



Department of Electronics and Information Technology
Ministry of Communications and Information Technology
Government of India

e-Book

Guidelines on Publishing e-Book



e-Book

Guidelines on Publishing e-Book

This book is a Guidelines from Department of Electronics & Information Technology (DeitY) on publishing e-Books. The Guidelines entails step-by-step conversion of the existing soft copy of the content into an e-Book.

These guidelines is an effort to facilitate all Ministries / Departments in preparation of an e-Book on their achievements with visual artifacts, graphical images, multimedia contents and host it at an appropriate location.

These Guidelines are also available for downloaded from www.deity.gov.in / www.negp.gov.in



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Introduction

An electronic book (e-book) is publication of a document in digital form, comprising of text and graphics and potentially including optional richer multimedia content (Audio / Video). The e-book contents can be read on several electronic devices or viewing platforms such as mobile phones, tablet PCs, e-Ink Readers, Desktop computers, laptop computers with appropriate software typically also including Internet browsers. The contents in e-book formats can include a variety of applications such as Newspapers, Magazines, Books, Reports, Greeting Cards etc. Some software also permits the e-books to get printed in paper form for archivals and/or different mode of reading.

The e-Books are majorly divided into two broad categories.

A) Fixed page size paginated content

Typical prepress or fixed page size output formats like PostScript or PDF are formats designed for paper-like replica including references to page numbers in the text. This kind of format is the simplest form of e-Book. The e-Book so produced can be distributed electronically through Internet, CDs or USB drives. Such e-books are also largely protected against non-authentic modifications.

B) Reflowable content

A Reflowable document is a type of an electronic document that can adapt its presentation to the output device (such as Desktop, Tablets, smartphone and others) by recreating pagination on the view device. This permit the text to be resized for comfortable viewing but can not include page referencing.



Steps for Publishing e-Books

- 1) To publish **HTML e-Book** (Refer Annexure 1) , a department / ministry can follow the below mentioned steps:
 - a) Get your content Designed and ready DOC / PDF form.
 - b) Save each page as JPEG / JPG image in a folder.
 - c) Provide this content to an HTML developer who can convert the same into HTML e-Book , using basic developer tools like Adobe Photoshop , HTML editor etc.
 - d) This page can now be hosted on the department's website / portal.
 - e) This option uses HTML 5 , CSS 3 & Java Script and is very easy to use .

- 2) To publish e-Book in EPUB (Refer Annexure 1) format a department / ministry can follow the below mentioned steps:
 - a) Install any free EPUB converter like "Calibre" on your machine.(Refer Annexure 2 for a list of converters)
 - b) Save your final content in any format like .pdf, .doc, .txt, etc on the same machine.
 - c) Open the converting software and browse the document you want to convert and choose the option "convert to EPUB" format.
 - d) Although document in any format like .doc, .docx, .txt, .pdf etc can be converted to EPUB format using the freely available converter, the most compatible format for conversion is HTML. The other forms may suffer from some or the other form of distortion in the original content.
 - e) If the document has lot of images / graphs / styles , then it is suggested to hire a professional agency for EPUB conversion. This option may be expensive depending on the size and the type of the content.



e-Book Standards / Formats

Some of the major e-Book Formats are mentioned below :

1) Amazon Kindle Format – 8

Format: Kindle

Published as: .azw3; .azw; .kf8

Amazon recently announced the support of a new format called KF8 based on HTML5 and CSS3. KF8 is the next generation file format for Kindle books – replacing Mobi 7 and is launched with the new Kindle Fire eBook tablet. KF8 enables publishers to create great-looking books in categories that require rich formatting and design such as children's picture books, comics & graphic novels, technical & engineering books and cookbooks. Kindle Format 8 adds over 150 new formatting capabilities, including fixed layouts, nested tables, callouts, sidebars and Scalable Vector Graphics, opening up more opportunities to create Kindle books that readers will love.

2) EPUB

Format: IDPF/EPUB

Published as: .epub

The .epub or OEBPS format is an open standard for e-books created by the International Digital Publishing Forum (IDPF). It combines three IDPF open standards:

- Open Publication Structure (OPS) 2.0, which describes the content markup (either XHTML or Daisy DTBook)
- Open Packaging Format (OPF) 2.0, which describes the structure of an .epub in XML
- OEBPS Container Format (OCF) 1.0, which bundles files together (as a renamed ZIP file)



The EPUB format has gained some popularity as a vendor-independent XML-based e-book format. The format can be read by the Kobo eReader, Blackberry Playbook, Apple's iBooks app running on iOS devices such as the iPhone, iPod Touch and iPad, Google Books app running on Android and iOS devices, Barnes and Noble Nook, Sony Reader, BeBook, Bookeen Cybook Gen3 (with firmware v. 2 and up), COOL-ER, Adobe Digital Editions, Lexcycle Stanza, BookGlutton, AZARDI, FBReader, Aldiko, CoolReader, Mantano Reader, Moon+ Reader on Android, the Mozilla Firefox add-on EPUBReader, and Okular. Several other desktop reader software programs are currently implementing support for the format, such as dotReader, Mobipocket, uBook.

The only notable device lacking support for the EPUB format is the Amazon Kindle (but accepted in Kindle Fire). Adobe Digital Editions also uses .epub format for its e-books.

3) Mobipocket

Format: Mobipocket

Published as: .prc; .mobi

The Mobipocket e-book format is based on the Open eBook standard using XHTML and can include JavaScript and frames. It also supports native SQL queries to be used with embedded databases.

The Amazon Kindle's AZW format is basically just the Mobipocket format with a slightly different serial number scheme (it uses an asterisk instead of a Dollar sign), and .prc

4) Portable Document Format (PDF)

Format: Adobe Portable Document Format

Published as: .pdf

A file format created by Adobe Systems, initially to provide a standard



form for storing printable documents containing a set of page images. The format derives from PostScript, but without language features like loops, and with added support for features like compression, passwords and DRM. Because PDF documents can easily be viewed and printed by users on a variety of computer platforms, they are very common on the World Wide Web. The specification of the format is available without charge from Adobe. Multiple products support creating and tagging PDF files, such as Adobe Acrobat, PDFCreator, OpenOffice.org, iText, and FOP, and several programming libraries. Third party viewers such as xpdf are also available.

5) Plain Text files

Format: Plain Text

Published as: .txt

eBooks that are distributed in plain text exists and are used for free distribution. These files are in all languages and do not have text formatting, images, table of contents etc.

6) Flipping eBooks - Flash

Format: Flash eBooks

Published as: .swf , .exe

A Flash-eBook magazine, catalogue, or book is a book with which users can flip pages naturally just like they would do with a real book. It is often times burdensome to attach a magazine in the form of a PDF document or image files on a website since the user will have to download a large file size although the user may only be interested in reading specific pages. Through such hosted flash eBooks, smaller optimized versions of the pages are displayed, leaving the user to flip through desired pages and choosing to reveal the page in high resolution. A Flash-eBook can be incorporated into your website, or embedded on a CD. A flash eBook is recommended for online reading or distribution via CD's of rich content. Flash eBooks support all languages as fonts are embedded in the content.



7) HTML5 eBooks

Format: HTML5

Published as: .html

HTML5 eBooks are the new generation of eBooks, and is being adopted by worldwide standards such as EPUB3, Amazon etc. HTML5 brings the power of interactivity, animations, multimedia etc with Flash-like performance on a regular HTML browser and can also integrate security. HTML5 eBooks can be read on regular browsers. HTML5 eBooks cannot be read on regular eBook readers, however they can be read on PC's and smartphones/tablets running on Apple OS and Android platforms. HTML5 is an open standard and is more used for rich, animated books that can be built into a flipping book and distributed via hosted websites or through CD's. HTML5 is language agnostic and supports embedded fonts like other HTML files.

Annexure 2



1. eBook Creation Software

Due to the wide variety of standards for eBooks and ePublications, there are quite a large number of software suites and workflow solutions to create these Book formats. A summary of the main software solutions are given below:

- I. Adobe Digital Publishing Suite - Licensed
- II. Adobe Indesign (included in the Publishing Suite which is a workflow software for publishing companies that want to unify their print and digital publication creation process) - Licensed
- III. Quark Xpress Digital Publishing Suite - Licensed
- IV. Calibre eBook creation suite – Open Source
- V. Librios Digital Publishing Suite – Licensed
- VI. KindleGen Software – Creator for Amazon Books , Licensed
- VII. Baker framework – Open Source HTML5 eBook creation Software
- VIII. Laker Framework – Open Source HTML5 eBook creation software
- IX. Circularflo Fixed Layout ePub Software – Licensed
- X. Flipping Book creation software – From many sources
- XI. Adobe Acrobat Professional – Licensed
- XII. Proprietary eBook Creation Solutions

2. eBook Reader Software

There are a wide variety of eBook reading software, almost all of them being freely available for download on all platforms. A summary of the eBook reader software available is given below:

- I. Adobe Digital Editions – PDF , ePub , ePub3 (Beta) : PC, Linux and Mac
- II. Calibre Reader - All formats : PC, Linux and Mac
- III. Apple iBooks Reader – ePub , fixed layout ePub Mac
- IV. Sony , Kindle , Nook Digital reader Software : PC , Mac and Linux
- V. Ibis HTML5 eBook Reader
- VI. Google Web Reader
- VII. Amazon Cloud Reader
- VIII. MagicScroll HTML5 Web eBook Reader
- IX. Adobe/Macromedia Flash Renderer Plug-in for Flash eBooks
- X. Adobe Acrobat Reader



References & Sources

- 1) <http://alistapart.com/article/ebookstandards>
- 2) calibre-ebook.com/
- 3) www.zdnet.com/.../how-apple-is-sabotaging-an-open-standard-for-digita...
- 4) stackoverflow.com/.../ebook-format-in-nowadays-epub-is-de-facto-stand...
- 5) en.wikipedia.org/wiki/Comparison_of_e-book_formats
- 6) <http://greatminds-media.com/wp-content/uploads/2011/09/White-Paper-eBook-Standards-and-applicablity-for-India.pdf>
- 7) <http://cent.uji.es/pub/sites/cent/files/Wikipedia-Book-Ebooks-and-textbooks-basic-concepts.pdf>
- 8) <http://idpf.org/>
- 9) http://www.dmoz.org/Business/Publishing_and_Printing/Publishing/Electronic/E-Books/
- 10) <http://calibre-ebook.com/about>
- 11) <http://www.webstandards.org/learn/faq/>

National e-Governance Division: The Department of Electronics and Information Technology, Government of India has formed the National e-Governance Division (NeGD) as an autonomous business division within Media Lab Asia, under the Ministry of Communication and Information Technology, Government of India, for supporting and assisting Department of Electronics and Information Technology in the Programme Management of NeGP. The task of supporting coordination of Digital India is also being handled by NeGD.

NeGD supports Department of Electronics and Information Technology in the following tasks: Facilitating implementation of Mission Mode Projects by Line Ministries/State Governments; Providing technical assistance to Central Ministries/State Line Departments; Acting as Secretariat to Apex Committee; Undertaking technical appraisal of all NeGP projects to examine issues such as overall technology architecture, framework, standards, security policy, service delivery mechanism, sharing of common infrastructure; Human Resource Development, Training and Awareness Building, Framing core policies, technical assistance, R&D, awareness and assessment and creation of organization structure; Acting as a Central Agency for an effective implementation of Capacity Building Scheme inter-alia involving provisioning of manpower at various State e-Mission Teams (SeMTs) across States/Union Territories; Positioning of a Capacity Building Management Cell for effective management of manpower at SeMTs together with management of other scheme activities including training and setting up HR policies.



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