

Tablet publishing on the new iPad

Best practices for using Adobe Digital Publishing Suite to publish to the new iPad

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The new iPad (released in March 2012) has twice the resolution packed into the same size screen, which has prompted designers to ask, "how should I design a Digital Publishing Suite publication for this device?" along with questions on how the branded application built with Viewer Builder will treat folio files. Designers and production staff should consider the following aspects as they use files and assets in the Digital Publishing Suite workflow.

To begin, let's examine how Content Viewer treats folios and how designers can use a number of identically named folios to target specific devices. Note that for the duration of this article, "iPad3" refers to the new iPad, while "1024" or "2048" refers to the document dimensions 1024×768 and 2048×1536 respectively.

Design and production summary

At a high level, use the following guidance to create and publish folios for reading on the iPad3.

Create your articles in PDF format.

Compared to raster formats like PNG, the PDF file type results in smaller folios and is only supported on iOS Viewers (see file format options below)

Use renditions

Build folios with the same folio name at both 1024 and 2048 resolutions; these are known as renditions. When renditions are used in multi-folio apps, Content Viewer will detect the correct folio size, and only the correct folio size will be downloaded to the matching device.

Rebuild the branded app using Viewer Builder and publish

Make sure to rebuild your app using Viewer builder to include high-resolution UI assets, and publish both renditions (1024 and 2048) before sending push notifications.

The power of renditions

Applications produced using Digital Publishing Suite have intelligence about the device for which they're built and can filter out inappropriately-sized folios. This ensures that correctly sized folios are downloaded to the corresponding device and match in terms of aspect ratio and resolution. The technique of building folios of different dimensions but with a common folio name creates a "rendition". This method is key to downloading the right folio on a matching device.

Your branded application built with Digital Publishing Suite will download the folio that best suits the device. For example, a Digital Publishing Suite-produced app running on a large Android device will download a 1280×800 folio if it exists on the Distribution Service. An app running on a Kindle Fire will get the 1024×600 folio if it's available. If the correctly sized folio is not available for the Viewer app on a specific device, the

Viewer app will intelligently download a different sized folio and scale it or otherwise adapt the display of the folio to this non-matching device.

In the past, Digital Publishing Suite Viewer apps for iPad functioned differently; they were built to download only a 1024x768 folio and would not download folios of different sizes. However, an update to Viewer Builder (Release 19.2) will allow you to build new iOS Viewer apps which will look for and download folios that match a specific iPad, either in 1024 or 2048 dimensions. The power of renditions now apply to folios for the iPad, iPad2, and iPad3.

Viewers, Renditions, and iPad

New Viewer apps on iPad will use the following logic regarding support for renditions:

If both 1024 and 2048 renditions of a folio exist on the Distribution Service

The branded application will display the 1024 folio on the original iPad and iPad2 and the 2048 folio will display on the iPad3.

If only a 1024 folio exists on the Distribution Service

The Viewer on all iPads will display the 1024 folio. In other words, the iPad3 will be able to render the 1024 folio on the device.

If only a 2048 folio exists on the Distribution Service

The folio will display ONLY on the iPad3. It will not be downloaded to the iPad or iPad2. Therefore, if you want to ensure that you are able to make your content available across all iPad devices you need to choose between one of the first two options above.

Understanding renditions and how to take advantage of them will be important as publishers begin to target this new device. Designers and production staff will face choices about how many files to create, the resolution of assets, and how to create folios. If your company plans on targeting both classes of iPads (retina and non-retina), you will have to consider how to manage these choices. Likely, you'll want to experiment and assess both the workflow and the output to help decide how to design your publications.

Overlays

The inclusion of interactive content within your folio is likely to have the most significant impact on file size. As such, you'll need to judge whether the content is of sufficient quality to include in a publication on your target device. It's important to understand that some types of overlay content is resampled to an appropriate resolution when the folio or article is created and other types of overlay content is not. When the interactive content is not resampled, the assets for the overlay is passed directly through to the article. For example, if you have a very large video overlay in your folio, InDesign does not resample the video for each target device but instead lets the video "pass-through" as-is. If you wish to rework the video resolution, you will need to perform the resampling yourself directly on the asset.

If an overlay is resampled automatically by InDesign, you can use higher resolution assets in your documents and the overlay will be treated correctly when you create an article. The list below indicates which types of overlays InDesign resamples, and which it simply lets "pass-through."

Resampled Overlays

- Buttons
- Slideshows
- Scrollable Frames
- Audio Skins

Pass-through Overlays

- Video
- Image Sequence
- Panorama
- Pan/Zoom

Three potential folio workflows

When building folios using Digital Publishing Suite, you will have to make choices about the both document dimension and additional design aspects like the size of text and the resolution of images used in the static portion of the page or stack. Adobe has advised designers to build documents to match the dimensions of the target device. Body copy, as a result, tends to be legible around 16px to 18px in a published folio. Additionally, InDesign will take care of resampling the static artwork when building a folio. The following section discusses the appropriate dimensions to apply to your InDesign source documents and how to construct your folios.

Three options

Parallel Pairs: Build Two Publications & Two Folios

The workflow with the most control is to create separate InDesign files (or file pairs for both horizontal and vertical layouts) in both 1024 and 2048. This method allows the most control over the assets used for overlays; it creates two folios and uses renditions. However, you'll have to manage both files and some additional overlay assets.

Fork It: Build One Publication & Two Folios

Alternately, designers can use only one InDesign document (or document pair) and use it to create articles for two different sized folios. Using this single-source/dual-folio technique helps minimize additional InDesign

files, but may require relinking to different asset files for pass-through overlays to help control both the clarity of the interactive content and to manage file size.

Stay the Course: Build One Publication & One Folio

Keep building folios for 1024 and the iPad3 will scale the content up. You'll have to assess whether your design and interactivity is of sufficient quality.

Challenges

Design Big & Recalibrate your Brain

It's appealing to consider starting with a layout with large dimensions (like 2048), using the original size for the iPad3 rendition, and then resize or scale the layout down for the 1024 size. However, several design challenges present themselves when using this method. Margins, gutters, and text all have to be twice the size you are accustomed to using when designing for a 1024 layout. Adjusting how you think about body copy size may feel odd. Body copy for a 1024 layout might be 16px to 18px high to be legible; but to get the same apparent size in a 2048 layout, your body copy will need to be 32px to 36px.

Relink to Alternate Assets

Regardless whether you design for 2048 or 1024, you'll need to consider building duplicate assets for the interactive assets which are passed-through to the folio and not resampled. You'll need to stick to a workflow both to generate the additional assets and to relink. Overlay assets are not relinked in the Links panel, you'll have to relink each overlay in your article. You might consider using individual layers in your document; one for standard resolution assets and another for higher resolution pass-through overlay assets.

File Size

In terms of file size, designers need to consider which file formats they use when building folios specifically for the retina display. When choosing a target file format you need to think about three things: quality of content, performance of the folio, and impact of the folio size on memory and storage.

Within Digital Publishing Suite you can take advantage of the following file formats and technology when authoring articles in your folio. Each file format, however, comes with its own set of pros and cons.

- **PNG.** The PNG format allows for precise pixel display for beautiful resolution and rapid loading on iOS. However, it also results in large file sizes.
- **JPG.** The JPG format delivers a small file size for quicker folio downloads, but can result in aliased type. It also typically uses twice the RAM as a PNG-based folio on iOS.
- **PDF.** The PDF format also delivers small file sizes. Because PDF is based on vector graphic formats is displays crisp and beautiful text, however can be slower to load on device.
- **HTML.** The HTML format results in very small files size which delivers average content fidelity but can also be slow to load. Using HTML also requires that you think about the experience if the user is reading offline.

In non-retina iPads many designers choose PNG as the target format for stacks/articles because it provides good quality of content, acceptable file size and acceptable download performance. For retina iPads, Adobe suggests that you consider PDF in the short run and HTML in the long run. PDF allows readers and customers the best experience overall on the new iPad in terms of quality of design and readability as well as performance and memory management. However, you need to make the final choice of target file formats based on your content design, production and reading experience goals.

Recommended Solution—Parallel Pairs, Full Renditions

Renditions (two separate .folios built at 1024 and 2048 dimensions that have same name) are the key to delivering high-quality content to all three iPads and you will have the greatest control by using two design files (or pairs for dual-orientation folios). Design one document at 1024 with 144dpi assets for static content and resampled overlays. Use 72dpi assets for pass-through overlays.

- Document: 1024×768
- Static images and resampled overlay content: 144dpi

- Pass-through overlay content: 72dpi

When design changes are complete, generate the 1024 folio and save this original layout file. The static page and resampled overlays will be the right resolution for iPad and iPad2. Pass-through overlays will be the right resolution too.

- Duplicate the file for building the 2048 folio (it's still a 1024 document.)
- Relink the assets for pass-through overlays to 144dpi files.
- Create the 2048 folio.
- You now have two renditions of the folio suitable for iPad, iPad2, and iPad3.

Viewers and Viewer Builder

A new viewer for your iPad app will help deliver the best experience. The Viewer Builder released recently (Release 19) allows you to upload additional, larger assets for various publisher-controlled artwork used in your app. The new, larger or hi-res assets will be used when your app is used on an iPad3.

New viewers will carry both the original resolution content and the new, high-resolution assets you load in Viewer Builder. The resulting viewer will work on both older iPads and iPad3. Some Digital Publishing Suite customers will only need to build additional assets for icons and splash screens while Digital Publishing Suite Enterprise customers whose apps include subscriptions, Newsstand, or entitlement features will want to create new assets for banners, navigation icons, and so on, and consider how their HTML content might detect device dimension and deliver an appropriate asset for online content.

Additional assets include:

- Application icons
- Splash screen artwork
- Subscription, Newsstand, and entitlement artwork and banners
- Custom navigation icons
- Sample folio for submission with a branded application—are you going to build a high-resolution rendition?

Guidance for production to iPad:

1. Articles and Layout Files

- A. Create articles which use PDF format.
- B. Best practice: work with two sets of layout files and corresponding folios to deliver the most appropriate folio to the correct device via renditions.

2. Overlay Assets

- A. Use high-resolution assets for overlays that will resample and for static page layout.
- B. Use low-resolution assets for pass-through overlays when creating the 1024 folio and articles.
- C. Create and relink to high-resolution assets for pass-through overlays when creating the 2048 folio.

3. Viewer Builder

- A. Build a new branded application with high-resolution graphics and UI assets.

Additional Considerations

Publish & Push

If you're going to create two renditions it's really important that you coordinate your publishing efforts and when you send push notifications to your app. You need to create both renditions, publish the 2048 rendition

before the 1024 rendition, and then send your push notification for the folio. This way your app on all iPads is aware of both renditions and downloads the correct one.

If you publish the 1024 rendition first and send separate push notifications it is possible that an iPad3 would download the 1024 rendition of a folio. If a 2048 rendition were published later, the iPad3 would ignore the new rendition—and the reader would only have the lower-resolution folio on their hi-resolution iPad.

If you publish the 2048 rendition first, then publish the 1024 rendition, and finally send the push notification, then both renditions are ready to go and one push notifies all iPads that a new folio is ready for download.

Folio Covers

You can upload cover images for each folio either as properties of the folio in Folio Builder or through the Folio Producer service accessible through the Digital Publishing Dashboard. Designers can use images about 1000 pixels on the long side and get good results. If you load images that are overly large the service resamples the image to an appropriate size and resolution. Testing for larger cover image assets for 2048 folios is forthcoming.

Color on iPad3

Apple notes "44% greater color saturation" on the iPad 3. In the future, we will look at how to best handle images, color spaces, and profiles. In addition, we'll compare sRGB images to other profiles and compare these images on various iPads.

Additional Resources

Bob Bringhurst's blog:

<http://blogs.adobe.com/indesigndocs/2012/03/guidelines-for-creating-folios-for-ipad-3.html>

DPS Help: Best practices for creating overlays:

http://help.adobe.com/en_US/digitalpubsuite/using/WS67cb9e293e2f1f60-132bfd3e12c752bdf7e-8000.html

DPS Help: Create folio renditions:

http://help.adobe.com/en_US/digitalpubsuite/using/WS9293e1fb3b977c5c-2337961812e35738f56-8000.html

DPS Help: Creating documents for multiple devices:

http://help.adobe.com/en_US/digitalpubsuite/using/WS9293e1fb3b977c5c-6e66370112f982025bb-7fff.html#WS67cb9e293e2f1f60f5f54012e30daf910-8000

For more information

Solution details: www.adobe.com/products/digital-publishing-suite-enterprise.html



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20120323