unveiled in a blaze of glory. Marketing and social media were key players in making sure that masses were aware of the best-looking lookbook to hit the planet."

Art director Carl reveals how the big players really helped the brand develop and grow online: "Following up to the launch of the campaign, behind the scenes footage was fed to followers on Instagram, Facebook, Google Plus and Twitter.

"Day by day, fans could see the brand take shape and at the same time they could get tips on make-up and styling. Interviews of all three parts were shared as well to get the

maximum tension to the launch. The lookbook was launched as the first step to introduce Denmark and the rest of the world to the new brand, Stylepit.

"The results were [astonishing] within the first few weeks of being launched. The average time users spend experiencing the lookbook was 5 minutes and 30 seconds, new users increased by 192 per cent and there was a 70 per cent total increase in users.

"Transaction increased by 659 per cent and on desktop the revenue increase was at 380 per cent whereas mobile revenue increased by 715 per cent."

TAKING CARE OF BUSINESS

A mammoth project like Stylepit needs a little aftercare and attention to make sure that it runs smoothly. Aftercare helps to ensure that any design/development creases can be easily ironed out. But who takes on the responsibility? Is it the agency? Or is it the client?

It's typically both, but how much responsibility is determined by the approach to a project? Digital director Karsten Kirkegaard offers a

quick insight into UncleGrey's role in Stylepit's aftercare: "The aftercare of each project is usually a natural part of every project. In this case with Stylepit the project was delivered as an install package to deploy within the overall Stylepit platform and infrastructure. Our responsibilities post-launch has been limited to ensuring availability of a few back-end utilities served via the Google App Engine."

The slick design is interactive and engaging across multiple screen sizes

THE BIG QUESTION...

❝ Lightning tracksuit ❞
JIMMY BLOM, DIRECTOR

❝ A fresh ironed shirt, black faded jeans and a pair of sneakers while making sure to wear a matching belt, socks and underwear ❞
KARSTEN L. KIRKEGAARD, DIGITAL DIRECTOR

❝ My Black Bay longboard, sneakers, a cap, and of course my well groomed beard ❞
LARS DYHR, EXECUTIVE CREATIVE DIRECTOR

❝ Purple turtleneck and matching slacks, topped up with a gold chain ❞
MICHAEL MANDRUP, DESIGN DIRECTOR

❝ I will make anything look good with my Stan Smiths ❞
LARS SAMUELSEN, CHIEF STRATEGY OFFICER

If you were called up to model for the 'Stylepit Lookbook' what would you be wearing?

❝ As someone who walked straight in from his daily job as a lumberjack, with an axe as accessory ❞
CHRISTIAN RAHN, DIGITAL ART DIRECTOR

❝ Anything really as long as it is really tight, really black, and a v-neck as deep as the abyss! ❞
CARL ANGELO, ART DIRECTOR

❝ Black T-shirt, and nothing else ❞
MATHIAS NIELSEN, JUNIOR CREATIVE

❝ Lightning sports pants by Stylepit of course ❞
RASMUS VEGGERBY, ART DIRECTOR

❝ Skinny jeans, basic T-shirt, and as always, very high heels ❞
JOSEPHINE WINTHER-POUPINEL, ACCOUNT DIRECTOR

epiphany.

BETTER BY DESIGN

With a deep understanding of what digital marketing means today, **Epiphany** is defining how businesses can successfully leverage digital design to meet their goals

Epiphany can trace its origins back to a car journey that took place in 2005. The founders, Robin Skidmore and Shane Quigley were working for a web development agency and were increasingly frustrated by the missed opportunities to create longer term relationships with clients by making sure that the websites they were building attracted traffic and had a measurable commercial impact. They created Epiphany as a search marketing specialist, using data to understand what consumers were looking for and ensuring that their clients then appeared in those searches.

Quickly deciding on a name for their new agency, the website the company maintains is a powerful calling card as marketing director, Tom Salmon explained: "We're passionate about the work we do, and the way we do it. It would be ridiculous if that wasn't reflected on our site," he said. "We built the site using the Umbraco platform and it is updated on a daily basis by our marketing team, with new blogs, articles, resources and news going live all the time. We also embed tweets, Instagram and YouTube content to give people an idea about what we're up to in the agency. We have an ethos of continual improvement, pushing the

who Epiphany
what Digital agency with consumer search at its heart
where The Small Mill, Chadwick Street, Leeds, LS10 1LJ
web epiphanysearch.co.uk

Key clients

Pets at Home

Kempinski Hotels

Virgin Holidays

CBI (Confederation of British Industry)

Waterstones

Office photos © Ed Waring

epiphany.

Better together

The ethos that Epiphany has built is based on the concept of 'better'

● **Better people:** finding and nurturing talent to make sure that we get great results for our clients.

● **Better culture:** providing a great place to work, being open to new ideas and having a positive social and environmental impact.

● **Better tools:** developing new tools that get better results or provide better reporting for our clients.

● **Better relationships:** creating long-term relationships with clients and partners based on trust and accountability.

● **Better ideas:** innovating and sharing knowledge within and outside of the agency to develop our approach to digital marketing.

❝We're passionate about the work we do, and the way we do it. It would be ridiculous if that wasn't reflected on our site❞

Epiphany enjoys nurturing talent, whether that is in the developer team or in the PR, copywriting or design teams

boundaries and making things better and this also applies to the website. A number of times each year we will sit down and look at the site with fresh eyes to see what can be done to improve its usability and content."

As the agency is active in a number of key sectors, how Epiphany approaches its own marketing is interesting. Tom continued: "We're extremely active when it comes to attracting new clients but the majority of our work comes from long term and retained partnerships with clients. We have been working with our biggest clients for years and the strength of those relationships is important.

"When it comes to new business it comes from a mixture of inbound activity, where people might have heard of us [or have] been recommended to us and outbound activity where we'll attend events, speak at conferences and contact certain brands directly. We don't spend a great deal on advertising.

"We're relatively picky because we want to have the right mix of clients – businesses we know we can add the most value to and get results for. Sometimes that means that we turn down work on the basis of commercial fit or if we've already got clients in that space. We've grown as an agency by making the right kinds of decisions in that area and ensuring that we've got the expertise and capacity to deliver it to a high standard."

The approach that an agency will take to each piece of work differs. Some agencies subscribe to agile working practices but others may favour a more fluid approach. At Epiphany, the client governs the workflow as Abi Liddle, director of client services, explained: "Timescales and people completely depend on the client's objectives and the type of project we're working on. Fundamentally we're measured on our commercial performance and ability to solve the client's marketing problems with them, whether that's increasing traffic to their website, improving conversion rates, building content hubs that better meet their customer's needs or launching an online PR campaign to get them coverage across the web.

"That means that all projects start with us going in to a client's business and understanding their marketing challenges, how they work commercially and culturally. You can have all the data and design talent in the world but if you're pointing it at the wrong problems for a client it's never going to get results.

"We don't often work on a project-by-project basis, most work is an on-going affair so you'll have a core team on the campaign which gets augmented by different skill sets (data analysts, designers, developers, PRs, media planners and more) at different times depending on the challenge."

In the digital design space the number of tools that are now available can be bewildering. Stephen Griffin, senior front-end developer, and Tom Pipe, senior .net developer, outlined the toolsets that Epiphany is leveraging: "All design work is completed using Adobe products, mainly Photoshop, Fireworks and Illustrator. These are passed along to the development team who are happy generating assets from the master design docs.

"For actual coding, developers are free to use whatever tools they prefer but the most common editor is Sublime. We use several tools to improve our dev workflow. Grunt is the build tool of choice at Epiphany. Most of our JavaScript is written as AMD modules and we use RequireJS for loading and then

industry insight
Rob Shaw, Group CEO

❝ We hire a lot of different types of people into the agency and it's safe to say that there is a blend of different personalities and skills across the team ❞

AGENCY BREAKDOWN UK team:

20 x Account planning and direction
28 x Content marketing
20 x SEO
20 x Biddable media
12 x Social PR (Shackleton PR)
6 x Data and customer insight
7 x Creative design
8 x Developers (front-end)
6 x Developers (back-end)
13 x Other (accounts, marketing, business and talent)

epiphany.

Diamonds in the Sky
77diamonds.com/diamonds-in-the-sky

Epiphany and their team of social PR specialists Shackleton developed Diamonds in the Sky, a virtual online universe where users can populate the night sky with stars named after someone special. The site was launched with a high-impact campaign that would give it the coverage and impact it deserved.
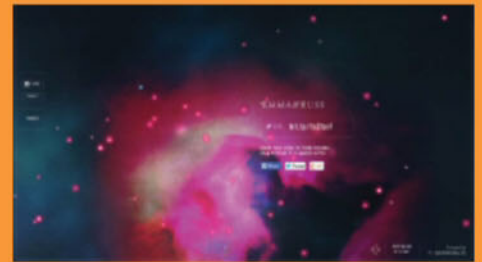
Created for 77 Diamonds, a Mayfair-based jeweller specialising in diamonds and a bespoke service, Shackleton was challenged with creating an online content buzz, while raising client awareness.

A high-impact stunt was chosen to create maximum exposure; one that would capture the UK's imagination on a wide scale. Working with the Civil Aviation Authority, Shackleton sent the first diamond into space. The team then used integrated communications, centred around social media, to set people off on a diamond treasure hunt and whoever found it got to keep it. The diamond was launched from a secret location using a space balloon and state of the art parachute, equipped with a video camera (for video content) and a GPS tracker (to indicate landing location).

As the search began, Epiphany managed the hunt over social channels, adding more than 40,000 new followers, likes, tweets and retweets and the search became one of the most high-profile talked about PR campaigns of the summer.

epiphany.

minifying upon build. We use Bower to manage our third party JavaScript libraries such as jQuery and Modernizr, which are used in virtually every project. Of course there are exceptions where appropriate and sometimes we use micro libraries instead of jQuery where only specific subsets of the jQuery library are required."

Drew Brigham, technical director, and Stephen Griffin, senior front-end developer, also commented: "We are building more and more single page applications these days which all use HTML5, CSS3 and jQuery. JavaScript has really gone from strength to strength on the web over the last few years and it is a trend that all the developers at Epiphany welcome. Creating mobile applications using the same technologies as traditional desktop web development is great, and the divisions between back-end and front-end development roles has narrowed. Front-end developers are now happy compiling builds on the command line with the rise of Node.js and all the tools that have emerged with that, and back-end developers are happy playing around with JavaScript frameworks such as Angular JS."

Mobile is a key component of the web experience. What is Epiphany's approach to designing and developing for different devices? Drew Brigham and Stephen Griffin continued: "It's no longer appropriate to think of projects as desktop only. Mobile (and tablet) use is always on the rise and there are no signs of that trend changing any time soon. All of our projects use a responsive

industry insight
Stephen Griffin, Senior front-end developer

" For actual coding, developers are free to use whatever tools they prefer, but the most common editor is Sublime. We use several tools to improve our dev workflow. Grunt is the build tool of choice at Epiphany **"**

design approach to a greater or lesser degree.

"Obviously some creative ideas that we build require a very different approach for the limited screens of a mobile device than they would do on desktop, but we always try and deliver an appropriate experience for all users. Some developers can go too far with a 'fix it with media queries' approach which can be dangerous and lead to very tangled code that is hard to maintain, so knowing where to employ it is crucial. We always try and code CSS in a way that is flexible and will work across all devices before reaching for the media queries to fix things."

New technologies, frameworks and tools are always making an appearance and Epiphany has been working on something quite special for future use. "We have a few projects in the pipeline that will be making use of more 3D in the browser," said Tom Pipe. "Modern browsers such as Chrome and Firefox have

TIMELINE

Number of employees
02

2005

Epiphany founded as a search marketing specialist at Leeds Metropolitan University

epiphany.

Epiphany wins its first PPC account

2006

Number of employees
03

Rob Shaw joins as MD. Epiphany becomes Google Conversion Partner

2008

Epiphany opens London office

Number of employees
20

2009

2010

Graduate Scheme launched to develop future digital talent

epiphany.

epiphany

We always try and code CSS in a way that is flexible and will work across all devices

Epiphany creates PR, design and copywriting teams (the first UK search specialist to do so)

Number of employees

77

100

Epiphany becomes Jaywing's search specialist creating a new agency model

2011

2012

2013

2014

Epiphany launches Shackleton PR and Epiphany Digital (Australia). Wins first FWA Award

Another year of growth and Epiphany moves its offices to The Small Mill

Number of employees

140

epiphany.

Mobiles.co.uk
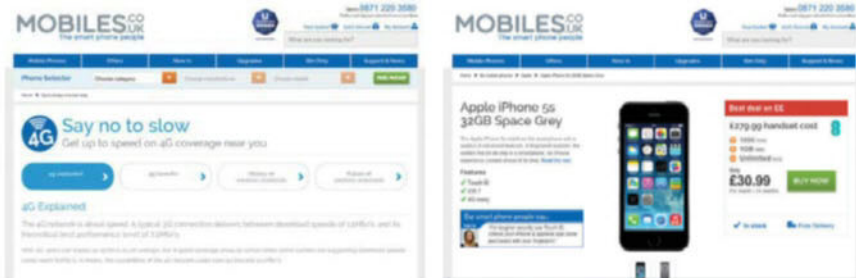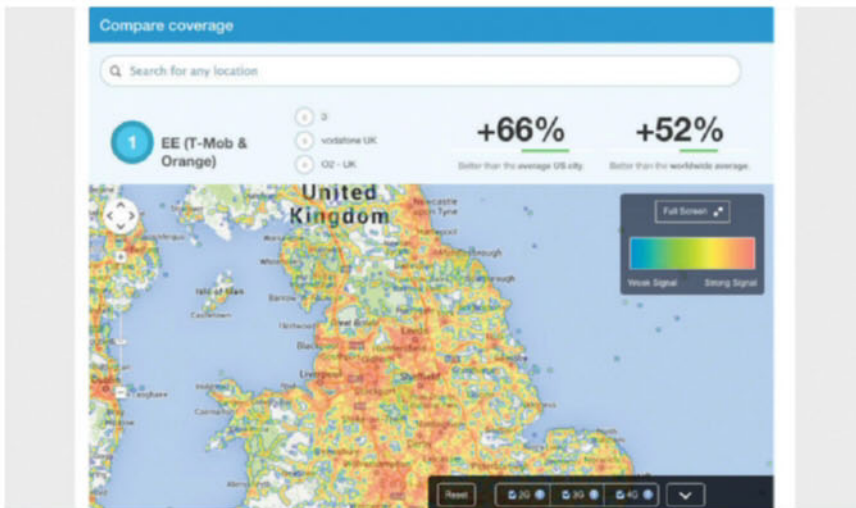
http://www.mobiles.co.uk

Finding that they were being left behind by the fast paced changes of the search marketing industry, Mobiles.co.uk teamed up with Epiphany to bring their business back to full strength. Following a penalty removal, a full site migration and the launch of a new website, Epiphany's team developed Mobiles.co.uk's search strategy to compete with the biggest brands in their sector.

Historically Mobiles.co.uk was a leader in the search field, maximising traffic with anchor link building tactics. As the industry evolved, Mobiles.co.uk didn't. While their tactics had previously worked wonders, the world of Pandas, Penguins, and penalties demanded change. A new search team and a fresh strategy saw Mobiles.co.uk on the lookout for an agency to get them back to full business strength, positioned to take on the big brands; that's when they met Epiphany.

Epiphany began a full backlink audit and extensive cleanup process in early 2013, just as an Impacts penalty hit the site. Persevering, the penalty was successfully revoked in March 2014. Improving online visibility, building the brand and its presence on reputable sites became top priority. Implementing a new SEO strategy, Epiphany created campaigns based on fresh, high quality and consumer-focused content. Despite the penalty, conversation rates

increased dramatically and orders increased by 112 per cent year on year.

The site was fully redesigned and rebuilt. Its launch required a full site migration and technical audit as it was running on an 18-year-old platform. A full redirect plan minimised traffic loss throughout this process. In the first month after site launch, traffic reduced by just 5 per cent. In the second month, traffic increased by almost a quarter. There was a 33 per cent increase in site traffic compared to the previous year.

Mobiles.co.uk also wanted to improve budget efficiency and Epiphany enabled them to cut spending for eight months into the year. The final four months of the year delivered the same orders from PPC for a third less in budget than in the comparative period. Year-on-year, the average order value increased by 8 per cent and revenue by 83 per cent.

"With search ever evolving our choice to bring in Epiphany was based on their values as leaders rather than followers while bringing a strong focus on building the Mobiles.co.uk brand, what it stands for and delivering the right content" said Jay Karsandas, search marketing manager. "As an e-tailer in the value sector our online presence defines us. With brand budgets limited, through our SEO campaign we're back to where we belong."
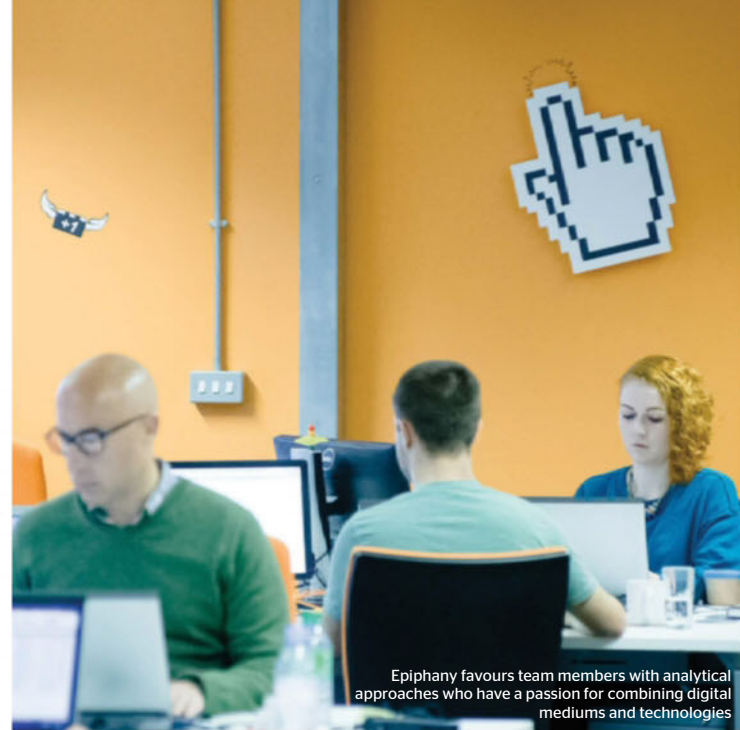
Epiphany favours team members with analytical approaches who have a passion for combining digital mediums and technologies
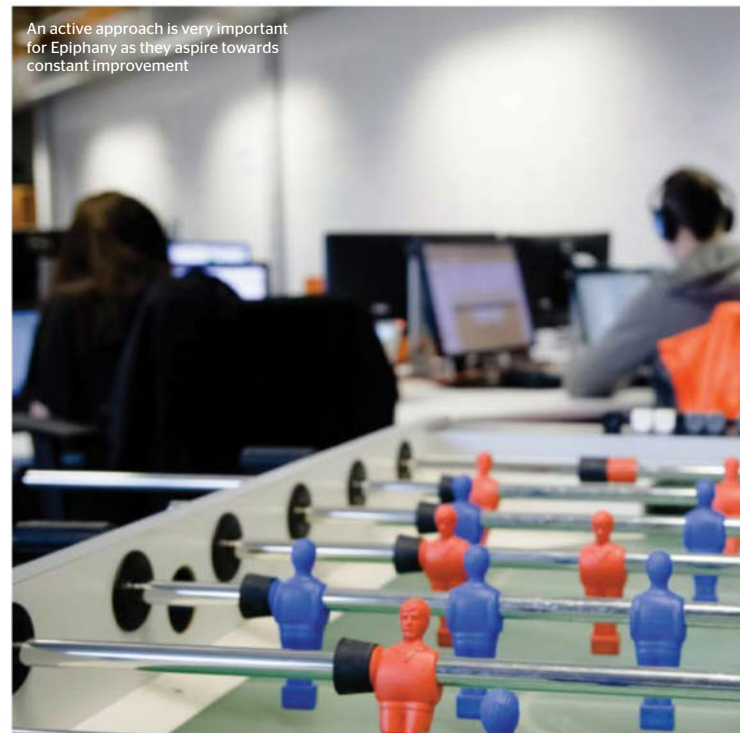
An active approach is very important for Epiphany as they aspire towards constant improvement
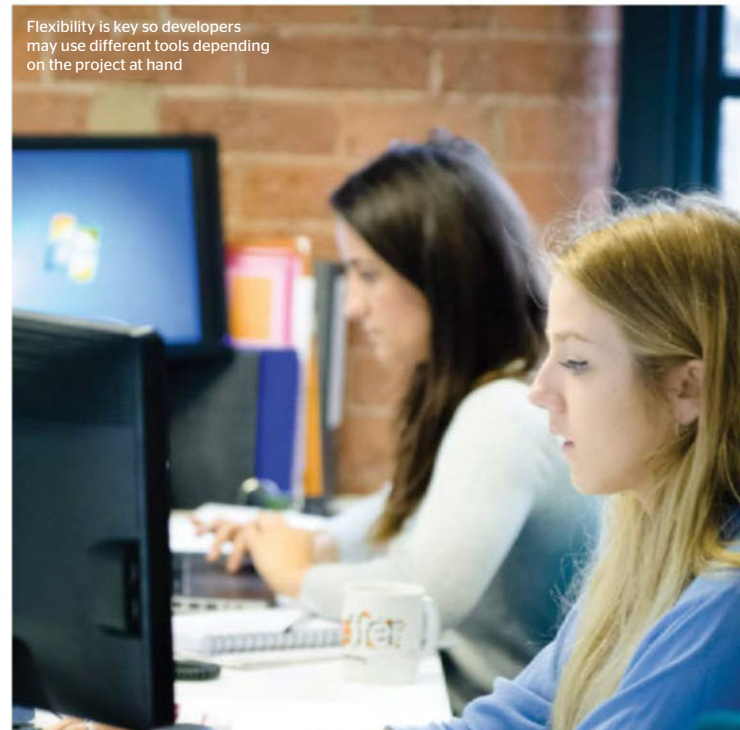
Flexibility is key so developers may use different tools depending on the project at hand

> ❝The idea of creating reliable, interesting and trustworthy content as well as good user experiences for the specific (and often personal) needs of your audience is really important❞

supported WebGL for a while, but now more tablets and mobile devices are being supported. We have been working with Three.js which is a great way to get up and running with 3D and WebGL.

"We're also building projects with WebSocket based technologies such as SignalR and NodeJS. These simplify bidirectional communication between the browser and the server, and enable either party to communicate at any time. A game changer for real time interactivity"

As one of the fundamental service components that Epiphany offers, social media has continued to expand its influence on digital design. Kate Dixon of ShackletonPR, an associate company of Epiphany's, said: "They're absolutely key to any campaign that wants to increase traffic and brand awareness. We published our *Little Book of Ideas* earlier this year (a compilation of 20 of the most powerful ideas on marketing and strategy), which included the question 'why do some ideas get talked about and shared while others attract little social attention?' It's because we take decisions about what we share seriously. Participation in viral activity is often seen as playful, but in truth it is not. What we share says a lot about our identity, so we don't generally risk sharing content that isn't 'us'.

"The idea of creating reliable, interesting and trustworthy content as well as good user experiences for the specific (and often personal) needs of your audience is really important, the growth in the value of social traffic is another indicator of that."

An agency is effectively only as good as the people it employs. What qualities does Epiphany look for in a prospective employee and what advice would they give to anyone looking to take a step into the industry? Rob Shaw outlined their approach: "We hire a lot of different types of people into the agency and it's safe to say that there is a blend of different personalities and skills across the team. Generally speaking though we look for people who take an analytical approach to solving a problem, who can communicate ideas or concepts clearly and are interested in how different digital channels and technologies work together.

"In terms of advice for anyone wanting to step into the industry we'd say get as much hands-on experience as possible and work your way up

through an agency or business that invests in you and gives you opportunities to learn and try out new things. That doesn't always mean doing free work experience, there are loads of organisations out there that are supporting young people into the digital sector. For example, we're exploring a number of projects with the Retrograde Academy (**retrogradeacademy.co.uk**) in Leeds, which offers young people vocational training with digital agencies in the city. The advice in a nutshell would be to read, code, learn about marketing and go out and speak to people in the sector around you."

So what does the future hold for Epiphany? Rob concluded: "We're always changing, that's the nature of digital and it's why we love doing what we do. We became Jaywing's search specialist back in March 2014. They're well known for their expertise in data science so the next developments for us will keep building on the principles that established the agency but with the added layers of sophistication in data modelling and customer segmentation that Jaywing excels in. We think that positions us in a really interesting way which will continue to add value to our clients and to grow the business – a specialist customer acquisition agency with data and creative at its core."

epiphany.

WEB	epiphanysearch.co.uk
FOUNDERS	Shane Quigley & Robin Skidmore
YEAR FOUNDED	2005
CURRENT EMPLOYEES	140
LOCATION	Leeds, London, Sydney

SERVICES

> Content marketing
> Technical development and SEO
> Biddable media, PPC and Display
> Web design and development
> Data analytics and conversion rate optimisation

Sounds of Street View
amplifon.co.uk/sounds-of-street-view

Google Street View is the go-to application for exploring the world digitally, but it has a missing ingredient which we take for granted – sound. It's an important human senses as it affects how we observe the world, gives us a sense of direction and helps us to recognise danger. Thousands of people experience the web without this key sense every day, Amplifon wanted to fill this void.

Sounds of Street View is a digital explorative sound experiment which gives users a 3D sound experience in a Street View environment. Utilising the Web Audio API platform, sounds are designated as though they were ordinary Google Maps markers.

The stereophonic sound creates a sense of immersion as noises on a user's left are heard from the left and vice versa when heard from the right. Sound is also processed through a low-pass filter if it is occurring behind the user to recreate how the shape of the human ear affects how sound is heard: brighter in front and duller behind. The Sounds of Street View Framework gives developers with minimal coding experience the opportunity to create bespoke street view soundscapes with ease. It includes all of the calculations used to create the full 3D Sounds of Street View experience.This global first was featured on over 150 websites globally, including Mashable, Yahoo and The Sunday Times.

STYLE &
ANIMATE WITH
CSS3

33 ESSENTIAL TECHNIQUES

ARE YOU READY TO TAKE YOUR CSS TO THE NEXT LEVEL? READ ON
TO FIND OUT HOW TO ADD MORE STYLE TO COLOURS, FONTS,
ANIMATIONS AND RESPONSIVE LAYOUTS

WHEELS? DON'T REINVENT THEM

IF IT'S ON THE INTERNET, THEN SOMEONE ELSE HAS PROBABLY DONE IT ALREADY.
There's so much web design happening, with so much code sharing, that reinventing CSS for each project makes no sense. On most projects you can save time, money and sweat by dropping in a ready-made CSS framework and tweaking bits that need to be tweaked.

Bootstrap (**getbootstrap.com**) has become an industry-standard framework, and it's a good starting point for many projects. The upside is that you get easy ready-to-go styling of an entire catalogue of useful elements. To save even more time, there's a good selection of template sites like WrapBootstrap (**wrapbootstrap.com**).

The downside is – and let's be honest – many sites now have the same 'Made with Bootstrap' look. If you want to stand out from the crowd, it may not be the best way to go. YAML 4 (**www.yaml.de**), Gumby (**gumbyframework.com**) and Foundation (**foundation.zurb.com**) are all capable of professional results but don't force your project to look like yet another

Bootstrap site. Other options include the minimalistic Kube (**imperavi.com/kube**) and the grid-based Less (**lessframework.com**).

A day or so spent trying out these and other alternatives can save you from pain and wasted time later on without having to compromise responsiveness or design flexibility.

YAML. It's not Bootstrap

TEMPLATES. SO MANY TEMPLATES

ISN'T THIS CHEATING? YES, IT IS. IT TOTALLY IS
Bootstrap gets pride of place for templates and themes. It's so popular that you can barely open a browser without tripping over a Bootstrap template site nowadays.

Is this bad? No, it isn't. Unless you're being paid to produce premium super-creative boutique custom design, templates are a completely respectable way to give your clients what they need. Sites like WrapBootstrap (**wrapbootstrap.com**), Bootswatch (**bootswatch.com**), Start Bootstrap (**startbootstrap.com**) and BootstrapMaster (**bootstrapmaster.com**) can jump-start – or even bootstrap – a design to give

you a cool-looking starting point for a lower price. Is there a catch? Almost. Many sites are me-too clones peddling the same free themes. Some are obviously up-selling premium themes. But good templates can save days or even a weeks, which helps you maximise turnaround and keep more clients happy in less time.

As for other templates – how many do you want? Quality can be variable and at the very least you can explore them for design ideas. Sneaky people sometimes use View Source to find CSS links so they can download the CSS files directly (but don't do that as it may be illegal).
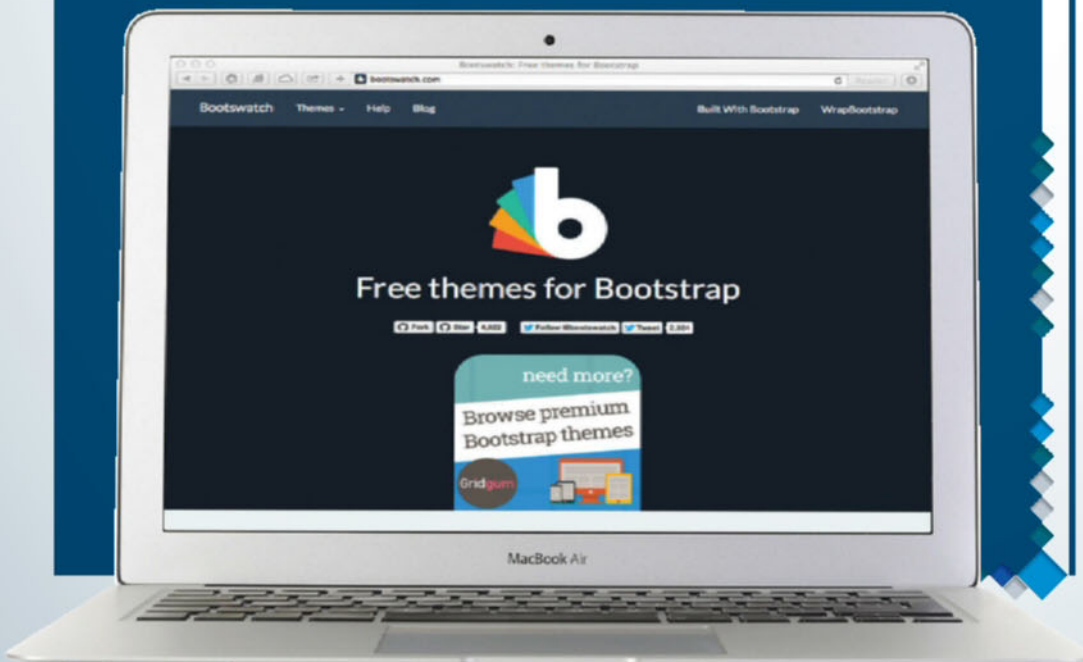
CSS TRICKS? YES PLEASE
As you can guess from the name if you squint hard, CSS-Tricks (**css-tricks.com**) is a giant grab bag of techniques you can learn for CSS. Click Snippets and CSS and you'll see a long list of tricks and tips you probably haven't seen anywhere else. There's enough inspiration on there to keep you busy and creative for a while and it's all free.

EXPERT PROBLEM SOLVING
The css-discuss mailing list (**css-discuss.org**) has a huge archive of CSS questions and answers, and a community of CSS professionals who can solve your CSS problems as long as you ask nicely. Another prime source of CSS insider goodness is Stack Overflow, which usually specialises in code questions including JavaScript but has a CSS tag (**stackoverflow.com/questions/tagged/css**).

THE ORIGINAL SOURCE
The W3Schools CSS site at **w3schools.com/css** includes introductions to all the most useful features in every version of CSS, including CSS3. You don't always get context-specific knowledge. For example, it's not the best place to learn about the weirder details of the Box Model. But it's a good refresher when you can't remember how to use a specific CSS element.

CAN I USE?
The cannily named **caniuse.com** gives you instant access to browser compatibility tables. Need to know if CSS Grid works in IE7? (It doesn't.) Aren't sure if those CSS3 animations work in the Android browser? (They probably do.) Head over to caniuse and scroll through its insanely comprehensive list of browser feature tables. Works for HTML too!
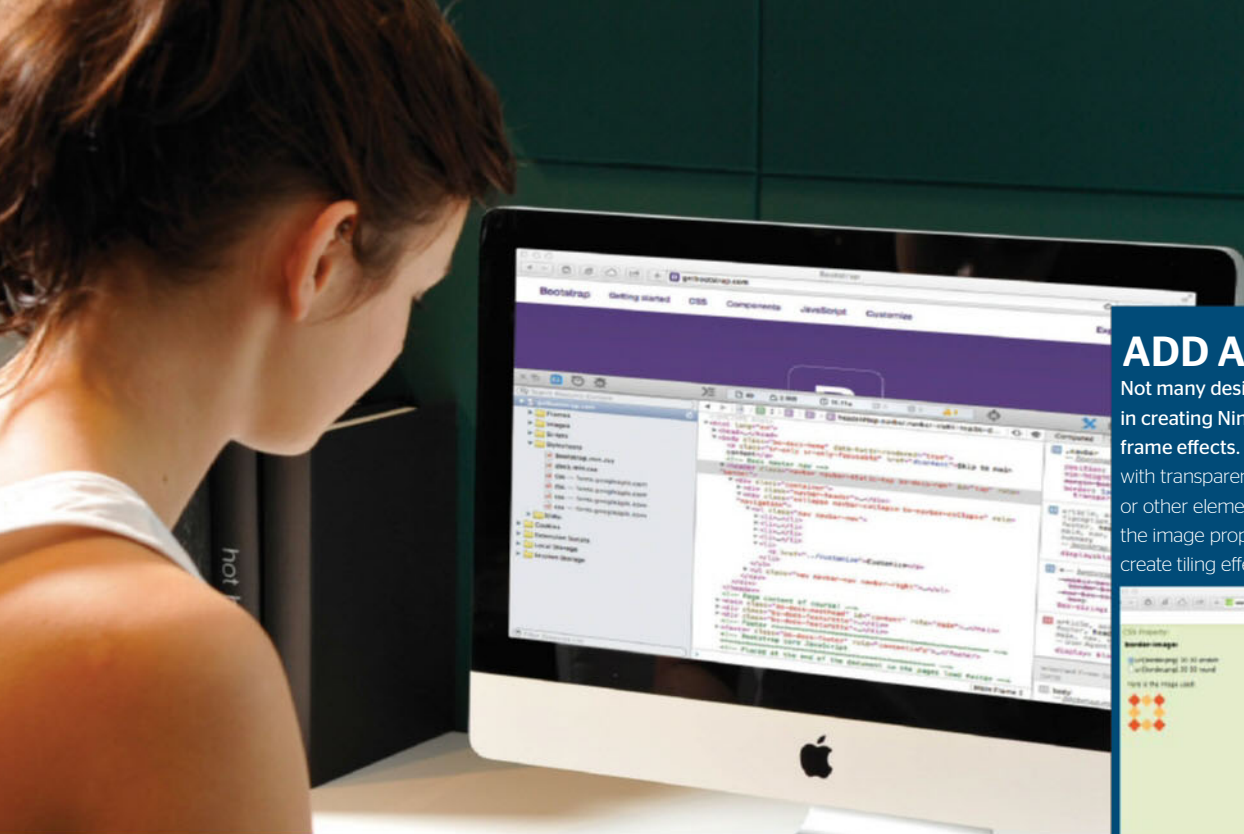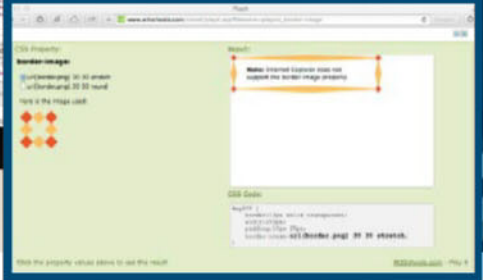
Your browser tools can show you which attributes are active for each HTML element

MASTERING CSS SPECIFICITY

IT'S A CONFUSING MESS UNTIL YOU UNDERSTAND HOW IT WORKS

A feature that can drive designers insane is called specificity. Have you ever defined attributes then wondered why they have no effect? CSS has a strict priority model, and you need to know how it works or you may find that your statements won't work like you want them to.

The outline rules are simple: inline CSS statements defined with <style> tags override id attributes, which override class attributes, which then override element/type attributes.

Browser defaults lurk in the background confusing things further, which is why you should always use a normaliser or CSS reset script to set them up. If you redefine an attribute with the same specificity, only the last definition matters. Otherwise the higher specificity wins. If you add the !important tag to anything it overrides everything else. But it's a bad idea to use this to fix problems without trying to fix existing priorities first. In fact you probably shouldn't use it at all.

Specificity is actually defined by a numerical value. Styles are assigned 1000, ids get 100, classes get 10, and elements get 1. Multiple definitions add to the count, so for example div p {} has a specifity of 2, from two elements. You might think that piling on the attributes would lead to weird overrides, but CSS is smart enough not to allow this. A class attribute always overrides elements, and so on, for the others.

Specificity also explains why you should always include <!doctype HTML>. If you don't, specificity can work in quirks mode and inheritance will do unexpected things you don't want.

As a guide, put generic declarations first for the most important elements, then get more and more specific with classes and ids. If you start specific and work outwards you'll soon get confused and it will end up wasting time.

USING SVG WITH CSS

DO NOT BE AFRAID. SCALABLE VECTOR GRAPHICS AND CSS STYLES ARE SIMPLER THAN YOU THINK

FIRST CATCH YOUR FILE

SVG vector graphic files are really just text files with XML inside them. You can create them in Illustrator with Save as SVG, and if you're really hardcore you can edit them by hand, as shown here. The SVG spec isn't the same as HTML/CSS, but it's similar enough that you can hack simple shapes without breaking your brain.

BUILD IT INTO YOUR PROJECT

You can drop the raw SVG code directly into your HTML. Add id or class tags, and you can style it with custom CSS in the usual ways. This example uses an inline style tag to override the fill colour built into the SVG code. You'll need to test this however. For example, Safari doesn't always do a good job of supporting SVG.

EXPAND YOUR POTENTIAL

Why is SVG cool? SVG is resolution-independent so it's an easy win for responsive designs. It supports text and graphics and includes its own separate animation language. The blur effect shown here can be added or removed with CSS for hover effects or even more complex user interactions.

UNDERSTANDING ANIMATIONS

THERE'S MORE TO ANIMATION THAN MOVEMENT

Many designers think that transforms, animations, and movement all go together, but in fact they're only distantly related. The first thing to know is that the list of animatable properties in CSS is huge. In fact, you can animate almost anything, including the font selection. For a complete list see **http://bit.ly/1B7so2N**.

Some options make more sense than others, and a few options – like font, and column count – can't be animated in smooth steps for obvious reasons. But going through the full list and experimenting with the options can be a creative inspiration. You won't often need to animate the corner rounding on a box separately at each corner, but it's useful to remember this for future reference.

The second point is that if you want to move objects, you can either animate old CSS properties like margin or even outline, or CSS3 properties like transform and perspective. The latter have two animatable attributes, not just one. You can control the result by animating the transform and/or perspective origin which is the point on the imaginary graph paper used by the CSS3 calculations as a reference. Animating the origin as well as a transform or perspective change can create incredible combined effects.

Check for browser support information on W3Schools

BECOME A KEYFRAME GENIUS

SIMPLIFY KEYFRAMES FOR COMPLEX EFFECTS

How much keyframe code do you need? Probably not as much as you think. According to the CSS animations spec, if you don't include explicit from/0% and to/100% keyframe steps, the browser adds default values for them. So instead of

```
001 @keyframes do_the_thing {
002 from { transform: none; }
003 50% { transform: scale (2); }
004 to {transform: none; }
005 }
```

you can just put:

```
001 @keyframes do_the_thing {
002 50% { transform: scale (2); }
003 }
```

The from/to are added implicitly, and your CSS suddenly looks simpler. If the animation block includes an infinite tag, alternate is also implied, and the animation repeats and reverses automatically.

This trick works well with colour and transparency. You don't necessarily want to recreate the famously hated <blink> tag, but you can still use one-line repeats to add more subtle colour/transparency/size pulsing. These can then draw more attention to important elements.

The CSS3 reference docs at **http://bit.ly/1sXW2TQ** have a few surprises

---

COMBINING ANIMATIONS

GET CREATIVE WITH COMPOSITE ANIMATIONS

You'll get a breakthrough glow of satisfaction when you realise you can chain as many transforms as you want. The effects are cumulative, so you can do very cool things without having to use much CSS.

The trick is not thinking of transforms as a way of getting from a starting point and destination, but thinking of them as layers of movement you can chain together. This can hurt your brain after a while, because you have to work through multiple rotations and translations to understand what they're doing. But you can pile on the changes with the key principle, and if you do them in the right order they won't cancel out and they can create some powerful effects.

Here's a very simple example. Apply these keyframes to an element with infinite repeats and linear easing and it will move in a smooth circle.

```
001 @keyframes circling {
002 from {
003     transform:       rotate(0 deg)
004                      translate:(-150px)
005                      rotate:(0deg);
006 } to {
007     transform:       rotate(360 deg)
008                      translate:(-150px)
009                      rotate:(-360deg);
```

Why would you do this? It's a natural fit for spinners/throbbers. You can define a few simple objects and spin them around with not much code.

Something more complicated? Add 'translate(100px)' to the end of the from transform, and translate(-100px) to the end of the to transform. Run it with an alternating animation, and perhaps ease-in-out instead of linear. Now the element moves in a spiral.
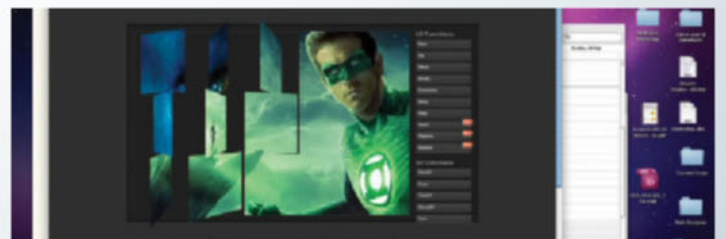
When you get bored of 2D transforms, you can move on to 3D

THE ART OF CALC
LEARN HOW TO MIX UNITS AND CALCULATE VALUES DYNAMICALLY
GET ACQUAINTED

CSS calculator tool calc() is supported in all the main browsers with the only hold-out being Opera Mini. It gives some of the power of a preprocessor without the complications, but unlike a preprocessor it also makes it easy to mix units. This simple example adds a margin relative to the font size. Just use 'calc()' when you want to calculate sizes, and put the calculation between round brackets.

```
001 #element {width: calc(50% - 2em); } //
One line CSS auto-margin
002
```

BOTTOM CORNER TRACKING

You can use calc() to fix items inside an element. Fixing an item relative to the top-left corner is easy, but fixing it to the bottom-right is impossible without JavaScript unless you use calc() to add a simple relative offset. Handily, it automatically tracks size changes to follow animations or user actions.

```
001 background-image:url(yourpicture.png);
002 background-position: calc(100%-  50px)
calc(100% - 50px);
003 .column-3-4 { width: calc(100% / 4); }
//Same width as column 1
```

SIMPLE GRID WIDTHS

You can hardwire absolute settings into your CSS, but calc() makes it easy to experiment without having to rewrite values for every change. In this example you can set the middle column width by editing a single number. For simpler proportional columns use flexbox. You can use calc() to calculate anything too.

```
001 .column-1-4 { width: calc(100% / 4);}
//Simple three-column grid
002 .column-2-4 { width: calc(100% / 2 *4);
}        //Middle column is twice the width
003 .column-3-4 { width: calc(100% / 4); }
//Same width as column 1
```
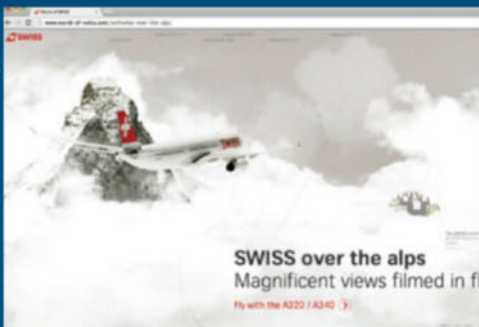
END THE PAIN OF PADDING
BOX WIDTH. PADDING. CONFUSED? DON'T BE

In places the CSS Box Model is – let's be polite – bonkers. Working out layouts with box padding is one of those places. The true size of a box is the box-width/box-height attribute plus twice the padding.

Want to change the padding? Go on. See what it does to your layout. But wait! CSS3 includes a box-sizing attribute. The default value is content-box, which does that crazy stuff you don't want. But set it to border-box and padding is applied inside the box without changing the size. Lovely. The border is also included.

Unfortunately the margin isn't, but it's still a huge improvement over the default and can save you hours of CSS pain and angst.

The box-sizing attribute keeps dimensions constant

HSL NOT RGB
WORKING OUT COLOUR PALETTES JUST GOT A LOT EASIER

Most designers use the age-old RGB Hex tag system to specify colours. At first sight it looks like it makes sense. Specify red, green and blue separately, include opacity if you need it, and then you will have a simple colour specification system.

Which is fine until you try working with a colour wheel, and you need to specify complementary or contrasting hues with similar saturations. Then you will have to find an RGB to HSLa calculator (**http://css-tricks. com/examples/HSLaExplorer**) and have to do a lot of conversions. Only you don't, because CSS3 supports HSLa colour specs, just like like this:

This works well in a preprocessor because you can define a base hue with a variable on one line and rotate an entire palette around it by specifying fixed offsets.
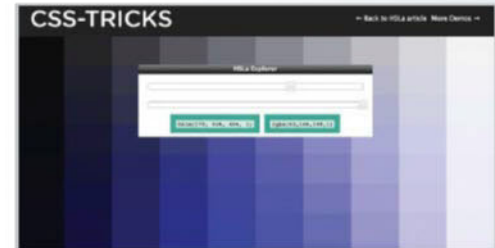
The HSLa colour explorer is a handy tool

```
001 background-color: hsla(120, 50%, 50%, 1);
```

ADD A TOP SHADOW
A HINT OF CLASS AT THE TOP OF THE PAGE

To add a different perspective to shadows try the following. Use box-shadow – add the usual browser prefixes – and apply it to body:before to add a subtle gradient at the top of a page. This makes the content stand out or drop in depending on your point of view. The top is offset upwards so you see only the shadow, not the box around the body. Usually you'd make the box shadow 10 pixels high instead of 50 pixels. Offset it to the left slightly and make the width more than 100 per cent to make sure it's drawn from edge-to-edge. You can apply the same effect to divs and other elements to add some depth. For more extreme effects, try using colours other than black. A contrasting colour looks less like a shadow and more like a gradient.

MIXING BACKGROUND IMAGES
YOU CAN HAVE AS MANY AS YOU WANT

With CSS3, you can make complex backgrounds from multiple images. Define them for the background tag in the usual way, but instead of defining image, keep adding images until you create a complex look.

This is more powerful and less gimmicky than it looks. You can turn repeat on or off independently and also set different sizes. Potentially you can animate the background layers independently for eye-popping parallax effects. The one catch is that images are drawn from top to bottom in order, so the last image in your list appears on top of the others. If that last image has no transparency and you repeat it, it will hide the rest. If it does have transparency and you repeat it on top of other images, all kinds of cool effects become possible, including moving stripes, masks and other stylings that you maybe didn't realise you could create in a browser.

USE ICONIC FONTS

MAKE YOUR DESIGN LOOK COOL, STYLISH AND PROFESSIONAL

Icon fonts are brilliant. Instead of wrestling with image files, you can drop them into a document and apply all the usual stylings to set the size and colour. You can also add shadow effects for cut-outs, emboss/deboss, strokes and so on. First, find your font. Try going on css-tricks (**css-tricks.com/flat-icons-icon-fonts**) for a useful list. Next, customise your mappings. You can always skip this step, but it does make downloads smaller and management easier. For a good mapping tool, have a look at **icomoon.io/app**.

Finally, use this to add decoration. The basic mark-up for HTML is shown as below:

```
001 <!-- HTML-->
002 <element id="id_name">
003 <span aria-hidden="true" data-icon="&#hex-
code;"></span>
004
```

```
005</element>
006
```

As well as this for CSS:

```
001 /* CSS */
002 [data-icon]:before {
003     font-family: your_icon_font;
004     content: attr(data-icon);
005 }
```

Include aria-hidden to hide the icon from speech assist systems. Now you can add extra CSS for colours, animations, and text effects.

Alternatively, what you can do is create icon effects with Scalable Vector Graphics. Fonts are simpler and less hands-on, but SVG does allow the use of filters and custom animations that are otherwise not possible with pure CSS.

SHADOW YOUR TEXT

ENTHUSIASTIC USE OF SHADOWS CAN MAKE YOUR TEXT LITERALLY STAND OUT

Text-shadow is perhaps the most useful text attribute ever. The attribute works like this:

```
001 text-shadow: horizontal-offset, vertical-
offset, blur-size, RGBA colour;
```

The lazy way to use it is to create a simple drop shadow. Using rems means you can change the font size without changing the relative shadow size or offset.

```
001 text-shadow: 0.25rem 0.25rem 0.5rem #000;
```

Simple 1px positive/negative offsets can create a variety of emboss/deboss effects. But you can also stack shadows to create chunky 3D text without the 3D code.

```
001 text-shadow:   0px 0.05rem 0px #999,
002                0px 0.1rem 0px #888,
003                0px 0.15rem 0px #777,
004                0px 0.2rem 0px #666,
005                0px 0.25rem 0px #555,
006                0px 0.3rem 0px #444,
007                0px 0.4rem 0px #333,
008                0px 0.5rem 7px #001135;
009
```

Of course, the shadow doesn't have to be grey. You can fake coloured gradients in the same way. With the right colour, alpha and blurring choices you can even create fake neon, cloud and fire text effects.

SIMPLIFY YOUR FONT STYLINGS

IF YOU'RE USING @FONT-FACE, YOU'RE PROBABLY DOING TOO MUCH TYPING

When you use @font-face, you may load different weights and styles of the same font, but tag them with font-weight:normal and font-style:normal such as:

```
001 @font-face {
002 font-family: 'Italic name goes here';,
003     src: url('URL-of-italic-font')
format:('Usually truetype');
004     font-weight:normal;
005     font-style:normal;
006     }
```

It's pointless typing and more efficient to collect all the related fonts into a single family when you load them,

but use 'font-weight: bold' for bold and 'font-style: italic' for italic. Then apply them to single lines of CSS:

```
001 body {font-family: "Name goes here"; }
002 elements_that_should_be_bold: { font-
weight: bold; }
003 elements_that_should_be_italic: {
font-style: italic; }
004     elements_that_should_be_both: {
font-style: italic; font-weight:bold }
005     }
```

This could cause problems in older browsers, but in 2014 it's less of an issue than it used to be.

TOP 5 TEXT TIPS

TYPE LESS, DO MORE, WITH THESE ESSENTIAL TEXT TRICKS

BASIC GOOGLE FONTS

You can download multiple fonts and styles from a single line, like this:

```
001 <link rel="stylesheet" type="text/css"
href="http://fonts.googleapis.com/css?family=
Tangerine:bold,bolditalic|Inconsolata:italic|
Droid+Sans">
```

Usually you end up downloading many different fonts and weights to try out different styles from Google Fonts (**google.com/fonts**). Remember to strip out the fonts and weights you're not using before production.

DOWNLOADABLE GOOGLE FONTS

Google Fonts are a handy resource, but relying on Google's servers can result in slow load times. You can download the font files directly by adding fonts to your collection and clicking the 'Download Your Collection' link. Then you can upload and use the files on your own server.

REMS NOT EMS

CSS3 introduced a new text unit called the rem, which is short for "root em". Rems are sized relative to the html element. You can set a text size for the html or body element on one line and use { font-size: <some number>rem;} to set relative sizes everywhere else.

USE LETTER-SPACING AND LINE-HEIGHT

Ever wondered how **medium.com** got that look? Here's a hint: letter-spacing and line-height. Subtle changes in both can make typography more stylish and it can also do a lot for readability. Use ems or rems to make the spacing more font-aware.

Note that letter-spacing adds/subtracts a value. It doesn't reset the default font metrics.

BEYOND FONT SQUIRREL

Font Squirrel (**www.fontsquirrel.com**) is the go-to site for packaging TTF and other files for use with @font-face. But it doesn't work with many popular fonts because of licensing restrictions. Try Everything Fonts (**everythingfonts.com/font-face**) as an alternative.
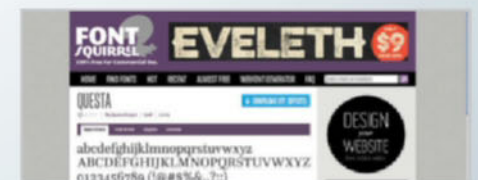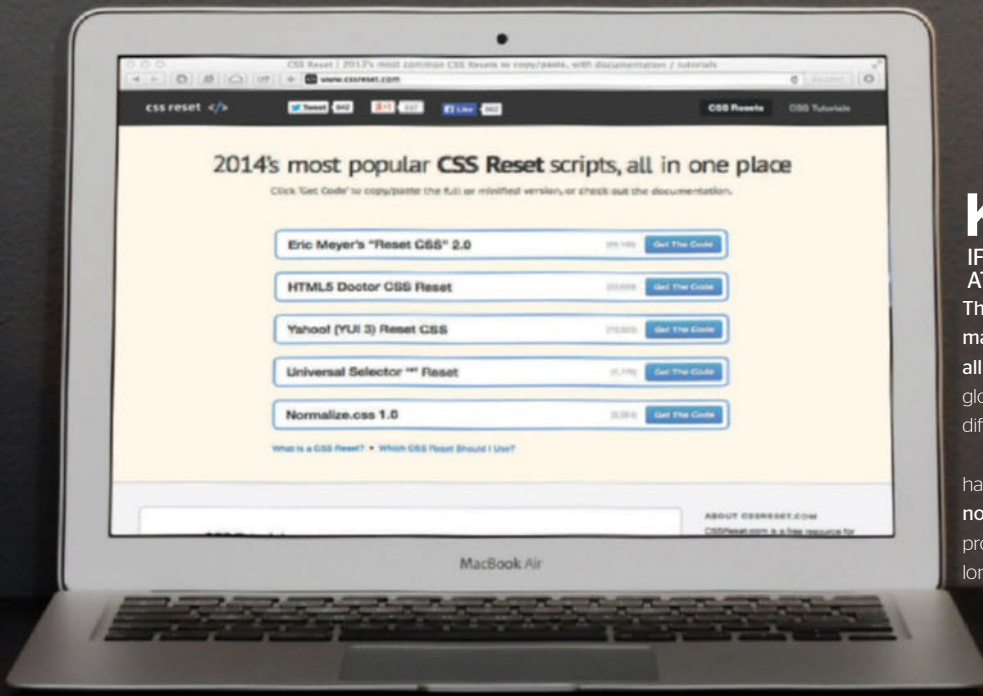
KILL YOUR BROWSER

IF YOU CAN'T KILL YOUR BROWSER, AT LEAST KILL ITS DEFAULTS

The web loves standards. Unfortunately the developers of all the major browsers have different ideas, and CSS defaults vary across all the platforms. The solution? You need to start every project with a global CSS reset that fixes all those irksome and pesky browser differences and gives you a common starting point.

You could spend a couple of months researching this, but someone has already done it for you. Head over to **necolas.github.io/normalize.css** and download the CSS file there. Include it in your project and you will get the default settings you've been craving so long for, with HTML5 and CSS3 compatibility too.

Need a different approach? Try **cssreset.com** for a list of other CSS reset scripts. The difference between normalize.css and the rest is that normalize keeps useful defaults, while Reset nukes everything from orbit. Sometimes you want one, sometimes you want the other but it's good to know about both.

MEDIA QUERY SNIPPETS

FOR WHEN YOU NEED ALL KINDS OF DEVICE SUPPORT

If you're working on responsive designs, it's not realistic to support every device in the world. There are so many different screen resolutions and aspect ratios you'd end up with a giant file if you tried to make your design compatible with everything.

But you can handle the most common devices by copying simple media query boilerplate from **nmsdvid.com/snippets**. It lists the standard resolutions and most popular devices and includes handy extra details, like the device pixel ratio, which make it possible to tailor your content for Retina and other high-resolution displays.

As a guide, you can usually get good enough support by making the content fit a minimum to maximum range of resolutions, orientations, and pixel ratios. This is a better approach than tying it to specific resolutions and devices unless you specifically need a site that only has a responsive layout on iPads and not on anything else.

TOTALLY FLEXBOX

MASTER YOUR GRIDS WITH FLEXBOX ATTITUDE

Flexbox is an awesome way to make flexible layouts. It's also a perfect fit for responsive layouts that use media queries to rearrange content cells which depends on the viewport dimensions that you may have on hand.

Start with a container. The row, row-reverse, column, and column-reverse options for flex-direction give you powerful layout options with a single line of CSS. The justify-content option controls edge awareness whereas space-around automatically creates equal spacing between the cells. align-items: stretch gives each item the same height.

```
001  .container {
002  display: flex;
003  flex-direction: row;
004  justify:content: space-around;
005  align-items: stretch;
006  }
007
```

For more complex layouts you can use flex-wrap to manage wrapping options. The options you have for this are nowrap, wrap, and wrap-reverse.

Next, you can specify different widths for each child item with flex-grow.

```
001  .item1 { flex-grow: 1; }
002  .item2 { flex-grow: 2; }          //Twice the width
```

This barely scratches the surface of what Flexbox can do. A full description would need an entire feature to itself. If you want to know more, and if you're working with responsive layouts, you certainly do, you can find detailed tutorials online.

CENTRE YOURSELF

CENTRING SHOULD BE EASY. IT IS – IF YOU KNOW HOW

Web technology has never quite cracked the centring problem. You should just be able to say 'centre this' but it never quite seems to work like that in practice. Vertical centring is especially tricky.

If you're not using absolute positioning – which can create overlapping text – you can use a CSS3 transform to centre content vertically. You still need a container div to provide an absolute reference, but you can use the transform to automatically adjust the vertical positioning to allow for the element height, like this:

```
001  div.container {
002  height: however many em you want;
003  position: relative }
004  div.container p {
005  margin: 0;                      //Kills lingering offsets
006  position: absolute;
007  top: 50%;              //(Nearly) centre the element vertically
008  transform: translate(0, -50%); }//Nudge it up by half its height
009
```

The big win here is animation. You can change the transform value dynamically to bounce the content inside the container, and still make sure it ends up floating in the middle. To centre vertically and horizontally, add/change the following:

```
001  left: 50%;
002  margin-right: -50%;
003  transform: translate(-50%, -50%);
004
```

USE A PREPROCESSOR

CSS IS DUMB SO WHY NOT MAKE IT SMART?

CSS was never designed to do some of the things it's asked to do now. The original idea was to keep stylings separate from content.

But the designers didn't include some obvious simplifications, such as the ability to define colours as well as layout details on one line and use them throughout a site.

CSS is also quite ugly, with unnecessary semicolons, braces and all kinds of other stuff you don't really need in the code.

So what you do is you end up doing a lot of unnecessary typing, which makes you irritable, unpleasant to be with and prone to annoying mistakes that make you hate yourself and just about everyone else in the office.

Enter the preprocessors. Sass (**sass-lang.com**), Less (**lesscss.org**) and Stylus (**learnboost.github.io/stylus**) all do the same job: they simplify CSS, so you can spend less time typing and checking for semicolons, and spend more time designing.

There is a price you have to pay though; you have to run your simplified code through a script to convert it to industry standard CSS. But there are ways to automate this, so you don't have to exactly sweat about it.

Less is more. Or rather, Stylus isn't Less

ADD GRUNT TO YOUR PROJECT

GRUNT SAVES YOU TIME AND MONEY

Grunt is a task-runner – developer speak for a tool you can use to automate all those boring repetitive jobs you have to do every time you convert development code into server code. You can use Grunt to run the CSS preprocessor of your choice. But you can also use it to prettify, minify, test, and generally do almost anything you want to CSS, HTML, JavaScript, or almost any other support software you may be using, including clever tools like Autoprefixer (**css-tricks.com/autoprefixer**).

Not actually small, fierce and furry

TINY LITTLE CSS

SAVE BANDWIDTH WITH MINIFIED CSS

Development CSS has plenty of white space you don't need. You care about that stuff because it makes CSS easy to read. But if you leave it in production code it slows down your site and wastes memory.

So use a minifier like the one at **cssminifier.com** to compress your CSS. You put your development CSS in, you get your squashed up CSS out, you save it as a file, and you put it on your server. Sorted.

Small means speed. Speed is good

PROJECT YOURSELF

SPEED UP YOUR WORKFLOW WITH SOME BASIC PROJECT MANAGEMENT TRICKS

As soon as you get started with CSS you realise that most projects need a similar CSS template, but the details are different. Starting with a blank file every time wastes a lot of work and leads to twitching madness. But if you try to reuse the same template file and edit it for each project you can easily miss a few critical settings.

The solution? If you're working with a framework like Bootstrap, you can keep the usual defaults and add custom CSS to a separate file. Remember CSS always uses the last styling it reads, so you can add as much customisation as you like.

An even better idea is to create your own CSS defaults, using naming conventions used in all projects by all designers. Create a consistent naming guide, make sure everyone uses it and finish with a checklist. Tick the boxes as you go and you'll never suffer from inappropriate stylings again.

LEARN TO COLLABORATE

AVOID MESS AND STRESS WITH TEAM CSS

Web design has a lot in common with software development. There are teams, versions, test/debug code and live server code with different designers and developers all with different responsibilities. Then there are clients, who say things like 'This is great, but can we go back to the version we had last week?' If you're not using source control tools to manage all project files, you should be. The most popular of these is Git, which can be set up on your server if you have a tame Unix geek in your team. Or you can pay GitHub (**github.com**) to run it for you. It will make sure code versions stay untangled, keep track of who did what and show all file changes.

All together now

Get started with CSS3 Keyframe animation

Get up to speed with CSS3's Keyframe animations, and learn the basics

tools | tech | trends HTML, CSS3, Code Editor
expert Neil Pearce

DOWNLOAD TUTORIAL FILES
www.filesilo.co.uk/
webdesigner
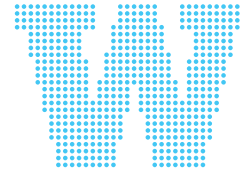
When we create simple animations of elements between two states, CSS transitions are easy to implement and use, but this simplicity comes with a few significant limitations. We can create keyframe animations with greater control using CSS3 keyframe animations, where authors can create smooth, maintainable animations that perform well and don't require reams of scripting. The @keyframe rule is now supported across all modern browsers using the prefixes -webkit-, -moz- or -o- respectively.

It lets authors control the intermediate steps in a CSS animation sequence by establishing keyframes along the animation sequence by specifying the changes by either percentages or the keywords "from" and "to". This gives you a lot more control over the steps of the animation sequence than if you were using just transitions. So in this tutorial, we'll take a look at the basics of animating an element across your page and then create examples along the way to allow you to understand how keyframes are used.

01 The HTML

First thing we're going to do is create a ball to play with. We're going to use this for the first couple of demos and then look to create something a bit more useful later in the tutorial. So open up your favorite text editor and add in this block of HTML within the <body> element.

```
001 <section class="container">
002     <h2>Moving Ball!</h2>
003     <div class="ball"></div>
004   </section>
```

02 Keyframe syntax

Open up our CSS file now and take a good look at our keyframe syntax. A keyframe animation always starts with a unique name chosen by you – the author. So here we'll give it a name of 'moving' and then the animation sequence itself may be specified in two ways. The first of these is a 'from' and 'to' declaration.

```
001 @-webkit-keyframes moving {
002   from { }
003   to   { }
004 }
```

03 From and to

Within our 'from' and 'to' declaration, we can add in a 'transform: translate' property and value. So here we want to move our ball across our page on the x axis starting from 0px, and finishing up 500px to the right. We can think of this as a function and we now need to create our ball and call this function. So let's do that in the next few steps.

```
001 @-webkit-keyframes moving {
002   from { -webkit-transform:
        translateX(0px);}
003   to   { -webkit-transform:
        translateX(500px);}
004 }
```

04 Create the ball

What we need to do now is to create our ball – which is just some simple CSS that creates a circle. We will give the ball a nice purple colour and make it 100px in diameter and then round it off into a circle by setting its border radius to 100 per cent. Then we'll give it some margin on top to push it down slightly.

```
001 .ball {
002   background:#CC66FF;
003   width: 100px;
004   height: 100px;
005   border-radius: 100%;
006   margin: 20px 0;
007 }
```

05 Move the ball

Now within our 'ball' CSS rule, go ahead and add this next piece of code. What this does is calls our keyframe function which we called 'moving', and move it across our page at a duration of two seconds. We can make the animation a little smoother by adding in an 'ease-out' function.

```
001 -webkit-animation-name: moving;
002 -webkit-animation-duration: 2s;
```

```
003 -webkit-animation-timing-function:
      ease-out;
```

06 Use percentages

The second way of specifying our animation sequence is by using percentages. Percentages give us a lot more control and allow us to create more complex animations when needed. What we're doing here is simply making the ball move across the page on the x axis and back again.

```
001 @-webkit-keyframes moving {
002 0% { -webkit-transform: translateX(0px);}
003 50% { -webkit-transform:translateX(500px);}
004 100% { -webkit-transform: translateX(0px);}
005 }
```

07 More complex animation

Now let's make a slightly more complex animation by combining percentages with the 'transform: translate' property. So here we will make the ball drop 200px and then move up diagonally and then slide back to where it started. Simply changing the percentages will either speed up that animation, or slow it down. So setting the percentages more evenly, we result in a much smoother animation.

```
001 @-webkit-keyframes slide {
002   0% { -webkit-transform:translateX(0px);}
003   30% { -webkit-transform:
        translateY(200px);}
004   70% { -webkit-transform:
        translateX(100px);}
```

Get started with CSS3 Keyframe animation

```
005    100% { -webkit-transform:translateX(0px);}
006 }
```

08 Slide animation

Now that we have set the keyframe function, let's add the CSS to our 'ball' rule to make the animation happen. We need to specify the keyframe animation name, which is 'slide' and then set the duration, easing function and for added control, a one second delay.

```
001 -webkit-animation-name: slide;
002 -webkit-animation-duration: 4s;
003 -webkit-animation-timing-function:
    ease-in-out;
004 -webkit-animation-delay: 1000ms;
```

09 Up and down

Carrying on using percentages, let's take a look at how we can simply move the ball up and down on the y axis. Again we'll make sure we specify a halfway mark for smoother animations and we'll keep the same animation name as we used before which is "moving".

```
001    @-webkit-keyframes moving {
002        0% { -webkit-transform:
           translateY(0px);}
003        50% { -webkit-transform:
           translateY(200px);}
004        100% { -webkit-transform:
           translateY(0px);}
005 }
```

10 Infinite animation

With our keyframes now set, let's jump back into our 'ball' rule, remove any animation CSS we have, and replace it with this. The main property we'll be looking at here is the 'iteration-count.' property, with the value of 'infinite'. As the name implies, this will allow us to create an infinite animation.

```
001    -webkit-animation-name: moving;
002    -webkit-animation-duration: 3s;
003    -webkit-animation-timing-function:
       ease-in-out;
004    -webkit-animation-delay: 1000ms;
005    -webkit-animation-iteration-
       count:infinite;
006
```

11 Shorthand

One of the cool things about CSS, is how easy we can write CSS shorthand and the animation property is no exception. What we can do is combine all those CSS properties and values we wrote in the last step and put them all into one line. The order doesn't matter except when using both duration and delay, they need to be in that order (3 second duration and 1 second delay)

```
001    -webkit-animation: moving 3s
       1s ease infinite;
```

12 Arc the animation

Still using the 'moving' keyframe animation, what we can do is look at how we can arc our animation by using the 'cubic-bezier()' property. Firstly we need to add some additional HTML and then write a new keyframe animation called 'ball-x'. Combining this with the 'moving' animation, we can create something that looks like a ball that drops in and bounces. With a little more thinking, we can make this look really good.

Browser prefixes

To make sure you get all-round browser support don't forget to use your browser prefixes (-webkit-, -moz-, -o-) when using keyframe animations.

```
001 <div class="ball-arc">
002     <div class="ball"></div>
003   </div>
004 .ball-arc {
005 -webkit-animation: ball-x 2.5s cubic-
    bezier(0, 0, 0.35, 1);
006 }
007 @-webkit-keyframes ball-x {
008    0% { -webkit-transform: translateX(-
       275px); }
009    100% { -webkit-transform:
       translateX(0px); }
010 }
```

13 Ball and shadow

In this next few steps, we're going to add some additional CSS to our ball and make the ball look like it's bouncing up and down on a piece of string with an animated shadow underneath for added realism. First, we need to open up our HTML file and add some additional HTML mark-up.

```
001        <div class="container">
002            <div class="line"></div>
```

Get started with CSS3 Keyframe animation

<Top left>
• Using absolute positioning, we easily add a black line that will go through the ball and look like it's attached to it

<Top middle>
• Now we will need to add a shadow that will make the ball look more realistic once it has been animated

<Top right>
• The ball is now being animated along with the shadow underneath and now this small project is finally finished

<Bottom left>
• We will add the ball in using CSS. After that we will then give it some breathing space on top with a 20px margin

<Bottom right>
• Using percentages and the 'translateY' property, allows us to really get control of how our ball will bounce

The translate property

The translate property allows us to manipulate the object without changing any of its base properties and this can include width or height. This makes it ideal for use in CSS animation.

```
003             <div class="ball"></div>
004             <div class="shadow"></div>
005     </div><!-- END container -->
006
```

14 Container

Adding a container that wraps around our ball is important to allow us full control of how we style this. Positioning the container 'relative' will allow us to 'absolute' position our line that our ball will move up and down on. We're going to allow enough room going down with 400px height and then squeeze it all in with only 150px in width.

```
001  .container {
002    position: relative;
003      width: 150px;
004      height: 400px;
005  }
006
```

15 Create the keyframes

We're now going to add two keyframe sequences, one for our moving ball and the other for our animated shadow. The idea here is to animate the shadows opacity and width. So when the ball drops down, the shadow will darken and expand out. Then when the ball lifts up, the shadow will lighten and animate back in again.

```
001 @-webkit-keyframes moving {
002         50% { top: 90px;}
003         100% { top: 0px;}
004 }
005 @-webkit-keyframes shadow {
006         50% { margin:0px 20% 0px 20%;
             opacity: 0.8; }
007         100% { margin: 0px; opacity: 0.1;}
008 }
009
```

16 Add the line

Using absolute positioning, we easily add a black line that will go through the ball and look like it's attached to it. It's up to you how long you want the line to be, but we've made it 100px in height. With a little bit of tweaking, we can position it so the bottom end never shows once the animation starts.

```
001 .line {
002    background: url('../imgs/line.png');
003    position: absolute;
004    width: 25px;
005    height: 100px;
```

```
006    top: -10px;
007    left: 62px;
008 }
```

17 Change shadow opacity

As mentioned earlier on, our shadow's width needs to be able to animate in and out in time with the ball. To achieve this we will need to make sure that its width is not specified like you normally would as this would then make the whole shadow move from side-to-side, which is not what we want. Then we are going to make sure the shadow's opacity is set very low so that we can animate its opacity as well.

```
001 .shadow {
003    position: relative;
004    height: 16px;
005    background: #999;
006    opacity: 0.1;
007    border-radius: 100%;
008    margin: 0px 0px 0px 0px;
009    top: 100px;
010    -webkit-animation: shadow ease 2s
       infinite;
011 }
012
```

18 Animate the ball

We've kept the same styles for our ball as before and to keep things nice and clean, we will be using shorthand for our animation property. With the 'infinite' value added, the ball will then bobble up and down forever! Lastly to give this a little more realism, we can add a 'scaleY()' value within our moving keyframe to give us the illusion that the ball is stretching when it moves down (it's not of course). Perhaps think of this ball as a balloon full of water.

```
001 .ball {
002    position: relative;
003    top: 0px;
004    background:#CC66FF;
005    width: 150px;
006    height: 150px;
007    border-radius: 100%;
008    -webkit-animation: moving ease 2s
       infinite;
009 }
010 50% { top: 90px; -webkit-transform:
    scaleY(1.1);}
011
```

19 Bouncing ball

In this final project, we'll create a simple bouncing ball using a selection of percentages for our keyframe sequence. But first we need to write some HTML mark-up. We're going to use CSS to bring in our images and the ball rule will come first. We will make the ball fairly big at 200px and then give it some breathing space on top with a 20px margin.

```
001 .ball {
002    background: url('../imgs/football.png');
003    width: 200px;
004    height: 200px;
005    margin: 20px 0px;
006 }
```

20 Add some colour

Next up will be our strip of grass. This will give our simple project some colour and you can always experiment with different types of grass. Then we need to position absolute as we need to shift it into place. As we have set the positioning to absolute, we can also target the z-index so the ball doesn't bounce in behind it.

```
001 .grass {
002    background:url('../imgs/grass.jpg')
       no-repeat;
003    height: 50px;
004    width: 400px;
005    position: absolute;
006    top: 280px;
007    left:-85px;
008    z-index: -1;
009 }
```

21 The bounce keyframes

Using percentages and the 'translateY' property allows us to really get control of how our ball will bounce. This will give us five bounces before the ball comes to rest. We've also put a timing function on the bounces, which will give us a more realistic look. Then in the next step we'll add an ease-in timing function to make it look even more realistic.
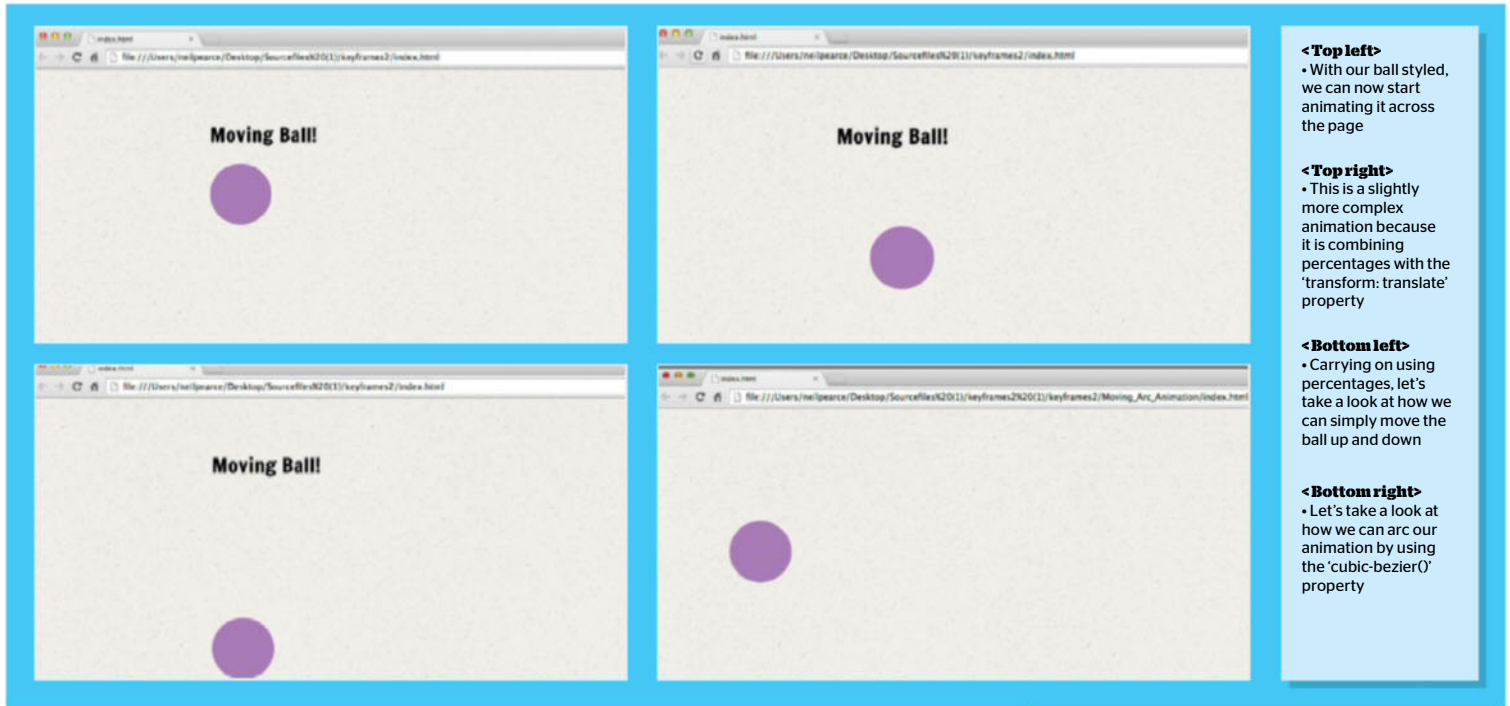
```
001 @-webkit-keyframes ball-y {
002    0% { -webkit-transform: translateY
       (-255px);  }
003    40% { -webkit-transform:
       translateY(-200px); }
004    65% { -webkit-transform:
       translateY(-85px);  }
005    82% { -webkit-transform:
       translateY(-50px);  }
006    92% { -webkit-transform:
       translateY(-20px);  }
007 25%, 55%, 75%, 87%, 97%, 100% {
    -webkit-transform: translateY(0px);
008 -webkit-animation-timing-function:
    ease-out;}
009 }
010
```

22 Start the animation

All there is left to do now, is add in our animation declaration within our '.ball' class. And that's it. There is a lot more we can do with this, and we encourage you to experiment with what you've learned. One thing you could try is to create a animated shadow for this using the same techniques as before.
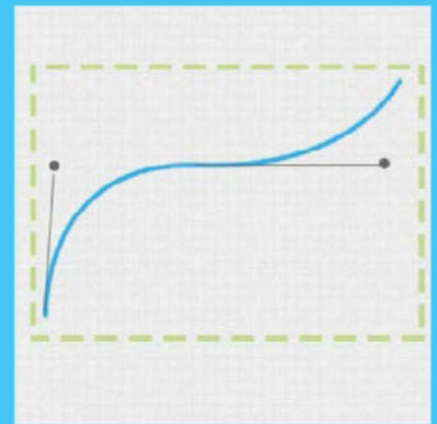
Cubic-bezier timing function

One of the most often overlooked features of CSS transitions is the ability to specify a cubic-bezier timing function. This is because you get a bunch of easing options out of the standards-based box: ease, ease-in, ease-out, ease-in-out, and linear. However, you can define your own timing functions using a cubic-bezier value which we have already done in step 12.

```
cubic-bezier(0, 0, 0.35, 1);
```

The cubic-bezier timing function that we used was to adjust the animation-timing speed. This example makes the ball take longer to slow down. As you can see, the cubic bezier function takes four parameters and each one represents a point in the animation on either the x axis or the y axis.

```
cubic-bezier(pX, pY, pX, pY);
```

An important thing to note is that the points that get passed in the cubic-bezier function can only be between 0 and 1. So if you decide to try something like cubic-bezier(2,3,5,2), you will end up banished to linear easing, the worst of all easing functions. Also know that the x axis is the time the animation takes, and the y axis is the property being changed.

❝ One of the cool things about CSS is how easy we can write CSS shorthand and the animation is no exception ❞

web workshop

How to make a preloader with CSS

inspiration **www.makeyourmoneymatter.org**

New York-based digital agency Firstborn, were approached by PSCU who wanted to introduce community-minded people of the 21st Century to the benefits of credit unions over big banks. In response to this, Firstborn launched the "Make Your Money Matter" campaign to highlight the positive social impact that joining a credit union can make. The heart of the campaign is the online hub, where an interactive narrative experience pushes the boundaries of digital storytelling. The illustrated story follows the journey of a typical deposit through big banks in comparison to a journey with credit unions. The story is one that is told through the use of web technology and fantastic illustrations.

1 INSPIRATION
Parallax overkill

In this day and age we have seen parallax scrolling overused, however, it works well when the scrolling is controlling the pace of the storytelling and that is exactly what has taken place within the "Make Your Money Matter" campaign. In fact as you scroll through the story, parallax really doesn't describe the site with justice. Really, what you are seeing is elements of the story presented to the user with the scrollbar and nothing more. Sure some elements move at different speeds but that's not the point here. Firstborn manages to tell an important story whilst maintaining a well-designed and thought-through site for the client.

Beautiful illustrations
What makes the "Make Your Money Matter" site really work is the excellent use of illustration. Throughout the journey each piece of illustration looks like it belongs in the same world. This is important in your projects especially if you are sourcing imagery from stock banks, try to get a consistent style in what you are putting together.

Dynamic preloader
The page loads and a preloader keeps the user entertained with a scrolling image, keeping the rest of the website cleverly hidden while the rest of the content is still loading.

Clarity
The site is clearly labelled as it identifies the message that the user is immediately going to receive as they browse this microsite. It makes the site easy and effortless to use.

Straightforward instructions
Instructions at the beginning ensure that your audience knows exactly what to do as they begin their journey of discovery on your website. It makes it all a very quick browse.

Alluring art
The beautifully illustrated work throughout this site reduces monotony whilst lifting the message as it is presented to the user. There's also some much-needed humour for the topic.

Uniform
A colour scheme used throughout the website keeps the theme consistent, notice how this also fits in with the colours used in the illustration at these points. It creates a sense of calm and familiarity.

How to make a preloader with CSS

Engaging storytelling

"Firstborn's creative team worked hand-in-hand with in-house animators and developers to ensure an engaging user experience that used technology to enhance the power of the storytelling on www.makeyourmoneymatter.org. Since the campaign launch, #MakeYourMoneyMatter has become a rallying cry for credit unions across the US."

Firstborn, New York

2 TECHNIQUE

Make the preloader

01 Get started

In the body section of the page add the divs shown below. There is one for the preloader which will hide the site content while it loads, we will add some animated clouds inside of this later. Below we've added links to HD wallpapers to simulate a download.

```
001 <div class='preloader'>.
002     <div class="clouds"></div>
003   </div>
004   <div>
005     <img src='http://www.
hdwallpapersinn.com/wp-content/
uploads/2014/08/5TG794xTx.jpg'/>
006     <img src='http://www.
hdwallpapersinn.com/wp-content/
 uploads/2014/08/desktop-backgrounds-8124-
8572-hd-wallpapers.jpg'/>
007   </div>
```

02 Add the CSS

In the head section of the page add the CSS shown which will set the page background colour. Then place the preloader above the rest of the page with a background colour so that it hides the loading.

```
001 <style>
002  html,body {
003     background: #e8e6c2;
004     padding: 0;
005     margin: 0;
006     text-align: center;
007   }
008   .preloader {
009     display: block;
010     position: fixed;
011     width: 100%; height: 100%;
012     z-index: 9999; top: 0;
013     background: #e8e6c2;
014   }
```

03 Animate the clouds

Now we will add some clouds inside of the preloader, we will animate this later from JavaScript by moving the background position of the image. Note how the image is set to repeat as this will continuously

scroll the background. We make the corners of this round with the border-radius property.

```
001 .clouds{
002         background:url(img/clouds.
jpg) repeat 0 bottom;
003         width:300px; height:300px;
004     margin: 0 auto;
005     display: block;
006     border-radius: 50%;
007     position: relative;
008     top: 50%;
009     transform: translateY(-50%);
010   }
011   </style>
```

04 Start the JS

We now create a link to the jQuery library and then we set the properties for our scrolling. The function 'bgscroll' handles the movement of the background position by manipulating CSS properties.

```
001 <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/
jquery/1.10.1/jquery.min.js"></script>
002    <script>
003         var scrollSpeed = 30;
004         var current = 0;
005         var direction = 'h';
006         function bgscroll(){
007         current -= 3;
008         $('div.clouds').
css("backgroundPosition", (direction
== 'h') ? current+"px 0" : "0 " +
current+"px"); }
```

05 Check the loading

We use the JavaScript command to setInterval to call the bgscroll function. Finally we detect if the window has finished loading, when it has we fade out the preloader so the rest of the page is fully visible in the browser window.

```
001 setInterval(bgscroll, scrollSpeed);
002     $(window).load(function(){
003         $('.preloader').fadeOut();
004     });
005    </script>
006 setInterval(draw, 25);
007 </script>
```

3 TECHNIQUE

The joy of SVG

The Scalable Vector Graphics format is the perfect choice for a project like Make Your Money Matter. The graphics contain a lot of flat colour so the SVG format retains the quality of that imagery at any resolution. Here we explain how to save in the format.

01 Create your image

You will need a vector drawing application such as Illustrator to create SVG graphics. Once you have completed your drawing using the drawing tools then you will be ready to export this into the SVG format.
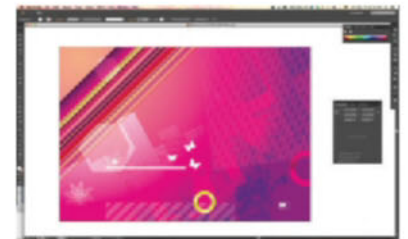
02 Save options

In Illustrator you would expect the SVG save options to be under the Save for Web option, but you'd be wrong. Instead you have to choose Save As if you've saved in another format previously, and then choose SVG as the format from there.
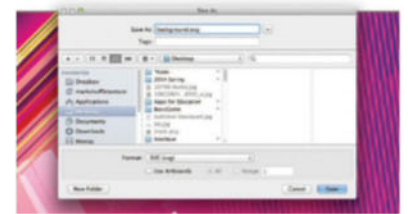
03 SVG default

Saving in the default SVG 1.1 options is fine and if you use any web fonts, you can also use those by linking through CSS as per normal in a site. Click the OK button and you have your SVG all ready to go.
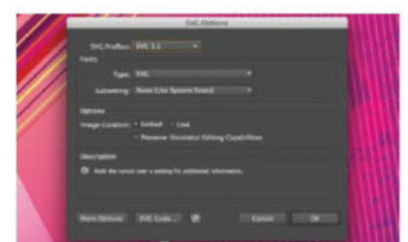
How to use PhoneGap to code and test an app

Learn how to live-preview apps without having to compile and build them

tools | tech | trends Mobile device, PhoneGap, Developer app, PhoneGap Desktop app, Node.js, Brackets Code Editor
expert Mark Shufflebottom

DOWNLOAD TUTORIAL FILES
www.filesilo.co.uk/ webdesigner

honeGap has revolutionised app design and development by allowing HTML, CSS and JavaScript to be used for app development. If we look at the ever-increasing efficiency of JavaScript interpreters on **mobile devices,** it is getting harder to tell the difference between a native and a hybrid app.

One of the slower areas of the development process was the build. Whether you used the PhoneGap build in the cloud or ran Cordova through a code editor on the desktop, the build process still took a little time to see on the device, meaning a bit of unnecessary waiting around.

But all that has changed since the introduction of the PhoneGap Developer app. Creating PhoneGap apps have been easy but the Developer app really adds something special.

The Developer app sits on the mobile device and allows live pairing to the desktop. As soon as you save in your code editor, the app on the device updates making the testing of native features incredibly fast and efficient.

> **Node.js follows a standard installation procedure so there will be no problem getting this to install**
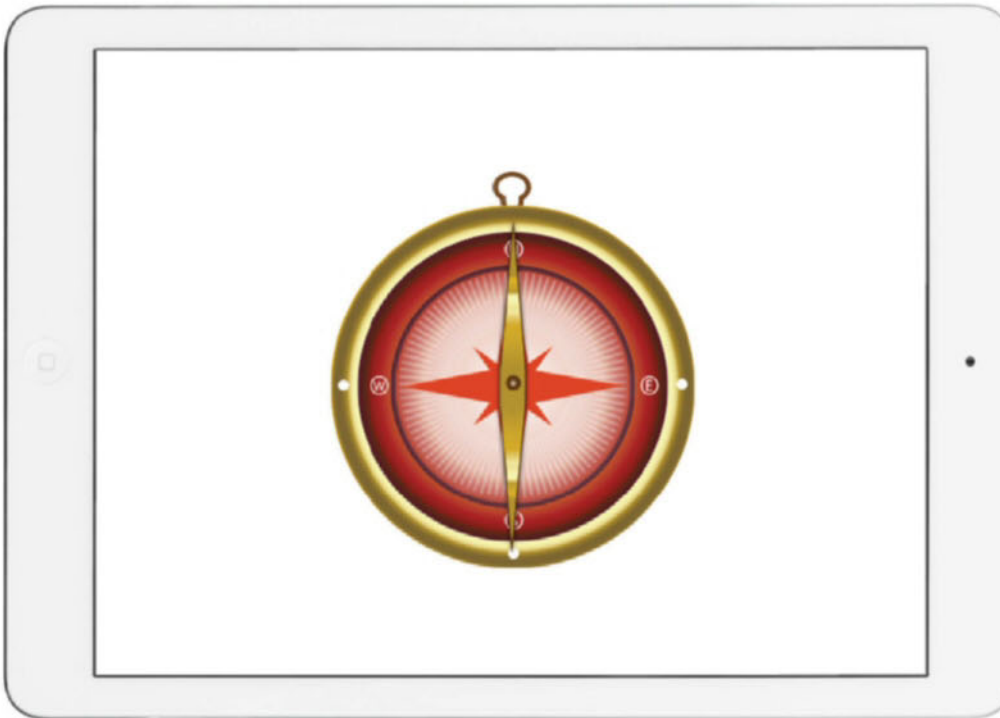
01 Get started
The first part of the tutorial is the installation process to get up and running using the PhoneGap desktop and mobile developer app. To work with PhoneGap you actually need to have Node.js installed first. If you haven't got this, head to **http://nodejs.org** and hit the 'install' button.

02 Install Node.js
The right package will download for your computer. Double-click the installer package that has downloaded and follow the on screen prompts to ensure that Node.js has installed. Node.js follows a standard installation procedure so there will be no problem getting this to install on your computer.

03 Command Line
Now you need to open the Command Line, this is called the 'Command Line Prompt' on Windows and 'Terminal' on a Mac. Type the code shown into the Command Line, this instigates the npm part of node to download and install PhoneGap to your computer.

```
001  sudo npm install -g phonegap
```

04 Mac first
If this is the first time you have attempted this on a Mac and have never used the 'CLI' or 'Command Line Interface' before you will be prompted to download and install those tools on your Mac. Follow the onscreen prompts and then redo step 3.
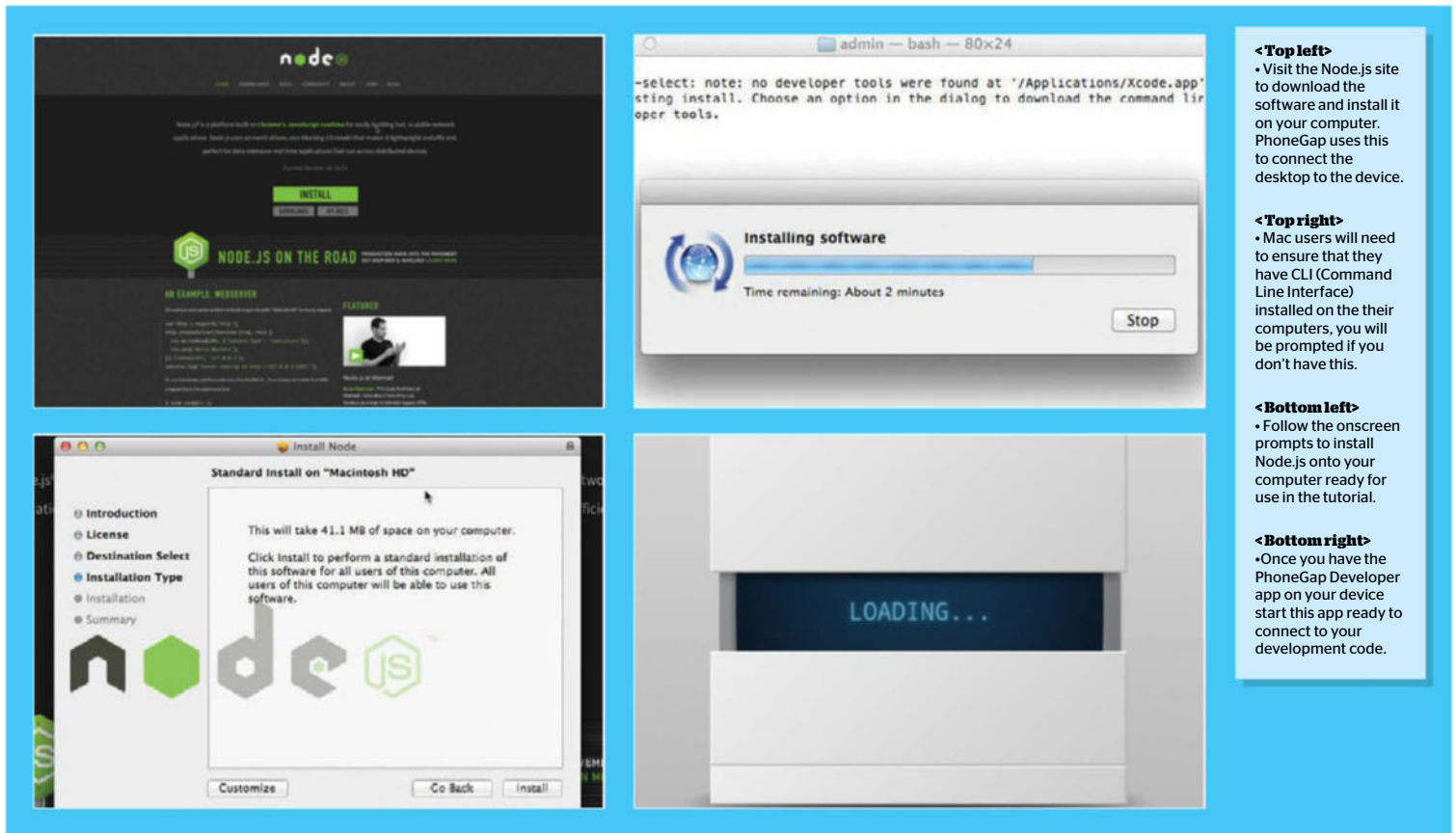
<Top left>
• Visit the Node.js site to download the software and install it on your computer. PhoneGap uses this to connect the desktop to the device.

<Top right>
• Mac users will need to ensure that they have CLI (Command Line Interface) installed on the their computers, you will be prompted if you don't have this.

<Bottom left>
• Follow the onscreen prompts to install Node.js onto your computer ready for use in the tutorial.

<Bottom right>
•Once you have the PhoneGap Developer app on your device start this app ready to connect to your development code.

Create the app

05 It takes a few moments to download the package from PhoneGap so be patient but you will be notified of its success. Now when it's finished type the code shown below. This tells PhoneGap to create a new PhoneGap application with the name 'myapp'. You can find this folder on your computer. It is likely to be created in the root folder of your username.

```
001 phonegap create myapp
002
```

Change directories

06 So this step is probably the easiest to execute as we simply invoke the cd command to change directory into the app directory. We will pause at this point and come back to the terminal in a moment. You will now need to get the PhoneGap Mobile app on your device. It's available for iOS, Android and Windows phones so get downloading!

```
001 cd myapp
```

Install the Mobile app

07 Obviously you will need to install this on your phone, so search for 'PhoneGap Developer' in the device's store. Once downloaded and installed on the device you can start it up, ready for us to connect across from the desktop application in the terminal window.

Get your IP address

08 Okay now as we have the PhoneGap Developer app on our device, we need to switch back to the desktop and into terminal. Type the code shown below which will cause phonegap to start serving your application. You will get a response as follows below this 'listening on 192.168.1.46:3000', we will use this on the device in just a moment and the IP address will be for your own computer, rather than the one shown.

```
001 phonegap serve
002
```

Connect the device

09 In the centre of the app on your device is a server address. You can tap in here and enter the IP address that you were presented with in the previous step. We found that on Android devices you had to actually enter the 'http://' but this wasn't actually necessary on iOS devices, so be prepared in case you have to try both scenarios depending on which operating system you use. Make sure that the ':3000' is included in the address as well, otherwise it will not work properly.

Web powered

As we are using web technology to create our app, we can take advantage of CSS3 transforms for animation to power the rotation of the arm on our compass.

Demo app

10 To see the device app working you will see a PhoneGap demo app that shows a green 'Device is Ready' message when the app is running. Now we are going to use this to create our app. As the phone and desktop are now connected, every time we save the file the phone will update with the latest changes.

Code Editor

11 Open the 'WWW' folder inside the 'myapp' folder. From the tutorial files download drag the images from the 'start' folder into the 'img' folder. Open the 'index.html' page in a code editor, such as 'Brackets' and we will start to edit the content on the page to make our own app.

❝ Every time we save the file, the phone will update with the latest changes ❞

How to use PhoneGap to code and test an app

❝ Now we are going to style up the arrow graphic so that we can control it later on by adding the angle to rotate using JavaScript **❞**

Native access

The beauty of PhoneGap is that it doesn't just let you build phone applications with HTML, CSS and JavaScript but it also allows you access to the phone's native capability. If your app doesn't require the use of the camera, accelerometer, local storage and more, then actually it might be better to just remain as a web service. However if you need to take advantage of these kinds of features then obviously PhoneGap offers you a great way into the mobile development arena. There are also a wide selection (currently almost 360) of third party plugins available that offer all kinds of extra functionality for your app. You can browse these at **http://plugins.cordova.io**. Here you will find all kinds of features like barcode scanners, email senders and even joypads for games!
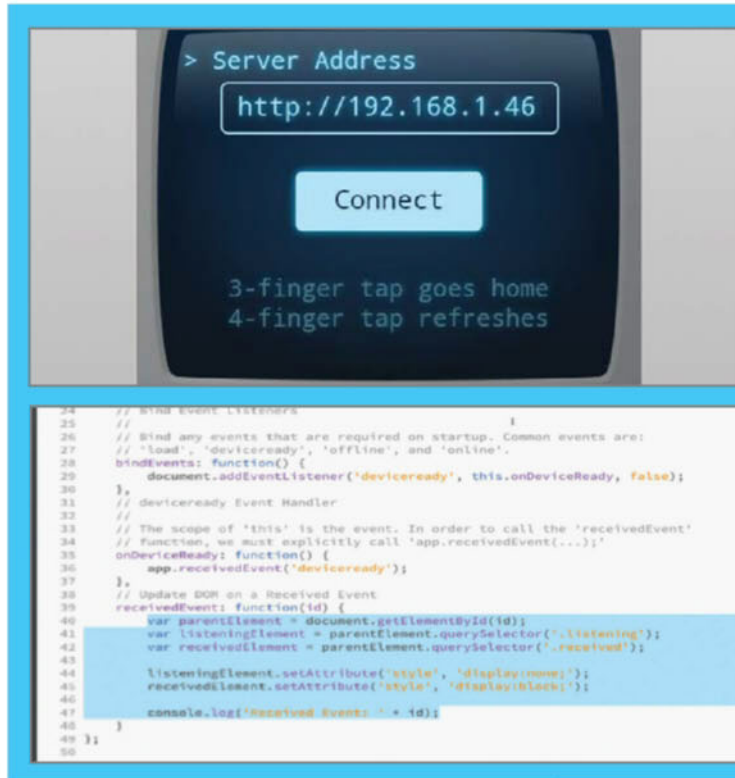
12 Add the page content

At present the current page displays a PhoneGap image and a flashing message, we don't actually need any of that, so find in the 'body' tag the div with the class 'app' and delete everything inside of this div tag. Now add inside the code shown below which will give us the arm of a compass.

```
001 <div id="arrow"><img src="img/arm.png"
width="30" height="300" alt="arm"></div>
```

13 Amend the CSS

Open the 'index.css' file from the css folder and delete everything from '.app' onwards as we are going to add our own content in here and style it the way we want it to be styled. We are setting the background image for the 'app' div class on the html page.

```
001 .app {
002   display: block;
003   background-image: url(../img/bg.png);
004   background-repeat: no-repeat;
005   height:480px;
006   width:320px;
```

14 Fine tuning

Here we finish off the 'app' style by adding a little padding and margin to the top of the div. Notice how we also set the div left and right margin to auto, so that it sits centrally on larger screens. If you saved your document right now, you would see that the PhoneGap app on the device automatically reloads to reflect the changes.

Node.js service

Node.js is a JavaScript-based server and it is used in the PhoneGap Developer app to sync the desktop to the phone so that live updates can be pushed between the two.

```
001   text-align:center;
002   padding:60px 0px 0px 0px;
003     margin:10px auto;
004 }
```

15 CSS rotations

Now we are going to style up the arrow graphic so that we can control it later on by adding the angle to rotate using JavaScript. We are using CSS3 transitions for this, so if you are doing this for Windows phone, just change the prefix to 'ms'. We are going to check every 0.5 seconds for the compass heading so we set the transition here for the same length.

```
001   #arrow{
002   -webkit-transition: all 0.5s ease-in-
      out;
003   -webkit-transform-origin: 15px 150px;
004   -webkit-animation-timing-function:
      linear;
005   height: 300px;
006   width: 30px;
```

16 Position the arrow

Finishing off the CSS for the arrow we make its position relative inside the div with the compass graphic in the background. Because the width of the arm is 30 pixels, we position it left 50% but take off 15 pixels to make it centred. The transform origin point will be in the centre of this arm. Save this CSS file.

```
001   position: relative;
002   top: 55px;
003   left: 50%;
004   margin-left: -15px;
005   }
```

17 Switch to JavaScript

Now we need to open the 'index.js' file which is in the 'JS' subfolder. This is the code that works the existing app and just sets the message on the screen when PhoneGap detects that the device is ready. We need to remove the code that does this so we can add our own functionality. Find the line 'receivedEvent: function(id) {' and remove all the code between the brackets.

18 Change direction

Inside the 'receivedEvent' function brackets add the code shown below. Here we grab a reference to the arrow in the DOM and when there is success at retrieving the compass direction, we round-up the heading to a whole number and apply this angle to the arrow in the DOM.

```
001   var arrow = document.
      getElementById('arrow');
002   function onSuccess(heading) {
003   var dir = Math.round(heading.
      magneticHeading);
004   arrow.style.webkitTransform = "rotate("
      + dir + "deg)";
005   };
```

19 Error handler

We need an error handler as PhoneGap requires a success and error outcome for getting any native features. Here we handle this by adding an alert that would tell us what the error was. This is obviously very useful for debugging, but a message display telling you that you are not being able to access the compass might be better though.

```
001   function onError(compassError) {
002   alert('Compass error: ' +
      compassError.code);
003   };
004
```

20 Set updates

As we will be continually updating the compass we need to set the frequency at which this event takes place. Here we set the frequency to 500 milliseconds so this will update every half a second, which is the same as the transition for the compass. If they're not the same it doesn't look right. Finally we call the compass to watch the heading using those options.

```
001   var options = {
002     frequency: 500
003     };
004   var watchID = navigator.compass.
      watchHeading(onSuccess,
      onError, options);
```

21 Final step

Finally save the JavaScript file and now you should see your device update with your final app. Every half a second the compass will update to show what is on your screen. As you can see, the speed at which your app updates completely negates the need to build your app for the device and all native functionality can be tested on device rather than through a simulator.

Exploring the PhoneGap files
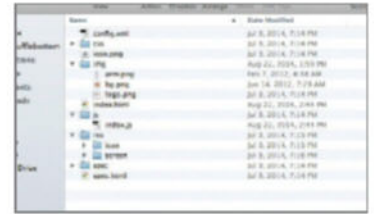
01_____WWW folder
The 'www' folder is the main folder that all of your HTML, CSS and JavaScript functionality lives in. Here you will build your app and put in your own files including images.

02_____'res' folder
The resource or 'res' folder that exists within the WWW folder contains your icons and splash screens, the good news is that there are already files there for you, all you have to do is open them in Photoshop to change them.

03_____plugins folder
The 'plugins' folder is where you will place any third party PhoneGap plugins that might give you access to features like barcode readers and more; these are discussed in more detail later in the tutorial.

❝ Finishing off the CSS for arrow, we make its position relative inside the div with the compass graphic in the background ❞

```html
<html>
    <head>
        <meta charset="utf-8" />
        <meta name="format-detection" content="telephone=no" />
        <meta name="msapplication-tap-highlight" content="no" />
        <!-- WARNING: for iOS 7, remove the width=device-width and height=device-height
attributes. See https://issues.apache.org/jira/browse/CB-4323 -->
        <meta name="viewport" content="user-scalable=no, initial-scale=1, maximum-
scale=1, minimum-scale=1, width=device-width, height=device-height, target-
densitydpi=device-dpi" />
        <link rel="stylesheet" type="text/css" href="css/index.css" />
        <title>Hello World</title>
    </head>
    <body>
        <div class="app">
            <div id="arrow"><img src="img/arm.png" width="30" height="300" alt="arm">
    </div>
        </div>
        <script type="text/javascript" src="cordova.js"></script>
        <script type="text/javascript" src="js/index.js"></script>
        <script type="text/javascript">
            app.initialize();
        </script>
    </body>
</html>
```

web workshop

Create a rollover with a transparent cut-out effect

inspiration **www.vivienwack.fr**

1 INSPIRATION

Holding pattern

If you are choosing to load the entire page contents before making it visible to the user, you must keep the user entertained and informed as the rest of the site is loading. One of the best and most common ways of doing this is to create some kind of animation that holds the users attention but more importantly this provides essential visual feedback that the page is loading and it will soon appear. Vivien Wack does that without using any text, which is probably due to the international nature of work. Yet, even without the text, the site manages to make the animation obvious as to its purpose.

This month we take a look at a portfolio of French designer Vivien Wack. The site contains some very interesting loading animations that keep the user entertained while the site loads. When loaded the main image fades in and some line art triangles are drawn in place which cleverly spell out the initials VW. Once past this, the rest of the site is straightforward enough and uses the AngularJS library to load content, using the XMLHttpRequest to load the new content to the page. Altogether it gives a very slick web presence for an individual designer and is more akin to the kind of studio sites that they would produce for themselves.

Loading reward

At the end of a loading process it's a good idea to reward the user for their patience. Vivien uses geometric shapes and line art drawing style to draw the shape outline and then fill them in. It doesn't make the page heavy to load as the script does most of the work.

Geometric
As the page loads several triangles appear on the screen and spin in a unique way to give interest to the page while the content is still loading. It keeps the user's attention.

Full window
Upon loading, the whole image fades into the viewport and commands focus by filling the viewport by measuring the height of the browser window.

Filled lines
Once the image is in place, lines are drawn onto the centre of the screen to show off the geometric triangles that spell out the initials VW. These are then filled in solid.

Interaction
The rest of the content is located further down the page and there are some lovely rollover techniques on the images that make up the work. The cut-outs will then appear when the user hovers over the images.

Familiarity
Clicking on any of the work invokes the XMLHttpRequest to load new content into the page and of course the loading animation gets to play once more.

Create a rollover with a transparent cut-out effect

Rollover bicycle

"I asked myself, 'What is the best way to attract people to my project?' I didn't want a magnifying glass or a simple discover. It was necessary to express the idea of movement. What's more natural than a bicycle? This concept works with my mother so I kept it."
Vivien Wack

2 TECHNIQUE

Create rollover effects

01 Body content

There are so many ways to create rollover effects, we are going to take a relatively straightforward approach. In the body of the web page add the following div structure which will just hold our content in the page. Inside here we have an image which is the rollover image.

```
001 <div class="container">
002 <div id="img1"><img id="top-over"
class="top" src="img/over.png"></div>
003 </div>
```

02 Head section

At the top of the document in the head section add the following code which creates a link to the jQuery library then, we can start styling our page up. Our container is made to be centred in the page then we set the dimensions for our top image which will be the rollover part.

```
001 <script src="http://code.jquery.
com/jquery-latest.min.js"></script>
002 <style>
003    .container{
004      width: 862px; margin: 0 auto;
005    }
006    .top{
007      width: 862px; height: 450px;
008 }
```

03 Final styling

Next we set the image rollover to be invisible by using the opacity property. Following that we set the dimensions for the background image which will have the original image within it. We are setting the image as a background image for the div.

```
001 #top-over{
002    opacity: 0;
003 }
004 #img1{
005   background-image: url(img/bg.jpg);
006   height: 450px;
007 }
008 </style>
```

04 jQuery hover

Just below the div in the body section add the following script tag. This just runs a jQuery document ready function to ensure the content has finished loading. Now we detect if the mouse is hovering over the rollover section of the page. If so we animate the opacity moving to full opacity of the rollover.

```
001 <script>
002   $(function() {
003     $( "#top-over" ).hover(
004       function() {
005         $(this).animate({"opacity":
"1"}, "slow");
006 },
```

05 Roll out

Finally we add the rollout function and this obviously takes the image back to being fully transparent. Save the page now and test this in your browser. You will see the image rollover fully working. We are using a semitransparent PNG image as the rollover image for this.

```
001              function() {
002            $(this).
animate({"opacity": "0"}, "slow");
003        }
004      );
005 });
006
```
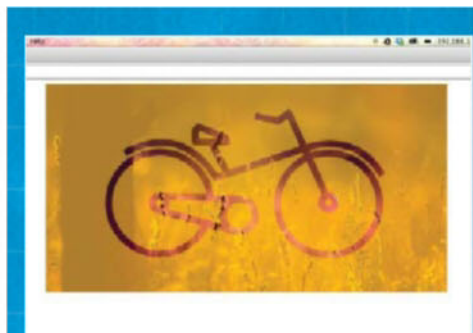

Creating rollover effects can be done in so many different ways, we are using a transparent PNG to get the same effect as Vivien Wack. Using jQuery we move the opacity of the image to give the fade in and out effect that we desire.

3 TECHNIQUE

Create the line art

Vivien Wack uses two JPEG images in order to create the rollover effect, taking the transparency effect onto the original image. We will show you how to create the original image and then a transparent PNG to put in place over the top.

01 Create the original.

The first step is just selecting the original image and ensuring that you crop the image to the right size that you intend to use on your site. Once you have done this you can use the save for web options to save as a JPEG image.

02 Overlay colour

Create a new layer and select a good colour to use as the overlay colour. Fill the entire new layer with this colour. In the layer panel, reduce the opacity to 60 per cent.

03 Add the line art

Import your line art and select the layers transparency from Select>Load Selection. Turn off this layer and select the coloured layer below. Hit delete to remove the selection. Turn off the background layer and save this for web as a transparent PNG.

Use CSS to create a grid-based gallery

Find out how to add an expanding image effect to a set of images and how to use visual cues to direct the visitor

tools | tech | trends CSS , jQuery
expert Jayson Winters

CSS-based image galleries can be simple to make. But the layout and functionality of the technique shown in this tutorial does provide a great opportunity for creativity and can also be used to display any selection of nine images for a portfolio or other gallery type requirement.

In this gallery the visible part of each image is the section that corresponds with that image's location and as they say on television property shows, "it's all about location". For example the top-left image displays only the top-left portion of itself when closed. This is interesting because it enables you to create a composite image based on nine separate images. You can experiment with how the shapes and colours interact with each other as the images are opened and closed. Optical illusions can be created and objects transformed, for example the sun in one image might become a Belisha beacon in another. Designers and developers should always be thinking differently after all. So, after you've checked out the examples why not turn off your screen, pick up a sketch pad and pencil and see what you can create?

01 Chicken or egg

You will get the most out of this tutorial if you create your own set of images. This can be challenging because each of the images needs to contribute to one 3 by 3 image. Do you start with the final image or do you create your individual images first? You'll probably need to do a little of both.
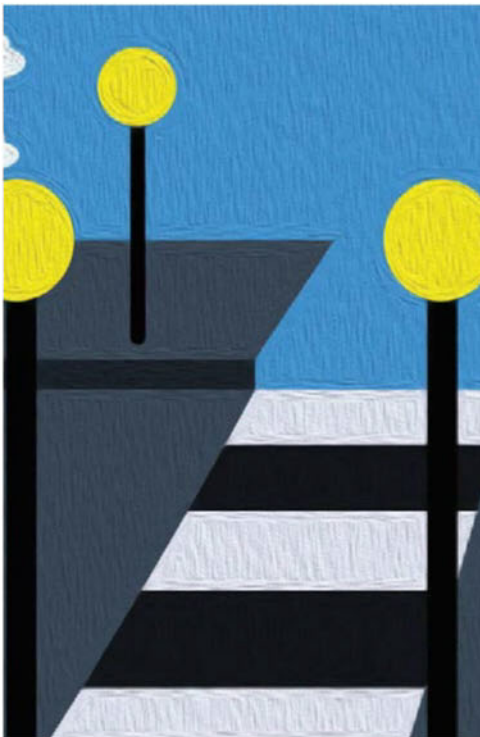
02 The CSS

The CSS for this tutorial is relatively straightforward so you can concentrate on the images rather than the code. Choose a font and background that will complement your images. A blurred background is a popular contemporary choice that can deliver more than a plain or tiled background but without competing for attention.

```
001  @import url(http://fonts.googleapis.com/
css?family=Pacifico);
002  html {
003     background: url(../images/bg.jpg) no-
repeat center center fixed;
004     -webkit-background-size: cover;
005     -moz-background-size: cover;
006     -o-background-size: cover;
007     background-size: cover;
008  }
```

03 Heading

The colour of the heading has been sampled from the skyline in the images to help the elements harmonise and a subtle shadow – the same shadow will be applied to the gallery in Step 6 – helps to lift it slightly off the page. Nothing exciting here, the emphasis is on keeping things simple to let the images shine.

```
001  h1 {
002     color: #2972b7;
003     font-size: 55px;
004     font-weight: 300;
005     font-family: 'Pacifico', cursive;
006     margin: 0 0 10px 0;
007     text-align: center;
008     text-shadow: 2px 2px 2px #999;
009  }
```

04 Gallery container and panels

This technique really doesn't suit a responsive layout without adding a huge amount of extra code to cleverly resize everything. Here a 750px width div is specified for containing the gallery and it is centred horizontally on the page. There is a gutter of 13px between each 'closed' panel and the actual size of an expanded panel is only 737px to make sure everything fits together properly.

```
001  #container {
002     width: 750px;
003     margin: 0 auto;
004     position: relative;
005  }
006
007  .panel {
008     width: 737px;
009     height: 737px;
010     overflow: hidden;
011     position: relative;
012  }
```

05 Artistic licence

You can add painterly effects to your drawings but Adobe CC users should be aware that the Oil Paint filter used here was removed in the Photoshop CC 2014 update. If you want to use that feature, unless or until

<Above>
• The grid gallery is great for encouraging interaction with your images, especially if you are challenging assumptions about what an individual shape represents instead of sticking with the standard squares on face value. The user is almost compelled to click several times to check and compare the differences
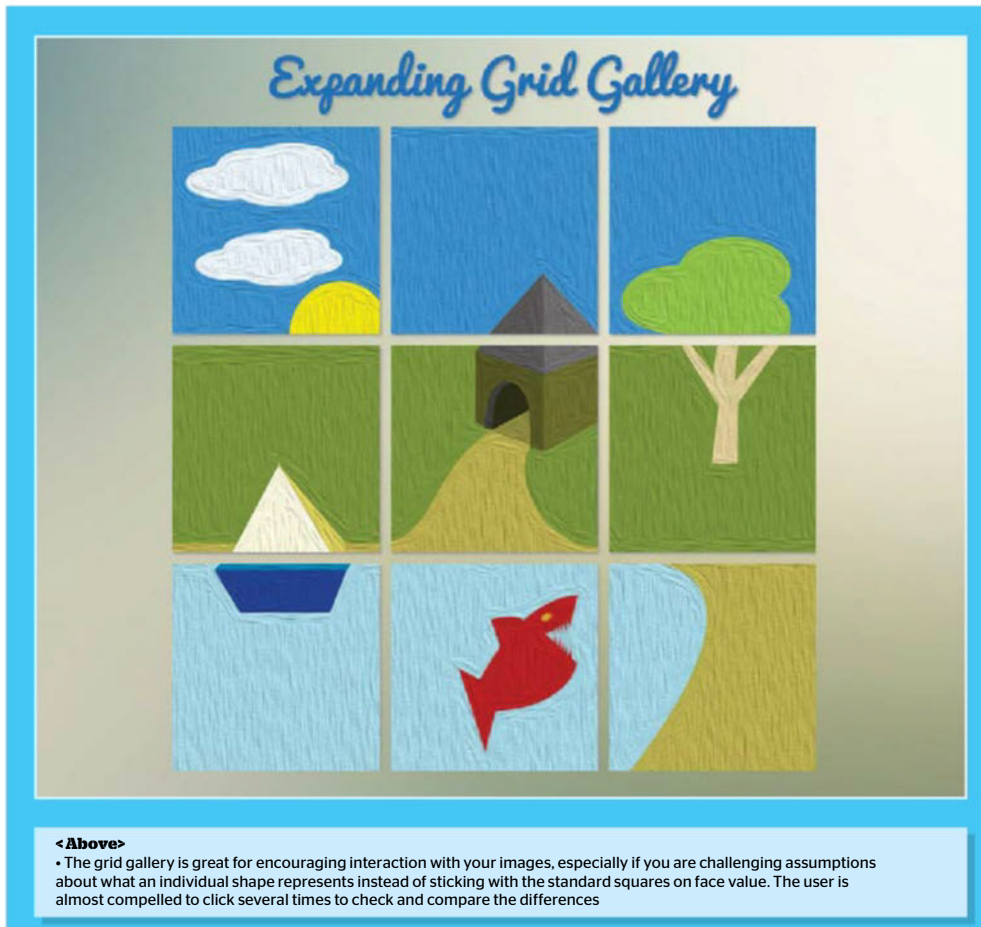
Adobe bring the feature back, you'll need to keep your copy of Photoshop CC (version 14) as well.

06 The grid elements
The size of each image panel is set. The speed of opening and closing the gallery images is set to one second here. You might like to experiment with different easing effects. The cursor is turned into a pointer within the grid area as a visual cue to the user and a small shadow is added to lift the gallery.

```
001 .panel > div, .expand {
002     position: absolute;
003     box-shadow: 2px 2px 2px #999;
004     width: 237px;
005     height: 237px;
006     cursor: pointer;
```

Tweak and adjust
Once your gallery is working correctly, tinker with the values to become more familiar with how the code works as it enables you to tailor the gallery to suit your own preferences.

```
007     transition: all 1s ease-in-out;
008 }
```

07 Location, location, location
These classes are used to layout the grid. They must match the figures used later on for positioning the images in order for the technique to work. You can change the overall grid size but you need to be careful with your maths to ensure seamless transformations.

```
001 .col1 { left: 0; }
002 .col2 { left: 250px }
003 .col3 { left: 500px; }
004 .row1 { top: 0; }
005 .row2 { top: 250px; }
006 .row3 { top: 500px; }
```

08 Change things up
There are all sorts of themes you can consider to create interesting relationships between your images and

you will probably want to use several in your solution. Ideas to explore include: dramatic contrast, repeating an image, changing the scale or viewing angle, turning the sky into water. Have fun coming up with more..

09 Panel layout
Here each of the images are laid out within the grid pattern. The middle column starts 250px in from the left-hand edge of the grid so the images in that column are offset by 250px to the left. When they are clicked on, they stay in position and expand in place.

```
001 .p1 { background: url(../images/1.jpg) 0
0      no-repeat; }
002 .p2 { background: url(../images/2.jpg) 0
-250px  no-repeat; }
003 .p3 { background: url(../images/3.jpg) 0
-500px  no-repeat; }
004 .p4 { background: url(../images/4.jpg)
-250px 0        no-repeat; }
005 .p5 { background: url(../images/5.jpg)
-250px -250px  no-repeat; }
006 .p6 { background: url(../images/6.jpg)
-250px -500px  no-repeat; }
007 .p7 { background: url(../images/7.jpg)
-500px 0        no-repeat; }
008 .p8 { background: url(../images/8.jpg)
-500px -250px  no-repeat; }
009 .p9 { background: url(../images/9.jpg)
-500px -500px  no-repeat; }
```

10 Showtime
The JavaScript is listening for a click event and when the user clicks on div within the grid it is made active. The z-index is incremented to ensure the panel is displayed in front of all the others. The image panel size is set to the full grid size and it eases out to fill the panel.

```
001  .panel > div.active {
002      width: 737px;
003      height: 737px;
004      top: 0;
005      left: 0;
006      background-position: 0 0;
007      z-index: 1;
008 }
```

11 Create a quick demo
To demonstrate the functionality to a new user, a short introductory animation is used. It tracks a cursor

Use CSS to create a grid-based gallery

across the grid and flashes panels to hint at their interactivity. The div is given a z-index value of 6 to ensure it displays on top of the image panels.

```
001 #pointer {
002     position: absolute;
003     left: 0;
004     top: 0;
005     background: url(../images/pointer.png);
006     width: 50px;
007     height: 65px;
008     z-index: 6;
009     transform:     translateX(750px)
translateY(0);
010     animation:     showme-pointer 10s 2s
linear forwards;
011 }
```

12 Animate the pointer

To ensure good compatibility use vendor prefixes for your animation keyframes. Note that the pointer is rendered invisible at 99%. However, as that element is still actually on the page (in the first panel) it would stop the area that it covers from being clickable. So, in a final frame the pointer is translated off the page.

```
001 @-moz-keyframes showme-pointer {
002    0%   { -moz-transform: translateX(625px)
translateY(850px);     }
003    20%  { -moz-transform: translateX(625px)
translateY(375px); }
004    30%  { -moz-transform: translateX(625px)
translateY(375px); }
005    45%  { -moz-transform: translateX(375px)
translateY(375px);}
006    55%  { -moz-transform: translateX(375px)
translateY(375px);}
007    70%  { -moz-transform: translateX(125px)
translateY(125px); }
008    80%  { -moz-transform: translateX(125px)
translateY(125px); opacity: 1; }
009    99% { -moz-transform: translateX(125px)
translateY(125px); opacity: 0;    }
010    100% { -moz-transform: translateX(-50px)
translateY(-65px); opacity: 0; }
011 }
012 }
013 }
```

13 Surprise, surprise

Panel two provides a good example of how a shape in the main picture can be transformed into another object altogether. The boat's sail changes into the top of a fence post when it is clicked on. The change of scale also helps to create a dramatic contrast between the main image and the revealed image.

Ambiguity is okay

Designers and developers spend time ridding projects of ambiguity and bugs. However you can use ambiguity creatively to engage and interest the user and harness its power for good.

14 Go abstract

Don't feel the need to start off with a fixed idea for each picture. You'll sometimes create images you never would have thought of if you let your imagination wander and let something more abstract happen. Developing your ability to come up with something you wouldn't have naturally thought of is definitely a skill worth pursuing.

15 Complete the demo

This code is used to create the animated ghost panels that appear over the grid to hint at the functionality. When triggered the animation creates a convincing expanding effect as it fills the panel with blue

at 80% opacity which is scaled up to three times its original size whilst its opacity is reduced to 0%.

```
001  .expand {
002    background: #2972b7;
003    opacity: 0;
004    text-indent: -9999px;
005    z-index: -1;
006  }
007  .panel-six {
008    left: 500px;
009    top: 250px;
010    -moz-animation: expand 1s 4s 1 linear
forwards;
011  }
012  .panel-five {
013    left: 250px;
014    top: 250px;
015    -moz-animation: expand 1s 6.5s 1 linear
forwards;
016  }
017  .panel-one {
018    left: 0;
019    top: 0;
020    -moz-animation: expand 1s 9s 1 linear
forwards;
021  }
022  @-moz-keyframes expand {
023    0%   { -moz-transform: scale(1);
opacity: 0.8; z-index: 100; }
024    99%  { -moz-transform: scale(3);
opacity: 0;   z-index: 100; }
025    100% { z-index: -1; }
026  }
```

16 Rule of thirds

In the visual arts, the rule of thirds is a useful guideline for creating aesthetically pleasing compositions. It uses exactly the same grid as used here and suggests that important elements in layout should be placed along these lines or their intersections.
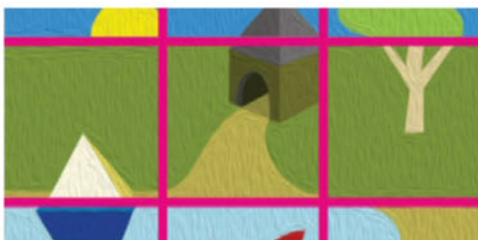
17 Continue optical adventures

You might like to begin with finding out more about the classic optical illusions as many contemporary effects are simply new twists on these. The Ebbinghaus illusion must be one of the most definitive examples of how your perception of an object's properties can be fooled. Other illusions are based on your own context, kind of like your own little Rorschach test.

Code library
The HTML
The bulk of the code appears in the CSS. That just leaves a little JavaScript and the divs for displaying the image panels

The grid is added within the page wrap so that it may be centred on the page. Note that other than the text, this HTML contains no actual content – that's all delivered by the CSS file

The first two classes for each div in the grid lay the grid out. The last class adds the image itself

These spans are used to load the pointer and then run the animation one step after another

This technique requires jQuery. The JavaScript function is then run to listen for a click and manage the z-index values

```
001  <!DOCTYPE html>
002  <html>
003  <head>
004  })
005    <meta charset='UTF-8'>
006    <title>Expanding Grid Gallery</title>
007    <link rel='stylesheet' href='css/style.css'>
008    <script src="http://ajax.googleapis.com/ajax/libs/
jquery/1.7.2/jquery.min.js"></script>
009  </head>
010  <body>
011    <div id="container">
012      <h1>Expanding Grid Gallery</h1>
013      <div class="panel">
014          <div class="col1 row1 p1"></div>
015          <div class="col1 row2 p2"></div>
016          <div class="col1 row3 p3"></div>
017          <div class="col2 row1 p4"></div>
018          <div class="col2 row2 p5"></div>
019          <div class="col2 row3 p6"></div>
020          <div class="col3 row1 p7"></div>
021          <div class="col3 row2 p8"></div>
022          <div class="col3 row3 p9"></div>
023          <span id="pointer"></span>
024          <span class="expand panel-six"></span>
025          <span class="expand panel-five"></span>
026          <span class="expand panel-one"></span>
027        </div>
028      </div>
029      <script>
030        $(function() {
031          $all = $(".panel > div");
032          var zindex = 2;
033          $all.click(function() {
034              $(this)
035                      .css("z-index", zindex)
036                      .toggleClass("active");
037              zindex++;
038          });
039        });
040      </script>
041  </body>
042  </html>
```

❝ The sun in one image might become a Belisha beacon in another. Designers and developers should always be thinking differently after all ❞

web workshop

Creating a constant scrolling background

inspiration **www.elespaico.net**

The proper use of space is essential to all good design so the Spanish word for space is a good choice for Barcelona-based digital agency Elespacio. When you reach their site you're rewarded with the type of view that the Apollo astronauts would have experienced when coming in to land on the Moon. Only those with the right stuff can become astronauts and the treatment creates a powerful analogy with Elespacio's brand; a high performing team of pioneers and mission oriented problem solvers who will get the job done. An eye for detail and excellent judgement is required to achieve successful outcomes in space – now it's time to leave the capsule if you dare!

Do you know where you're going to?
All developers and designers establish workflows, typical starting points, preferred stock image libraries etc. These habits can save you time but they can also limit results. Why not take a leaf out of Elespacio's book? You might find you arrive at a different place altogether.

1 INSPIRATION
Higher than high

Elespacio means 'the space'. After ten years of fighting against the visual metaphors related to space travel and orbits, the agency finally gave in and decided to have some fun with it. They originally envisioned using a flight over a moon as a great welcoming image for their homepage but actual flight to the moon was out of the budget.

So Elespacio built their our own moon in their own studio. Elespacio used liquid plaster to create a multilayer base. When bubbles popped flour and sand were added to create a realistic touch.

Finally, using camera placed on rails, the moon's surface was filmed and the video was created that you can now see on their homepage.

Movement
A seamless video loop is used to create the look of flying over the moon's surface. The full page and minimal layout provide a dramatic landing page for the site.

Easy entry
The familiar hamburger icon provides ready access to the rest of the site as well as links and access to Elespacio's social networks.

Friendly font
The agency uses Noël Leu's (Grilli Type) Walsheim font, with the clean look of a sans serif, but with warmer curves and a friendlier feel.

Minimalistic
Demonstrating enormous restraint and style, the page uses only the tiniest amount of colour; a red divider between the company logo and its welcome message.

Fullscreen page
The homepage comprises of five, fullscreen, scroll-style pages and are neatly identified by a simple altimeter type device that ties in perfectly with the flyover and landing theme.

Thoughtful logo
Elespacio's soft-cornered hexagon logo looks like it's fresh from being Etch A Sketched. The hollow centre serves as a reminder that negative space is just as important as the space that is filled.

Your style
If you want to be really sure of having original content to work with there is surely nothing like creating it yourself from scratch.

Complete immersion

<comment>
What our experts think of the site

"Full page animated effects are popular because they can deliver compelling and immersive content – in this case, an otherworldly experience. The execution is refreshing and original even before you appreciate the agency having created a moon landscape of their very own. Rumour has it that hidden ancient ruins and surprises await the patient and/or daring visitor."
Jayson Winters

2 TECHNIQUE

Pure CSS background

01 Minimal HTML

There really is very little to the HTML with just a link to the CSS established in the head of the document. If planned for use on a production site you will of course need to consider which browsers this technique will work with. The CSS file provided shows the full set of vendor prefixes used but these are not listed in the steps here.

02 Centred on the page

To achieve horizontally centred text, a div is specified first and the inner div is centred within that. Using Scalable Vector Graphics in preference to a bitmap-based graphics, enable smaller file sizes and a greater range of options for manipulating these elements using CSS. There's very little content on this page but if your entire background is going to be animated that's probably a very good thing.

```
001 <body>
002     <section id="wrapper">
003       <section id="landing-page">
004         <h1>Landing your next
project?</h1>
005         <object type="image/svg+xml"
data="img/lander.svg" width="300"
height="300">
006       </section>
007     </section>
008   </body>
009 </html>
```

03 CSS background

To create a 'realistic' moon surface a larger seamless graphic is animated over 60 seconds. Though the JPG is large (2000px by 4000px) it weighs in at only 384KB and manages not to look over compressed. Using a JPG will certainly lead to a smaller file than looping a video and the results in this case are fairly similar. Why not see how small you can make your own background graphic.

```
001 @import url(http://fonts.googleapis.
com/css?family=Montserrat);
002 body {
003   color: #fff;
```

```
004 font-family: 'Montserrat', sans-
serif;
005 background-attachment:fixed;
006 background-image: url('../img/moon.
jpg');
007 background-repeat: repeat;
008 background-size: cover;
009 animation-name:backgroundanimation;
010 animation-duration:60s;
011 animation-timing-function:linear;
012 animation-delay:0s;
013 animation-iteration-count:infinite;
014 animation-direction:normal;
015 animation-play-state:running;
016 }
017 @keyframes backgroundanimation {
018 from {background-position:50% 0px;}
019 to {background-position:50% 4000px;}
020 }
021
```

04 Content containers

Nesting these containers enables the headings to be centred within the browser's viewport. For consistent results across all the different browsers you should consider your reset options. When choosing the size of your background you will need to make it large enough so that it will display acceptably on larger screens.

```
001 #wrapper {
002   width: 100%;.
003   height: auto;
004   max-width: 1000px;
005   margin: 0 auto 0 auto;
006 }
007
008 #landing-page {
009   position: relative;
010   max-width: 780px;
011   margin: 0 auto 0 auto;
012   text-align: center;
013 }
014
```

05 Styling the content

For simplicity, just H1 and H2 are used here with sizes and margins tweaked to provide a reasonable layout on a range of screen sizes. The shadows help provide a little more definition against the background.

3 TECHNIQUE

One big tile

To avoid that déjà vu feeling you'll need to create a large repeating background. If you're scrolling vertically, your image width needs to be just large enough not to look too pixelated when it's stretched to the width of a large screen.

01 Choose your size

To create a large seamless tile you can start off with a relatively small image and then create a patchwork by repeating the image in different orientations and positions. Aim for your image to be three to four times the height of a largish screen (so 3000 to 4000 pixels) if your image has large repeating elements.
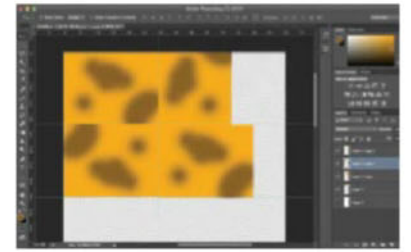
02 Clone away

Once you've covered your canvas, flatten your image and use the clone tool to disguise the joins. The moon landscape is easy because it holds lots of variation in texture and shade; only an average degree of care is needed for a convincing effect.

03 Offset, finish and optimise

Use Photoshop's Offset Filter (in the vertical axis) and set the image to wrap around to see its join. Clone the image until it's seamless and then optimise using the blur option to squeeze the file size down.

Let **Web Designer** unleash your creative side!

Subscribe now and SAVE 50%

The only magazine you need to design and develop stunning websites

THE PERCEPTION OF COLOUR

HOW DO TINT, TONE AND SHADE INFLUENCE THE USER EXPERIENCE? FIND OUT HOW TO USE THE BEST COLOUR PALETTE IN YOUR SITE DESIGNS TO ENGAGE AND EXCITE

WHY COLOUR MATTERS

If asked, "Why does colour matter?", the most obvious answer would be, "Because if the world was black and white, it would be a boring place".

Colour matters for many reasons. Familiarity, is one. We know bananas are yellow, the sky is blue and the grass is green, and if that changed it would throw us. In nature, such changes aren't likely, but what if overnight someone decided that hot taps should be pink and cold taps should be purple? Or that green no longer meant 'go' at traffic lights?

We know blue is cold and red is hot. No other message is needed; colour gives us all the information we need, which is true of most places in the world. So, in many cases, colour transcends language.

Beyond its functional uses, colour affects moods. Different hues evoke different emotions. Research conducted by governments, brands and designers, reveals the effects that different colours has on people.

Most simply, it brings meaning to life. When something has colour, it acquires its own unique style. Just by being a certain colour, an object forms an idea in peoples' minds.

MARK SEPHTON,
CREATIVE DIRECTOR
WWW.MARKSEPHTON.CO.UK

" Colour defines the personality of a design. It's more powerful than shapes, symbols and words.It's totally subjective, so know your audience. Be single-minded, own a simple colour palette and be remembered. **"**

HOW COLOUR WORKS ON THE WEB

In the golden age of the web that we're experiencing now, we're spoiled for choice when it comes to colour.

There's more options available to us than we can physically determine (16,777,216 to be precise) and it's all too easy to forget that once upon a time, it was a mere 216 colours that had to suffice. Thanks to computers themselves only supporting 256 colours, and in order to create a standardised method for displaying colour, these 216 were selected. But despite today's increase to over 16 million, the principle for creating and displaying colours on the web remains with the same mix it always has: red, green and blue. Each has 256 shades that can be combined together to form virtually any colour you could imagine, or visibly recognise.

Web colours are described through the humble Hexadecimal value - effectively a three part algorithm made from varying intensities of Red (R), Green (G) and Blue (B) values, starting with the absence of all colour, black (or 00), to the presence of all colour, white (or FF).

Before you get carried away and start dipping your paintbrush into those 16 million colours, be mindful of the fact that all screens can, and will, display differently. This is particularly relevant as we enter the omnichannel age of web access via tablets, phones and TVs. We've all designed concepts on our beautiful 24-inch cinema display that when viewed on the client's four-year-old Toughbook appears wildly different. The more far out the colour you use, the higher the chance of it displaying poorly. Neons, for example, may not 'pop' as much, or delicate shades of cream or grey may not show at all. So always test on several types of screen before signing anything off.

" Just by being a colour, an object forms an idea in people's minds **"**

Establish your goals. Connect with people who share similar dreams. Learn from those who are already there.

↓
scroll or skip intro

HOW TO USE COLOUR

Bevisionare.com is a beautiful example of where the colour in the digital art does the talking while the navigational elements are kept in simple monochrome. The natural hues in imagery create an earthy warmth that entices you when combined with softly rounded tops. The style of the illustrations do not immediately grab your attentiono but *do* give a real sense of humour.

HOW NOT TO USE COLOUR

Just because 16 million colours exist, it doesn't mean you should (or can!) use all of them. While designed purposely to attract attention as a joke, **lingscars.com** still represents a perfect example of how not to use colour. Check out the horrendous neon glows, the very distracting bold paisley background and the jarring reds and oranges in the middle of the page.

WHAT COLOURS MEAN

WHAT CAN COLOUR REPRESENT? IT CAN GO BEYOND A SIMPLE MATTER OF PREFERENCE TO BECOME A REPRESENTATION OF SOMETHING THAT BECOMES EMBEDDED AS A CULTURAL NORM.

Colour psychology has long been the source of much debate but attempting to classify colours into specific meanings or emotions is rather like trying to classify what effects different flavours have on us. It's opinion and opinion is a set of agreements between people. Each individual's understandings and perceptions of colour will vary. It's heavily based on personal experience. So while you can't guarantee your colour selection will have your desired effect on a persons emotions, you can ensure you do the best to choose something with a greater chance of creating that effect according to research.

GREEN
ENVIRONMENTAL, FRESH, HONEST
It's found that people relate better to colours that resemble those that they experience naturally. Green represents the earth, nature, growth and honesty. In China, green is the symbol of health and prosperity. It's also widely recognised as the colour for envy.
% of males that state green as their favourite colour: 14%
% of females that state green as their favourite colour: 14%

YELLOW
BOLD, DISCOUNT, OPTIMISMISTIC
Interestingly while we generally tend to associate yellow with bright, bold and fun, some studies have found most people associate yellow (along with orange) with cheap and inexpensive attributes. They also ranked it as one of their least favourite colours.
% of males that state yellow as their favourite colour: 1%
% of females that state yellow as their favourite colour: 3%

RED
PASSION, WARMTH, AGGRESSION,
Red shares a similarity to black with its slightly conflicting connotations. We consider red to be the colour of the heart relating to love, emotion and safety, but on the flip side, red also symbolises warnings such as 'danger' and 'stop' and the display of rage.
% of males that state red as their favourite colour: 7%
% of females that state red as their favourite colour: 9%

BLACK
SOPHISTICATED, POWERFUL, DEATHLY
In western culture, black has traditionally been associated with despair, decay, death and mourning, but it also has a strong semblance of power and authority. We're also familiar with black being used to represent or convey messages of sophistication, luxury or even elegance.
% of males that state black as their favourite colour: 9%
% of females that state black as their favourite colour: 6%

WHITE
INNOCENT, PURE, CLEAN
Technically not a colour, white is in fact the presence of all colour. We associate it with clean slates, fresh, new beginnings, positive energy and life. It can turn confusion into clarity, but too much white can also bring a sense of empty isolation and coldness.
% of males that state white as their favourite colour: 2%
% of females that state white as their favourite colour: 1%

BLUE
COOL, CALM, RELIABLE
Through its association with uniform and royalty, blue also now delivers a sense of trust and authority. Many of the worlds largest corporations and banks (IBM, Barclays, Facebook) are blue for this reason. But using blue filters in film *can* create a cold and isolating feeling.
% of males that state blue as their favourite colour: 57%
% of females that state blue as their favourite colour: 35%

Source: Joe Hallock (2003), Colour Assignment.

BUILDING A BRAND

MOST PEOPLE JUDGE BASED ON COLOUR, WHICH MAKES COLOUR SELECTION VITAL IN BUILDING A SUCCESSFUL BRAND IDENTITY

Who owns red? Who owns orange? Who owns purple? Reaching a stage where your brand is recognised through colour alone is a testament to how effective a marketing tool it is.

But there's more to colour selection than something that looks nice on packaging, TV adverts or magazines. Finding the right colour is not easy and is something of an art form for brands.

Let's look at easyJet which is a great example. They arrived and turned the air travel industry upside down with their no-frills cheaper way to fly. It was a simplistic, bold move, and they needed to own a bold colour to convey their message of value and efficiency – who else could step up to handle a task other than bright orange? Before long, orange became more representative of easyJet than for any other brand using orange - including Orange themselves.
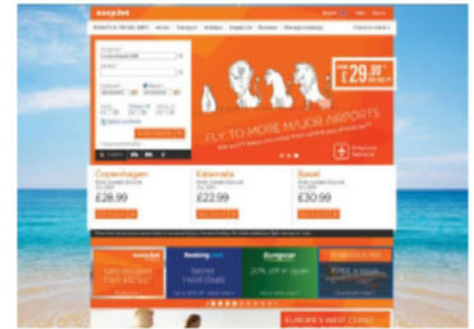
The easyJet brand is a powerful orange

The colours are instantly recognisable too

CULTURAL DIFFERENCES

HSBC ran a TV advert a couple years back that explained that red signifies good luck and weddings in China whereas white represents death and mourning. This contrasts with our own country, where white is often the bridal theme colour and death is represented at the other end of the spectrum in black. The connotations of yellow in the UK may draw up images of supermarket price reductions. However, in Thailand yellow is the colour of the royals or more specifically: the king. In Belgium, baby girls wear blue and baby boys wear pink, which is unlike what we are used to here. If we think of fertility, freshness and springtime in the Western hemisphere, we think of the colour green. The opposite is true in South America though, where the vast, dense green rainforests may make the locals think of death. It is forbidden altogether in parts of Indonesia; the green ban is rooted in local culture thanks to a myth about the wrath of a sea goddess.

WHY IS FACEBOOK BLUE?

TWITTER, TUMBLR, LINKEDIN, SKYPE AND WORDPRESS ALL HAVE VARYING SHADES OF BLUE AS THEIR PRIMARY COLOUR, BUT WAS THIS TO JUMP ON FACEBOOK BANDWAGON OR IS THERE SOMETHING MORE?

In a study conducted in the Fourties by Faber Birren and again in 2003 by Joe Hallock, into the perception of colour by individuals, some interesting correlations arose around why certain colours evoke feelings and emotions better than others when linked to brands. It also begins to explain why brands select the colours they do.

The most surprising result was that both men and women voted blue as their favourite colour. It wasn't by some small margin either as 35 per cent of all females surveyed would choose blue over any other colour followed by purple at 23 per cent. However 57 per cent of men cited blue as their favourite colour with the next choice being green at 14 per cent.

Looking at how this breaks down into age, blue appeared top of all ages surveyed with people in their twenties, thirties, fourties and fifties, all choosing hues with shorter wave lengths (blue, green purple) whereas younger audiences (those 19 and under) had a preference for brighter, longer-wave colours (red, orange, yellow).

If we look at Facebook's demographic, which has roughly a 60 to 40 ratio leaning to a female audience and an average age of 40, finding a colour popularised by its typical user would seem a logical choice. So with a bit of research it would have almost been a no-brainer for the company to choose a colour that suited as many people as possible.

But what is it about blue that people love? Again, the results of the survey spoke for themselves. Answers to the questions "what colour do you associate with high quality, trust, security, reliability/dependency and courage/bravery" were all met with blue on top. When you think about it, what brand wouldn't want this type of association? So it would seem, while not terribly original, blue statistically has a solid purpose for its ubiquity.

PICK THE PERFECT PALETTE

YOU MAYBE IN THE FORTUNATE POSITION WHERE NO BRAND GUIDELINES ARE DETERMINING THE COLOURS FOR YOUR NEXT PIECE OF WORK. HERE'S A SELECTION OF PALETTES TO GET THE GREY MATTER WHIRRING

RED OR DEAD
Red is one of the hardest colours to work with, but can also be one of the most rewarding and memorable when done correctly. Coca-Cola are testament to that. Think carefully before selecting red for your designs, though and specifically what type of red. Try it out on several types of screen. It's not the easiest colour to work with in print nor read from, but if done well red can create a look of high energy and excitement.

NINETIES NEONS
Hot right now with the resurgence of Nineties fashion, neon colours are steadily finding their way back into designers' palettes. Use of clashing electric blues and sunglass-inducing-pinks are the order of the day. It's a style that screams young, fun, vibrancy and life, but despite the playful nature the colours still require careful selection to ensure your design doesn't end up looking like a gunge tank from Pat Sharp's Fun House.
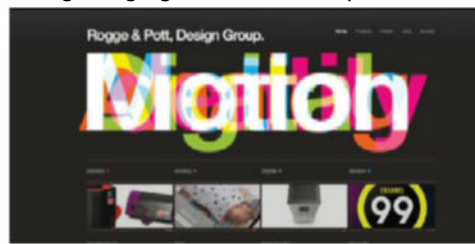
BLACK AND WHITE
The classic. Love it or hate it, you know where you are with it. Though be warned, once you get heavily into using monochrome it's hard to sometimes think of any other colour you want to use without it spoiling the minimalist feel. Generally, when using black and white ensure that you introduce colour through imagery. Use large, bold photos that take centre stage so the design of the website becomes a mere hanger for the content.

PRIMARY'S COOL...
When done with respect, red, blue and yellow still look great, just think Google and ebay. The bright colours means everything else has to be simple, so go minimal. Clean lines and bold, sans serif, geometric typefaces create a stylish feel and sense of humour.
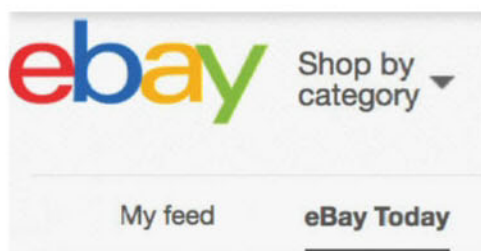
THE BLUES
The most popular colour in the world according to research but you can still make it unique. Use varying shades for a sense of calm and depth and don't always opt for the corporate hues; try turquoise, sky blue and navy for a fresh take on the old favourite.

TOOLS YOU CAN TRUST

NEVER FEEL A NEW COLOUR PALETTE HAS TO JUST MAGICALLY APPEAR IN YOUR MIND - GET OUT THERE TO GAIN INSPIRATION FOR NEW IDEAS

ADOBE KULER

Over the years, the designer's sidekick, Kuler (pronounced 'colour'), has gone from being a behemoth flash website to a more nimble HTML5 application plugging directly into various Adobe desktop apps. A crowdsourced platform for thousands of colour palettes searchable by phrase, it also provides a wide variety of options (or "Color Rule" for creating your own unique colour palette using a simple, intuitive interface. There may only be five colours to choose from at any one time, but you can explore the most popular palettes at the moment and get inspired.

The beauty of using the Kuler app is the variety and intensity of colour that it can provide. As well as being inspiring it gets guaranteed results. If you are on the lookout for a colour palette that will provide a winning collection of colours, this is undoubtedly a tool you need in your creative arsenal. Plus, it has the added bonus of being really simple to use.
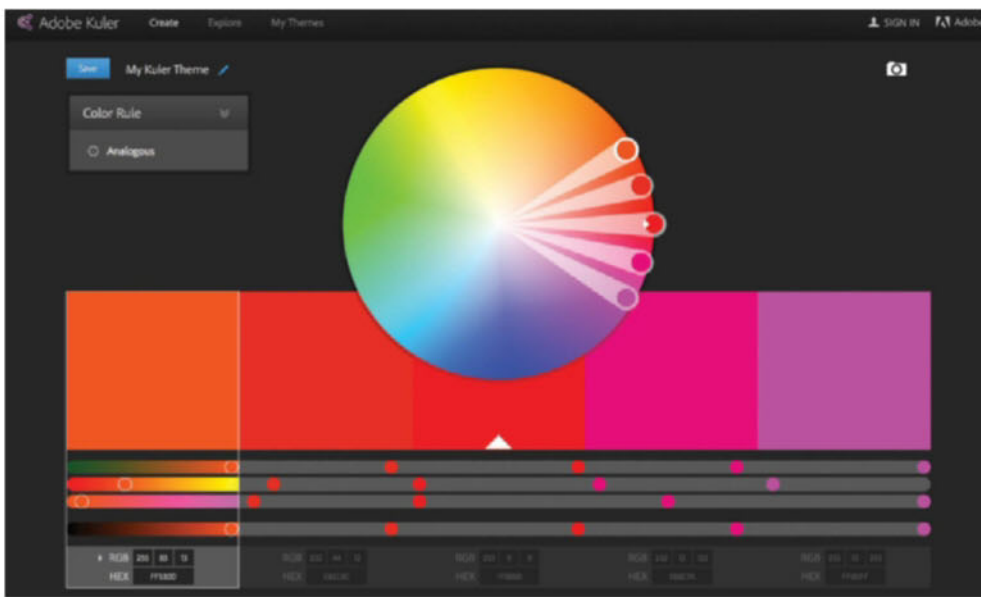
PANTONE'S TREND FORECASTING

Want to know what the latest colour trend is? Much of colour trends are led by fashion designers around the world. Pantone, the long-time kings of colour, bring you their colour-based research and predictions for the year ahead. Broken down into categories for use, gender, country and more, it makes it easy to determine the right colour for your audience – you can even see the sources of influence.

COLOURZILLA COLOUR PICKER

ColourZilla is invaluable for not only poaching colour ideas, but also for checking designs against build. This browser plugin allows you to simply pick any colour rendered in the page just by clicking and dropping.
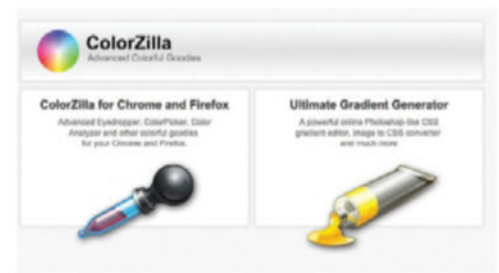
COLOUR TRENDS – SHOULD YOU FOLLOW?

JUST BECAUSE THEY'RE IN, DOESN'T MEAN THEY'RE RIGHT. OR DOES IT?

As designers we're constantly exposed to trends.
We'd be lying if we said that they never influenced our work. Just as trends in design come and go, colours do the same albeit less frequently. This is mainly due to the fact that there are, ultimately, a limited number of colours, whereas the possibilities are endless with design itself. You'll always have the classics: black and white, blue and grey, green and yellow and so on. But trends will appear, and as quickly as they cropped up, they will also disappear in an instant. Depending on the application, good design shouldn't really be following a trend. It should be about the suitability for its purpose. Let's suggest fluorescent pink is the colour of the moment. It's in all magazines, adverts, even cars are being sprayed in it. Now if you were asked to design a flyer for a club night, you'd be wise considering this as an option. Propose that same fluorescent pink to your client who runs an exclusive private wealth fund, however, and suddenly you'll end up looking considerably less smart.

THE CURRENT COLOUR OF 2014

Making predictions on what is going to be the next big colour is a precarious business. But, it is the business that Pantone are in. Every year they predict, or should we say choose, a colour that they think will be big. In one sense they are not predicting but suggesting a colour that designers should be using. The Pantone Colour of the Year for 2014 is Radiant Orchid. This is a shade of purple/lilac that has yet to permeate the world of web design. But, remember colour can be subjective to.

Pantone's colour for 2014 is Radiant Orchid

WHAT NEXT?

It's impossible to predict exactly where colour will go next. It's like investing in stocks and shares. The market could go one way or another. It could be navy, it could be orange. The most important thing to remember is that as a designer you remain open to trends and possibilities. Don't constrict yourself to any specific style purely because you like it. Always think beyond the current fad, research into who you're communicating with and consider the purpose.

Is the new hue for 2015 going to be blue?
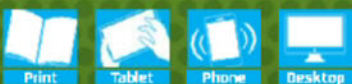
SUBLIMINAL POWERS

A DEVELOPER IS AS EFFICIENT AS HIS TOOLS. SUBLIME TEXT IS AN EXTRAORDINARILY EFFECTIVE EDITOR, WHICH ACCELERATES WORK VIA A VARIETY OF TRICKS. LET'S SHOW YOU A FEW OF THEM...

INSTALL SUBLIME 3.0

Sublime is developed by a small studio which has only one developer so the third version of the product has been in beta phase for some time. Current releases have turned out to be highly reliable but there is no reason to stick to version two. Getting started with Sublime is as easy as opening **sublimetext.com/3** in your browser. Click the link for your operating system in order to download a binary.

GET PACKAGE CONTROL

Sublime is nothing without its plugins. Installing them is made easier by a tool called Package Control. It is not part of the standard distribution, but must instead be downloaded manually. Visit **sublime.wbond.net/installation** in order to obtain the installation package code.

Click View>Show Console, and then copy the obtained code into the input line. Finally press enter in order to start the downloading process.

BUY YOUR COPY

Even though Sublime Text does not contain any licensing restrictions, continued users are legally (and morally) obliged to purchase a license. This can be accomplished by visiting **sublimetext.com/buy**. You can pay your $70 (£43.08) via PayPal or a credit card. Sublime licenses are sold on a per-user scheme so buying one copy entitles you to use the program on all computers you own. But sadly, version four will be a paid upgrade.

HARNESS YOUR KEYBOARD'S POWER

EVEN THOUGH MOST OPTIONS CAN BE ACCESSED WITH THE MOUSE, USING THE KEYBOARD IS MUCH FASTER

Sublime assists you with a large selection of hotkeys which permit you to access important functions without much fuss. The command palette acts as a sort of "catch-all" solution, providing access to most features of the program.

Press Cmd/Ctrl+Shift+P in order to open the dialog shown in the figure. By default, Sublime will display an alphabetically-sorted list of all available commands. Start typing a part of the name of the function you want to invoke in order to reduce the amount of choices shown. Finally, press return in order to execute the currently selected option.

Omit the shift key in order to open a list of currently loaded files. This function is especially helpful when you are dealing with a large project as typing in parts of the name allows you to filter the files shown. Then you may want to press the return key, which will open the currently selected file.

Large code can be traversed more efficiently by using the Go to Definition feature. Its usability was limited in version two of Sublime but fortunately, version
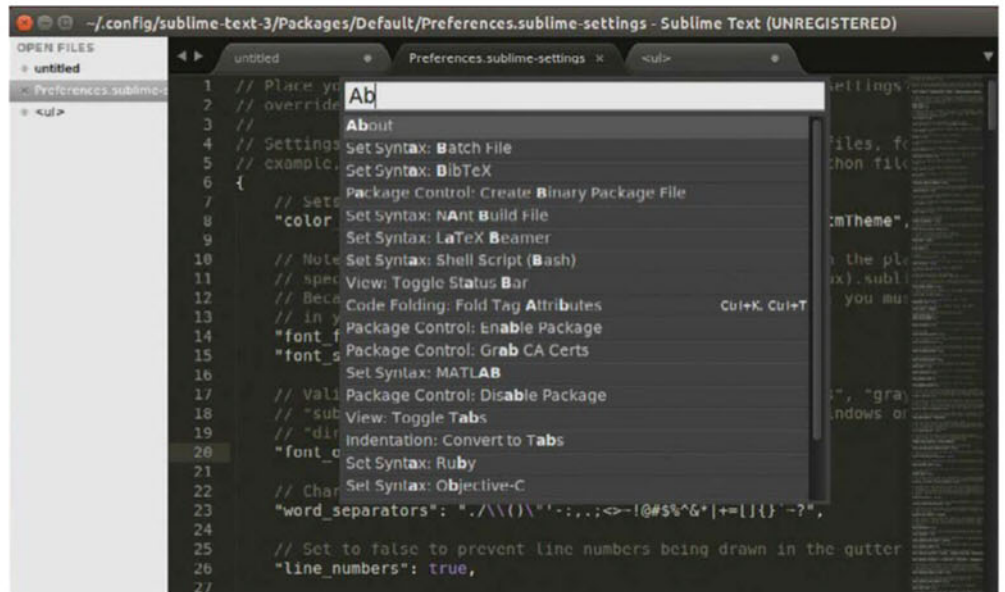
Type a command name in order to "narrow" the list down

three extends its search scope so that it includes the entire project. Searching a single file may seem like a lengthy task but this can be easily accomplished by pressing Cmd/Ctrl+R. Alternatively if you want to do a search of the entire project, you can try pressing Cmd/Ctrl+Shift+R to do the job. Code can be arranged in

windows, which are then broken down into tabs. You can create a new tab by pressing Cmd/Ctrl+Shift+N, while a new tab can be spawned in the current window via the use of Cmd/Ctrl+N.

We tested these shortcuts on a Ubuntu box; but developers using Windows can abuse them one-to-one.

IMPROVE FOCUS

When working on very complex code, UI chrome and widgets can become a visual distraction. Sublime's distraction-free mode permits you to banish them off-screen. Enabling it is as easy as pressing Shift+F11. Alternatively, the mode can also be enabled in the menu by selecting View>Enter Distraction Free Mode. Disabling the feature can only be done by entering Shift+F11 again.

Should you fear the large amount of space and the minimalism of distraction-free mode, normal fullscreen mode might be more interesting. It can be enabled by simply pressing F11.

USE THE PANES

Large screens can display huge amounts of text at the same time. Sublime allows you to break an editor window into multiple rows and columns. Each one of them can contain one file, thereby giving you better control of the screen real estate of your workstation.

Splitting your display into panes is as easy as pressing Alt+Shift+1/2/3/4. The number which is pressed will determine the number of panes which to be created. Dragging the border in-between lets you resize their contents. Pressing Alt+Shift+5 creates a grid of four panes arranged on top of one another.

LIST ALL OPEN FILES

Sublime's sidebar is especially helpful when it comes to working with large projects. Open it by clicking View>Side Bar and double-click any file in order to open it up in the currently selected pane.

By default, right-clicking a file in the side bar provides about half a dozen options. They let you perform basic file management tasks without having to open a dedicated file manager. The aforementioned Package Control can be instructed to download a plugin called SideBarEnhancements, which easily doubles the amount of file-related tools on offer.
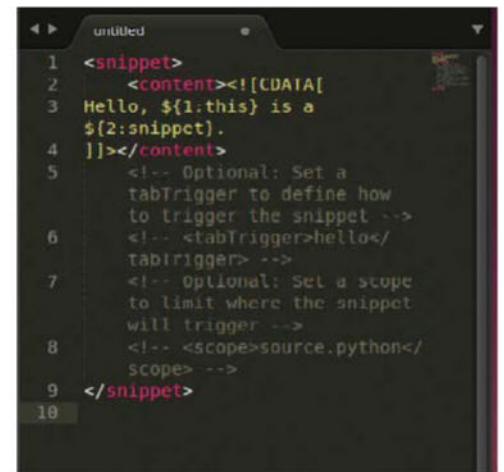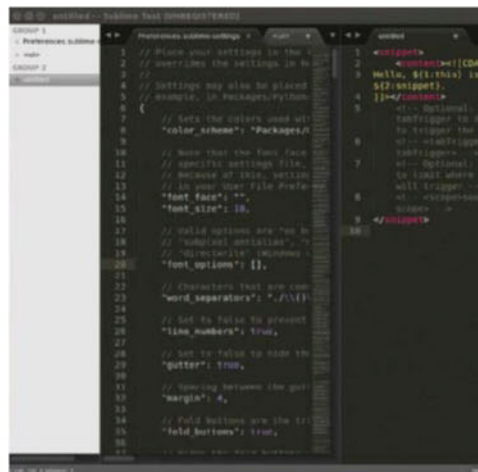
GET THE PLUGINS

Installing Package Control was not an end in itself. Instead, the product can be used to simplify the downloading and installation of plugins and other tools which extend the functions of Sublime.

Adding new plugins is really easy if the repository hosting them is already configured. In that case, simply open the command palette and enter Package Control, then, continue by clicking Install Package.
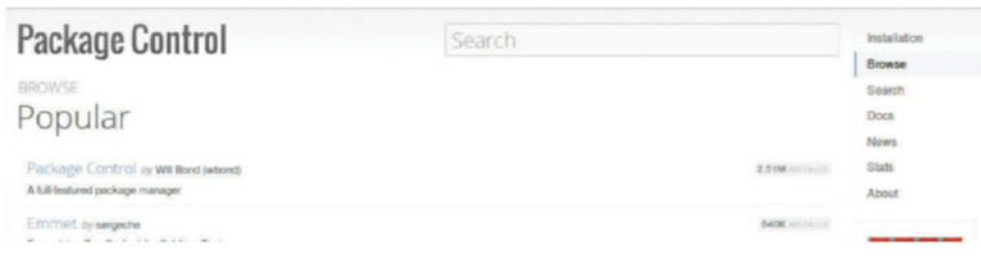
Do not feel alarmed as the menu will disappear for about two to three seconds. After that, a list of available packages is displayed which can be filtered by typing the name of the plugin; alternatively, you can just scroll down until the extension you want is in view. Finally, hit Enter in order to kick off the download process.

We will introduce a few interesting plugins in the following pages. The developer of Package Control maintains a list of popular expansions, which can be read at **https://sublime.wbond.net/browse/popular**.

SUBLIME SNIPPETS

As time goes by, developers tend to accumulate a group of frequently-used routines. Sublime lets you store them in a special memory zone commonly known as Snippets. Creating a new snippet can be accomplished by going to Tools>New Snippet.

Sublime will then open a new tab containing the following piece of markup:

```
001 <snippet>
002     <content><![CDATA[
003 Hello, ${1:this} is a ${2:snippet}.
004
005 ]]></content>
006     <!-- Optional: Set a tabTrigger to
define how to trigger the snippet -->
007     <!-- <tabTrigger>hello</tabTrigger> -->
008     <!-- Optional: Set a scope to limit
where  the snippet will trigger -->
009     <!-- <scope>source.python</scope> -->
010 </snippet>
```

<content> contains the code which is to be edited into the file. TabTrigger specified which word must be used in order to trigger insertion. Finally, the scope parameter can be deployed in order to limit the scope of the snippet. Python code, for example, is not particularily useful in a Symbian or Android project.

After the editing is complete, save the file with a .sublime-snippet extension. Enabling it is as easy as entering the trigger word and pressing the Tab button. Sublime will then proceed to making you fill out the values specified in the snippet.

TYPE LESS, WORK FAST

Creating CSS by hand is a tedious and annoying process. But you'll be happy to know that a group of products have emerged with the intent to simplify this task by introducing automating.

Even though the languages used for creating the markup differ, the core idea remains the same across all products. Coders use a special language, which is then compiled into CSS.

Less CSS and Sass have established themselves as standards in this area. The developers of LESS2CSS have provided a nice example which demonstrates how the products work. Take a look and learn from the following snippet which creates an opacity block which can then be parametrised:

```
001 .transition(@transition) {
002   -webkit-transition: @transition;
003     -moz-transition: @transition;
004       -o-transition: @transition;
005         transition: @transition;
006 }
007
```

Running the parser on it with a value of 0.4 seconds will yield the following CSS sequence:

```
001 a {
002   -webkit-transition: all 0.4s;
003   -moz-transition: all 0.4s;
004   -o-transition: all 0.4s;
005   transition: all 0.4s;
006 }
007
```

Both LESS2CSS and Sass are fully supported by dedicated plugins which detect file save operations, and proceed to invoking the compiler in order to generate the actual CSS file.

REDUCE BULKY CODE BY USING MINIFY

ACCELERATING WEBSITES IS A SURE-FIRE WAY TO BOOST THEIR POPULARITY. SMALLER CODE CAN BE LOADED FASTER Generating minimal code by hand is not effective: longer code is easier to maintain and debug. Fortunately, a group of products known as minifiers are dedicated to reducing the bulk of source code without modifying its function.

A plugin which goes by the name of Minify automatises this process. Save a CSS or JavaScript file, and Sublime will automatically create a minified version saved alongside the file you edit.

Sadly installing Minify cannot be done from Package Control. Instead, follow the instructions found at **https://sublime.wbond.net/packages/Minify** in order to get the required additional components.

The Node.js runtime is used for running minifiers

CREATE A PLUGIN

PACKAGE CONTROL CONTAINS A LOT OF CODE. SADLY, SOMETIMES, THE RELEVANT FUNCTION HAS NOT BEEN IMPLEMENTED Developers who are fluent in Python can fix this problem by rolling a plugin of their own. Getting started is as easy as visiting the official API reference, which is provided at the URL: **https://www.sublimetext.com/docs/api-reference.**

Keep in mind that the plugins tend to be grouped into packages. In essence, a package can either be a renamed ZIP file or a folder which contains a group of related plugins put together.

Adding a plugin to Package Control requires you to host it with GitHub or BitBucket. Then, send a pull request to the developers in order to make them add your extension to the list.
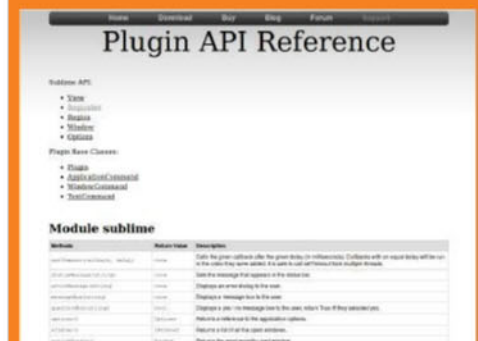
The official API reference explains the functions exposed by the editor's engine

CURSOR CLONING

DEVELOPERS CAN SPEND A LOT OF TIME ON REPETITIVE GLUE CODE. MULTIPLE CURSORS SPEED UP THE PROCESS

Let us start this tip by looking at a common problem. A press release containing a list of tools must be transformed into a well-formatted HTML site. The sentence in question reads as following:

```
001 hammer drill screwdriver blowtorch saw
dipstick
```

Its target form is a list based on the <ul> tag. This requires you to surround the sentence with an opening and a closing time, which is done easily:

```
001 <ul> hammer drill screwdriver blowtorch
saw dipstick </ul>
```

Adding the line breaks and the <li> tags will indicate the beginning of a new item. Using multiple cursors simplifies this otherwise tedious task. Simply keep Ctrl/Cmd pressed while clicking in front of the words in order to add cursors at the prescribed locations. A cursor will show up at each of the locations. Then, simply press return and enter <li> - your changes will propagate to all cursors automatically.
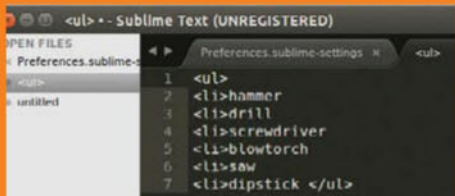
A cursor can be in multiple places at once

CHANGING COLOUR

VERY FEW QUESTIONS ARE AS OLD AS 'BLACK ON WHITE OR WHITE ON BLACK'

When Microsoft changed the design of Visual Studio some years ago, angry outrage followed. Sublime's developer is smart enough to avoid this eternal problem by permitting you to adjust the way your source code will be displayed.

Settings come in the form of themes, which also contain colour schemes. A theme changes the colors of the entire user interface, whereas a colour scheme affects the way a specific bit of source code is displayed. Sublime is shipped with about two dozen themes which can be enabled by clicking Preferences>Color Schemes. Changing a theme requires you to modify the settings file, which usually requires a reboot of the editor.

If you dislike the colour options found in the included files, Package Control contains dozens of themes which can be downloaded onto your PC.

HIT THE GIT

OLD BONES MANAGE THEIR CODE WITH CVS. THE WEB CROWD SEEMS TO PREFER GIT, WHICH CAN BE INTEGRATED INTO SUBLIME

Connecting Sublime to Git is done via a plugin called SublimeGit. It can be installed via Package Control, a template of its settings file can be found by opening Preferences>Package Settings>SublimeGit>Settings - Default. The developer recommends developers to leave the defaults untouched; copy needed sections to the user settings file instead.

Once the initial setup is complete, Sublime's command list will then be expanded with a vast selection of Git-related commands. Simply enter git to make the editor present you with a list of the options available. Explaining Git would bust the scope of this story. Fortunately, a large amount of tutorials and books are available online and in brick and mortar stores. Reading up on the product makes sense though, as it is a sought-after skill.

But SublimeGit is not a free plugin. Continued use of the product requires the purchase of a license. It will set you back $10 (£6.15) a pop and can be acquired at **sublimegit.net**.

WEB RESOURCES

GREAT DEVELOPERS SPEND A LOT OF TIME TRYING TO LEARN MORE ABOUT THEIR TOOLS

Sublime Text has a large community of users who share tricks, hints and newly found plugins with their peers. The developer provides a forum containing a large amount of useful information. It can be accessed by visiting **sublimetext.com/forum** but sadly, the huge amount of discussions can make finding the correct piece of data daunting. Check out the sticky topics at the top of the page which tend to contain a list of especially valuable resources for you to peruse through and utilise. Sublime's manual is maintained by the community and everyone can add information to it by getting the relevant files out of the GIT repository. Fortunately, reading the tome is easier. Simply visit **docs.sublimetext.info** in order to get your manual reading fix.

Finally, YouTube, TutsPlus and more are full of all kinds of weird and useful clips showing more or less useful Sublime tricks. Entering Sublime into a video site or search engine is a sure-fire way to unearth hours worth of amusing and enriching motion pictures.
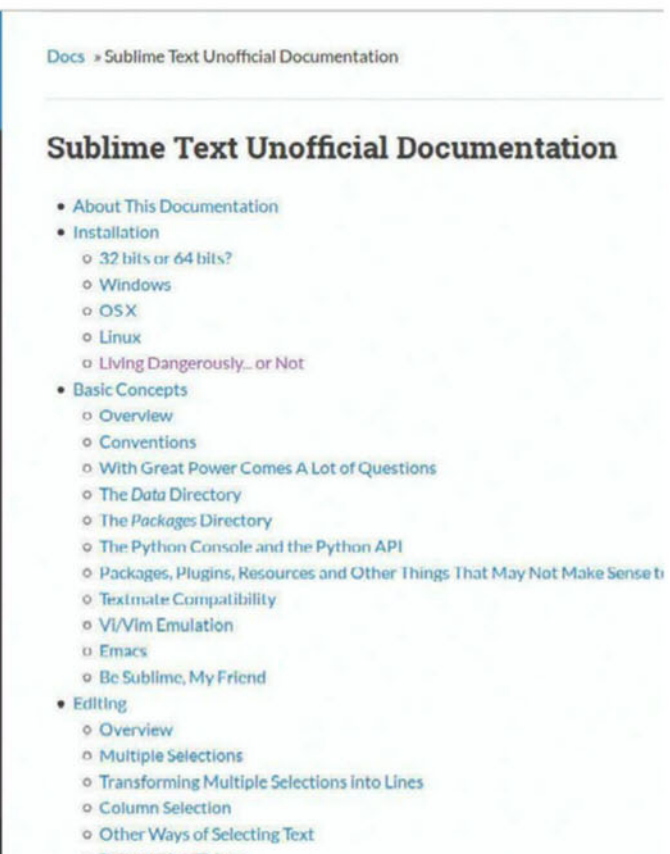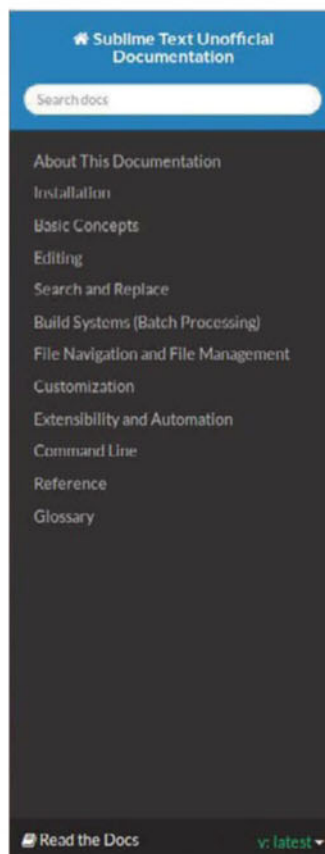
The documentation may be unofficial but it is still really helpful

MODIFY GLOBAL SETTINGS

SUBLIME IS AN EXTRAORDINARILY COMPLEX PRODUCT. MOST ADVANCED OPTIONS CAN BE SET UP ONLY IN THE GLOBAL SETTINGS FILE.

Opening it is as easy as clicking the Preferences menu. Then, proceed to select Preferences>Default. Sublime will respond by opening the settings file which contains the default parameters used for all users on your machine.

Its structure is relatively simple, and can be understood by taking a careful look at the following snippet taken from an unmodified installation of Sublime for Ubuntu:

```
001 {
002    // Sets the colors used within the text
area
003    "color_scheme": "Packages/Color Scheme
- Default/Monokai.tmTheme",
004
005    // Note that the font_face and font_
size are overridden in the platform
006    // specific settings file, for example,
"Preferences (Linux).sublime-settings".

007    // Because of this, setting them here
will have no effect: you must set them
008    // in your User File Preferences.
```
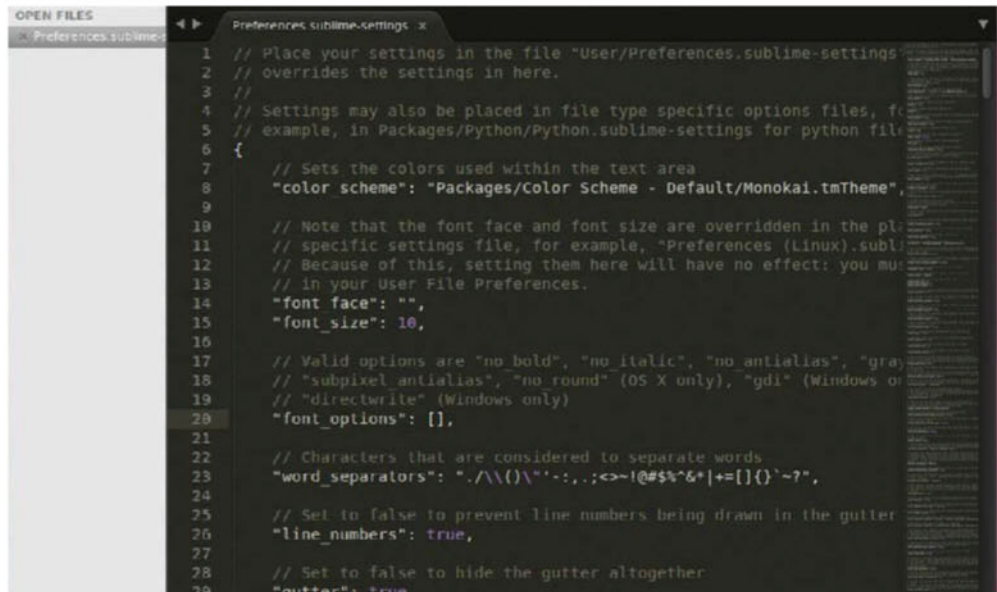

Don't panic – the settings file is easy to use

```
009    "font_face": "",
010    "font_size": 10,
011
012    // Valid options are "no_bold", "no_
italic", "no_antialias", "gray_antialias",
013    // "subpixel_antialias", "no_round" (OS
X only), "gdi" (Windows only) and
014    // "directwrite" (Windows only)
015    "font_options": [],
```

Developers who are familiar with JSON will feel right at home when editing the preferences file. Don't forget to end each line with a comma – the last one at the bottom is the only one which does not need this. Lines starting with a // are comments. Should you want to make changes to settings which do not propagate to other users, select Preferences-User instead. Sublime loads this file on top of the default settings, replacing the default values with the ones specified in the user one.

USE THE MINI MAP

GETTING AN OVERVIEW OF YOUR CODEBASE QUICKLY IS REALLY HELPFUL.

When a large code file is loaded, Sublime adds a thin bar to the right-hand side of the screen. It contains a small overview of the source code which can then be clicked in order to jump to the relevant section easily and effortlessly.

Really nifty developers use an ASCII font generator. One such example of a generator is that of **http://www.network-science.de/ascii**.

They can create huge tags which can be read in the mini map. You can then use these to jump to relevant pieces of code quickly.

THE EMMET PLUGIN IS WITH YOU

TYPING CODE IS A NUISANCE. EMMET CAN SAVE YOU LOTS OF TIME

The product sees itself as an instant compiler which generates expressions in your programming language of choice. Install the Emmet plugin from Package Control in order to be able to run expressions in the editor. A popular example showing the power of the language is a classic which generates a list:

```
001 #page>div.logo+ul#navigation>li*5>a{Item
$}
```

Running it will yield the following code:

```
001 <div id="page">
002    <div class="logo"></div>
003    <ul id="navigation">
004      <li><a href="">Item 1</a></li>
005      <li><a href="">Item 2</a></li>
006      <li><a href="">Item 3</a></li>
007      <li><a href="">Item 4</a></li>
008      <li><a href="">Item 5</a></li>
009    </ul>
010 </div>
```

GITGUTTER WINS

FINDING OUT WHICH PARTS OF CODE HAVE CHANGED CAN ALSO BE BOTHERSOME

GitGutter speeds this up by adding symbols to the space on the left side of the line numbers. Added lines will be shown with a plus, whereas modified parts of code are annotated with a little cube. Finally, places where deletions have taken place get a little red arrow. These kinds of symbols make it clear to see where changes have been made. The plugin is limited to the Git version control system. Unfortunately, developers seeking to deploy it with CVS or SVN are out of luck: the developer of GitGutter has not come around to adding this kind of support to his product yet.

PRAISE BE TO JEREMY ASHKENAS!

COFFEESCRIPT IS A LEANER AND SAFER VERSION OF JAVASCRIPT

Sublime Text's default support for CoffeeScript is not particularly advanced. Fortunately, a large amount of CoffeeScript aficionados have taken to helping themselves. Entering the name of Jeremy Ashkenas' language into a Package Control window reveals a wealth of different plugins which promise to add syntax highlighting and a variety of other helpful features.

As of now, no real favourite was found: blogs and forums are full of users defending their particular selection. Try out the various offerings in order to determine which one serves your needs best.

Streamline your workflow with Bower and Grunt

Create your own build process and simplify your front-end headaches with these two tools

tools | tech | trends JavaScript, Bower, Node.js, Grunt
expert Tim Stone

Sites are complicated. As web developers we start with a nice fresh index file and say to ourselves 'This time I'm going to do it right'. You go to **jquery.com** and click the download link, you decide on a JS framework and find that, then you start searching for a CSS framework. Stop. There's a better way courtesy of the developers at Twitter. It's called Bower, named after the bowerbird. The bowerbird flies off and finds the most beautiful objects it can to build its nest, sound familiar? Bower will find all of these items for you and manage any dependencies they may have.

We'll look at how to use Bower to manage web projects and we'll also use Grunt to interact with Bower and unleash its full potential. You'll learn how to configure Grunt plugins and how to setup a build process for your own site. The result will be a concatenating (multiple files into one), minifying build system. Bower was originally released in 2012 by Jacob Thornton (of Twitter Bootstrap fame) and Alex MacCaw. It's now headed by a core team of seven talented developers and is gaining traction.

01 Install Bower

Bower requires Node, npm, and Git to be installed on your computer. If you don't have them already then install Node from **nodejs.org** and Git from **git-scm.com/downloads**. Both sites have installation instructions for OS X, Linux, and Windows. npm is installed with Node so you don't have to worry about separately installing it.

```
001   $ npm install -g bower
```

02 Search for packages

After Bower has installed you can use it from the command-line and `search` will look for every package, unfortunately for popular packages like jQuery and Angular the number of plugins and unofficial packages make it quite hard to find what you're likely looking for. Fortunately though these packages can often be installed by their common name.

```
001   $ bower search jquery
```

03 Install packages

In our fictional project we're going to build a complicated web app with different views, routing and third-party dependencies. We can go for two approaches, we could install them individually (as below) but for long-lived projects it would be good to have a reference for what our app depends on.

```
001   $ bower install jquery angular -S
```

04 Create bower.json

A bower.json file can easily be created interactively through Bower itself via some yes or no and also some multiple choice questions. If there's already an existing bower.json it will replace the values within that file (rather than creating a new one). The file contains metadata about your project such as name, URL, and importantly, dependencies.

```
001   $ bower init
```

05 Install from metadata

If you use `bower install`, it will look for a bower.json file and install all of the project's dependencies for you. When specifying version numbers you can use a similar convention to npm's package.json; a full list of rules can be found at **http://bower.io/docs/api/#install**.

```
001   "dependencies": {
002      "normalize.css": "3.*.*",
003      "jquery": "2.1.1",
004      "angular": "*",
005      "angular-animate": "*",
006      "angular-resource": "*"
007   }
008   $ bower install
```

06 List dependencies

Once the packages have been installed you can look at what your project consists of with the `list` command. This will trigger a check for new versions and show a tree structure with the version you're using and the latest version (if there is one) next to it. The paths flag will show you where each of the main files are for that package.

```
001   $ bower list
002   $ bower list --paths
```

07 Project resources

A handy feature included with Bower is the ability to easily go to the project's homepage (and hopefully documentation as well) with just a single command. This will then automatically open the site in your default browser. It doesn't always have the outcome you may expect though, the code below takes you to the very specially managed Bower-compatible version of Angular's GitHub page.

```
001   $ bower home angular
```

<Above>
• These days installing Node and npm is a cinch with the binary installer for most OSs

<Above>
• You can easily create a bower.json with the `init` command by answering simple questions

<Top left>
• With the `list` command we can see how our project's dependencies relate to one another

<Above>
• Running `install` will find all of the projects listed in bower.json and fetch them into your project

08 Clean the cache

When Bower installs a package it also caches that version in your user folder to make it faster and work offline next time (you can also force to use an offline version with `--offline` or even simply `-o`). Over time this can accumulate to quite a few versions though! You can manage the cache by using the following command:

```
001   $ bower cache clean
```

09 Update packages

If a new version of a package does become available then you can update it with the following command. If you don't want to include a project's development dependencies, add a production flag. Bower will let you know if a new version conflicts with a package so you shouldn't really be having any nasty surprises.

```
001   $ bower update -p
002   # or
003   $ bower update angular
```

10 Uninstall a package

If you find that you no longer require a package (or if you happen to --have installed one accidentally) then you can remove it with the `uninstall` command. The flags 'S' and 'D' stand for save and save dev respectively. Passing these will then remove the package from the project's bower.json file as well meaning it stays current.

```
001   $ bower uninstall angular-password -SD
```

11 Install Grunt

Now that we know how to use Bower we're going to introduce another tool to improve our workflow, Grunt. Despite its macho appearance and name it's actually quite useful. Grunt is a task runner and requires the command-line interface to be installed globally and Grunt itself within the project folder.

```
001   $ npm install -g grunt-cli && npm install grunt
```

12 Write Gruntfile

Grunt is configured with a 'Gruntfile', we're going to write one called Gruntfile.js. This is what Grunt looks for when being run from the command-line. If you prefer to write CoffeeScript then you can do that too, it supports both with no additional configuration. CoffeeScript does produce a nicer looking syntax so it's down to personal preference.

```
001   module.exports = function(grunt) {
002       grunt.initConfig({
003           //further steps
004       });
005   };
```

13 Write package file

We're also going to create a separate file called package.json. This is for npm to install packages relating to our application (but not for the frontend). Like we did with Bower you can create one interactively with `npm init`. The main part that we'll concern ourselves with in this file is `devDependencies` which we will look at next.

```
001   {
002       "name": "deps",
003       "version": "0.0.1",
004       "description": "An example of package.json",
005       "author": "Tim Stone <you.name@example.org>",
006       "dependencies": {},
007       "private": true
008   }
```

14 List development dependencies

We list our build dependencies as 'devDependencies'. Imagine a scenario where our app is deployed to a new production server, we want to install what's

Streamline your workflow with Bower and Grunt

<Top left>
• Like Bower, npm will read its metadata file and install all of the dependencies; this can take time!

<Top right>
• After the 'Uglify' task has run, our merged files will then be minimised from 1.14 MB to 213 KB

<Bottom left>
• Bower concatenate will merge our dependencies into one, saving on network requests

<Bottom right>
• Now all of the pieces are together, running `grunt` will run our tasks, creating an optimised site

needed to run it but not to build it. This is where the separation between dependencies and development dependencies is really useful. Node's `NODE_ENV` variable will change which are installed.

```
001  "devDependencies": {
002      "grunt": "~0.4.5",
003      "grunt-contrib-uglify": "0.5.*",
004      "grunt-bower-concat": "0.3.*",
005      "grunt-wiredep": "1.8.*"
006  }
```

15 Install dependencies

We'll then install all of our project dependencies. The projects that we specified are: Uglify which minimises files; Bower concat which concatenates files together; and Wiredep, which will inject files installed with Bower into our HTML files. We'll look at each one in more detail when we come to configuring.

```
001  $ npm install
```

16 Read package file

Back in our Gruntfile we're going to configure our Grunt plugins. The package.json file which we just created will be read to add project-specific data, like directories and app names. If your JSON isn't well-formed then this will throw an error usually with the line number that it couldn't parse.

```
001  pkg: grunt.file.readJSON('package.json'),
```

17 Configure Concat

Each plugin to be configured is referenced by its name (as a general rule hyphens are replaced with underscores). We can specify variables in strings with `<%= my_var %>` We also want to exclude all CSS files from being included in the JS file, unfortunately bower_concat doesn't accept a wildcard match.

Substituting Gulp for Grunt

You can also use Gulp as a task runner but there are less out-of-the-box packages for Gulp in comparison to Grunt.

```
001  bower_concat: {
002      all: {
003          dest: 'dist/<%= pkg.name %>.js',
004          exclude: ['normalize.css'],
005          bowerOptions: {
006              relative: false
007          }
008      }
009  },
```

18 Configure Wiredep

Wiredep magically gets the correct file from Bower and inserts a path to it in your HTML files. It also supports Jade, Sass, and YAML without any additional plugins. It has many other optional configuration options at **https://github.com/stephenplusplus/grunt-wiredep** and its parent project **https://github.com/taptapship/wiredep**.

```
001  wiredep: {
002      target: {
003          src: [
004              'app/views/**/*.html'
005          ]
006      }
007  },
```

19 Uglify our files

Minimising our files is taken kindly care of by Uglify. The 'banner' is the comment that appears at the top of the file. We will then tell it to display our app's name and when the code was generated. We then specify where to output the code and what the source is (ie the output of bower_concat).

```
001 uglify: {
002     options: {
003         banner: '/*! <%= pkg.name %> <%= grunt.
                        template.today("dd-mm-yyyy") %> */\n'
004     },
005     dist: {
006         files: {
007             'dist/<%= pkg.name %>.min.js': ['<%=
                            bower_concat.all.dest %>']
008         }
009     }
010 }
```

20 Load the tasks

Loading each of the tasks in turn is slightly different to using `require` as you would in Node. Calling `loadNpmTask` and the name of the plugin loads it into the task runner's environment. Failing to include one of these will result in an error message reading: "Warning: Task "uglify" not found. Use --force to continue. Aborted due to warnings."

```
001 grunt.loadNpmTasks('grunt-contrib-uglify');
002 grunt.loadNpmTasks('grunt-bower-concat');
003 grunt.loadNpmTasks('grunt-wiredep');
```

21 Register tasks

We register named groups of tasks and an array of tasks in the order that they should be run. When we run `grunt install` it'll only run the Wiredep task, if we run build then it'll concatenate and minify, and if we don't specify anything then it'll run all three.

```
001 grunt.registerTask('install', ['wiredep']);
002 grunt.registerTask('build', ['bower_concat',
                                        'uglify']);
003 grunt.registerTask('default', ['wiredep', 'bower_
                                    concat', 'uglify']);
```

22 Run it all

Finally we can execute it all with `grunt`. Without any arguments it will run the task called 'default'. To execute a specific task all you have to do is `grunt build`, or whatever you've named your task. If there are errors in your files Grunt's explicit error handling should save you.

```
001 $ grunt
002 $ grunt build
003  $ grunt install
```

23 Wiredep placeholders

For Wiredep to work we need to include the following comments in our HTML file (or Jade, or wherever you want to output them). Your project files will then come after them. If for some reason you don't like this text it's configurable within the Gruntfile using a regular expression.

```
001 <head>
002     <!-- bower:css -->
```

```
1   <!doctype html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <title>Document</title>
6       <!-- bower:css -->
7       <link rel="stylesheet" href="../../dependencies/normalize.css/normalize.css" />
8       <!-- endbower -->
9       <link rel="stylesheet" href="../ui/base.css" />
10  </head>
11  </head>
12  <body>
13      <!-- bower:js -->
14      <script src="../../dependencies/jquery/dist/jquery.js"></script>
15      <script src="../../dependencies/angular/angular.js"></script>
16      <script src="../../dependencies/angular-animate/angular-animate.js"></script>
17      <script src="../../dependencies/angular-resource/angular-resource.js"></script>
18      <!-- endbower -->
```

<Above>
• Grunt has inserted the dependencies between the placeholders with a relative link to them

<Left>
•The Bower site includes informative documents as well as links to other useful resources (under Tools) for integrating with your editor. You can also search for packages within the site

Alternative workflows

An alternative to using Bower and Grunt is a package manager called Duo (**duojs.org**). It looks like a promising evolution and integrates maintenance and building.

```
003     <!-- endbower -->
004 </head>
005 <body>
006     <!-- bower:js -->
007     <!-- endbower -->
008     <script src="../app.js"></script>
009 </body>
```

24 Minify CSS

So far what we have been doing is concentrating on concatenating and minimising our JavaScript dependencies. Next we will then apply the same principles to our CSS files. Although, Uglify only works on JavaScript files, so you will have to include a new CSS minimiser (one such as grunt-contrib-cssmin). It would be very convenient to have one tool which would do both concatenating and minimising of course but not everyone wants that kind of overhead for their project.

25 CSS concat object

We'll add a `css` object within bower_concat, the task runner automatically picks up this new object so this is the only extra configuration we

Streamline your workflow with Bower and Grunt

need to get our CSS packages working. We have to specify a 'main file' as otherwise the tool doesn't know which file in the package to include.

```
001 bower_concat: {
002     css: {
003         dest: 'dist/<%= pkg.name %>.dependencies
    css',
004         include: ['normalize.css'],
005         mainFiles: {
006             'normalize.css': 'normalize.css'
007         }
008     }
009 }
```

26 Concatenate CSS files

If you would like to further concatenate your own app files with the dependencies then you will have to use another concatenation tool (like grunt-contrib-concat). This is because grunt-bower-concat only handles files from Bower. Although it's an extra step it's easy enough to configure it similar to the Bower one. Don't forget that you will need to load it with `grunt.loadNpmTasks('grunt-contrib-concat')`.

```
001 concat: {
002     dist: {
003         src: ['dist/*.css', 'app/ui/*.css'],
004         dest: 'dist/<%= pkg.name %>.css'
005     }
006 }
007
```

27 Lesser known packages

Oftentimes you're going to use packages that aren't known by a single name. You can specify these either with the person's GitHub username and the project name or if the code is self-hosted then by specifying the URL. Note that these projects will be flagged as 'extraneous' and therefore they won't benefit from easy updating and automatic dependency resolving.

```
001  $ bower install samuelgbrown/jquery.circular-carousel
002 $ bower install http://christophercliff.com/sausage/
    jquery.sausage.js
003
```

28 Configure Bower

You can further configure Bower with a .bowerrc file. This can be stored in multiple locations: your home folder (-), the project folder, or the root folder (/). We're not a big fan of the name 'bower_components' folder name and this is the place that you can change it. Other examples are at **www.bower.io/docs/ config**. It follows a JSON format.

```
001 {
002     "directory": "dependencies"
003 }
004
```

29 In review

Bower aims to help you manage dependencies over the lifetime of your project and Grunt along with its plugins enables you to use these packages to create optimised versions of your project for production. I think this duo goes a long way to improve the current process but the amount of configuration and learning curve hampers what could be a really great workflow.

Code library
Gruntfile

Our complete Gruntfile handles our project's entire build process. Once you piece it together it's not too daunting:

```
001 module.exports = function(grunt) {
```

As mentioned this could be written in CoffeeScript, an example is on the disc, especially handy with these nested objects.

```
002         grunt.initConfig({
003             pkg: grunt.file.readJSON('package.
                                        json'),
```

Any value that's stored in the package.json file we can read through pkg because it's just JSON!

```
004         bower_concat: {
005             all: {
006                 dest: 'dist/<%= pkg.name %>.js',
007                 exclude: ['normalize.css'],
008                 bowerOptions: {
009                     relative: false
010                 }
011             }
012         },
013     wiredep: {
014         target: {
015             src: ['app/views/**/*.html']
```

The wildcard ('*') is especially valuable when you want to match folders with a prefix or suffix, or want to match filetypes.

```
016             }
017         },
018     uglify: {
019         options: {
020             banner: '/*! <%= pkg.name %> <%=
        grunt.template.today("dd-mm-yyyy") %> */\n'
021         },
022         dist: {
023             files: {
024                 'dist/<%= pkg.name %>.min.js':
025                 ['<%= bower_concat.all.dest %>']
026             }
027         }
028     }
029 });
030     grunt.loadNpmTasks('grunt-contrib-uglify');
031     grunt.loadNpmTasks('grunt-bower-concat');
032     grunt.loadNpmTasks('grunt-wiredep');
033     grunt.registerTask('install', ['wiredep']);
034     grunt.registerTask('build', ['bower_concat',
                                     'uglify']);
035     grunt.registerTask('default', ['wiredep',
                            'bower_concat', 'uglify']);
036     };
```

We can group similar tasks to be run together, for example the build task only concatenates and minifies.

Create quick custom static sites with Metalsmith

Liberate yourself from dependencies by creating static sites with ease and speed using Node.js and Metalsmith

tools | **tech** | **trends** Node.js, Metalsmith
expert Matt Gifford

DOWNLOAD TUTORIAL FILES
www.filesilo.co.uk/webdesigner

The web has long been a place for anyone with a WordPress or similar CMS to write freely. With a server-side language and a database at hand anyone could create content and publish to the masses. This, however, ties you down to using a specific server-side language and database dependencies. Let's break free from these restrictions and learn how to create static sites that can be developed and customised to work as well as, if not better, than their dynamic counterparts.

In the first part of this two-part tutorial you will be introduced to the basics of managing a new Metalsmith project and generating static pages and directory structures. We will install the necessary modules to get started, create layout and template files, and look into creating a collection of data which we can loop over and manipulate.

Next month we will explore the power of custom functions, read metadata for collections and specific purposes, create paginated files and manage JavaScript task runners as part of the build process.

01 Install Metalsmith

Let's get started and create a new directory for your project. Inside of this run the npm init command to generate a new 'package.json' file for your application. Once the 'package.json' file has been generated run the npm install command to save the core Metalsmith module and a markdown conversion module as dev dependencies.

```
001 > npm init
002 > npm install metalsmith metalsmith-markdown --save-
dev
```

02 Directory structure

Within the root of your project location create a new directory called 'src' which will hold all of the files to be converted into static content. Create a template directory to hold your layout template files and partials and one more called 'public', inside of which you can place any content that does not need any processing.

```
001 /
002 /public
003 /templates
004 /src
```

03 Compile.js script

Create a file called 'compile.js' in the root of the project location. This is the node script that will be run to convert all source files into the static files and directory structures. Require the installed Metalsmith modules at the top of the file and then you can set the Metalsmith object against the current directory as the base configuration.

```
001 var metalsmith = require('metalsmith');
002 var markdown   = require('metalsmith-markdown');
003 console.log('* Starting build');
004 metalsmith(__dirname)
```

```
005
006 });
```

04 Chain and errors

Directly within the Metalsmith object, chain the first instruction to use the Markdown plugin to convert source files. The last chained method is the actual build process. Inside of this we'll add a conditional statement to catch any errors and break the process if we encounter any to avoid any further issues.

```
001 .use(markdown())
002 .build(function(err, files) {
003   if (err) {
004     console.error('- Build failed');
005     throw err;
006   }
```

05 Create a landing page

The 'src' directory will be used for all raw content. As we are using the Markdown plugin to process text into HTML files, create a new file called 'index.md' in this directory. This uses Markdown syntax to define the HTML elements and content. If you are unfamiliar with Markdown, check out the resource available at **http://bit.ly/1DyShww**.

```
001 # Header
002 Welcome to my site
003 ## Testing, testing...
004 1. One
005 2. Two
006 3. Three
```

06 Run initial build

At this stage we can run our first build process to make sure the Markdown file is converted as expected. Open your Terminal or Command window and within the project directory enter the command to run the '
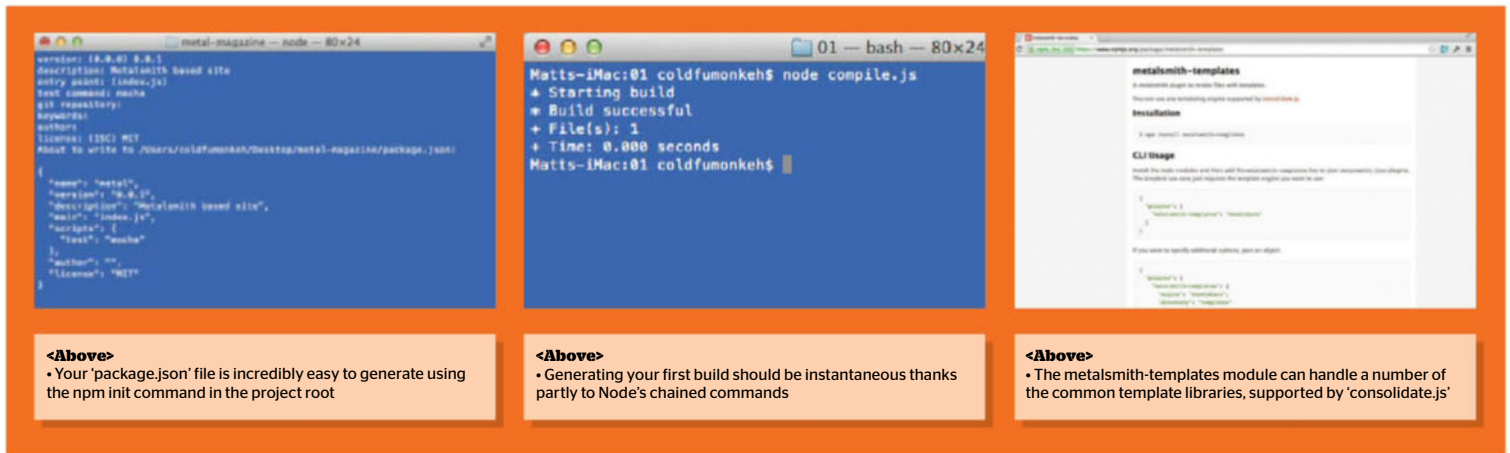
Create quick custom static sites with Metalsmith

compile.js' script through node. You should see an autogenerated build directory, which contains the compiled 'index.html' file.

```
001 > node compile.js
```

07 Grab Bootstrap

In preparation for expanding our site and building a layout, grab a copy of Bootstrap and jQuery. Create asset directories for css, fonts and js inside of the public directory. Alternatively, you can grab the asset structure and files from the resources accompanying this tutorial. Keep these outside of the 'src' directory, as Metalsmith will not compile them.

```
001 /public
002    - /css
003    - /fonts
004    - /js
```

08 Assets and templates

Metalsmith is enhanced and extended with extra custom functions and the additional installation and reference to node modules. To assist with managing the asset directories and contents during the build process, and to prepare for building our templates let's install three more. Open the command line and run the following to install them:

```
001 > npm install metalsmith-assets metalsmith-templates
002 jade --save-
                                                      dev
```

09 Deal with assets

Open 'compile.js' and revise the chain in the prebuild process. We want to move the contents from the public directory into the root of the generated build directory so we can use our assets in the final site layout. Let's also select to use the Jade templating system for our layout files and templates.

```
001 .use(assets({
002   source: './public', // relative to __dirname
003   destination: './' // Root of the build directory
004 }))
```

10 YAML metadata

As you build up your static site using blog posts and pages and develop templates, front-matter and YAML are used to provide page-specific data and specify which template to use when rendering. Find out more about YAML at

http://monkeh.me/djmbj. Revise 'index.md' to include some metadata before the content, specifying the page title and template to be used.

```
001 ---
002 title: My Static Site
003 template: page.jade
004 ---
005 ## Welcome
006
007 Have a look around...
```

11 Create a layout

Create a layouts directory within templates. Create a new layout file called 'default.jade' within this folder, which will be our generic layout file. We can include subfiles such as header and footer information, and as this will load a number of specific templates we can set the block content placeholder at the point any content should be displayed.

```
001 doctype html
002 html
003   head
004     include ./includes/head
005   body
006     .container
007       block content
008     include ./includes/footer
```

12 Page template

Our 'index.md' file explicitly references a page template so let's create 'page.jade' within the layouts directory. Within it we first reference the default layout file as a parent to this template and we then define the block content to be returned for display. We also use the title metadata value and the content of the actual file for this.

```
001 extends layouts/default
002
003 block content
004   h2= title
005   != contents
```

13 Blog posts

Let's add some blog posts into our site. Create a new directory called 'posts' within the content folder and inside of here make a number of MD files,

Create quick custom static sites with Metalsmith

‹Above›
• The metalsmith-collections module can be configured to search by patterns or metadata

‹Above›
• The permalink's chain in the build process creates URLs for static content

‹Above›
• Running an updated build will show a greater number of files being processed with only a minimal increase in time
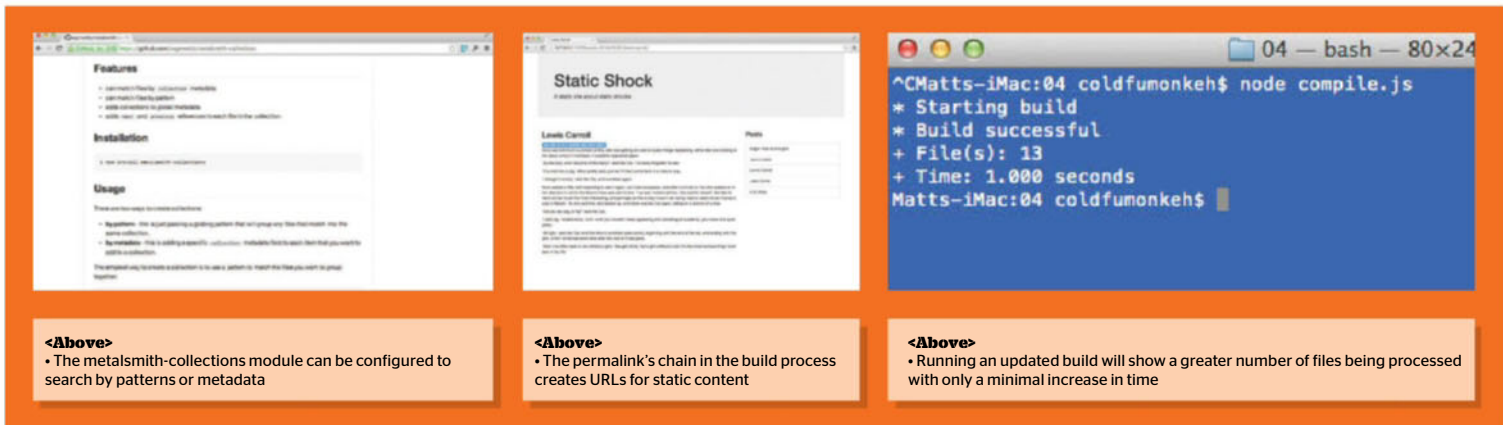
each one a separate blog post. Set the front-matter blocks and add YAML metadata for the title, the date of the blog post and the template to use, in this case 'post.jade'.

```
001 ---
002 title: H G Wells
003 date: 2014-01-01 01:02:03
004 template: post.jade
005 ---
006
007 "It's bows and arrows against the lightning, anyhow,"
said the artilleryman.  "They 'aven't seen that fire-beam
yet."
```

14 Post template

We have defined a new template for our blog posts, which needs to be added to the project. Create 'post.jade' in the templates directory. This is similar to the 'page.jade' template created earlier, but outputs post specific metadata such as the date, which we included in the previous step.

```
001 extends layouts/default
002
003 block content
004   h2= title
005   span.label.label-primary= date
006   != contents
```

15 Post modules

As we now have some post items to work with and process through the Metalsmith build we can add some more Node modules to assist us. The collections module will create a group of files for us to loop over, and the permalinks module will then help us build friendly URLs for our site. Install these using the command line.

```
001 > npm install metalsmith-collections metalsmith-
                   permalinks moment --save-dev
002
```

16 Create a collection

Open 'compile.js' and modify the chain process by adding in a completely new collection relating to the blog posts. We give the collection the name of posts and request it to use all content within the posts directory. Then we order this by date in descending order. You can have any number of collections defined within this block.

Migrating content from WordPress

If you would like to transfer your WordPress blog to a Metalsmith generated site, the WordPress to Jekyll exporter plugin will generate YAML and front-matter for you: **http://bit. ly/1peIO3P**.

```
001 .use(collections({
002   posts: {
003     pattern: 'posts/*',
004     sortBy: 'date',
005     reverse: true
006   }
007 }))
```

17 Create permalinks

If we ran the build process now, our blog posts would be rendered as HTML files using their current file name. Revise the 'compile.js' file once more and add in a permalink setting, which will use the collection name, post data and title to generate the correct directory structure for each post.

```
001 .use(permalinks({
002   pattern: '/:collection/:date/:title'
003 }))
```

18 Date helper

Open 'compile.js' in the editor. We've installed the 'moment.js' module to help with formatting and rendering dates for our templates. Add a helper within the opening metadata object block and require the library so that we can access it and use it within our template files.

```
001 metalsmith(__dirname)
002   .metadata({
003     helpers: {
004       moment: require('moment')
005     }
006
```

19 Layout revision

Open the 'templates.default.jade' file and then revise the HTML structure grid system. The jumbotron will display site-wide metadata which will be set in the Metalsmith configuration of the app in 'compile.js'. Move the block content into one column and create a new column within the same row to put our blog post items for display.

```
001 .container
002   .jumbotron
003     h1= site.title
004     p= site.description
005   .col-sm-8
006     block content
007   .col-sm-4
008     h3 Posts
009      .list-group
```

20 Blog post listing

Beneath the '.list-group' element define a loop over the posts collection group created in the build process. For each post item we want to create a new link element, outputting the post title and the date. The date itself will be formatted using the moment helper defined in the earlier step.

```
001 each post in collections.posts
002   a.list-group-item(href=post.path)
003     span.badge.badge-default= helpers.moment.utc(post.
   date).format('YYYY-MM-DD')
004     = post.title
```

21 Build your site

With the altered project structure and the revised build process in place, let's now run the command to generate a fresh build of the static site. Open the command window and from within the project root enter the command to complete this step. The output will let you know how many files were processed.

```
001 > node compile.js
```

22 View the site

To view your generated site on your local development environment you can make use of Node's many modules to create a simple static server, such as send and node-static. Create a 'server.js' file in the root of your project to launch a new server using the command below. Your site will now be visible for local testing and debugging.

```
001 > node server.js
```


<Above>
• Running the revised build on a local Node static server will show the date helper methods and updated layout
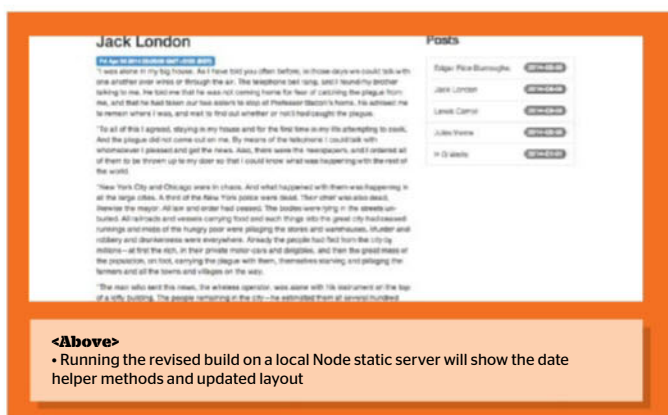
Code library
In more detail

Let's take a closer look at some of the options defined and available to set in the Metalsmith chained process.

```
001 var metalsmith  = require('metalsmith');
002 var markdown    = require('metalsmith-markdown');
003 var templates   = require('metalsmith-templates');
004 var assets      = require('metalsmith-assets');
005 var collections = require('metalsmith-
       collections');
007
006 var permalinks  = require('metalsmith-
       permalinks');
008
```

Make sure you reference and assign a variable to each of the modules you require in your configuration script.

```
001 .metadata({
002
003     helpers: {
004       moment: require('moment')
005     },
006
007     site: {
008       date: new Date(),
009       title: 'Static Shock',
010       author: 'Dream Team',
011       description: 'A static site about static
              shocks',
012       keywords: 'metalsmith, static, site, shocks'
013     }
014
015   })
```

Metadata can be set globally within the configuration script, which is ideal for use throughout the site in layout templates.

```
001 .use(collections({
002
003     posts: {
004       pattern: 'posts/*',
005       sortBy: 'date',
006       reverse: true
007     },
008     pages: {
009       pattern: 'pages/*',
010       sortBy: 'date',
011       reverse: true
012     }
013
014   }))
015
```

When using collections you can group as many as you need within the configuration, each using separate configuration values.

Hosting listings

Keep an eye on the latest packages and deals with our comprehensive list of service providers

Got a deal you think we should list?

Whether you're a hosting firm keen to promote your products or a happy customer who wants a favourite provider to be listed, drop us a line with the details!

webdesigner@imagine-publishing.co.uk

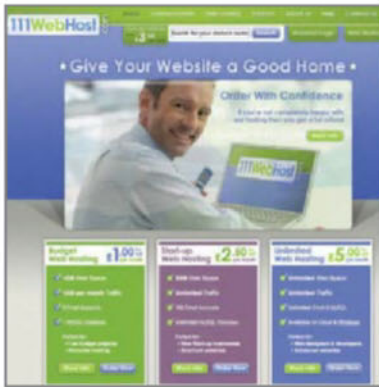| NAME AND URL	PACKAGE	PHONE NUMBER	COST PER YEAR	WEB SPACE	MONTHLY BANDWIDTH	POP3 ACCOUNTS	DATABASE SUPPORT	SHOPPING CART	VIRUS FILTER	FIREWALL	PHONE SUPPORT	EMAIL SUPPORT	WEB CONTROL PANEL	SERVICE LEVEL AGREEMENT
111WebHost 111webhost.com	Budget Web Hosting Pack	N/A	£10	1GB	1GB	5	✓	✗	Add-on	N/A	✗	✓	✓	✗
111WebHost 111webhost.com	WordPress Web Hosting Pack	N/A	£20	5GB	2GB	100	✓	✓	Add-on	N/A	✗	✓	✓	✗
111WebHost 111webhost.com	Start-up Web Hosting Pack	N/A	£25	5GB	Unlimited	100	✓	✓	Add-on	N/A	✗	✓	✓	✗
111WebHost 111webhost.com	Unlimited Web Hosting Pack	N/A	£50	Unlimited	Unlimited	Unlimited	✓	✓	Add-on	N/A	✗	✓	✓	✗
111WebHost 111webhost.com	Unlimited Multi-site Web Hosting Pack	N/A	£300	Unlimited	Unlimited	Unlimited	✓	✓	Add-on	N/A	✗	✓	✓	✗
123-reg (www.123-reg.co.uk)	Starter	0845 859 0018	£29.88	1GB	5GB	20	✗	✗	✗	✓	✓	✓	✓	✗
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	✓	✓	✓	✓	✓	✓	✓	✗
4D Hosting (www.4dhosting.com)	Big Web Hosting	0207 183 0602	£60	5GB	Unlimited	20	✓	✓	✓	✓	✓	✓	✓	✓
4D Hosting (www.4dhosting.com)	Bigger Web Hosting	0207 183 0602	£120	10GB	Unlimited	75	✓	✓	✓	✓	✓	✓	✓	✓
4D Hosting (www.4dhosting.com)	Biggest Web Hosting	0207 183 0602	£180	20GB	Unlimited	100	✓	✓	✓	✓	✓	✓	✓	✓
4D Hosting (www.4dhosting.com)	Big VPS	0207 183 0602	£204	75GB	500GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
4D Hosting (www.4dhosting.com)	Bigger VPS	0207 183 0602	£360	100MB	1,000GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
4D Hosting (www.4dhosting.com)	Biggest VPS	0207 183 0602	£720	200GB	1,500GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✓	✓	✓
Blacknight (www.blacknight.com)	Medius	35359 918 3072	£79	20GB	400GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Blacknight (www.blacknight.com)	Maximus	35359 918 3072	£45	30GB	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City250	0330 223 0120	£10.99	250MB	5GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City500	0330 223 0120	£14.99	500MB	10GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City2000	0330 223 0120	£29.90	2GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City10000	0330 223 0120	£49.90	10GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	CityR10	0330 223 0120	£120	10GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	CityR20	0330 223 0120	£180	20GB	100GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	CityR30	0330 223 0120	£240	30GB	150GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City VPS15	0330 223 0120	£180	15GB SSD	400GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City VPS30	0330 223 0120	£300	30GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
CityCM (www.citycm.couk)	City VPS75	0330 223 0120	£420	75GB SSD	600GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Designwasp (http://designwasp.com)	Starter	0844 372 9848	£30	3GB	20GB	1,000	✓	✓	✓	✓	✓	✓	✓	✗
Designwasp (http://designwasp.com)	Home	0844 372 9848	£40	10GB	50GB	10,000	✓	✓	✓	✓	✓	✓	✓	✗
Designwasp (http://designwasp.com)	Business	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✗
Designwasp (http://designwasp.com)	Windows Unlimited	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	✓	✓	✗	✓	✓	✓	✓	✗
Designwasp (http://designwasp.com)	Windows Home	0844 372 9848	£40	10GB	50GB	1,000	✓	✓	✗	✓	✓	✓	✓	✗
Designwasp (http://designwasp.com)	CheapHost	0844 372 9848	£10	300MB	100MB	5	✓	✓	✗	✓	✓	✓	✓	✗
Digital Gibbon Ltd (http://digitalgibbon.com)	Cheeky Chimp	NA	£0	500MB	Unlimited	5	✓	✗	✓	✓	NA	✓	✓	
Digital Gibbon Ltd (http://digitalgibbon.com)	Digital Gibbon	NA	£12	5GB	Unlimited	10	✓	✗	✓	✓	NA	✓	✓	
Digital Gibbon Ltd (http://digitalgibbon.com)	Silverback	NA	£24	Unlimited	Unlimited	Unlimited	✓	✓	✓	✓	NA	✓	✓	
Digital Gibbon Ltd (http://digitalgibbon.com)	Wordpress hosting	NA	£12	5GB	Unlimited	10	✓	✗	✓	✓	NA	✓	✓	
Domaincheck www.domaincheck.co.uk	Bronze	0191 2612252	£30+VAT	500MB	5GB	5	✗	✓	Optional	✓	✓	✓	✓	✓
Domaincheck www.domaincheck.co.uk	Silver	0191 2612252	£50+VAT	1000MB	10GB	10	✓	✓	Optional	✓	✓	✓	✓	✓
Domaincheck www.domaincheck.co.uk	Gold	0191 2612252	£100+VAT	2500MB	50GB	25	✓	✓	Optional	✓	✓	✓	✓	✓
Domaincheck www.domaincheck.co.uk	Platinum	0191 2612252	£200+VAT	5000MB	100GB	50	✓	✓	Optional	✓	✓	✓	✓	✓
Domaincheck www.domaincheck.co.uk	Small	0191 2612252	£110	20GB	50GB	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓

Use discount code WEBDES1 for 10% discount!

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
eHosting (www.ehosting.com)	Starter	0844 999 4100	£23.88	1GB	25GB	10	✗	✗	✗	✗	✗	✓	✓	✓
eHosting (www.ehosting.com)	Personal	0844 999 4100	£59.88	2.5GB	Unlimited	50	✓	✗	✗	✗	✗	✓	✓	✓
eHosting (www.ehosting.com)	Expert	0844 999 4100	£95.88	5GB	Unlimited	250	✓	✗	✗	✗	✗	✓	✓	✓
eHosting (www.ehosting.com)	Virtual	0844 999 4100	£227.88	50GB	Unlimited	Unlimited	✓	✗	✗	✗	✓	✓	✓	✓
Equiphase (www.equiphase.net)	Bronze	0121 314 4865	£30	200MB	2GB	10	✓	✓	✗	✓	✗	✓	✓	✓
Equiphase (www.equiphase.net)	Silver	0121 314 4865	£42	400MB	5GB	20	✓	✓	✗	✓	✗	✓	✓	✓
Equiphase (www.equiphase.net)	Gold	0121 314 4865	£72	800MB	10GB	100	✓	✓	✗	✓	✗	✓	✓	✓
Equiphase (www.equiphase.net)	Platinum	0121 314 4865	£114	1,200MB	40GB	200	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Email Only	02380 249 823	£40	1GB	2GB	10	✗	✗	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Essential	02380 249 823	£75	2GB	5GB	10	✓	✗	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Superior	02380 249 823	£140	5GB	10GB	25	✓	✓	✓	✓	✓	✓	✓	✓
Eurofasthost.com (www.eurofasthost.com)	Premium	02380 249 823	£250	10GB	25GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Starter	N/A	£29.99	500MB	1GB	3	✓	✓	✓	✓	✗	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Home	N/A	£54.99	2.5GB	30GB	50	✓	✓	✓	✓	✗	✓	✓	✓
Evohosting (www.evohosting.co.uk)	Business	N/A	£79.99	6.5GB	Unlimited	Unlimited	✓	✓	✓	✓	✗	✓	✓	✓
Evohosting (www.evohosting.co.uk)	eCommerce	N/A	£159.99	30GB	Unlimited	Unlimited	✓	✓	✓	✓	✗	✓	✓	✓
Fasthosts (www.fasthosts.co.uk)	Personal	0808 168 6777	£32.87	5GB	Unlimited	50	✓	✗	✓	✓	✓	✓	✓	✗
Fasthosts (www.fasthosts.co.uk)	Business Bronze	0808 168 6777	£58.38	50GB	Unlimited	500	✓	Option	✓	✓	✓	✓	✓	✗
Fasthosts (www.fasthosts.co.uk)	Business Silver	0808 168 6777	£76.39	Unlimited	Unlimited	Unlimited	✓	Option	✓	✓	✗	✓	✓	✗
Fasthosts (www.fasthosts.co.uk)	Business Gold	0808 168 6777	£101.89	Unlimited	Unlimited	Unlimited	✓	Option	✓	✓	✗	✓	✓	✗
Fasthosts (www.fasthosts.co.uk)	WD Starter	0808 168 6777	£149.99	20GB	Unlimited	Unlimited	✓	Option	Option	✓	✗	✓	✓	✗
Fasthosts (www.fasthosts.co.uk)	WD Advanced	0808 168 6777	£199.99	Unlimited	Unlimited	Unlimited	✓	Option	Option	✓	✗	✓	✓	✗
Giacom (www.giacom.com)	Business Pro	0800 542 7500	£199	100MB	2GB	100	✓	✓	✓	✓	✓	✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Starter Professional	0845 644 7750	£29.80	2.5GB	10GB	1,000				✓		✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Home Professional	0845 644 7750	£89.99	Unlimited	Unlimited	10,000	✓			✓		✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Business Professional	0845 644 7750	£129.99	Unlimited	Unlimited	Unlimited	✓	✓		✓		✓	✓	✓
Heart Internet (www.heartinternet.co.uk)	Reseller Professional	0845 644 7750	£349.99	Unlimited	Unlimited	Unlimited	✓	✓	✗	✓	✗	✓	✓	✓
Hostway (www.hostway.co.uk)	Silver	0808 180 1880	£79.50	150MG	3GB	5	✗	Option	✓	✓	✗	✓	✓	✗
Hostway (www.hostway.co.uk)	Gold	0808 180 1880	£139.50	300MB	5GB	10	✓	Option	✓	✓	✓	✓	✓	✗
Hostway (www.hostway.co.uk)	Gold Plus	0808 180 1880	£189.50	450MB	10GB	30	✓	Option	✓	✓	✓	✓	✓	✗
Hostway (www.hostway.co.uk)	Platinum	0808 180 1880	£359.50	600MB	20GB	50	✓	Option	✓	✓	✓	✓	✓	✗
Hostway (www.hostway.co.uk)	Platinum Plus	0808 180 1880	£599.50	1.2GB	40GB	10	✓	Option	✓	✓	✓	✓	✓	✗
Hostway (www.hostway.co.uk)	Email Plus	0808 180 1880	£49.95	50MB	N/A	5	N/A	N/A	N/A	✓	✗	✓	✓	✗
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 (www.namehog.net)	Email Only	01604 212 904	£11.99	2.5GB	15GB	10	✗	✗	✓	✓	✓	✓	✓	✓
NameHog (www.namehog.net)	Starter	01604 212 904	£36.99	10GB	150GB	Unlimited	✗	✗	✓	✓	✓	✓	✓	✓
NameHog (www.namehog.net)	Home Pro	01604 212 904	£59.99	25GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
NameHog (www.namehog.net)	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	✓	✓	✓	✓	✓	✓	✓	✗
Netcetera www.netcetera.co.uk	DEVELOPER	0800 808 5450	£32.89	1GB	Unlimited	500	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	ONE	0800 808 5450	£109.99	5GB	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	RESELLER	0800 808 5450	£274.89	Unlimited	Unlimited	1000	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	VM500 Server	0800 808 5450	£300	20GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	2200DC Server	0800 808 5450	£720	160GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	3000DC Server	0800 808 5450	£1,200	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓
Netcetera	2600QC Server	0800 808 5450	£1,800	2x500GB	Unlimited	Unlimited	✓	✓	✓	✓	✓	✓	✓	✓

Hosting listings

Keep an eye on the latest packages
and deals with our comprehensive list of service providers

Discover what an enhanced listing can do for your business. Contact Alex on:
+44 (0)1202 586430

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
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+	✓	✓	✓	✓	✓	✓	✓	✓
Patchman Web Hosting www.patchman-hosting.co.uk	Bronze Package (Linux)	01642 424 237	£35.88	1GB	Unlimited	1	1	✓	Option	✓	✓	✓	✓	✗
Patchman Web Hosting www.patchman-hosting.co.uk	Silver Package (Linux)	01642 424 237	£59.88	3GB	Unlimited	3	3	✓	Option	✓	✓	✓	✓	✗
Patchman Web Hosting www.patchman-hosting.co.uk	Gold Package (Linux)	01642 424 237	£83.88	5GB	Unlimited	25	5	✓	Option	✓	✓	✓	✓	✗
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	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✗
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	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✓	✓	✗
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 (www.uk2.net)	Starter Hosting	0808 168 2427	£24	500MB	1GB		✗	✓	✓	✓	✓	✓	✓	✗
UK2.NET (www.uk2.net)	Business Hosting	0808 168 2427	£54	Unlimited	Unlimited	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	✓	✗	✓	✓	✓	✓	✓	✗
Z-Host (z-host.co.uk)	Z-100	N/A	£15	100MB	10GB	Unlimited	✓	✓	✓	✓	✗	✓	✓	✓
Z-Host (z-host.co.uk)	Z-200	N/A	£21	100MB	10GB	Unlimited	✓	✓	✓	✓	✗	✓	✓	✓
Z-Host (z-host.co.uk)	Z-500	N/A	£42	500MB	20GB	Unlimited	✓	✓	✓	✓	✗	✓	✓	✓
Z-Host (z-host.co.uk)	Z-1000	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.

YOUR FREE RESOURCES

LOG IN TO WWW.FILESILO.CO.UK/WEBDESIGNER-228 AND DOWNLOAD
THE LATEST COLLECTION OF MUST-HAVE VIDEOS AND RESOURCES

LOG IN   SIGN UP

LE COFFEAT

Find your favorite

Coffee

GET STARTED

98 MINS OF EXPERT VIDEO GUIDES
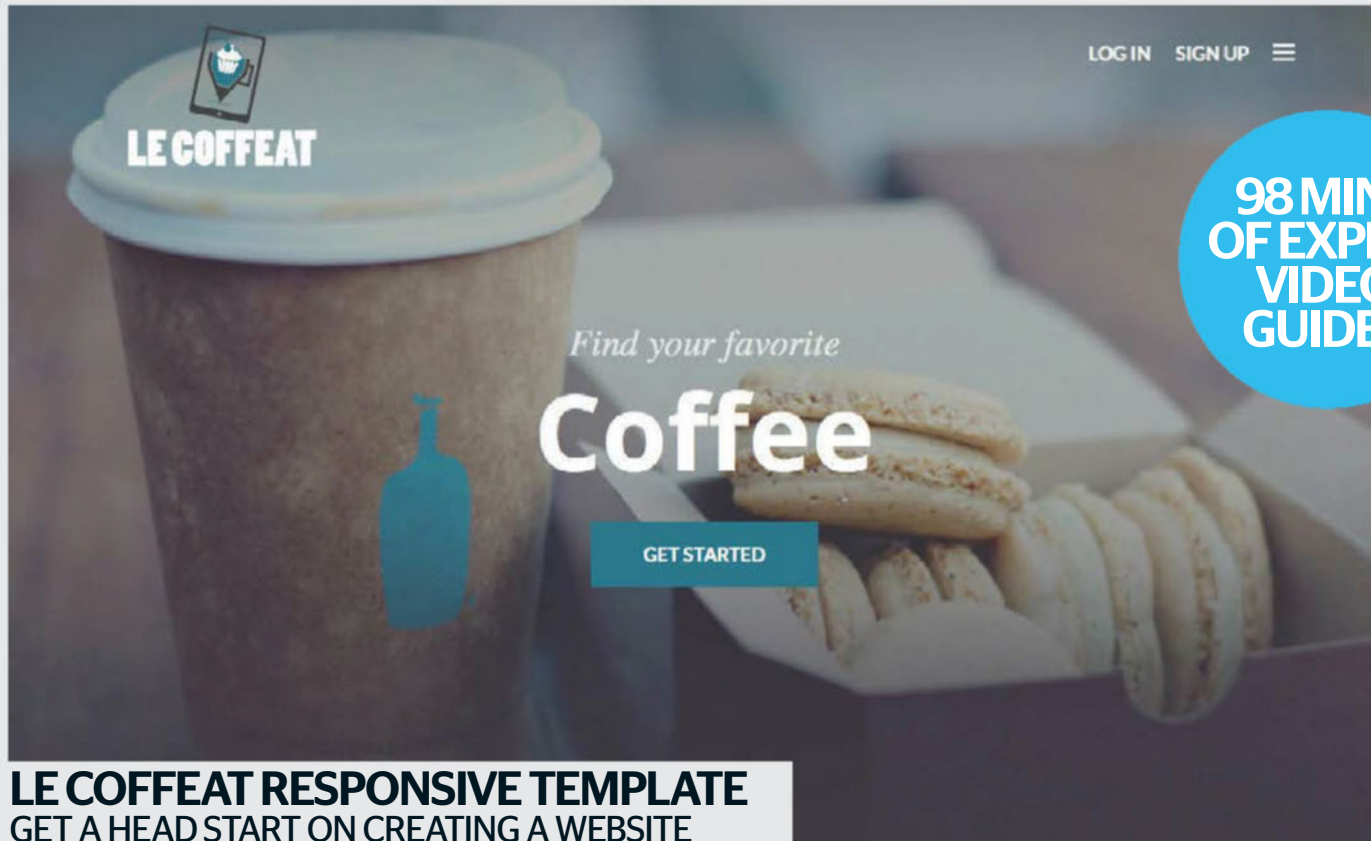
LE COFFEAT RESPONSIVE TEMPLATE
GET A HEAD START ON CREATING A WEBSITE

Loading - 74%

TUTORIAL FILES
THIS ISSUE'S ASSETS

TOTAL RESOURCES 70

01 Creating an Email Newsletter in Photoshop® and Dreamweaver®

EXPERT VIDEO GUIDES
BUILD A HTML NEWSLETTER

YOUR BONUS RESOURCES

ON OUR BRAND NEW FILESILO THIS ISSUE YOU WILL FIND AN UNMISSABLE COLLECTION OF VIDEO GUIDES AND RESOURCES

- BRAND NEW - 98 minutes of video guides from Digital Tutors
- 10+ Music and audio FX pack from Music2Hues
- 50+ 3D text creator actions from SparkleStock
- The From the Internet and Gameness fonts from Typodermic Fonts
- Picnic theme template bundle from Ben Bate
- Le Coffeat web template from W3 Layouts

FileSilo

www.filesilo.co.uk/webdesigner-228

FILESILO – THE HOME OF PRO RESOURCES
DISCOVER YOUR FREE ONLINE ASSETS

- A rapidly growing library
- Updated continually with cool resources
- Lets you keep your downloads organised
- Browse and access your content from anywhere
- No more torn disc pages to ruin your magazines

- No more broken discs
- Print subscribers get all the content
- Digital magazine owners get all the content too!
- Each issue's content is free with your magazine
- Secure online access to your free resources

This is the new FileSilo site that replaces your disc. You'll find it by visiting the link on the following page.

The first time you use FileSilo you'll need to register. After that, you can use the email address and password you provided to log in.

The most popular downloads are shown in the carousel here, so check out what your fellow readers are enjoying!

If you're looking for a particular type of content like brushes or fonts, use the filters here to refine your search.

Can't find the resource you're looking for in these filters? Click on More Options to specify exactly what kind of resource you want.

Green open padlocks show the issues you have accessed. Red closed padlocks show the ones you need to buy or unlock.

Top Downloads are listed here, so you can get an instant look at the most popular downloaded content.

Check out the Highest Rated list to see the resources that other readers have voted for as the best!

Find out more about our online stores, and useful FAQs like our cookie and privacy policies and contact details.

Discover our amazing sister magazines and the wealth of content and information that they provide.

HOW TO USE FileSilo

EVERYTHING YOU NEED TO KNOW ABOUT
ACCESSING YOUR NEW DIGITAL REPOSITORY

To access FileSilo, please visit www.filesilo.co.uk/webdesigner-228

**01** | Follow the instructions on-screen to create an account with our secure FileSilo system, or log in and unlock the issue by answering a simple question about the magazine. You can access the content for free with your issue.

02 | If you're a print subscriber, you can easily unlock all the content by entering your unique Subscriber ID. You can find this on all correspondence from Imagine Publishing, including the clear plastic envelopes your magazine gets delivered to your door in every month.

03 | You can access FileSilo on any desktop, tablet or smartphone device using any popular browser (such as Safari, Firefox or Google Chrome). However, we recommend that you use a desktop to download content, as you may not be able to download files to your phone or tablet.

04 | If you have any problems with accessing content on FileSilo, or with the registration process, take a look at the FAQs online or email filesilohelp@ imagine-publishing.co.uk.
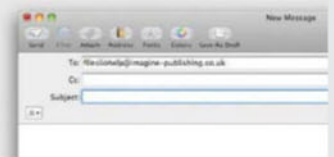
SLIDE-IN MENU

OBSTER

Off canvas menu
Create a slide-in menu…

#227 🗂 33 kB (2 q) 👁0 👍0 ⭐3

CSS SCROLLING BACKGROUND

Hello, we're Elespacio.

Create a constant scrolling background
Use CSS to add animation to backgrounds…

#227 🗂 2 kB (2 q) 👁0 👍0 ⭐3

JQUERY

OVER THE HILLS the Dead pirates

Line animations with jQuery
Create a Looney Tunes style opener…

#227 🗂 1 kB (2 q) 👁2 👍0 ⭐3

MORE TUTORIALS AND INSPIRATION?

Web Designer is all about giving web designers and developers what they want. Make sure that you pay a visit to the Web Designer website where you will find a treasure trove of design and development tutorials. All the latest technologies and tools are covered including HTML5, CSS3, jQuery, PHP and responsive design. Plus, delve into the lives of the world's biggest agencies with our exclusive interviews. Find out how they design and develop some of the best websites seen on the web.
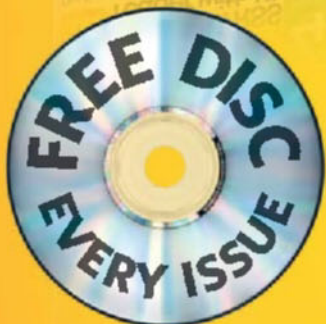
www.webdesignermag.co.uk

Issue 229 of **web designer** is on sale 13 November 2014 from GreatDigitalMags.com
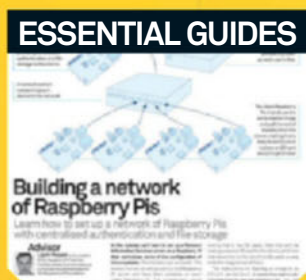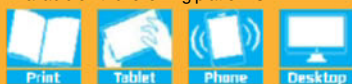
POWER UP JQUERY

Discover the best plugins to take your site to the next level

GET STARTED WITH ANGULARJS
All you need to know to start building HTML enhanced web apps

FAST CUSTOM SITE BUILDS
Get your hands on the second part of our Metalsmith tutorial

HTML5 GAMES WITH PHASER
Unleash the power of the popular HTML5 games engine

BUILD APPS WITH AMPERSAND
A quick, easy and modular approach to creating JS apps

Visit the **WEB DESIGNER** online shop at
imagineshop.co.uk
for back issues, books and merchandise

THE BEST TOOLS FOR RESPONSIVE DESIGN*

Responsive
LAYOUT MAKER
Prototype device-agnostic layouts from the content out with custom breakpoints. The result? Rock-solid layouts with code that is crisp, clean and production ready!

Responsive
SITE DESIGNER
Create complete, one-of-a-kind, responsive websites without coding. All the power CSS offers is available through intuitive visual controls. 'Nuff said!

Responsive
EMAIL DESIGNER
Drag-n-drop to create beautiful emails that work wonders on any device. Full story-driven design freedom, unrestricted by rigid templates. Need to tweak that font size for smaller devices? Do it!

by

CoffeeCup