

# Adobe® eBook Platform: Authoring and delivering eBooks across devices

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The increasing popularity of eBooks demonstrates that they are not a passing phenomenon. According to the Association of American Publishers and the International Digital Publishing Forum, wholesale eBook sales in the first quarter of 2010 more than tripled over the same time period during the previous year.<sup>1</sup> While this represents a small percentage of books being sold, it's nevertheless a massive year-to-year increase. And with the advent of new devices such as the iPad and other tablets, consumer eBook adoption will most likely continue to rise substantially.

## Consumer preferences and publisher requirements

With this rise in adoption comes a solidifying of consumer expectations: consumers want more from eBook experiences than they've been offered in the past. As the market takes hold, it's becoming clear that eBook readers want:

- An open environment where readers can download books from a variety of sources
- Interoperability among devices
- Ability to share books with friends

Consumers are frustrated by "walled garden" approaches that limit their reading to a specific device and prevent sharing books with others. Amazon Kindle users, for example, cannot download EPUB files from their public libraries to their devices. And those who want to access Apple's iBookstore can do so only via their Apple devices, not PCs or Android devices. In fact, according to the Book Industry Study Group (BISG) May 2010 report, "Consumer Attitudes Towards E-Book Reading – Part 2":

The inability to read e-books on different devices remained the biggest problem e-book acquirers identified about e-readers.

Additionally, the "inability to share e-books" ranked third on the list of e-reader problems in this survey. Consumers want to be able to pass along a good eBook to their friends, just as they do with print books. They regard reading as a communal experience, and constraining an eBook to its device prevents this experience.

Publishers have their own requirements as they meet the increase in consumer demand for eBooks. Top among these is a cost-efficient workflow in which publishers can create books in print and digital formats. Publishers also need to integrate their eBook production with existing systems. Additionally, publishers are

<sup>1</sup>See U.S. Trade Wholesale Electronic Book sales. [http://idpf.org/doc\\_library/industrystats.htm](http://idpf.org/doc_library/industrystats.htm)

concerned about security, and they want their distribution channels to protect their eBooks from piracy. However, recognizing that readers have always shared books, publishers want the option to enable flexible permissions so that consumers can pass along books to friends.

This white paper investigates how the Adobe eBook Platform provides the interoperability that consumers want as well as fulfills publisher requirements for eBook production and distribution.

## The Adobe eBook Platform

The Adobe eBook Platform consists of four key tools: Adobe InDesign® CS5 software, Adobe Content Server 4 software, the Adobe Reader® Mobile 9 Software Development Kit (SDK), and Adobe Digital Editions software. Together, these tools enable:

- Publishers to create and distribute eBook files
- Retailers and libraries to securely distribute these files to consumers
- Device manufacturers to enable e-readers and smartphones to access eBook files
- Consumers to download and read eBooks

Adobe's solutions support PDF, the standard for final-form eBooks, as well as the EPUB format. Developed by the International Digital Publishing Forum, EPUB has become the lingua franca for reflowable eBooks across the industry. Having a common standard allows publishers, wholesalers, retailers, libraries, and consumers to create, distribute, sell, loan, and access eBooks without converting or reformatting files. By adhering to the EPUB standard, the book industry ensures that eBooks get from publisher to consumer with minimal disruption. Because of its importance as a standard, Adobe is helping to drive EPUB adoption with more than 150 industry partners, including Barnes & Noble, Kobo, OverDrive, and Sony.

### Adobe Content Server 4

Adobe Content Server allows publishers, retailers, distributors, and libraries to host and manage eBook distribution. This server software encrypts PDF and EPUB eBook files and allows publishers and retailers to manage the rights on the eBook files they distribute. At the outset, Content Server allows publishers to monetize their content. It also enables them to innovate on their business model without being locked into a specific distributor's terms. This reduces the "walled garden" scenario and helps publishers avoid disintermediation by dominant technology players.

Over 150 companies use Content Server to protect PDF and EPUB eBooks, resulting in over 1,000 points of purchase where users can download eBooks, including many public libraries.

### Adobe Reader Mobile 9 SDK

The Reader Mobile 9 SDK allows e-reader device manufacturers and eBook application developers to support EPUB and PDF files protected by Content Server in their products. It enables tethered and over-the-air downloads so that consumers can order eBooks directly through their devices or "side-load" them by copying files from their desktops to their mobile devices. Developers who use the Reader Mobile 9 SDK have access to source code as well as complete documentation for the SDK and APIs. In total, over 50 dedicated e-readers and eBook applications use this SDK, including the Barnes & Noble nook, the Sony® Reader, and the Kobo eReader.

### Adobe Creative Suite® 5

Adobe Creative Suite 5—specifically InDesign CS5, the layout and design tool for publishers—enables production staff to export EPUB files from their print layouts. Using InDesign CS5, publishers can export eBooks to the Apple iPad, the Sony Reader, the Barnes & Noble nook, and smartphones, as well as personal computers using Microsoft® Windows® or Mac OS.

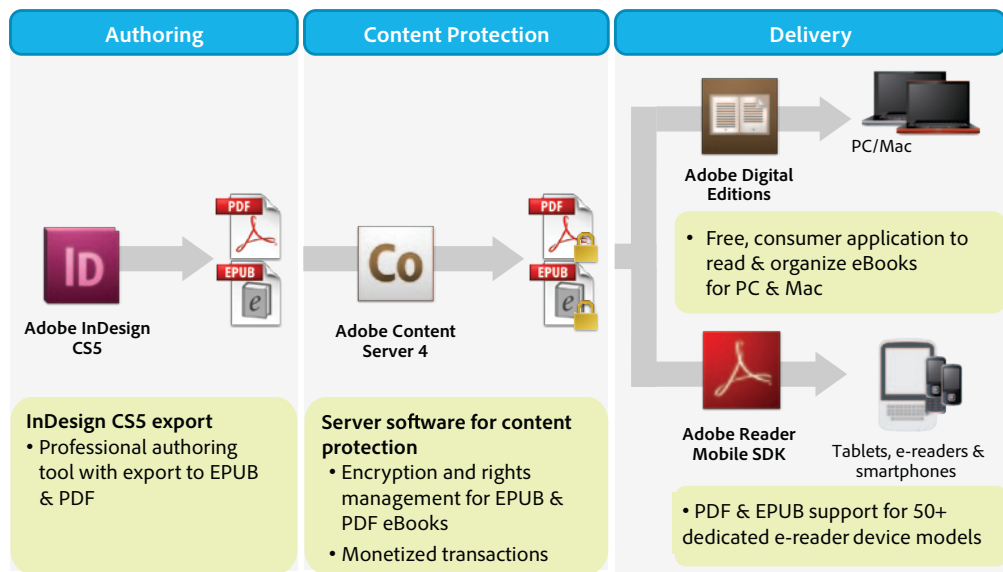
InDesign allows publishers to include interactivity, animation, sound, and video directly in the native InDesign file, bringing eBooks to life when they are read on a personal computer using Adobe Digital Editions. With InDesign CS5, publishers will find improvements to the EPUB export feature, including:

- Ability to control the content reading order based on the document structure
- Support for prebuilt cascading style sheets (CSS) to provide consistent styling
- Support for chapter breaks
- Improved table formatting and font subsetting

## Adobe Digital Editions

Adobe Digital Editions is a free, lightweight desktop reading application for PC and Mac that allows eBook consumers to easily download and organize their eBooks easily. Consumers can read their eBooks online and offline, transfer copy-protected eBooks from their personal computers to other devices, organize eBooks into a custom library, and annotate pages. Adobe Digital Editions also lets consumers read eBooks they've borrowed from their public libraries or purchased from a retail outlet.

Digital Editions supports the Sony Reader, the Barnes & Noble nook, and over 50 other devices. In addition to supporting EPUB, Digital Editions supports PDF, which means that consumers can use it to access personal documents.



## How the Adobe eBook Platform helps meet consumer demands

### Open environment

As quickly as consumers are adopting eBooks, they are also experiencing frustration with walled-garden systems. While EPUB is an open standard, many publishers require retailers to encode their eBook files with digital rights management (DRM), making it impossible for users of a specific retailer's device—like the Apple iPad (using iBookstore) or Amazon Kindle—to purchase eBooks from another retailer with a different DRM. This keeps device owners locked into one specific retailer for all their purchases, even if that retailer stops carrying certain titles. The fact that some devices do not allow purchasing or downloading from a variety of retailers or libraries remains, according to the BISG study cited earlier, the top consumer complaint.

With the Adobe eBook Platform, consumers can purchase and download books from a wide variety of retailers: Barnes & Noble, Sony, Kobo and more. Additionally, consumers can download books from public libraries, most of which use the OverDrive Content Reserve system, powered by Adobe Content Server. The libraries encode an expiration date in their eBooks' DRM. Upon expiration they are returned to the library and no longer exist on the consumer's device.

## Device interoperability

The sheer number of devices that can be used to read eBooks has exploded in recent years. In addition to dedicated e-readers, consumers are using smartphones, tablets, and laptops for their immersive reading experiences.

As mentioned, a frequent consumer demand is the ability to read eBooks on a number of devices. For example, consumers might want an e-ink display for reading outdoors and a small backlit display for reading indoors at night, or be able to access their eBooks on their desktops to copy content into a document or an email. Or they might want to view recipes from a digital cookbook on a smartphone and read a children's story from a tablet while in the kitchen. With the Adobe eBook Platform, consumers can do all this. With one common file format and DRM, they can access their eBooks from a variety of devices anywhere, anytime.

## Ability to share

Just as consumers lend and borrow print books, they want to be able to do the same with eBooks. Current systems in which eBooks are confined to one device do not permit this experience. However, later in 2010, systems using Adobe Content Server will have the option to embed password-only content protection. Publishers and distributors will have the option to choose between traditional identity-based or new password-only content protection. With this new option, readers only need to enter a password to access content, and they can share their eBooks with those to whom they entrust their password. Under the password-only model, users enter a password when accessing their content for the first time on a new device. Devices using the latest version of the Reader Mobile SDK will be able to open documents with either type of protection.

Using Adobe Content Server 4, some operators might choose to create a password that users are unlikely to share (retail account password, credit card number, and so on), while others might choose to enable passwords that facilitate more open sharing. For security, any password that users enter to authorize content is converted to a nonreversible one-way hash of the string.

## How the Adobe eBook Platform helps publishers

Publishers have their own concerns about eBook production and distribution. Producing multiple formats can be expensive, requiring publishers to invest in additional software, train designers, and create separate distribution mechanisms. Leveraging existing creative software, such as Adobe Creative Suite, and associated designer skill sets is a more economical approach.

With the proliferation of devices, publishers want a cost-efficient workflow that leverages existing editorial tools. Instead of outputting multiple file types to reach multiple devices, publishers are looking to streamline the authoring workflow by outputting to a standard file format like PDF or EPUB that is compatible with a wide variety of devices. Since InDesign CS3, publishers have been able to export EPUB and PDF files from their print files, which helps reduce content production costs.

Adobe has also developed alternative ways to generate EPUB files. The EPUBGen library is a Java™ library that can generate EPUB files from a variety of document types like Microsoft Word or rich text format. Moreover, Adobe has contributed to the development of other open source tools, including EpubCheck, which validates EPUB files against specifications, and EpubPreflight. EpubPreflight inspects an EPUB file and determines if it is empty or if its images are over the recommended file size limit, which can be helpful to publishers that are converting many eBooks at once and need to preflight them en masse.

In addition, Adobe has a hosted online word processing tool, Adobe Buzzword® with EPUB export support. However, the InDesign EPUB export feature makes authoring EPUB files easier than ever, and it remains the toolset of choice among publishers who are heavily invested in eBook production.

## E-reading applications for Apple devices

According to a Bowker/BISG study regarding eBook consumption, the iPad gained 3% market share among eBook readers within several weeks after its launch.<sup>2</sup> While Apple does not support Adobe's DRM, readers

<sup>2</sup>See [http://www.mediabistro.com/ebooknewser/ereaders/the\\_book\\_industry\\_study\\_group\\_sees\\_ebook\\_adoption\\_growing\\_162859.asp](http://www.mediabistro.com/ebooknewser/ereaders/the_book_industry_study_group_sees_ebook_adoption_growing_162859.asp)

nevertheless want the same seamless eBook reading experience on the iPhone and iPad that they have on their other devices.

The most effective way currently to provide this experience for consumers is via e-reading applications. While direct downloads from the iBookstore tether the consumer's reading experience to Apple products only, other book retailers are offering specific applications that are compatible with Adobe's protection. For example, nook users can download the Barnes & Noble eReader app to their iPad (or iPhone), and Kobo users can do the same with the Kobo app. However, because of the file sandbox on the iPad, the user experience is not seamless. Readers must remember where they bought their eBooks and use that vendor's app to access them.

## Case study: The interoperability of the Adobe eBook Platform

The greatest advantage of the Adobe eBook Platform is that it facilitates eBook interoperability among devices. Consumers who purchase devices enabled by the Reader Mobile SDK, such as the Barnes & Noble nook, have a wide variety of options.

The nook user can download books from Barnes & Noble's eBook store (either directly on the device or transferred via a computer). The user can also download from the Sony Reader Store, Kobo, or a variety of independent eBook stores. Should Barnes & Noble, for example, not carry a particular title, the customer can choose to shop elsewhere. The user's Barnes & Noble books are authorized via password-only protection on the device while the remaining are associated with an Adobe ID and can be transferred to up to six computers and six mobile devices.

The nook user can download books from the public library via the Overdrive Content Reserve system. These books expire after a certain period and are returned to the library. Because library books are protected by Content Server 4, the user can access them with any device on which Digital Editions is installed by simply entering an Adobe ID.

The nook user can also read Barnes & Noble eBooks on the Barnes & Noble eReader application for the iPad. Or the user can download books to a laptop and read them using Adobe Digital Editions. According to the BISG study, 44% of eBook readers use their computers as their eBook reading device.

## Summary

The Adobe eBook Platform offers both publishers and consumers a complete solution from authoring to reading. Publishers can leverage their existing use of InDesign to create EPUB and PDF files and protect and distribute those files with Content Server. Users with devices enabled by the Reader Mobile SDK (over 50 different dedicated e-reader devices and eBook applications) or desktops with Digital Editions can download and read eBooks easily. Already in thousands of retail locations and libraries all over the world, Adobe's solution satisfies the needs of publishers, distributors, and consumers alike.

## For more information

Platform details: [www.adobe.com/digitalpublishing](http://www.adobe.com/digitalpublishing)



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