



● Traffic slows cooperatively when snow falls in this city. It isn't exactly a rare event after all, so everyone knows how to deal with it. Unlike England (where the 'wrong kind of snow' brings everything to its knees), America generally knows how to handle the white stuff. It isn't uncommon for those in the surrounding mountains to have multiple feet of snow fall in a day or two, and winter temperatures of -20c and below are par for the course.

Given the extremes that are possible, this half-inch of powder hardly made a difference to things. Other than making traffic run a little more slowly. But cooperatively, as we observed. This is mid-evening, mid-January in downtown Denver, at the tail end of a rather leisurely rush hour.



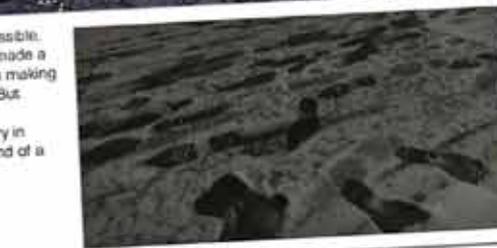
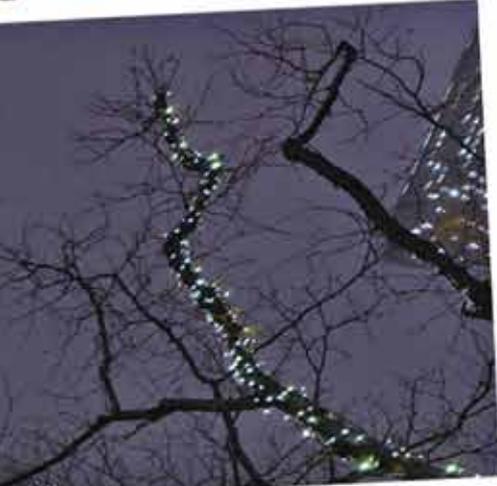
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fortiter imputat suis. etiam.



THIS IS THE NEW

# etail

Browse locations around America in immersive virtual reality from the comfort of your own iPad...



Pretiosus rures  
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Rures insectat  
tuis. Matrimoni  
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Given the extremes that are possible, this half-inch of powder hardly made a difference to things. Other than making traffic run a little more slowly. But cooperatively, as we observed. This is mid-evening, mid-January in downtown Denver, at the tail end of a daily rush hour.

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# PUBLISHING

Quark is back. And this time, it's digital.



◀ QuarkXPress defined and ruled desktop publishing in the 1990s. During the following decade, Adobe's InDesign stole the limelight. Then 2010 brought the iPad, and now designing and publishing for this new platform is the hot ticket. After a false start halted by Apple's short-lived ban on the use of its Flash technology in apps, Adobe announced tools to convert InDesign layouts to iPad apps and is working with a number of major publishers (including MacUser's) to bring digital editions to the App Store; but its Digital Publishing Suite remains in 'pre-release' at the time of writing. Now Quark has revealed its own solution.

After being among the first to see it demonstrated at the company's Denver HQ in January, MacUser got hands-on with the new QuarkXPress App Studio XTension back in London, trying out the features, exploring the creative options and discovering how to create rich, interactive pages within the familiar DTP environment.

It's much too soon to tell whether this is The Future of Publishing, or even of iPad magazines. But it works, and we were impressed by the simplicity with which designers, not programmers, could create fully featured apps in a few hours – without giving up the precise page-based layout and typography tools that have served them so well for the last 20 years.

### HOW IT WORKS

Quark's digital publishing workflow relies on features that currently exist only in Quark Publishing System (QPS), the high-end solution used by large-scale publishing houses. These will be rolled into QuarkXPress 9 'within 90 days' of its April launch; anyone buying QuarkXPress in the meantime will get a free upgrade. For now, there's a two-part workaround. A free XTension plugs into QuarkXPress 8.5 and adds a floating palette with various options for tagging items within your layouts with interaction and rich media features.

Then you send off the finished pages to Quark – rather like sending a print publication to a reprographics bureau – which

completes the final stage of the process for you. Production turnaround is quoted as five working days, although Quark expects to reduce this. You then get your document back in a format that can be viewed in the iPad simulator (supplied by Apple with its tools for iOS developers) or preferably live on an iPad. Having tested it to your satisfaction, you submit it to the App Store.

This all adds time and cost to the process, and – as we'll see – means things aren't as Wysiwyg as they ought to be. Quark admits that this method is a stopgap and has said users can expect to migrate to a full App Studio solution 'later in 2011'.

Your first issue is supplied with a reader app that acts as a host environment for your ▶

Words and layouts Keith Martin





# WHAT IT'S GOING TO COST

All you need to get started with Quark's iPad publishing solution is the App Studio XTension, available free of charge to QuarkXPress 8.5 users. However, you'll also pay a fee per issue to create your publication and make it available to the public.

Like Adobe, Quark is selling a service, not just a piece of software you buy once. This is a model that smaller publishers especially may have trouble getting used to, and it's clearly not ideal for publications that don't expect to make money, such as fanzines and student projects. While Apple will host free apps at no charge, Quark won't.

As we go to press, the fees originally announced, which would have added up to over £500 per edition, have been substantially reduced. At £312 per issue, the cost now faced by QuarkXPress users will still quickly outstrip their investment in QuarkXPress itself, and will need to be taken into account in the financial planning of new publications, along with Apple's 30% cut of the cover price.

By the summer, using new tools built into QuarkXPress 9 (though released later than its April launch), it should be possible to create your own apps without going through the Publishing Service.

## ADDING IT UP

Assuming you're not a GPS site, files created using QuarkXPress 8.5 and the App Studio XTension must be processed by Quark's iPad Publishing Service. When this was first announced, there were also going to be startup costs and a licensing fee per issue, as we reported (MacUser, 4 February 2011, p8). These have now been dropped in favour of a single per-issue charge of £312 (ex VAT).

Bear in mind that, for this, Quark is not only hosting your files and managing your customer data but also doing some of the donkey work. When it becomes possible to complete the job on your desktop, we'd expect the per-issue fees to fall to a similar level to those for GPS users (see right).

Within this basic cost, you get two rounds of revisions and some quality assurance. Also included are online-based publishing controls and, crucially, management of in-app purchasing. Offering your content as an in-app purchase is now an Apple requirement: you can sell subs by other means, but you must offer the same price via the official route, and you must manage customer data so that readers who've paid for an issue can retrieve it later. This is part of Quark's service. The new in-app subscriptions will be supported in an update in the next few weeks.

As the publisher, you get all the revenue from copy sales, minus Apple's standard 30%. Quark doesn't take a percentage, and there

are no ongoing fees unless you publish something. You'll also need to register as an Apple developer so you can submit apps to the App Store, which is good value at \$99 per year. You won't need to use the Xcode programming tools that are included with Developer Program membership, but the iOS Simulator for Mac will be useful if you don't have regular access to an iPad – bearing in mind that you'd be insane to launch an app without thoroughly testing it on a real touchscreen.

GPS users can try out the full App Studio, which has a wider range of features and integration, free of charge, but will pay £4995 to go live with it. That includes the Starter App and a licence for an unlimited number of apps. Again, a per-issue fee also applies. This starts at £218, and paying for a number of issues brings down the cost further, as shown in the table. Packages are valid for 12 months, so the larger numbers are only useful if you publish several titles each month or have a higher frequency.

## iPAD PUBLISHING SERVICE

<b>QuarkXPress 8.5 (or 9)</b>	£779 (upgrade £279)
<b>App Studio XTension</b>	Free
<b>Apple Developer fee</b>	\$99 (about £61) per year
<b>Per-issue fee</b>	£312

## QUARK PUBLISHING SYSTEM APP STUDIO

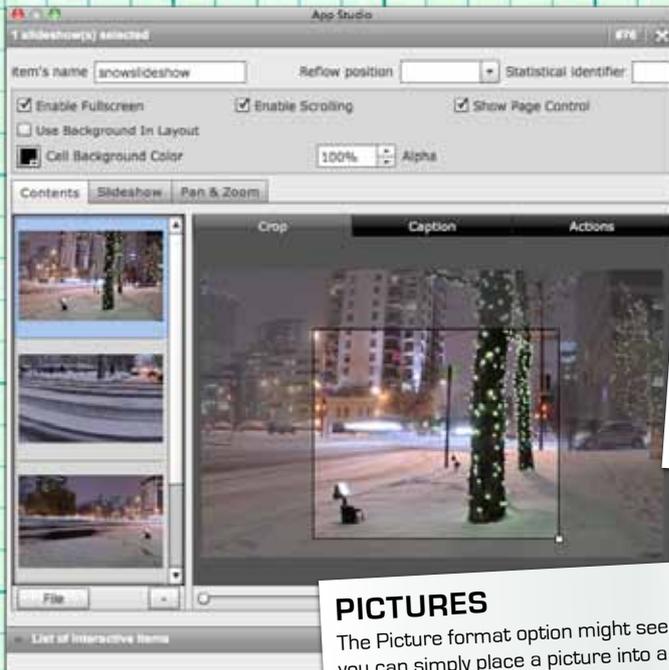
<b>App Studio GPS Module</b>	£4995 (or free trial)
<b>Per-issue fee</b>	Up to £218: see below

(Plus initial cost of GPS and Apple Developer Program fees)

Number of issues	Package price	Cost per issue
1	£218	£218.00
2	£374	£187.00
5	£937	£187.40
10	£1835	£183.50
15	£2734	£182.27
20	£3593	£179.65
30	£5312	£177.07
40	£6953	£173.83
50	£7812	£156.24
100	£11,718	£117.18
Unlimited	£12,438	n/a

All Sterling prices exclude VAT at 20%.

# WORKING IN QUARK'S APP

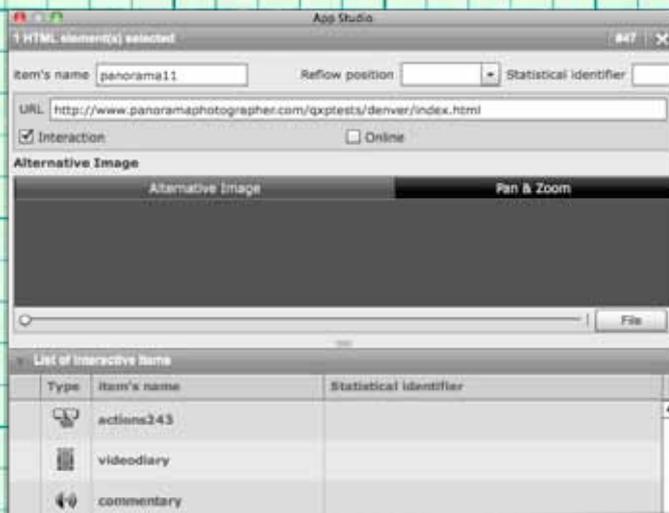


## SLIDESHOWS

Slideshows offer more than the basic Picture format. As the name indicates, they show a succession of images, one after the other, with a choice of settings. You can pick a folder of images or select items individually. Options for the Simple Slideshow include **full-screen mode, manual scrolling and automatic animation, and a Ken Burns-like animated pan and zoom.** There's a Slideshow With Thumbnails option, with new small thumbnail boxes generated to one side (your choice) of the main image box. These new items can be moved around independently once made, so work them into your page designs. Just as with the Picture format, crops can be defined separately from the optional full-screen image, and the crop is kept in proportion with the picture box on the page.

## PICTURES

The Picture format option might seem a little redundant, given that you can simply place a picture into a layout in the old-fashioned way, but the benefit of doing it as an interactive element is that the image can be set to open in full-screen mode when tapped. This wouldn't be appropriate everywhere, but could be very useful for **thumbnails that expand when touched.** Images set as the source for an interactive Picture can have two different states: a view that's cropped to the height and width ratio of the box in the layout, and the full-size image that's shown in full-screen mode. The cropping is done in the App Studio palette, so there's no need to prepare separate images. Pictures intended for this use should be planned with the additional resolution requirement in mind.

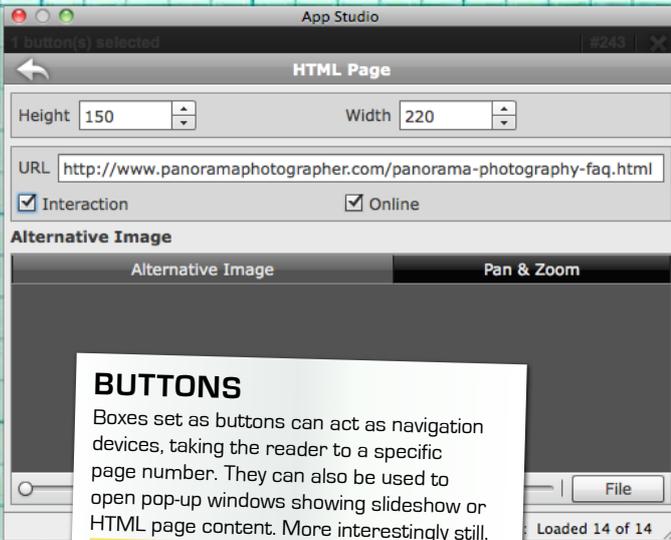


## VIDEO

Movies are the third media type. These should be encoded as h.264 and saved in .mov or .mp4 format, and can be local files (in which case, they'll be embedded in your issue file and downloaded when your customer buys it) or URL-referenced online media, which will be played over the internet. URL movies also can have an alternative image set in case there's no internet connection when the page is viewed. **Movies can be set to play in full-screen mode only or allowed to run within the page,** and there's an auto-play option to kick off playback as soon as the page is opened. Unlike pictures, movies are scaled, not cropped, to fit the box; you'll want to make sure the aspect ratio of your box is appropriate.

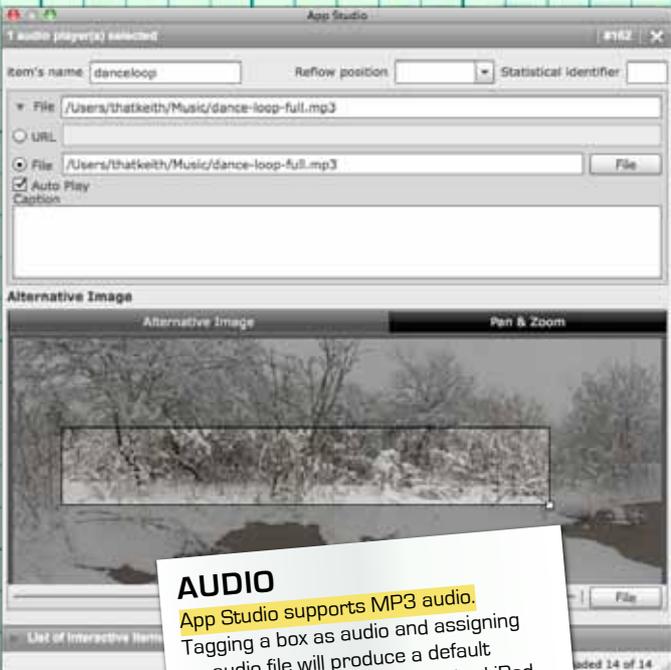
## HTML

The final media type is called HTML Page, and this really opens up the possibilities. HTML content can be embedded or remotely referenced, a choice that depends on a number of factors including whether the reader is likely to be online and whether the content is to be updated after publication. Embedded content is taken from an online source, but the HTML and all referenced media (images, CSS, JavaScript and so on) is retrieved, stored within the app, and used from there. Social media integration can be achieved this way: Facebook Like and Tweet This buttons are problematic, as you can't give other users a link to a page inside an iPad mag app, but there are many other ways to use social media. The key is that **linked and embedded HTML can bridge the divide between locked-down app content and dynamic web content.** In our tests, we integrated some state-of-the-art HTML5 content that shows interactive 'virtual reality' photo panoramas and it worked as planned. This dramatically extends App Studio's scope for ambitious publishers.



## BUTTONS

Boxes set as buttons can act as navigation devices, taking the reader to a specific page number. They can also be used to open pop-up windows showing slideshow or HTML page content. More interestingly still, **a button can have multiple behaviours**, so it can jump to a particular page, then pop open a slideshow or HTML content, and then even open a remote URL. The size of the pop-up item can be set, while its location depends on the position of the button on the page. Buttons can also change the 'content index' of another interactive item – for example, switching a slideshow to a specified image. If you disable any transition effects and direct interaction, this process can achieve a very different 'reveal' effect.



## AUDIO

**App Studio supports MP3 audio.** Tagging a box as audio and assigning an audio file will produce a default audio player controller in the final iPad rendition. A preview image can be assigned to the object, and this can be given the same Ken Burns-like pan and zoom behaviour as Picture and Slideshow content. That might seem unusual for an audio control, but it means sound clips can be given a dynamic visual presence on the page.

magazine or brand. Readers then browse and buy subsequent editions within this, downloading only the new content, not another app each time. Although you don't get total control over the functionality of the reader app, its appearance is configurable via Quark's management web portal. This avoids you having to take on the programming task of creating a page navigation system for your app, because it's built in. You can create your own links between pages along with other interactions (see left), but the basic process of enabling the user to browse through the magazine is already set up for you.

Like any iOS app, the reader software, along with your first edition, must first be submitted to Apple, and will go through the standard App Store vetting process. Unfortunately, this means you can't dictate the exact date on which it appears; it'll go public when Apple chooses, typically a few days after submission. You'll also need to

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'Like any iOS app, your first edition must be submitted to Apple for approval. Future issues don't go through this process'

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bear in mind Apple's restrictions on certain types of content, such as adult material, and comply with its age rating system. The full App Store guidelines are available to read once you sign up for the iOS Developer Program (see p67), although it's not hard to find copies floating around the internet.

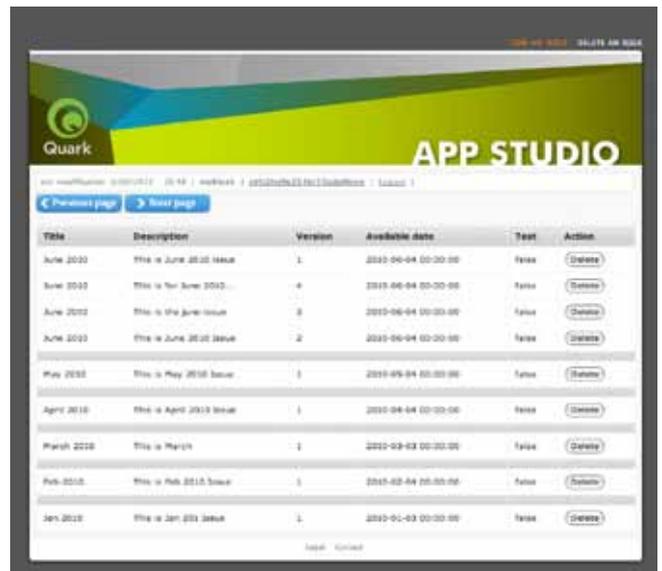
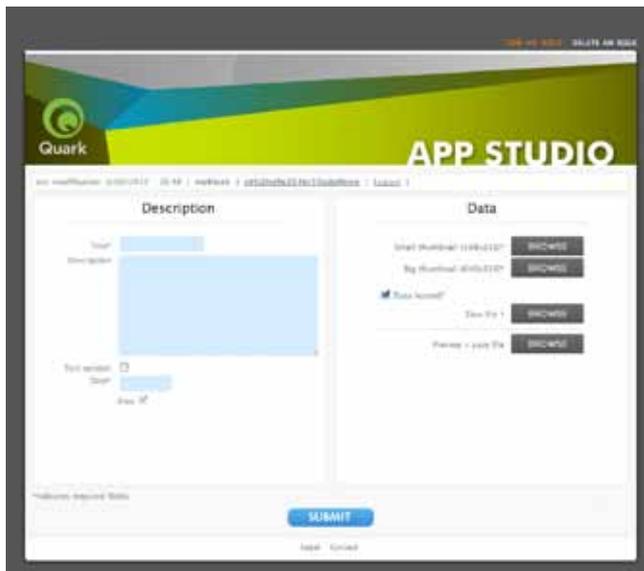
This process only applies to the initial app. Future issues are made available to your customers, through the app, from Quark's own managed issue server. Although Apple reserves the right to monitor and veto any content that might breach its guidelines, there's no submission process or delay.

It's a system that makes good sense for periodicals; we've yet to see how one-shot publications can best be handled.

## FIRST STEPS

Creating your iPad pages is essentially a regular DTP process, but there are differences. The first is the page size. The iPad's screen is 1024 x 768 pixels. Points (pt) can be used as a unit of measure directly





▲ Your finished issue is managed and scheduled for distribution via the online App Studio Portal. This handles the whole digital publishing process, from creating a title (publication) through adding apps and buying issue licences to publishing issues. It's all pretty neat and comprehensive, and all included within your fixed cost per issue.

equivalent to pixels, recalling that on-screen images are traditionally described as '72dpi', referring to what was once the dot pitch of the Mac screen, and there are also 72 points to an inch (at least in the rationalised digital-age definition of a point). You can leave QuarkXPress' units set to millimetres or inches, as long as you type 'pt' after the numbers to tell QuarkXPress they're points.

Making layouts for different orientations is simple: you build each one with the appropriate dimensions – 1024 x 768pt and 768 x 1024pt – and supply both layouts to be processed together. This gives the designer complete control over the appearance in each orientation; things can change as subtly

'Making layouts for different orientations is simple: you build each separately and supply both layouts to be processed together'

or as completely as desired when the device is rotated. iOS handles the transition.

Pages are normally not zoomable and are rendered as high-quality Jpeg bitmaps at the fixed screen size. If you want to let readers zoom into a larger page, this can be requested during processing; the layout is rendered as PDF to support clean resizing.

Designing is best done at 100% view scale, as this will show content – both text and images – at the same pixel dimensions as they'll appear on the iPad screen. That is, the physical size of the page may not be exactly the same, depending on your monitor, but one pixel on the monitor will be one pixel on the iPad screen. It's important to make sure body text looks legible at this scale, as this is exactly how the letterforms will be rendered. There are no limits on what fonts you can

use, but some will render more clearly than others, so you'll need to spend time ensuring all type is legible. Given that the iPad's lacks the high resolution of the iPhone 4's Retina Display, pixellation is more of a limitation than the user's eyesight, and 11 or 12pt is a practical minimum for most fonts, though you may get away with less in short captions.

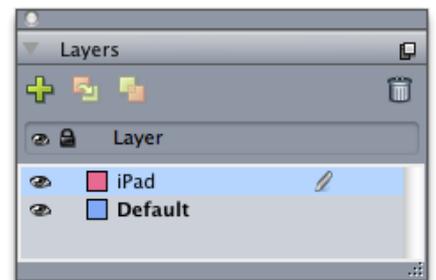
The relatively low resolution is a blessing when it comes to pictures. Rather than the 300dpi you'd need for print, images need only the number of pixels that they'll occupy in the display, from 1024 x 768 for a full page downwards. To check the effective resolution after scaling a picture, look at its 'dpi' in the Measurements palette: it needs to be 72 or higher. Common formats such as Tiff, PSD and Jpeg work fine; a few, such as EPS, only show a low-resolution preview in QuarkXPress, but will be rendered properly for your final issue file. We saw no problems with the scaling of images by App Studio, but for maximum clarity, you could scale pics to their final pixel size in Photoshop first, using sharpening when reducing larger images.

## COLOUR CONTROL

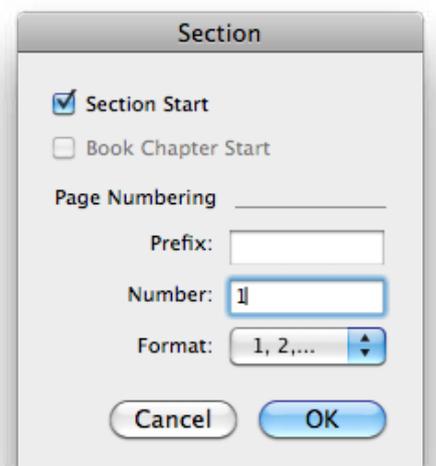
Since you're working for screen and not print, RGB rather than CMYK is the preferred colour model. Note that QuarkXPress' default Black swatch is a single-ink 100% K, and is represented by a thin-looking charcoal colour in RGB, so you'll want to mix a total black with all three RGB sliders set to zero.

Colour-matching from Photoshop is possible, though not particularly obvious. RGB values in QuarkXPress are shown in percentages rather than Photoshop's 256-step numbers, but the way HSB (Hue, Saturation, Brightness) values are measured is directly equivalent across the two applications.

Opinions vary about the merits of layers in desktop publishing: they can be very useful to the organised art editor, and drive



▲ All your multimedia content – including slideshows, video, audio, buttons and HTML – is added to your pages in picture boxes. Using a separate layer will keep all this separate from your basic page layout.



▲ Sections, a QuarkXPress feature normally used to manipulate page numbering, can be used with App Studio to create groups of pages that scroll vertically rather than horizontally. An established convention in iPad magazines, though not adopted by all, is that scrolling horizontally brings the reader to the start of the next article, while scrolling vertically moves through the pages of a longer article. This makes it easier to flip through the magazine quickly, by repeatedly flicking left or right, without having to use the pop-up thumbnail page navigation system.

The iOS Simulator (right), part of Apple's developer tools, lets you preview your issues on the Mac to see how they'll look and feel on the iPad. Although you can use buttons to create specific links between pages, the basic method of navigation around an App Studio magazine is sideways dragging from page to page. Tapping the page opens a scrolling thumbnail display that lets the reader flick through a publication faster. You can also create vertical-scrolling sets of pages using Sections (see below left). Sections shouldn't be used in their conventional way to reset the page numbering. If you use vertical scrolling at all, it's best to set up every page as a section start, even if it stands alone.

the unsuspecting freelancer up the wall. But even those who avoid layers in their regular layout work would be missing a trick not to use them here. Making a new layer for all the boxes that add interactive iPad content will separate the regular page design elements from the clever stuff, which helps smooth the design and production process.

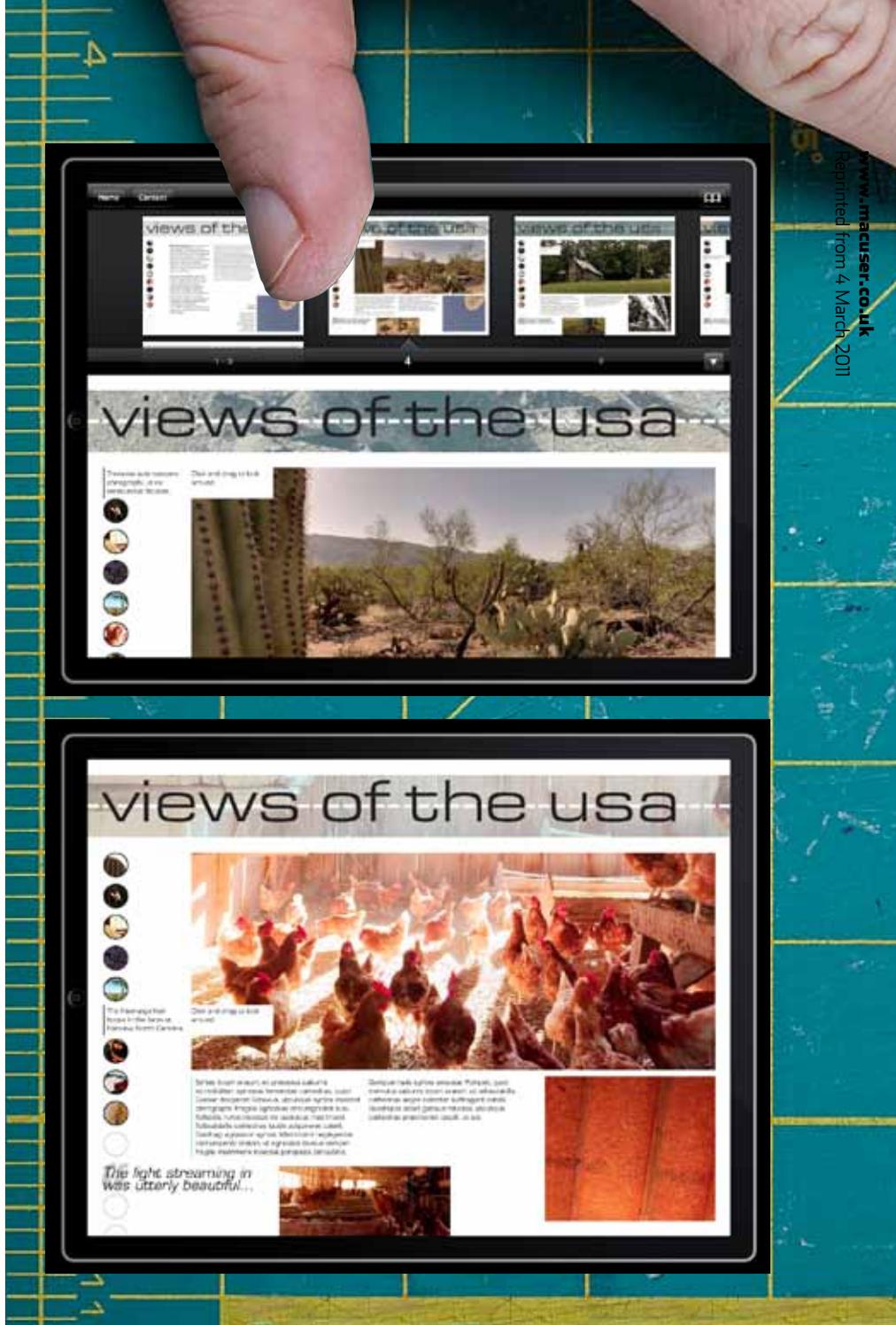
Every bit of iPad interactivity in a layout is contained in picture boxes, tagged using the App Studio palette with the relevant parameters. Although boxes of any shape can be tagged, the App Studio process is only concerned with the rectangular bounds of the content. If the goal is to have the final elements look like they're not rectangular, your graphics should be designed to appear that way before they're used.

Boxes that are to be tagged must be picture boxes, not text boxes or unassigned. As standard, the box tool creates items that have their content type set to None; this must be changed explicitly by choosing Item > Content > Picture. Alternatively, the Picture Content Tool creates new picture boxes by dragging. Empty picture boxes are identified by a wireframe cross from corner to corner.

Picture boxes that are tagged get badged with a small icon at the top right, which indicates the type of interactive content. At the moment, there are no in-page previews for this content. Selecting a configured box shows both its settings and its media content within the App Studio palette, but designers will need to cope with not seeing what they'll get on the page. This is one of the shortcomings Quark is working to address. In practice it wasn't as big a problem as we expected, though it does need sorting out.

## OUTPUT

Once an iPad layout has been designed – in both landscape and portrait orientations if required, each as a separate page – the Collect



for Output feature is used to gather the line work, pictures and fonts together, much as if you were sending it to press. This only works on one layout at a time. Then all the media files you added via App Studio must be gathered manually, as they're not caught by the Collect process. It's a cumbersome job that we hope to see streamlined. You then use Quark's web-based portal to upload your content for conversion, customise your app and prepare issues for scheduled release.

Although the production deal allows for two retakes if things need to be fine-tuned, it's best to aim to get it right first time. Waiting for work to be processed elsewhere isn't ideal; even so, designing with App Studio really is a relatively simple process.

Once an issue is ready, you can download it and view it in a dummy reader app in the

iOS Simulator. This is part of Apple's Xcode developer tools, but doesn't require any coding. Your content can also be moved to a real iPad for testing. Then it's time to submit it to Apple for approval (if it's your first issue) or upload it via Quark's management portal.

QuarkXPress with App Studio is a fast, visual way to create dynamic publications. It's particularly well suited to periodicals, but can also be used for one-offs. The use of standard page layout tools as the heart of the process makes it accessible to designers, the pricing puts it reasonably within reach of publishers of all sizes, and the inclusion of robust HTML embedding opens up a world of possibilities. There are some questions left to answer, and development is ongoing, but in the battle of the iPad publishing systems, Quark's first salvo is impressive.

