# **Files and Formats**

## **Electronic Text**

.TXT	ASCII or Unicode plaintext
.HTML	HyperText Markup Language (.html, .htm)
.XML	eXtensible Markup Language — broader than just documents
RTF	Rich Text Format
.KES	Kurzweil text file
Plucker	Processed and compressed files - converted and readable by Plucker
	(eBook reader software for Palm OS)
AZW	electronic text formatted for the Kindle reader

# **Digital Audio**

MP3	(MPEG Layer 3) (.mp3)
AAC	Advanced Audio Coding
WAV	Waveform (.wav)
WMA	Windows Media Audio
WMA (DRM)	Windows Media Audio (Digital Rights Management)
.ogg	Ogg Vorbis; digital audio file designed for streaming
.aa	Audible.com file format

## Other

DAISY	Digital Accessible Information SYstem
NIMAS	National Instructional Materials Accessibility Standard
BRF	Braille ASCII File
PDF	Portable Document Format

## **Electronic Files and Formats Glossary**

#### **Text Files:**

- TXT (Text Files):
  - A generic sort of extension indicating a simple text file (usually ASCII). It can be read by most word processors, although sometimes character set differences will require slight conversions.
- HTML (HyperText Markup Language):
  - HTML was designed to display data, with focus on how data looks. Like a scrapbook-it acts as the glue to hold images where you want them placed around or within the text. Web sites are HTML.
- XML (Extended Markup Language):
  - XML was created to structure, store, and transport information. Used to create Braille, large print, HTML versions, DAISY talking books using human voice or text-to-speech, audio files derived from text-to-speech transformations, and more.
- RTF (Rich Text Format):
  - File format standardized by Microsoft for creating formatted text files. An RTF file can include information such as text style, size, and color. RTF format is a universal format, meaning it can be read by nearly all word processors.
- KES:
  - Files scanned into Kurzweil or opened in Kurzweil are converted into an exclusive Kurzweil file. KES files can only be opened in Kurzweil and are one of the few files that are compatible with the Kurzweil LearnStation.
- Plucker:
  - Plucker is a free e-book reader for Palm OS based handheld devices, Windows Mobile (PocketPC) devices and other PDAs. It reads HTML or Plain Text. Electronic books can be downloaded as Plucker.
- AZW (electronic text formatted for the Kindle reader):
  - AZW are the only electronic text files that are compatible in the Kindle reader.
    eBooks purchased from Amazon for the Kindle reader are in the AZW file. Other

file types may be emailed to Amazon to be converted to AZW for reading on the Kindle.

#### **Audio Files:**

- MP3 (MPEG Layer 3):
  - MP3 digital audio encoding for audio storage and playback. MP3 files are compressed audio files so require less memory and storage space.
- AAC (Advanced Audio Coding):
  - Standardized encoding for digital audio as part of MPEG-2 and MPEG-4. Was created to be an improvement to MP3 with better sound quality.
- WAV (Waveform):
  - WAV is a Microsoft and IBM audio file format created for PCs. It is raw and typically uncompressed audio for Windows. Although, it is also compatible with Macintosh operating systems. WAV files are often used by audio experts for maximum audio quality. WAV files tend to be large due to the uncompressed file.
- WMA (Windows Media Audio):
  - A compressed audio data file created by and for Windows; it is a part of the Windows Media framework. WMA was created to compete with the MP3 file format. To play WMA files on Macintosh operating systems, additional applications must be installed.
- WMA (DRM) (Windows Media Audio Digital Rights Management):
  - Is a Digital Rights Management service for the Windows Media platform. It is designed to provide secure delivery of audio and/or video content over an IP network to a PC or other playback device in such a way that the distributor can control how that content is used. WMA (DRM) files are often used by online library services for checking out audio books.
- .ogg (Ogg Vorbis):
  - Ogg Vorbis is a compressed audio file designed for streaming, e.g. podcasts.
    Compatible on many different audio software players.

- .aa (Audible.com file format):
  - This is the audio file format used by Audible.com. Audible.com offers audio books, and more, for purchase.

#### **Other Files and Formats:**

- DAISY (Digital Accessible Information SYstem):
  - A DAISY book is a digital talking book that is a multimedia standard. It supports a traditional presentation of images and text with audio and allows content navigation.
- NIMAS (National Instructional Materials Accessibility Standard):
  - A technical Standard using Extended Markup Language (XML). XML and image source files may be used to create Braille, large print, HTML versions, DAISY talking books using human voice or text-to-speech, audio files derived from textto-speech transformations, and more.
- BRF (Braille ASCII File):
  - A digital Braille file that can be stored, transmitted, edited, embossed with a Braille embosser, read with a Refreshable Braille Display, translated into text to read with a text reader and printed. File allows users to change display and how it is printed.
- PDF (Portable Document Format):
  - Created by Adobe Systems-provides a page-by-page view of documents exactly as they appear in their printed form.

### **Accessible Books Glossary**

Information taken from: http://nimas.cast.org

## NISO

The National Information Standards Organization (NISO), a United States committee organized in conjunction with the internationally known DAISY Consortium, is working on a specification for Digital Talking Books (DTBs). This will serve as the next generation of information technology for persons who are blind and print disabled. At the heart of this specification is an XML DTD that incorporates the elements of structure needed to provide access to information. The specification defines how textual information can be synchronized with digitally recorded human speech through Synchronized Multimedia Integration Language (SMIL), a recommendation of the W3C. The specification identifies six classes of books that have varying amounts of text mixed with audio. Most significantly, one class of book contains only text with no recorded human speech. Access to such information would be through synthetic speech, refreshable Braille, or dynamically generated large print.

http://www.niso.org

## NIMAC (National Instructional Materials Access Center)

The National Instructional Materials Access Center (NIMAC) is a central national repository established at the American Printing House for the Blind (APH) to store and to maintain NIMAS file sets. It features an automated system for allowing publishers to deposit NIMAS-conformant files within the repository. Files are checked to confirm that they are valid NIMAS-conformant files and then cataloged in a web-based database. Those who have been authorized for access have user identifications and passwords. These authorized users may search the NIMAC database and directly download the file(s) they need to convert into accessible instructional materials for those students who are in elementary and secondary schools and have qualifying disabilities.

http://www.nimac.us

## NIMAS (National Instructional Materials Accessibility Standard)

NIMAS refers to a technical standard used to produce XML-based source files. From these wellstructured source files, accessible, student-ready alternate-format versions of textbooks and core materials (e.g., Braille, e-text, Digital Talking Book, large print, etc.) can subsequently be created and distributed to qualified students with print disabilities. NIMAS files are not studentready versions. IDEA 2004, P.L. 108-446, establishes the NIMAS as a national standard and requires states and local districts to adopt the NIMAS for providing textbooks and instructional materials to students who are blind or print-disabled.

http://nimas.cast.org

## **DAISY (Digital Accessible Information SYstem)**

DAISY is often used to refer to a standard for producing accessible and navigable multimedia documents. In current practice, these documents are Digital Talking Books, digital text books, or a combination of synchronized audio and text books.