User Guide for
Katha (কথা): Bangla Text To Speech
(Version 1.0 Beta)

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Table of Contents

Table of Contents

Introduction 3
1. Features of Katha: Bangla Text To Speech 3
2. Known Issues & Limitations 3
3. Using Katha: Bangla Text To Speech Synthesis System in Windows 3
3.1 Configuring WordTalk to Use Bangla Text To Speech 4
Toolbar Icons 6
Speak from cursor 6
Speak paragraph 6
Speak sentence 6
Speak word 6
Speak selection 6
Configure WordTalk 7
Save sound files 7
Save settings 7
Load settings 7
Help 7
Configuring Shortcut Keys 9
Configuring Options 9

Introduction

This document explains how to use Festival-bn, Katha: Bangla Text To Speech Software. This software effectively recognizes the entered Bangla unicode text and converts it into speech.

1. Features of Katha: Bangla Text To Speech

- Platform Independent.
- Supports UTF-8 characters encoding.
- The Bangla Text To Speech voice fulfils basic support for the speak command in MS-SAPI.
- The ability to vary the speech rate of the voice is also supported in the Windows MS-SAPI interface.
- Comprehensive expandable Bangla text normalization module capable of normalizing elements such as numbers, currency symbols, ratios, percentages, abbreviations, time expressions, number ranges, telephone numbers, English letters and various other symbols.
- Error Logging.

2. Known Issues & Limitations

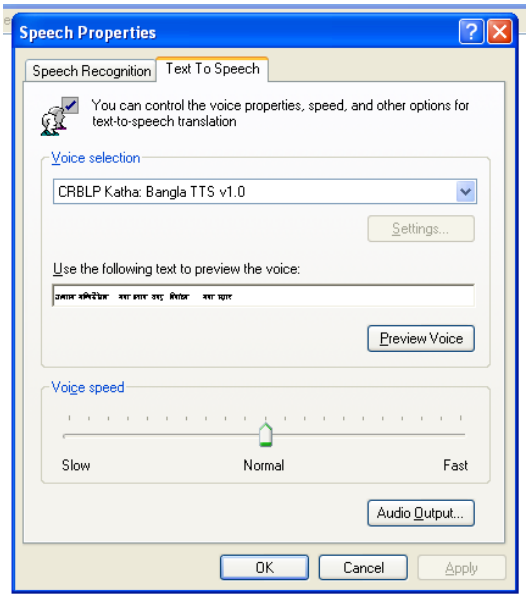
- The MS-SAPI interface works best in Windows XP Professional edition.
- Many aspects of MS-SAPI support are missing e.g. change volume etc.
- Occasional temporary degradation of voice quality when switching to and from the voice
- Currently it supports MS word in windows through WordTalk.
- Bangla voice does not work with Hal and Jaws screen reader software (due to the lack of UTF-8 readability in those applications).

3. Using Katha: Bangla Text To Speech Synthesis System in Windows

Bangla voice is Microsoft Speech Application Programming Interface (MS SAPI) 5 compliant under Windows, so any application which uses SAPI 5 voices can use this voice. If an application only supports SAPI 4, it will not make use of Bangla voice.

Depending on the design of the application, Bangla voice may not show up as an available option, even if the application is SAPI 5 compliant. In this case, contact the application's author for the latest version, and if needed, request Bangla voice support in their SAPI 5 implementation.

Bangla voice will show up in the Speech Control Panel when SAPI 5 is installed on your system. From there you can listen to the voice, and select Bangla voice to use as your system default voice.



3.1 Configuring WordTalk[1] to Use Bangla Text To Speech

WordTalk is a **free text-to-speech plugin** developed for use with all versions of **Microsoft Word** (from Word 97 upwards). It will speak the text of the document and will highlight it as it goes.

Sitting neatly in toolbar it is highly configurable, allowing you to:

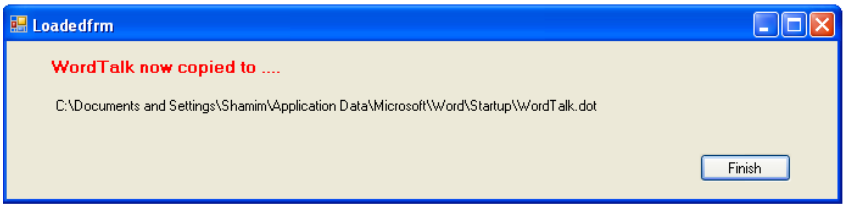
- Adjust the highlight colours.
- Change the voice and the speed of the speech.
- Convert text to speech and **save as a .wav or .mp3** file so that it can be played back on an iPod or mp3 player.

The following settings is needed to configure the WordTalk with Katha: Bangla Text To Speech:

1. On the Windows desktop, click **Start** > **All Programs -> WordTalk**
You will see the following window.

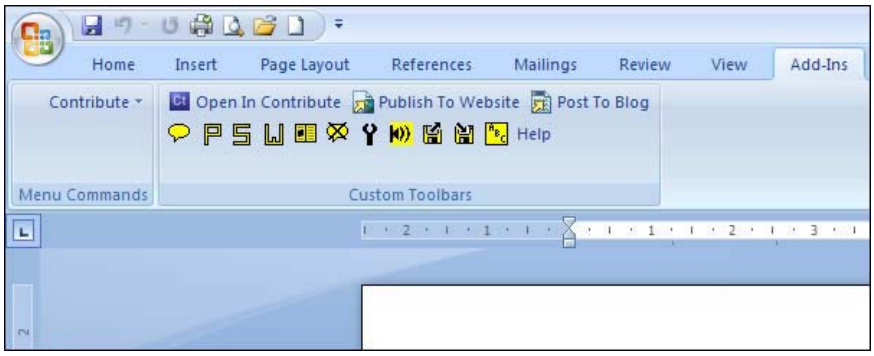
2. Click Continue.

[1] http://www.wordtalk.org.uk/Quick-Guide/

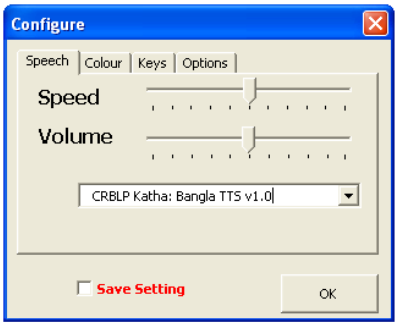


3. Click finish to add the WordTalk Toolbar with MS word Application.
4. Then run MS word.
5. WordTalk Toolbar in Word 97, 2000, or 2003.

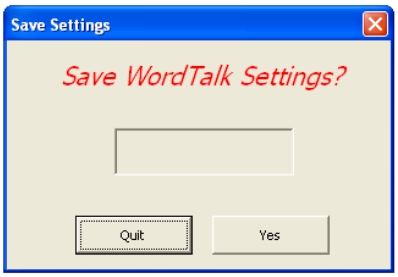
6. WordTalk Toolbar in Word 2007. This toolbar will appear as an Add-Ins. You can see this toolbar by clicking tools.



7. Click the settings to select “CRBLP Katha: Bangla TTS v1.0”



Click the “Save Setting”. Then Click “OK”.



Click “Yes”.

Then a new window appears. Click “Continue”.

8. After that, if Bangla unicode text is available in your word application then click to speak the sentence that contains the cursor.
9. The explanation of other toolbar and advanced settings is given below:

Toolbar Icons

Speak from cursor
Speaks the entire document starting from the paragraph containing the cursor.

Speak paragraph
Speaks the paragraph containing the cursor.

Speak sentence
Speaks the sentence that contains the cursor.

Speak word
Speaks the word that contains the cursor.

Speak selection
Speaks the text that is selected.

Stop speaking
Stops the computer speaking.

Configure WordTalk
Opens a window to configure WordTalk. You can choose different voices, change the volume and speed of the voice and also choose a background highlight colour.

Save sound files
Convert the text to speech and save as a **.wav** or **.mp3** file.

Save settings
Save your personalised settings.

Load settings
Load your personalised settings.

Help
This gives the version number, copyright information about WordTalk, and online Help.

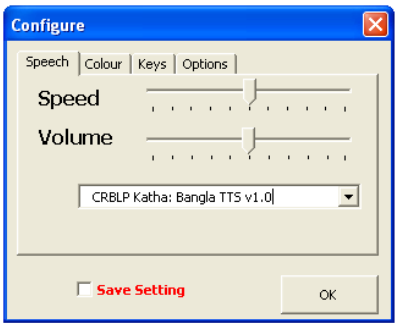
Configuring WordTalk: Advanced Settings

You can adjust the WordTalk settings by clicking on the Configure button. It has four tabs – Speech, Colour, Keys and Options. The settings you select will be saved by WordTalk for use the next time, apart from the voice itself, which you must configure using the Speech Control Panel.

Configuring Speech
The Speed of the voice can be increased by dragging right along the speed bar and decreased by dragging left.

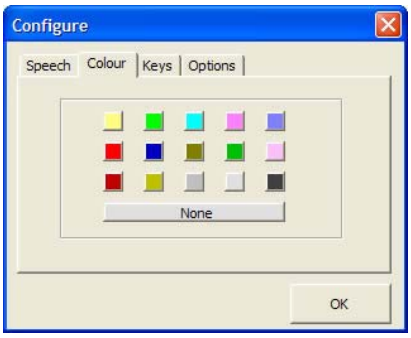
The Volume of the voice can be increased by dragging right along the volume bar and decreased by dragging left.

Clicking on the small down arrow on the right of the box below shows the voices available (usually Bangla TTS, Sam, Mike and Mary). Click on the voice name to choose the voice you want.



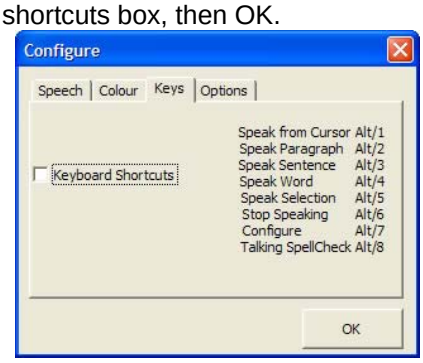
Configuring Colour

The colour tab lets you choose a background colour for the highlighted text, which many people find helpful. The highlighted text is the opposite of the background colour, i.e. clicking on dark blue gives blue background and yellow foreground; red gives red background and turquoise foreground. Blue, yellow, dark red or light gray are usually the best options.



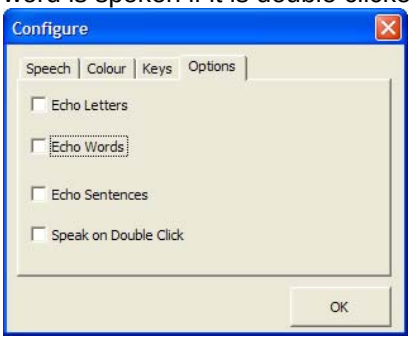
Configuring Shortcut Keys

You can use keyboard shortcuts to control WordTalk instead of clicking on the toolbar. If you want to use shortcuts, tick the Keyboard shortcuts box, then OK.



Configuring Options

- **Echo letters** - letters are spoken as they are typed
- **Echo words** - word is spoken when the space is typed immediately after it
- **Echo Sentences** - sentence is spoken (with highlighting) when the full stop is typed immediately after it
- **Speak on double click** - word is spoken if it is double clicked on.



Saving and Loading Settings

If you would like your preferred settings in the Configure WordTalk window easily loaded on your next Word / WordTalk session, this can be done by Load Settings and Save Settings icons.

To save your settings click the Save Setting icon.

When you start up your next session, you can restore your settings by clicking on the Load Settings icon

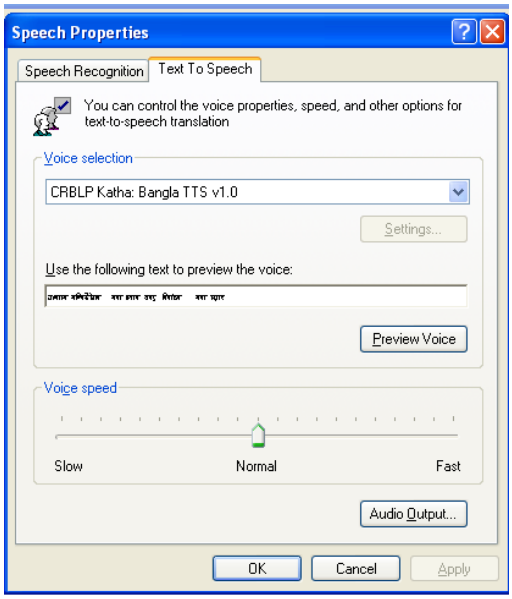
This does not save the current voice you are using. To choose a default voice use the Control Panel as described in **Setting a Default WordTalk** Voice.

Setting a Default WordTalk voice

When you start WordTalk it will use the computer's default voice, which is usually 'Microsoft Mary'. You can change the voice with the WordTalk Configure panel, but you may want to set it up so that WordTalk always uses a particular voice, by default. To do this, open up the Speech Control Panel (Start > Control Panel > Speech in Windows XP; Start > Settings > Control Panel > Speech in Windows 98, ME, and 2000; if you can't see the Control Panels on your machine, speak to your ICT coordinator or System Administrator).

Now click the Text To Speech tab, and choose the voice you want to use. Please note that WordTalk will only work with SAPI 5 voices (find out more about what SAPI actually is).

You may be interested to know that there is a very high quality Scottish synthetic voice (SAPI5) is now available free to Scottish schools from The Scottish Voice website.
Set your Default voice to **CRBLP Katha: Bangla TTS v1.0** to listen Bangla voice.



Extra voices for WordTalk

WordTalk can use any SAPI 5 voice and Microsoft Mary, Mike and Sam are installed when you install WordTalk from the CD. You may have lots of other voices on your computer (installed by other programs like Clicker 4, or Co:Writer, for example) but these are often older SAPI 4 voices and so cannot be used by WordTalk.

You can download free, slightly higher quality British, French and German SAPI 5 voices and you can also buy much better voices from several suppliers. Simply type in SAPI5 voices into Google to start your search.

Saving Text as a Sound File

It may be useful to be able to listen to a piece of text away from Word or even the computer e.g. on a mp3 player or similar. To do this, select the piece of text to be converted to sound file, and then click on the Save as Sound File icon. The following window opens.
To save to Wave file, click the Save to Wave button. A Save window will appear enabling the user to choose the name and location of the file. The default is mywavefile and saves it to the WordTalk folder in Program Files.
To save to MP3 file, click the Save to MP3 button. A Save window will appear enabling the user to choose the name and location of the file. The default is mymp3file and saves it to the WordTalk folder in Program Files.

Save Sound File
Save to Wave
Save to MP3
Exit