

Contents

Training Schedule	3
Affordable Reading Systems	5
Sound Files	5
<i>What is an MP3?</i>	5
<i>How does MP3 technology work?</i>	6
<i>Creating MP3 Files</i>	6
Balabolka 2.02	7
<i>Key Features</i>	7
<i>System Requirements (Version: 2.2.0.498)</i>	7
<i>Balabolka Interface Overview</i>	8
<i>Loading Files</i>	8
<i>Saving Files</i>	9
<i>Splitting Audio Files</i>	9
<i>ID3 Tags</i>	10
<i>Playing Files</i>	11
<i>Program Options</i>	11
<i>Settings Options</i>	12
<i>Tools</i>	14
Text Aloud	17
<i>How do I prepare a file so I can convert it to the MP3 format?</i>	17
<i>How do you create multiple MP3 files in TextAloud?</i>	20
<i>How do I change voices within a single article in TextAloud MP3?</i>	22
Adobe Reader 9	24
<i>Tools and Toolbars</i>	24
<i>Reading Settings</i>	24
<i>Reading Commands</i>	25
1st Read it Aloud!	29
<i>Options</i>	29
<i>Using 1st Read it Aloud!</i>	30
Kurzweil 3000	31
<i>Sources of E-text</i>	37
<i>Online Reference Resources</i>	38
<i>Special Font</i>	40



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Training Schedule

10:00 a.m.	<p>Introduction <i>Objectives</i></p> <p>Overview <i>TTS vs. Human Narration</i> <i>Hardware and Software Players</i> <i>Determining Student Need</i> <i>Program Features</i></p>
11:45 a.m.	Lunch
1:00 p.m.	<p>Software Readers <i>Adobe Reader</i> <i>Speaking Notepad</i> <i>Read Please</i> <i>TextAloud</i> <i>Balabolka</i> <i>WordQ</i> <i>Dolphin Tutor</i> <i>Kurzweil</i></p>
2:30 p.m.	Break
2:45 p.m.	<p>Key to Access Premier</p> <p>DAISY Hardware players <i>Software players</i></p> <p>Hardware players <i>Kindle</i> Stream BookPort Classmate</p>
4:30 p.m.	End



Affordable Reading Systems

Today there are many options available for reading digital text files. There are a variety of software applications and hardware devices that can read some form of digital text, and an equally large number of potential sources for digital text. In terms of difficulty, trying to keep up with the technology used to play digital text is second only to trying to keep up with the different sources of digital text appearing on the internet every year.

Just what comprises a digital reading system can vary greatly, however. Beyond the desktop software applications available for low prices (if not free of charge) there are also dedicated hardware devices and the rise of mobile applications for smart phones and other portable devices.

While there are many reading programs and devices that are released every year, there are a number of applications that remain favorites among students and educators alike. We will try to present you with such examples for consideration in building your own AT tool chest for your lab and for your students.

This training has been created in an effort to help people stay on top of the different options available today for reading digital text. It is impossible to provide an exhaustive overview of every available tool out there, but hopefully you can get a better understanding of what is available for different price points. The expectation is that you can get a first-hand look at some of the technology being used today, and then you can determine whether the needs of the student are best met via desktop readers or by portable readers.

Sound Files

What is an MP3?

MP3 (MPEG-1 Audio Layer-3) is a patented digital encoding technology that has become the defacto standard technology and format for compression of sound into a very small file. The resulting file is commonly referred to as “an MP3” and files in the MP3 format have an extension of “.mp3”. MP3 technology is perhaps one of the more commonly known types of audio file from the collection of media formats used to distribute digital audio.

The goal of the MP3 format is to compress a sound file by a factor of 10 to 14 without noticeably affecting the sound quality, allowing for greater storage capacity on hard disks and other storage media. The ability to compress the file size while preserving the original level of sound quality of the audio file is what has made MP3 music compression the most popular format for transferring, storing, and listening to music on the Internet.

How does MP3 technology work?

There are two techniques that are used together to help compress the size of the sound file into an MP3 without losing noticeable sound quality:

- **Perceptual noise shaping:** The MP3 format uses characteristics of the human ear to design a compression algorithm. For example, there are certain sounds that the human ear cannot hear and certain sounds that the human ear hears much better than others. Using facts like these, certain parts of a sound sequence can be eliminated without significantly hurting the quality of the sound for the listener.
- **File compression.** Compressing the rest of the sound sequence further shrinks the file size considerably.

Creating MP3 Files

In order to create an MP3 file, you will need:

- sound/audio source
- MP3 creation program
- storage space on hard drive or other media

In addition to the items listed above, you will also need to make sure you have access to an MP3 encoder codec, which unfortunately does not always come included with software that can create MP3 files. A popular MP3 encoder used by many MP3 creation programs is the “Lame.dll” encoder. You can read more about the Lame encoder at: <http://lame.sourceforge.net/>.

Balabolka 2.02

Balabolka is a Text To Speech (TTS) program for Windows that provides realtime playback of digital text files, and also produces recorded audio files that can be played back on other devices, such as MP3 players. Balbolka is a Russian word that translates as “chatter”.



Balbolka Splash Screen

Key Features

Digital text can be saved as a WAV, MP3, MP4, OGG or WMA file. Balbolka also reads the Windows clipboard content, and can display text from CHM, DjVu, DOC, EPUB, FB2, HTML, ODT, PDF and RTF files. There is support for customized font and background colors. Users can control reading from the system tray or by the global hotkeys.

System Requirements (Version: 2.2.0.498)

Operating System: Microsoft Windows 2000/XP/2003/Vista/7

Program size: 6667 KB

Licence: Freeware

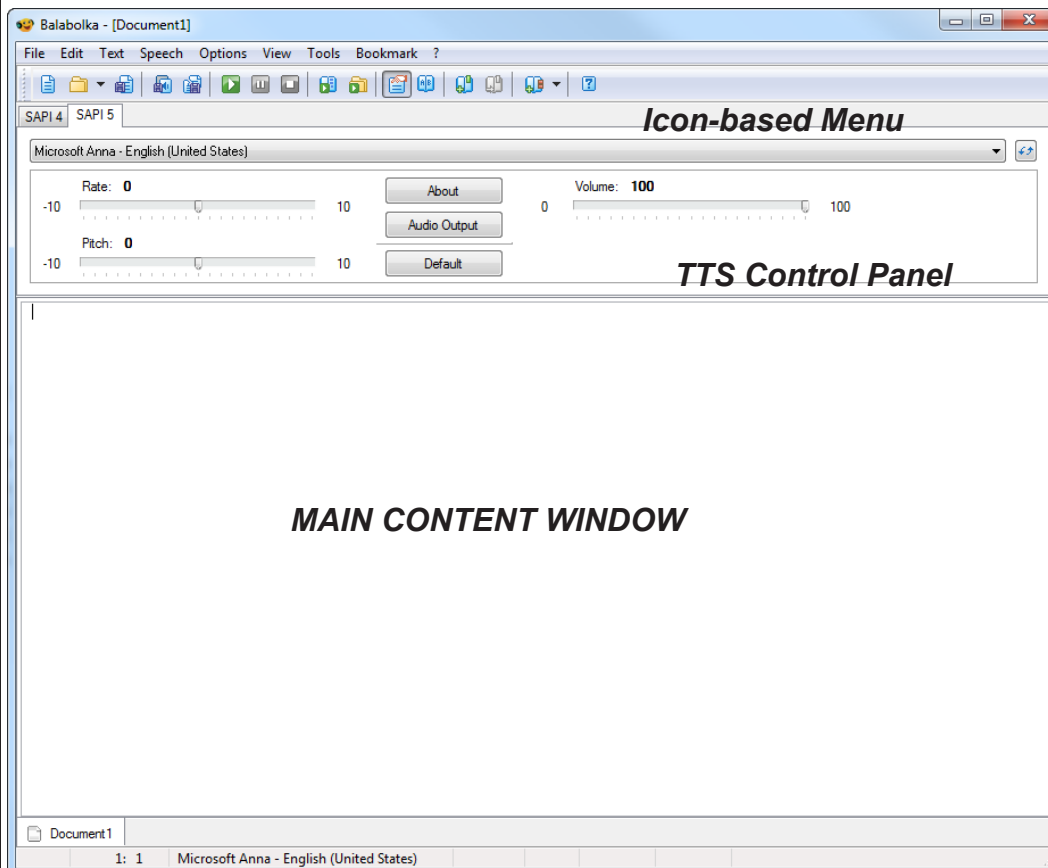
Supported Languages: English, Bulgarian, Chinese (Simplified), Chinese (Traditional), Czech, Dutch, French, German, Hungarian, Italian, Korean, Polish, Portuguese (Brazil), Portuguese (Portugal), Romanian, Russian, Spanish, Ukrainian, Vietnamese.

Help Files: English, French, German, Korean, Russian, Ukrainian.

Balabolka Interface Overview

Balabolka provides a straightforward and simple to use interface. With traditional Windows interface elements like a “File” menu, most Windows users should feel comfortable using the program. Do note, however, that instead of the word “Help”, Balabolka presents the user with a question mark “?” for the help menu.

Beneath the text-based menu structure there is an icon-based menu that allows the user to control the essential elements of the program. By default, there is a control panel for the TTS voices used by Balabolka immediately beneath the icon-based menu.



Balabolka Main Interface

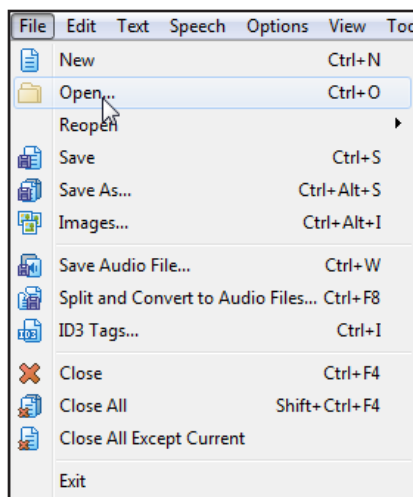
Finally, beneath the TTS control panel, you can find the main content window.

Beneath the Main Content window is a status bar where you can see the details of what is currently in the Main Content window, including the file name and location on the hard disk, the cursor position, the TTS voice being used, and the file size.

Loading Files

To open a file in Balabolka, open the “File” menu and select the option to “Open” (CTRL+O), “Reopen”, or create a “New” file (CTRL+N). Balabolka’s file menu provides the user with many options in terms of what types of files to open, and even more options for saving out different file types.

Balabolka supports .txt, .html, .doc, .docx, .epub, .pdf, .odt, .rtf, .chm, .fb2, .djv, .rar, and .zip files. Balabolka saves files as .bxt.



Balabolka File Menu

You can also paste information from the Windows clipboard into the Balabolka speech window.

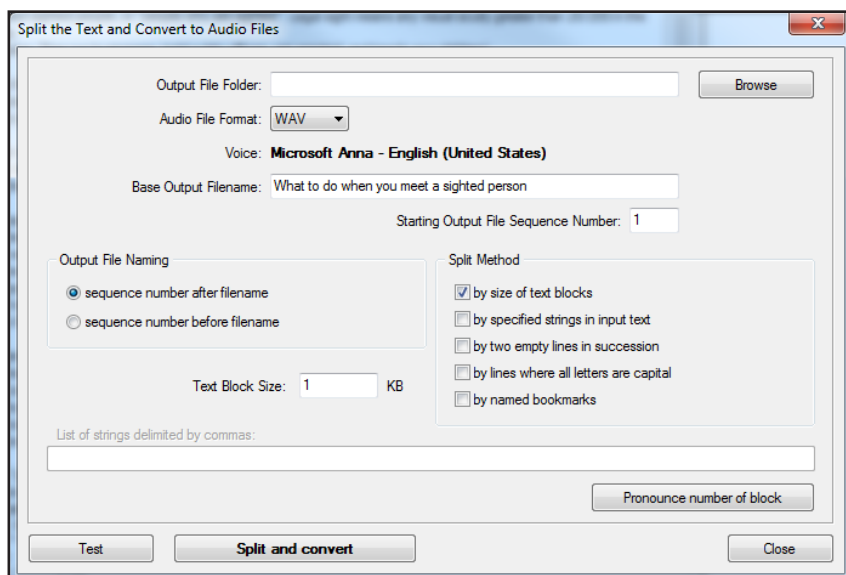
Saving Files

Balabolka allows the user to save text files and “Balabolka Text Files” (.bxt), as well as saving out audio versions of the content.

Balabolka will save out to the following audio formats: .wav, .mp3, .wav, .ogg, .wma, .mp4, .m4a, .m4b, .awb.

Splitting Audio Files

Balabolka also lets the user split their text files into smaller pieces in order to create more manageable audio files.



Balabolka Split and Save Audio File Window

Users can select from a variety of options to control at what point the file is split, and designate where to save the resulting audio files. File names can be set to automatically increment either before or after the file name.

ID3 Tags

Users can supply meta-data about the file via ID3 tags, including the ability to embed a digital transcript of the audio file into the audio file itself (depending on file format - for example, .wav does not support ID3 tags).

Information available in the ID3 tagset include Title, Artist, Album, Year, Genre, Comment, Track #, Composer, Encoded by, Copyright, URL, and of course a text field for transcript or lyrics.

The screenshot shows the 'ID3 Tags' dialog box with the following fields and options:

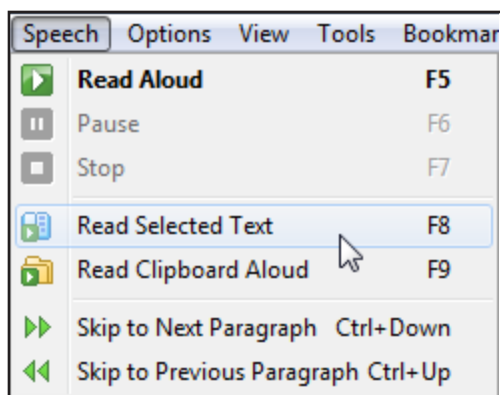
- Set ID3 tags
- Information | Text
- Title: %FileName%
- Artist: [Empty]
- Album: [Empty]
- Year: [Empty] Genre: [Dropdown]
- Comment: [Empty]
- Track #: [Empty]
- Composer: [Empty]
- Encoded by: [Empty]
- Copyright: [Empty]
- URL: [Empty]
- Variables:
 - %FileName% The name of the text file (without extension)
 - %FolderName% The name of the folder with text files
 - %FirstLine% First line from the text file
 - %VoiceName% The name of the voice used for reading
- Buttons: Clear, OK, Cancel

Balabolka ID3 Tag Editor

Playing Files

Balabolka allows the user to playback audio from text files loaded into the main interface. Audio is generated by the computer's TTS voice technology, using either SAPI 4 or SAPI 5.

NOTE: In order to support multiple languages in a single document, SAPI 5 must be used.



Balabolka Speech Menu

Users can control the playback of audio via the Speech menu within Balabolka. Available commands include basic playback, pause, and stop, as well as incremental controls to navigate through the content.

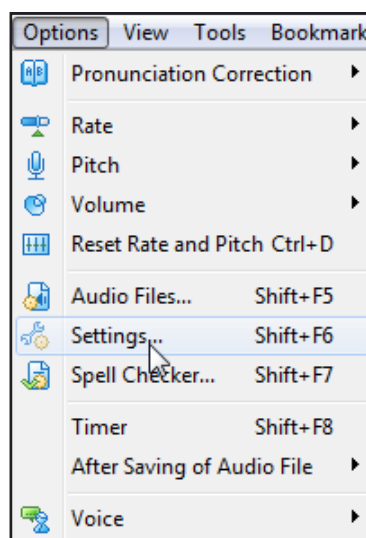
Speech Menu Command	Keyboard Shortcut
Read Aloud	F5
Pause	F6
Stop	F7
Read Selected Text	F8
Read Clipboard Aloud	F9
Skip to Next Paragraph	CTRL + DOWN ARROW
Skip to Previous Paragraph	CTRL + UP ARROW

Program Options

Balabolka offers many different options for configuring the program interface and the different aspects of handling digital text files and converting them into digital audio files.

Pronunciation Correction

Balabolka provides the user with the ability to create multiple pronunciation profiles and the ability to search for different instances of words and rules alike.



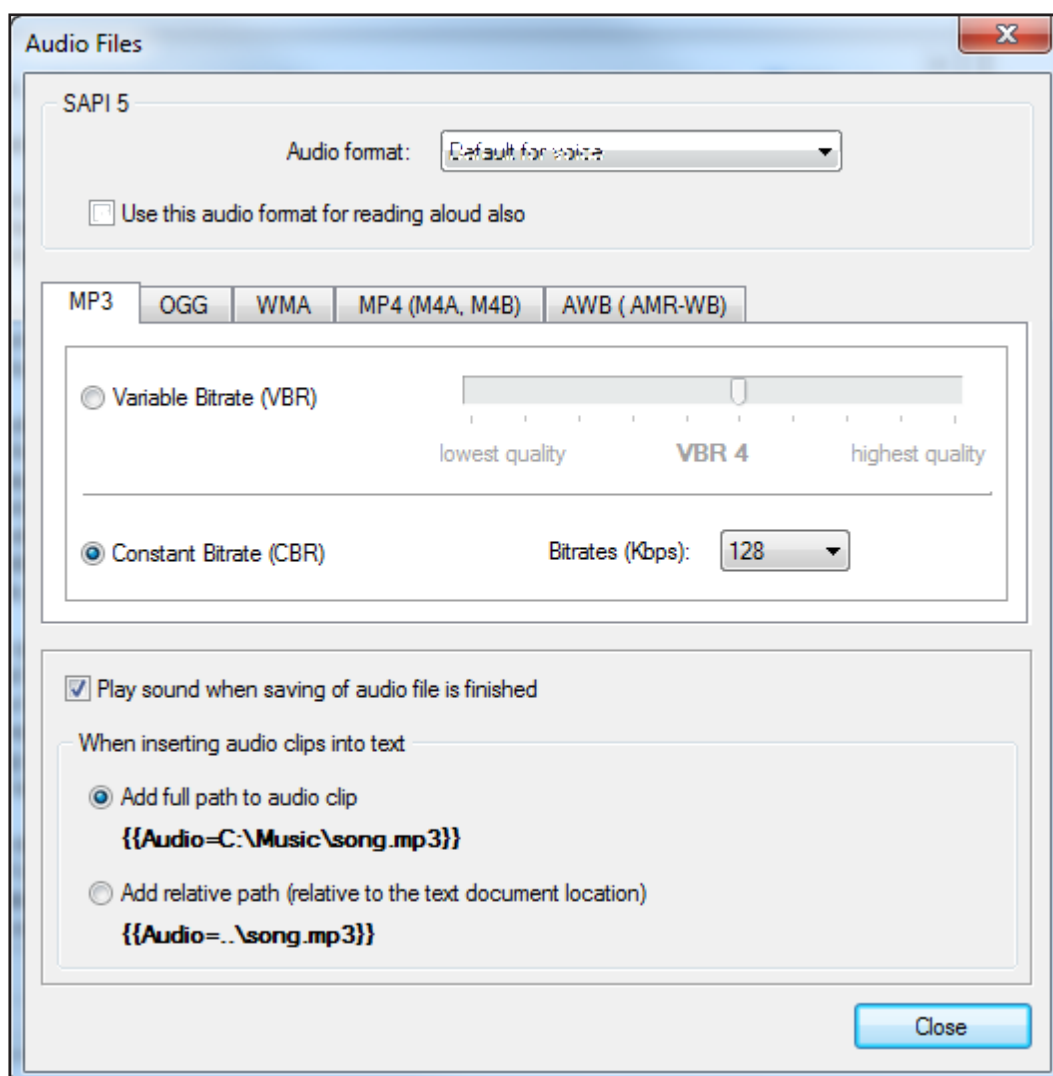
Balabolka Options

TTS Options

Control the speed, pitch, and volume of the audio generated by Balabolka. Users can also reset the audio settings to the default values.

Audio Files

Users can configure the details of the recorded audio files made by Balabolka through the Audio Files Settings dialog.



Balabolka Audio Files Settings Dialog

Settings Options

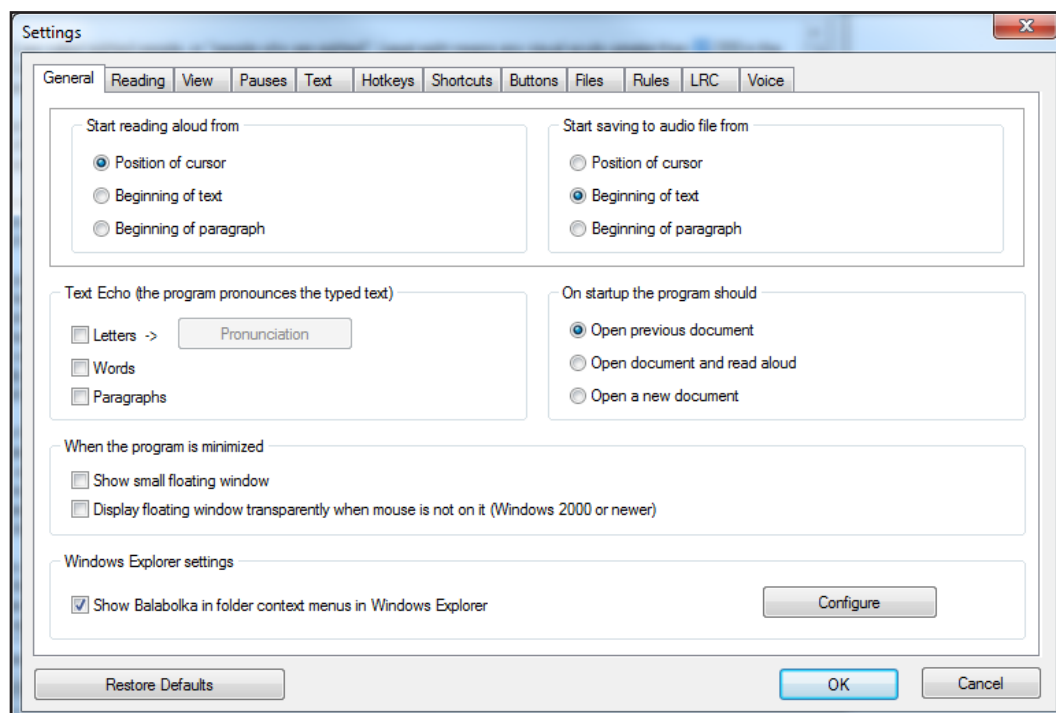
Balabolka features a rich Settings panel under the OPTIONS menu. There are twelve tabs in the Settings panel, which allows the user to configure and control all of the critical aspects of running Balabolka.

The different tabs of the Settings panel are labeled:

- General - allows you to select the options of where reading should begin

(cursor, beginning of text, beginning of paragraph), as well as where the recording should begin. Behavior for how the program should operate upon startup and while minimized, as well as text echo parameters are controlled in the General tab.

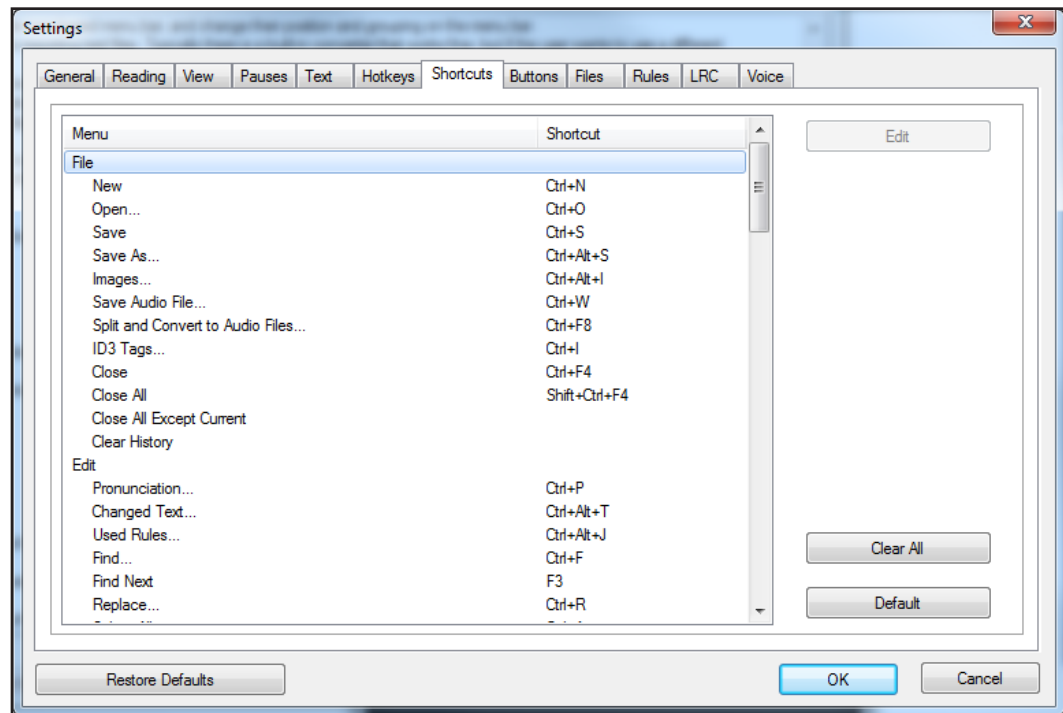
- Reading - provides options to configure reading behavior at line breaks and end of file, configure compatibility with screen reading applications, the ability to track spoken text, and how to track the spoken text (centered or fit to limits of window).
- View - configures the look of the interface, and controls what sort of data is presented. Selections to show the status bar and what to include in the status bar are found here.
- Pauses - allows the user to configure the length of pauses during reading and recording audio. Also allows user to specify the length of time between recorded audio tracks.
- Text - the user can control whether the text will be formatted automatically or not. Allows for the automated cleanup of text files, such as removing double line breaks, hyphens at end of lines, and line breaks within paragraphs. Also allows for advanced control of space-related issues in layouts, and different types of bracketed text.



Balabolka General Settings Dialog

- Hotkeys - hotkeys allow the user to configure the primary reading controls and to determine if they are active or not. Users can map their own custom keystrokes for functions like read text, read from clipboard, stop, pause, increase or decrease rate, change pitch, etc.

- Shortcuts - in the Shortcuts tab you can create or change keyboard commands for any of the menu functions in Balabolka.



Shortcuts Dialog from the Settings Panel

- Buttons - user can determine which buttons to have visible on the icon-based menu bar, and change their position and grouping on the menu bar.
- Files - allows the user to configure which application to use when importing text files. Typically there is a built-in converter that works fine, but if the user wants to use a different application, they can make that selection here.
- Rules - the Rules tab features pronunciation settings to control how Balabolka will present the audio phrasing of the text it reads. The settings can be changed from sentences to paragraphs or a combination thereof in order to deliver a more natural-sounding delivery of the spoken words.
- LRC - Balabolka can also generate an LRC file for use in other digital audio players. The LRC file contains the digital text and timing information, so that the visual text can be presented at the same time as the spoken audio of the text.
- Voice - The Voice tab allows the user to select between SAPI 4 or SAPI 5, or to use the voice settings from the last document.

Under the Options menu, Balabolka also provides options for configuring the rate, pitch, and speed of the voice, as well as spell checking, and timers for turning the program off after it finishes generating audio files.

Tools

Balabolka also features several tools that enable the user to perform powerful operations on their digital text files.

File Splitter

Balabolka will split one long file into smaller files.

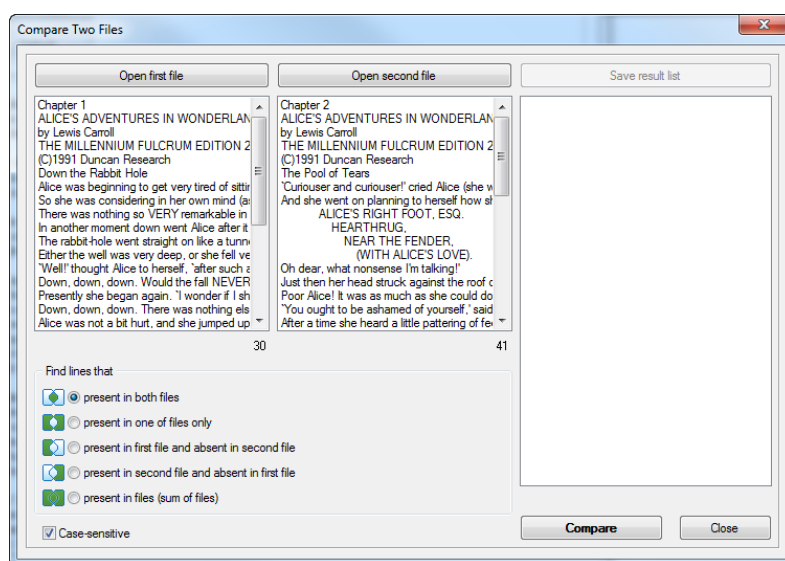
Batch File Converter

Balabolka will convert multiple files into audio files.

Extract Text from Files

Balabolka will load selected files and extract the text into a directory specified by the user.

Compare Two Files



Compare Two Files Dialog

Balabolka will compare two different files and allow the user to find text that is:

- present in both files
- present in one of the files only
- present in first file and absent in second file
- present in second file and absent in first file
- present in files (sum of files)
- enrich the reading and educational experience of the user.

Repeat Text

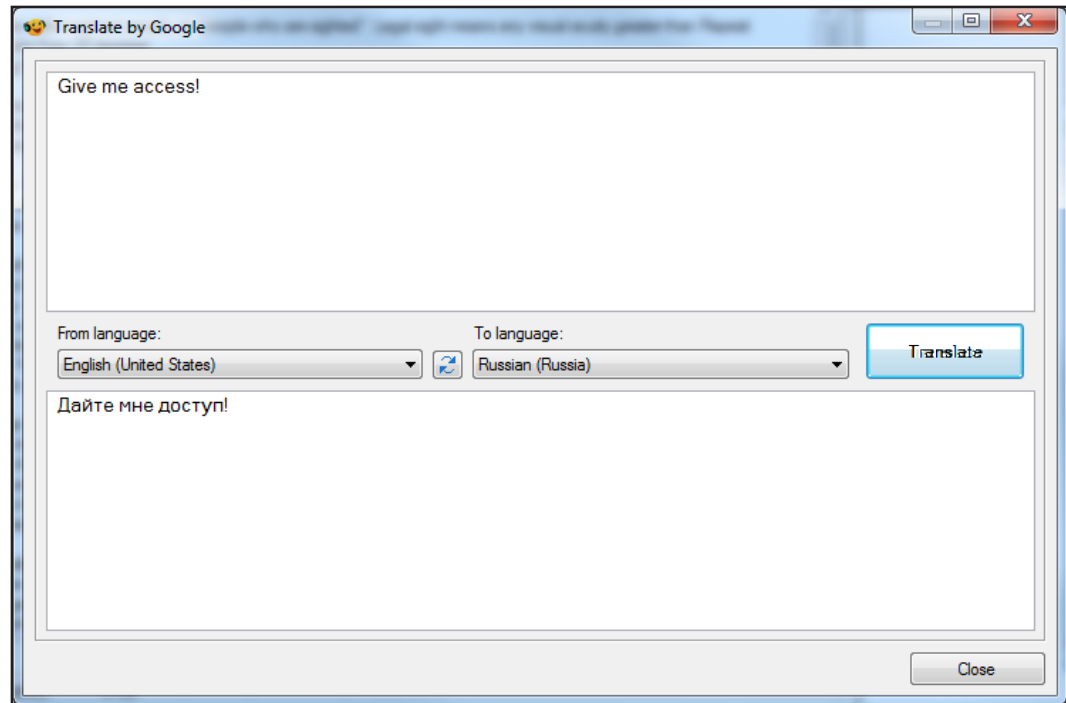
Repeat Text will allow a user to specify text that can be repeated throughout the document as a memory aid, or as part of attempted remediation of memory and recall issues.

List of Spelling Errors

Balabolka will present the user with a list of all the mis-spelled words in a document, to serve as a study aid.

Translate

Balabolka can translate between languages, taking advantage of the Google translation engine. The Google engine provides many different languages to choose from.



Translation from English to Russian in Balabolka

Text Aloud

How do I prepare a file so I can convert it to the MP3 format?

Step 1: Create a profile for each student

With text-to-speech technology, there are many variants such as the playback rate and the synthetic voice of the text that is read back. It is important to find the best fit for the student using the audio file. Even with the same student, he or she may prefer that certain subject matter be read at a different rate or in a different voice than other subject matter. Before creating MP3 files for your student, set some time so that you and the student can listen to the different synthetic voices and different reading speeds. It would also be a good idea to keep track of different students' preferences in a document so that you do not need to consult the student every time you want to create an MP3 file for him or her. Here is an example table:

Name	Subject matter/ Textbook	Voice	Reading Rate (Words/ Minute)	Encoding Rate	Notes
John Doe	<i>The American Experience</i>	“Jennifer”	150	32 kbps (mono)	Uses a screen reader
John Doe	<i>The Art and Science of C</i>	“Mary”	100	48 kbps (mono)	Uses a screen reader
Amanda Hugnkiss	<i>Alice in Wonderland</i>	“Mike “	200	32 kbps (mono)	

Step 2: Prepare the document and save as .txt, .doc, .rtf, .html, or .pdf file

As of Version 2.0 of TextAloud MP3, your file can be opened directly in the .txt, .doc, .rtf, .html or .pdf format. If your file is not in one of these formats, you will need to re-save the file in one of the accepted formats.

Step 3: Set up the pronunciation editor

The Pronunciation Editor allows the user to specify how *TextAloud* will pronounce words. In general, the synthetic voice reads most words correctly, but it may mispronounce certain words, such as acronyms, names, or other unique words. To change how *TextAloud* pronounces a word, you can follow these steps:

1. Go to Options and select Pronunciation Editor.
2. A new window will appear with a text box labeled Word.
3. In the Word text box, add the word that you want *TextAloud* to correctly pronounce.
4. In the Pronunciation text box, type in the word in such a way so that when you click the Test button it sounds correct (Hint: Try to spell the word phonetically.)

This will change the way the word is read in all applications that use text-to-speech.

Step 4: Set up predefined pauses.

When some documents are read, they need pauses in them. *TextAloud* allows you to add predefined pauses to a document. To set up the predefined pauses, go to the Options menu and select Pre-Defined Pauses. A window will appear with two input boxes that allow you to edit two pause intervals, a Short Pause interval and a Long Pause interval. The number values are in seconds, so if you were to put 2.5 in the Short Pause interval and 4 in the Long Pause interval, *TextAloud* would pause for 2.5 seconds at a given location at which you inserted a Short Pause interval and for 4 seconds anywhere you inserted a Long Pause interval

To insert the pause intervals, right-click with your mouse where you want a pause inserted. Then, select Insert Short Pause or Insert Long Pause. After inserting the pause, *TextAloud* will insert a string of text into the document. The text inserted will look like this:

“ {{Pause=x}} “

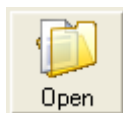
with a blank space between the string. The value of x will be a number that tells *TextAloud* to pause for x seconds.

After I have prepared a file, how do I create an MP3?

Once your electronic text document has been prepared, you are ready to create an MP3 file.

TextAloud MP3 is one software program that uses “Text-to-Speech” technology to record text information to an audio format. You can create ordinary .wav files, or save the output in compressed MP3 format. You can create MP3 files from your word documents, email, news articles, or any text you want, and download the content to your computer or portable MP3 player. *TextAloud* is developed by NextUpTech. The software can be purchased for \$29.95 (per user).

More information about the software can be found at <http://www.nextup.com>

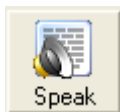


Step 1: Open the plain-text file in TextAloud.

You can do so by going to the File menu and selecting Open, or by pressing Ctrl + O.

Step 2: Select a file title.

After opening the text file, you will need to select a name for the MP3 file you are about to create. (You can change the name later if you want to.)



Step 3: Pick the synthetic voice that you would like to read the text file.

To select a synthetic voice, go to the Voice dropdown menu of *TextAloud* and use the Speak button or Ctrl + F3 to get a sample of what each voice sounds like.

Step 4: Set the rate of the synthetic voice.

The rate refers to how many words per minute (WPM) will be read. Again, you should consult the student for whom the MP3 is being created to ensure your settings are producing the desired results. To configure the rate of the synthetic voice, use the Speed slider in *TextAloud*. To hear the current rate setting of the synthetic voice, press the Speak button or Ctrl + F3.

Step 5: Set the encoding rate.

The encoding rate can be changed in the Voices and File Options window. To open the Voices and File Options window, select Options Menu, then select Voices and File Options, and then select the File Options tab. The file output can be saved in .wav, .mp3, or .wma file formats. If you pick the output to be .mp3, then you need to decide the encoding rate you want for the MP3. The encoding rate is anywhere from 16 kbps to 128 kbps. The frequency ranges from 11.02 kHz to 48 kHz. You can also select mono or stereo sound. The lower the encoding rate, the lower the sound quality and the smaller the file will be. The same is true about recording in mono sound, which will result in a file about half the size of a stereo encoded file with the same bit rate.

Step 6: Set the Write-to-File speed.

This option is under the File Options tab of the Voices and File Options window. The larger the number is, the faster the MP3 will be created. However, the greater speed will also place a greater demand on your computer's processor. If you have an older computer or have other applications running while you are creating the MP3 file, it is recommended that you keep the write-to-file speed around 10x.

Step 7: Select a file output directory.

The File Output Directory is where the finished .mp3 or .wav file will be stored on your computer. It is located in the File Options tab of *TextAloud*.



Step 8: Create the MP3 file.

The MP3 file can be created by pressing Ctrl + F7 or by pressing the button with a play button and disk image on it.

There is a status bar in the lower right-hand corner of the *TextAloud* window that will show you when the file is done being created.

How do you create multiple MP3 files in *TextAloud*?

With *TextAloud* you can create many MP3 files simultaneously instead of having to wait for each file to complete. This section discusses the steps to do this.

Step 1: Change the settings from Single Article Options to Multi-Article Options.

To do this, go to Options on the menu bar and select “Multi-Article Options”. You can also do this by clicking on the “Multi” button.

Step 2: Set voice and file output options.

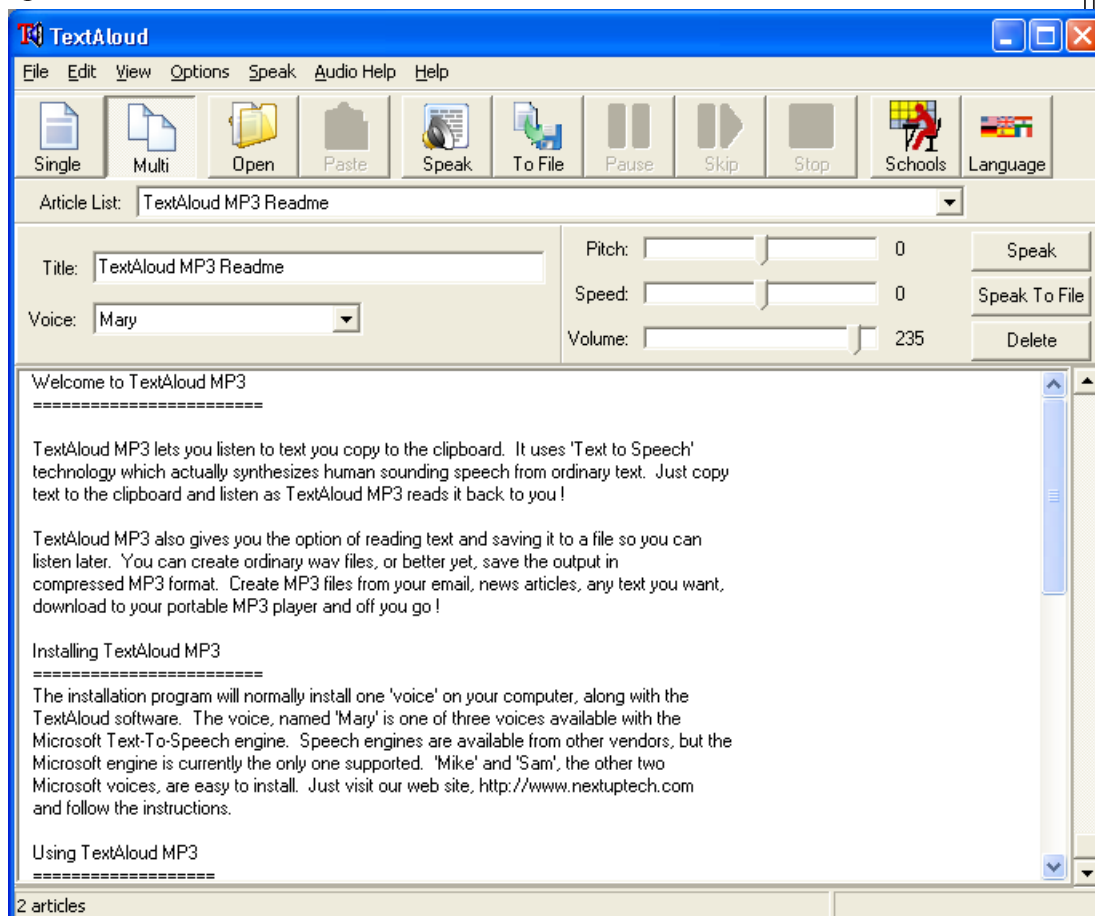
The Multi-Article setting can be controlled in the Article Options tab of the MP3 Options window. The Multi-Article Options tab has two menus with radio buttons options:

- a. The Voice Selection Menu has three options Default, Random and Round Robin.
 - When the Voice Selection Menu is set to Default, all the documents will be read with the default synthetic voice.
 - If Random is selected, *TextAloud* will pick a random synthetic voice to read the documents.
 - Round Robin will cycle through all the voices that are available to *TextAloud* and will use a different voice for each document that you have open.
- b. The File Output Menu has two options: Single File and Multiple Files.
 - When Single File is selected, all the documents that are open in *TextAloud* will be read and combined into one single file.
 - When Multiple Files is selected, an individual MP3 will be created for each of the documents that are open in *TextAloud*. An advantage of the Multiple Files option is that you can, for example, create individual MP3 files that correspond to chapters or sections of a book. Having an MP3 file for each chapter will allow the student to more quickly navigate their reading material than it would be if all of the information was contained in

one large MP3 file.

Step 3: Open the text files to be created into MP3s

Go to File on the menu bar and then select Open Text File (or press Ctrl + o) select the files that you want and repeat this step until all the text documents you want are open.



Step 4: Repeat steps 3-8 for creating a single MP3 file in TextAloud.

How can you use the File Splitter Utility in TextAloud MP3?

As of version 1.446 of *TextAloud MP3*, *Nextup.com* added a utility to *TextAloud MP3* that can be used to split files into smaller files. One limitation of earlier versions of *TextAloud MP3* is that if you had one large e-text file, converting it to MP3 format resulted in a file that was large and hard for the user to navigate. A good example is to think of trying to create an MP3 file for a 200-page chapter of a textbook. The MP3 file that would be created in TextAloud would be over an hour and hard for the student to navigate within the chapter. A way to alleviate this problem is to split the e-text of the chapters of the book into smaller files so you can create many small MP3 files. With small MP3 files, the user can easily navigate within the chapters of the textbook.

Users have two options for determining how the file will be split into multiple smaller ones. The first option is to specify a target size for each of the small files in kilobytes. The second option is to set-up a list of defined characters (delimiters) that will split the file each time that they occur in the document. The following steps will walk you through the instructions for either set-up

Step 1: Open the File Splitter Utility in TextAloud MP3 and select the input file name.

In TextAloud MP3, go the menu and select File, File Splitter Utility. In the Input File Name, type the name of the file or select the Browse button to search your computer for the text file that you want to split into smaller files.

Step 2: Select the directory where you want the split files to be stored.

In the Output File Directory, type the path of the directory or select the Browse button to specify where the split files should be stored on your computer.

Step 3: Set the starting output file sequence number.

The Starting Output File Sequence Number is the starting number that the split files will be named. For example, if you have a large text file called Alice.txt and you set the Starting Output File Sequence Number to 4, the split files will be named Alice_004.txt, Alice_005.txt and so on.

Step 4: Select the split method.

As described earlier, there are two way to split a text file. To split them by output target file size, set the size (in kilobytes) that the File Splitter Utility will split the input file into. To split the larger file by specified strings in the input file, specify a list of delimiters which can be set in the comma delimited list of strings text box.

Step 5: Preview and split the input file.

Select the Preview button to display how many files the input file will be split into. Select the Split button to complete the process.

How do I change voices within a single article in TextAloud MP3?

As of version 2 of *TextAloud MP3*, *Nextup.com* added the ability to change voices within a document. This is helpful when creating audio from documents that have more than one language in the text. An example would be a foreign language textbook where English and another language are intermixed in the text.

The ability to switch voices within a text works only with SAPI 5 compliant voices. To find out which SAPI 5 voices you have installed on your computer, go to the Options menu, select the Files and Voices Options, and select Use SAPI 5 to find out what voices are SAPI 5 compliant.

Step 1: Select the location where you want to change voices

While viewing the document in *TextAloud MP3*, move your cursor to the location right before you want the voice to be changed.

Step 2: Adding the voice tag to the text

Right click on the cursor and select Insert Voice Change and select the voice that you want to use. You can also do this by selecting Insert Voice Change from the Edit menu.

Step 3: Select next location in the text where you want the voice to change

Select the next location in the text where you want the voice to change. Repeat Step 2.

Adobe Reader 9

Publisher:

Adobe Systems Incorporated (<http://www.adobe.com>)

Retail Cost:

Free Download

Tools and Toolbars

One big downside of Adobe Reader is that you can only access the tools that were enabled when the PDF file was created, unless you have the full version of Adobe Acrobat Professional installed. The tools that are particularly problematic in this regard are the comments tools. You can only access the comments tools in Adobe Reader (without Professional installed) if “document rights” has been enabled.

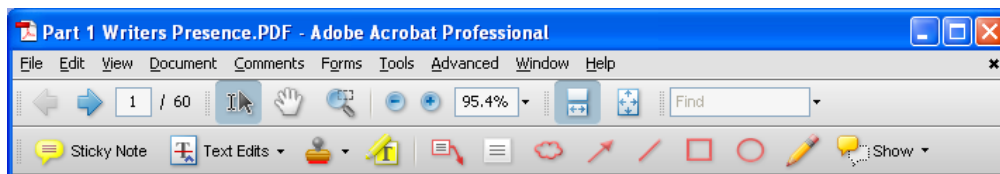
Unfortunately, if the originator of the PDF file did not have the comments enabled at the time the file was created, you cannot turn them on in Professional for later use with the Reader. The user will have to have Professional in order to use the comments tools.

Assuming you have Professional or a PDF in which comments have been enabled, set the toolbars to allow easy access to the comments features.

View > Toolbars (Alt V, T)

I recommend starting with the following toolbars showing:

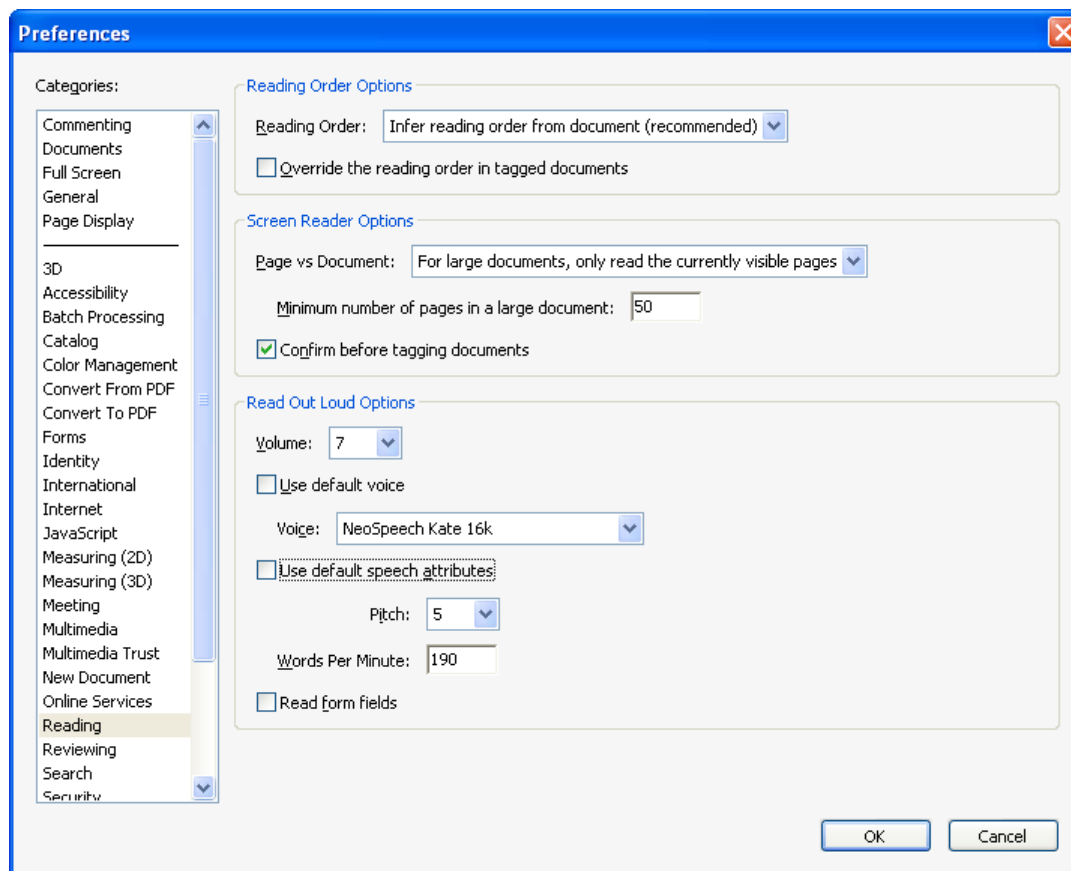
- Comment and markup
- Find
- Page Display
- Page Navigation
- Select & Zoom



Reading Settings

Select the preferences menu (Ctrl + K) and then select Reading from the Categories list to set the reading preferences, including the voice and the speed. Note that the default speed is 190, which may be slow for readers who are used to listening to books.

Please note that although you can, in theory, use any of the voices installed in your system, I found that using anything other than the default voice on my machine resulted in the program crashing. I have a lot of assistive technology on my system. Your experience may vary.



Reading Commands

The reading commands are (somewhat non-intuitively, in my opinion) under View. Such being the case, it would be good to teach your students the keyboard shortcuts.

Shift + Ctrl + Y = read the text in currently selected text area (shown with a box)

Note that with this option selected, clicking on a new textbox will read that box

Also note that using this keyboard command again will deactivate the reading.

Shift + Ctrl + V = read the current page

Shift + Ctrl + B = read to end of document

Shift + Ctrl + C = pause reading

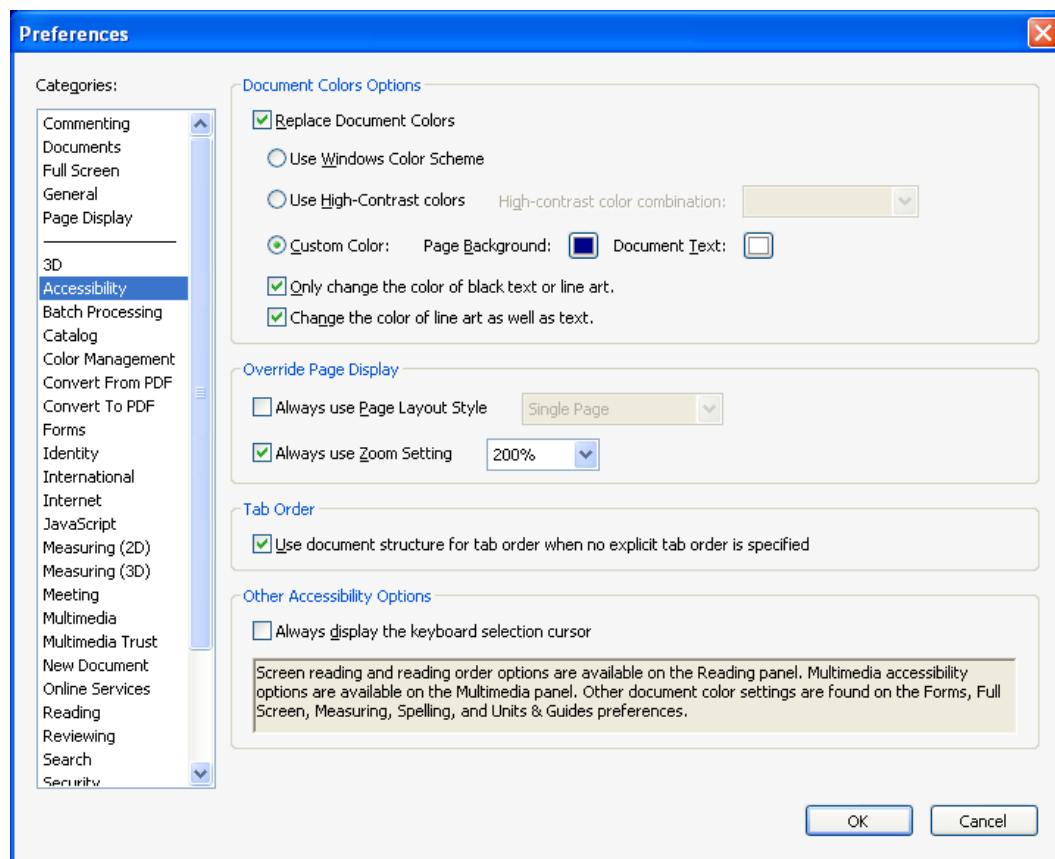
Although Adobe will verbalize the text, it does not track or highlight where it is reading. It will continue to read past what can be seen on the screen.

Please note that Shift + Ctrl + E = ends reading; however, this is also the keyboard

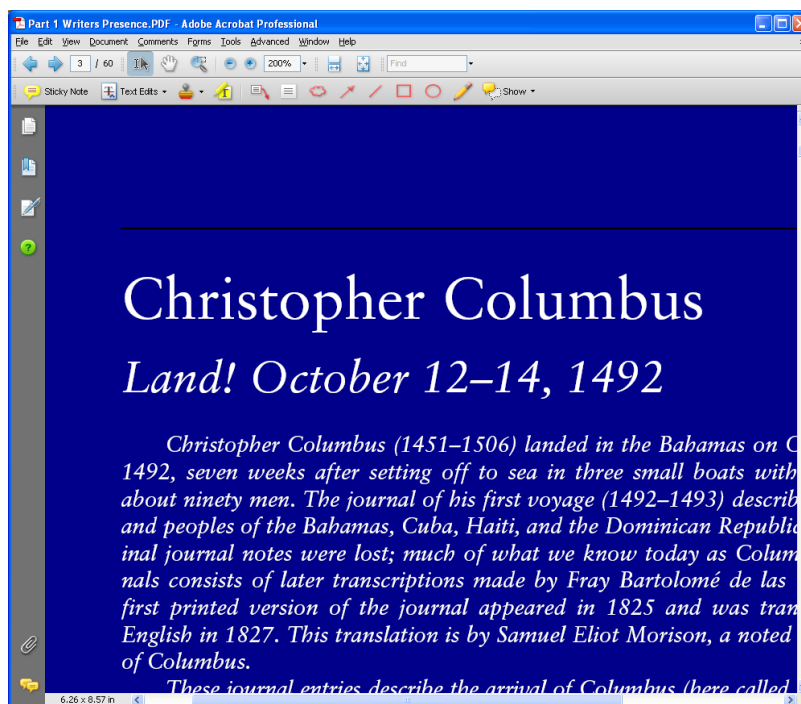
command to launch Dolphin Easy Reader. If you have both installed, you will have a keyboard conflict.

Accessibility

Adobe Reader allows a number of nice accessibility features, including changing the color of the text/background and choosing the zoom setting. To access these features, choose Preferences (CTRL + K) and select Accessibility from the Categories list.

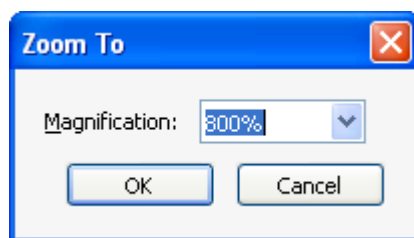


White text on blue background at 200% zoom:



Encourage low vision users who wish to work with enlarged text to use the keyboard commands. (All commands found under the View > Zoom menu.)

Ctrl + Y = zoom to (set the magnification level)



Ctrl + 0 = Fit Page

Ctrl + 1 = Actual size

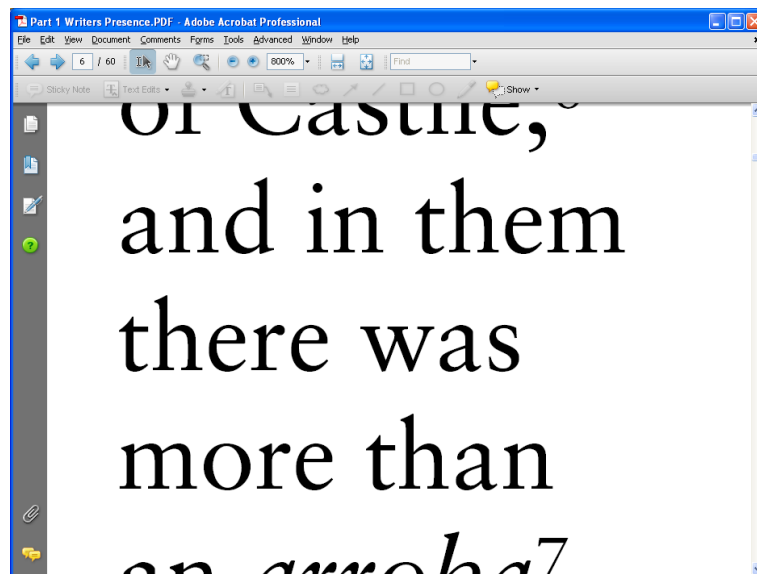
Ctrl + 2 = Fit width

Ctrl + 3 = Fit visible

Ctrl + 4 = Reflow

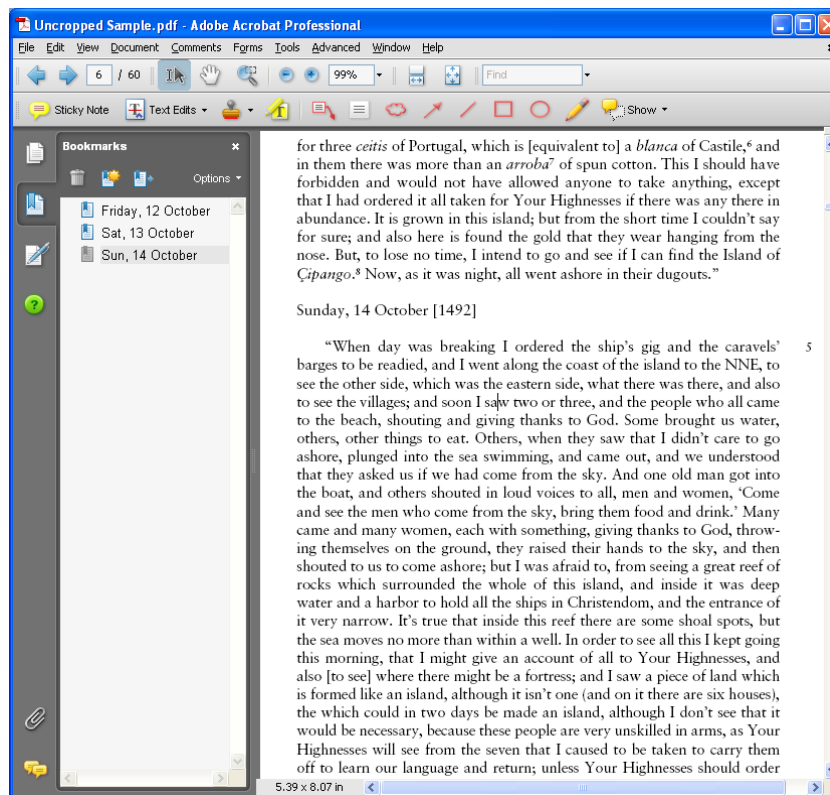
Reflow is an exciting feature that shifts the text on the page to eliminate the need for excessive scrolling. Below is an example of 800% zoom with reflow on.

To use the full screen for reading use the keyboard command CTRL + L.



Bookmarks

Use the keyboard command Ctrl + B to insert a bookmark. You can name the bookmark. Selecting a bookmark returns you to the point in the text at which it was created.



1st Read it Aloud!

1st Read it Aloud! is an affordable reading system that embodies the minimalist approach to reading applications. It can be difficult to know that 1st Read it Aloud! is even running, as it has no dedicated program window. Instead, 1st Read it Aloud! installs into the system tray of your Windows machine. In order to bring up the 1st Read it Aloud options panel, you have to find the icon in the system tray or know the keyboard shortcut command (CTRL + F11)

System requirements:

Windows 98 or later operating system.

3.22 MB free disk space

Cost:

\$19.95 US

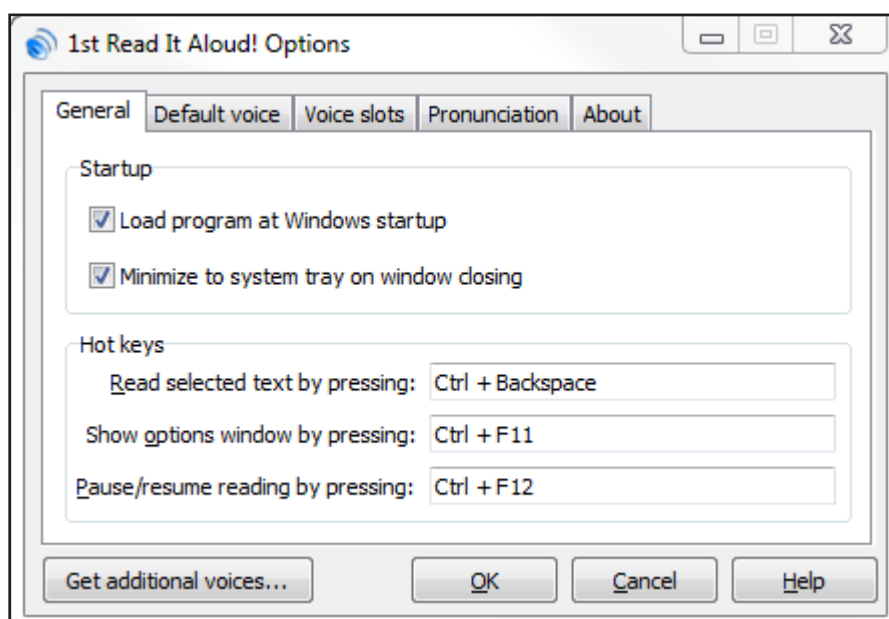
Publisher:

Qwerty Studios

<http://www.qwertystudios.com/products/1st-read-it-aloud/>

Options

In order to bring up the options panel for 1st Read it Aloud!, press the keyboard combination CTRL + F11. The following dialog will appear:



1st Read it Aloud! Options Panel

Using 1st Read it Aloud!

Because 1st Read it Aloud resides in the system tray, the entire program is driven via keyboard commands.

Reading Text

To read text with 1st Read it Aloud!

Select the desired text you want to be spoken (from any application)

Press CTRL + Backspace to start reading.

Pausing Reading

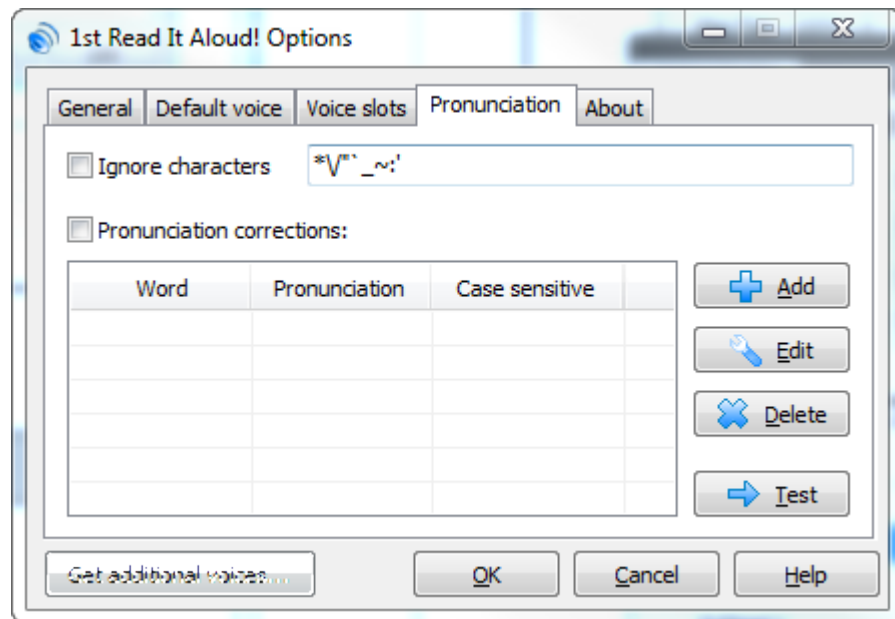
Press CTRL + F12

Resuming Reading

Press Ctrl + F12

Pronunciation

You can access the pronunciation editor from the Options Panel of 1st Read it Aloud! by clicking on the “Pronunciation Editor” tab:



Pronunciation editor of the options panel in 1st Read it Aloud!

Kurzweil 3000

If you scan to TIFF, you can create KESI files for your students who use Kurzweil by running the files through the K3000 automater. The automater has been included with the Kurzweil 3000 Professional (formerly called Scan & Read) stations since version 7. You must manually install the automater by dragging it from the “Extras” folder on the installation disk to your computer.

The automater allows you to create a source folder of TIFF documents that the Kurzweil 3000 will convert automatically to KESI files and save into a destination folder, keeping whatever file hierarchies you had set up intact.

Steps for converting TIFF files to KESI with the automater.

Before you start using the K3automater, copy it off the Kurzweil 3000 CD ROM to your computer’s hard drive. The K3automater is located on the Kurzweil 3000 CD ROM in the Extras directory. The files that you want to copy to your hard drive are K3Automator.exe and K3Automator.chm.

Make sure that the version of Kurzweil 3000 installed on the computer is Professional (scan and read). To check this, open Kurzweil 3000, and in the menu bar, select “Help,” “About.” A window should pop up telling you what version of Kurzweil you have.

Step one: Create a directory called “TIFF files” on your desktop and copy the tiff files from the CD ROM to that folder. This will help speed up the process.

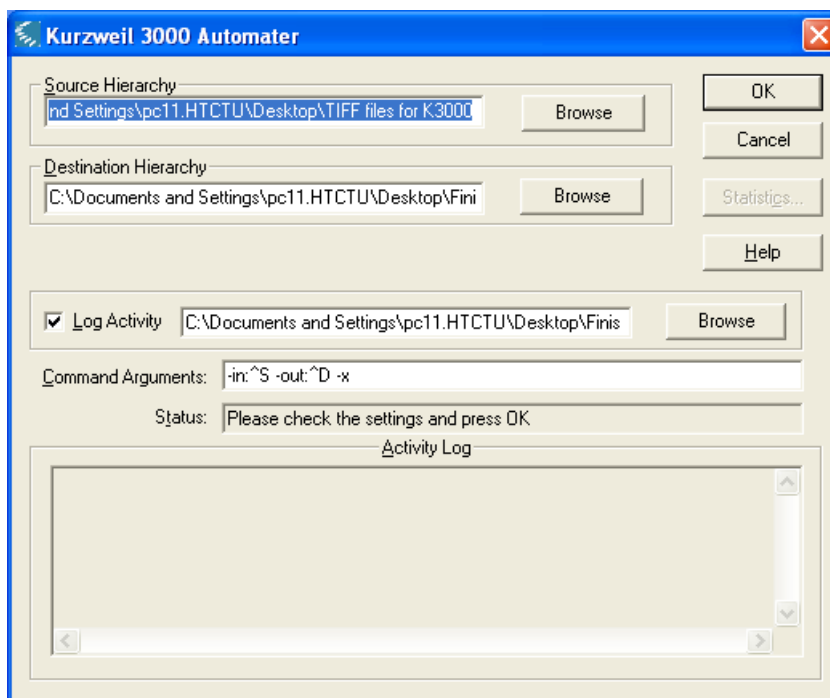
Step two: Create a directory called “KESI files” on your desktop. This is where the completed KESI files will be located.

Step three: Start the K3Automator and set the Source and Destination directories. To start the K3Automator double click on K3Automator.exe. Then set the Source Hierarchy to the “TIFF files” directory, and set the Destination Hierarchy to the “KESI files” directory.

Step four: Click on the “OK” button on the K3Automator. This will start converting the TIFF files.

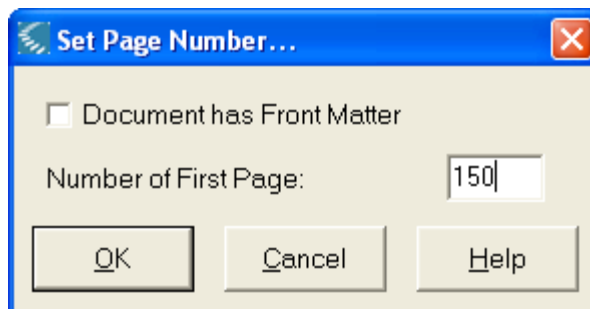
Step five: Wait. Once all the files have been converted, the K3Automator will stop.

Step six: Burn the file in the “KESI files” directory to a CD ROM.

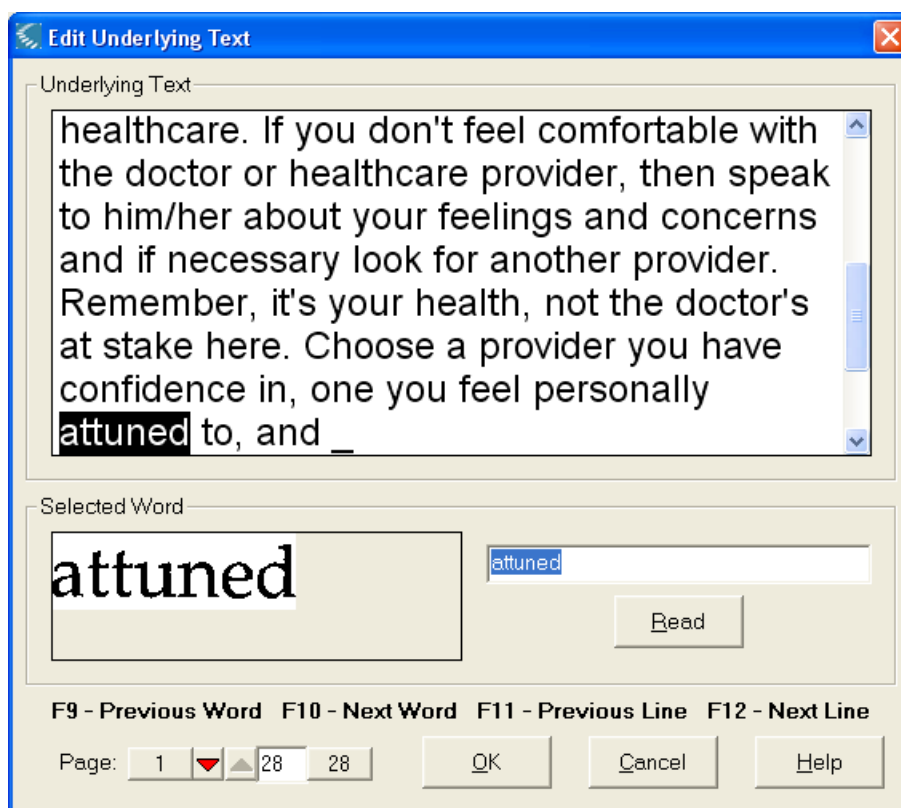


You can edit KESI files in a number of ways.

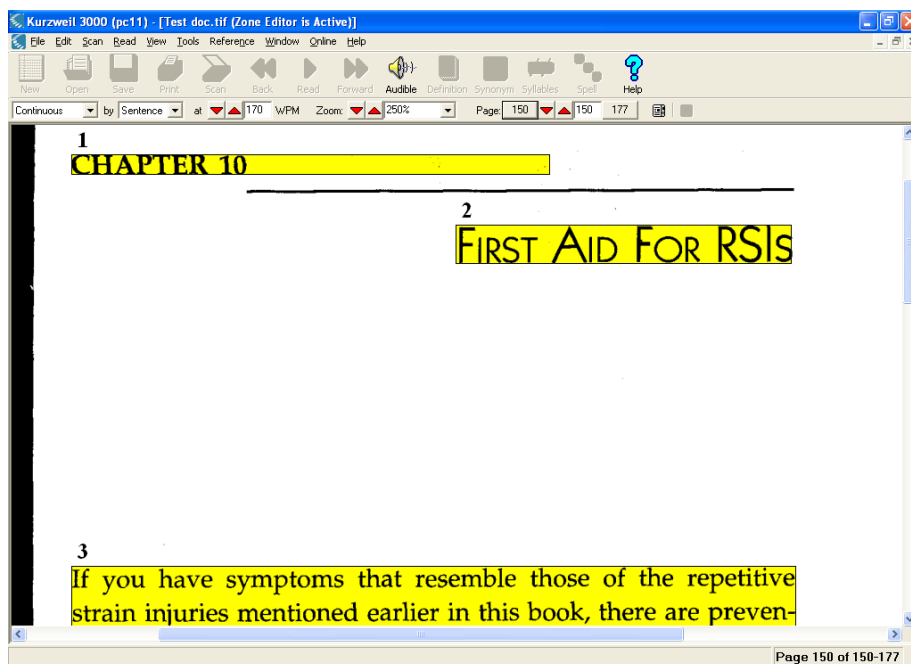
If the document does not begin on page 1, you can align the document numbers with the Kurzweil page numbers by going to View > Page > Set page number,



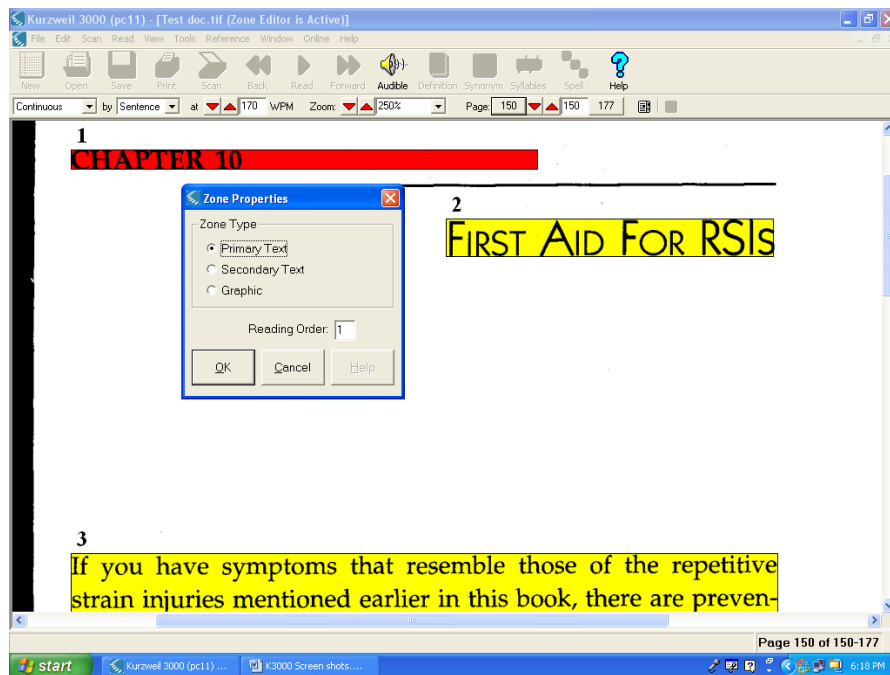
Remember that with Kurzweil 3000, you see the TIFF file on the screen, but it is the hidden, underlying text that the program actually reads. You can view and edit this underlying text by right clicking on the text and choosing “Edit underlying text.”



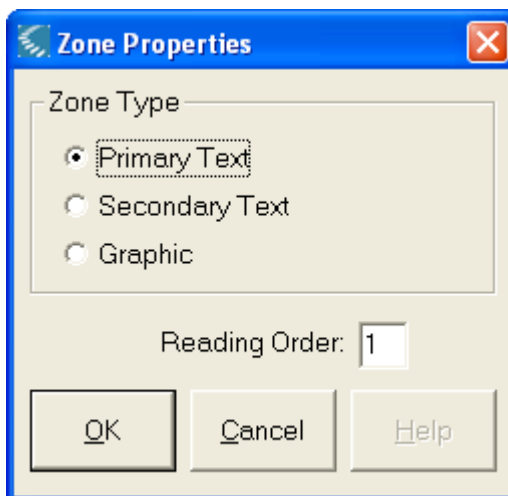
The text on the page is set up in “zones.” Zones affect what text is read and the order in which it is read. You can view and edit these zones by choosing Tools > Zone Editor or using the shortcut key CTRL + F5.



If you click once to highlight a zone and then right click on that zone, you can change the reading order or other zone properties.



The reading order is the order in which text is read. Zone one is read first, etc. You can also select whether the text will be read automatically (primary text) or only if the user clicks on the text (secondary text). Setting the zone type as graphic means that Kurzweil will not try to read that zone.



DAISY/NISO Standards

DAISY/NISO

<http://www.loc.gov/nls/niso/dtbook3doc.htm>

DAISY (Digital Audio-based Information SYstem) Consortium

The Digital Talking Book 3.0 Document Type Definition (DTD) provides the means to markup the text of a published book to permit support for the combination of professional narration, and navigation into that narration. The markup tags in the book convey its content in structure, and some metadata about the book content and its structures.

NISO (National Information Standards Organization)

<http://www.niso.org/commitaq.html>

Description of Standard: Currently, talking books for the visually impaired are distributed on audio cassettes. The next-generation technology for this application will be digitally based, bringing many improvements in sound quality, document navigation, and searching. The NISO Digital Talking Book (DTB) Standard will ensure compatibility among the many systems expected to be developed. The core of the standard will be the file specification, describing how the various functions of a DTB will be coded. Other portions of the standard will address the features desired in a DTB and describe the critical elements of the user interface of a DTB player.

XML (Extensible Markup Language)

DTB consists of three major parts: an audio file, which could be encoded in any of several standard audio codecs (compression/ decompression algorithms that allow enormous audio files to be greatly compressed); a text file (necessary for word spelling and text searches) with tags from a descriptive markup language inserted—XML (Extensible Markup Language); and a linking file that synchronizes the audio and text files, probably written in SMIL (Synchronized Multimedia Integration Language).

NFF (National File Format)

Publishers, individuals with print disabilities, and e-text service providers all recognize the need for a standardized format for producing electronic text. Under the auspices of the Department of Education, ANSI/NISO Z39.86-2002 DTBook has been adopted as the national file format.

The following description is taken from the CAST Web site:

<http://www.cast.org/ncac/index.cfm?i=3192>

In describing DTBook, the “pizza” metaphor has been used to clarify the use of the base tag set and additional modules. One can think of the DTBook tag set as being a basic cheese pizza, and modules as toppings that can be added as desired. The DTBook tag set contains the common elements found in textbooks and reading materials used in the K-12 arena. The over arching structures, such as front matter; headings for parts, chapters, sections, and sub-sections; rear matter, etc. are defined. Block-type elements, such as paragraphs, block quotes, lists, footnotes, sidebars, etc. are also defined. Inline items, such as emphasized text, acronyms, citations, footnote references, sentences, etc. are identified. A complete list of these can be found

in the standard. The point here is that the basic types of books can normally be represented in XML using this basic cheese pizza.

Now think of separate modules that can be added, as toppings on a pizza. A poetry module that would contain the tags needed to mark up poems is under development by the Z39.86 community. The community has also done preliminary work on a module for the markup of plays. These might be considered green peppers and onions for the pizza. The modules that can be added to the basic structure depend on the information one needs to convey.

The World Wide Web Consortium (W3C), the standards setting body for the Internet, has used this modular approach as well. One topping we may consider adopting for our pizza is the work they have done with MathML: <http://www.w3.org/Math/>

This is a module we should consider using when providing information in the field of mathematics. This is definitely meat on the pizza! The work conducted in the W3C paid close attention to the needs of persons with disabilities, but there is a lot of work, requiring significant resources, that needs to be done with accessibility tools to take advantage of math provided in XML in this way. The math work has been discussed by the Z39.86 Advisory Committee, and we have demonstrated that a MathML segment can be incorporated in a DTBook document.

Other modules will be required as time goes on, such as for other scientific disciplines, dictionaries, music, and so forth. The DTBook DTD was designed to meet the majority of the markup needs in non-technical books. It was deliberately kept lean so it would be easy to learn and use. The other modules to be developed would only be used as needed, thus minimizing complexity for users. DTBook incorporates a simple XML mechanism, described in section 4.2.2 of the standard and in the DTD itself, for incorporating tags from other element sets as needed

Sources of E-text

4Literature.net	http://www.4literature.net/
Alex Catalogue of Electronic Texts	http://www.infomotions.com/alex/
Arthur's Classic Novels	http://arthursclassicnovels.com/arthurs/search.html
Audio Books for Free	http://www.audiobooksforfree.com/
Baen Free Library	http://www.baen.com/library/
Bartleby	http://www.bartleby.com/
Bibliomania	http://www.bibliomania.com/
Blind Bookworm	http://www.panix.com/~kestrell/sources.html
Bookshare	http://www.bookshare.org/
Camera Obscura	http://www.hicom.net/~oedipus/etext.html
Caravan Project	http://www.caravanbooks.org/
Christian Classics	http://www.ccel.org/
Classic Bookshelf	http://www.classicbookshelf.com/
Classic Reader	http://www.classicreader.com/
Digital Library—Online Books	http://digital.library.upenn.edu/books/
E-Editions—University of Nebraska Press	http://www.nebraskapress.unl.edu/e_editions.html
English Server	http://eserver.org/
Etext Archives	http://www.etext.org
Fiction Wise	http://fictionwise.com/
Free Books	http://www.free-books.org/
Hoover Institution	http://www-hoover.stanford.edu/publications/books/
Institute for Learning Technologies	http://www.ilt.columbia.edu/publications/digitext.html
Internet Public Library	http://www.ipl.org/
Internet Public Library	http://www.ipl.org/
LiteralSystems	http://literalsystems.com/abooks/index.php
National Library Services	http://www.loc.gov/nls/
NetLibrary	http://www.netlibrary.com/
Online Books Page	http://digital.library.upenn.edu/books/
Online Literature Library	http://www.literature.org/
Planet eBook	http://www.planetebook.com/
PoemHunter	http://www.poemhunter.com/eBooks/
Poetry Portal	http://www.poetry-portal.com/index.html

Project Gutenberg	http://www.promo.net/pg
Representative Poetry Online	http://eir.library.utoronto.ca/rpo/display/index.cfm
Revealweb	http://www.revealweb.org.uk/
RFB&D	http://www.rfbd.org/
Tech Classics Archive	http://classics.mit.edu/
The Blind Bookworm	http://www.panix.com/~kestrell/sources.html
The Sound of Literary Works	http://verkaro.com/audio/doku.php
Unabridged: Digital Audio Books	http://unabridged.lib.overdrive.com/
University of Adelaide Library	http://etext.library.adelaide.edu.au/
University of California Press	http://texts.cdlib.org/escholarship/titles_public.html
University of Virginia	http://etext.lib.virginia.edu/
Victorian Women Writer's Project	http://www.indiana.edu/%7Elets/vwwp/vwwp%2Dlibrary.html
Wowio Free Books	http://www.wowio.com/

Online Reference Resources

Category	Type	Web Site
Dictionary	Dictionary	www.dictionary.com
Dictionary	All Words	http://www.allwords.com/
Dictionary	Cambridge Dictionaries Online	http://dictionary.cambridge.org/
Dictionary	Children's Dictionary	http://www.wordsmyth.net
Dictionary	Confusing Words	www.confusingwords.com ,
Dictionary	Encarta	www.encyclopedia.com
Dictionary	Explanations of Technical Terms	http://whatis.techtarget.com/
Dictionary	MerriamWebster	www.m-w.com
Dictionary	One Look	www.onelook.com
Dictionary	Quotation Dictionary	http://www.askoxford.com
Dictionary	Talking Dictionary Program for VI	http://www.talkingsoftware.gothere.uk.com/html/talking_dictionary.html

Category	Type	Web Site
Dictionary	Words Commonly Confused	http://homepage.smc.edu/reading_lab/words_commonly_confused.htm
Dictionary	Your Dictionary	www.yourdictionary.com
General Reference	General Reference	http://www.refdesk.com http://www.ipl.org
General Reference	Information on Web-related Issues	http://webreference.com
General Reference	Purdue University Guides for Doing Research	http://www.lib.purdue.edu/rguides
General Reference	Research Site	http://www.itools.com
Grammar	Daily Grammar:	http://www.dailygrammar.com/archive.shtml
Grammar	Guide to Grammar and Writing	http://webster.commnet.edu/grammar/index.htm
Grammar	Hyper Grammar	http://www.uottawa.ca/academic/arts/writcent/hypergrammar/grammar.html
Grammar	Knowing the Basics of Grammar	http://web.uvic.ca/wguide/Pages/GrammarToc.html
Grammar	Grammar Lists	http://www.gsu.edu/~wwwesl/egw/grlists.htm
Grammar	Online Grammar References	http://www.andromeda.rutgers.edu/~jlynch/Writing/ http://www.chompchomp.com/terms.htm
Grammar	Online Writing Lab	http://owl.english.purdue.edu/
Grammar	Sentence Sense	http://webster.commnet.edu/sensen/part1/index.html
Grammar	The Online English Grammar	http://www.edufind.com/english/grammar/
Grammar	Reading/Writing Center Handouts	http://rwc.hunter.cuny.edu/writing/on-line.html
Legal	Legislative Info	http://thomas.loc.gov
Misc.	Study Guides and Strategies	http://www.studygs.net/digital.htm
Thesaurus	Online Thesaurus	http://thesaurus.reference.com
Tutorials	BrailleNote, etc.	http://atto.buffalo.edu/registered/Tutorials.php

Category	Type	Web Site
Usage	Online Usage Guide	http://www.bartleby.com/usage/
Vocabulary	World Net Vocabulary Helper	http://poets.notredame.ac.jp/cgi-bin/wn

Helpful link:

<http://www.just-nothing.com/etext.html>

Special Font

American Printing House for the Blind (APH) has created a special font for low vision readers: <http://www.aph.org/products/aphont.html>

APHont™ (pronounced Ay'-font), was developed by APH specifically for low vision readers. APHont embodies characteristics that have been shown to enhance reading speed, comprehension, and comfort for large print users.

Previously, the APHont Regular portion of the APHont Suite was available free of charge on a PC-formatted floppy disk. This disk has been discontinued, but the entire APHont Suite is now available free of charge on the APH web site. The APHont Suite consists of Regular, Bold, Italic, and Italic Bold. One must certify use for or by a person with a visual impairment before downloading.

This is a sample of APHont Regular
(nonbold):

The quick brown fox jumped
over the lazy dog.

a b c d e f g h i j k l m n o p q r s
t u v w x y z

A B C D E F G H I J K L M N O P Q
R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 0

Punctuation . , ; : " " ' ' ? ! @ # * &

Underslung "j" - adjust
Underslung "q" - aqueduct
"ill" combination - willow

Features:

More even spacing between letters.
Higher crossbars.
No serifs.
Wider letters.
Heavier letters.
Underslung "j" and "q."
Letters more open.
Larger punctuation marks.

Product Name	Price	Vendor
Adobe Reader 8	Free	www.adobe.com
Natural Reader	Free	www.naturalreaders.com
TextAloud	\$29.95	www.nextup.com
Speaking Notepad	\$29.95	www.qwertystudios.com
ReadPlease Plus	\$49.95	www.readplease.com
The E-text Reader 6.2 (Premiere)	\$49.95	www.readingmadeez.com
ReadingBar 2	\$69.95	www.readplease.com