



VIDIVOX

User Manual

Vidivox developed by Jay Gradon

1. WHAT IS VIDIVOX?

Vidivox is a video editor designed for the purpose of editing the audio of user selected videos through the addition of other audio to the video. Vidivox currently provides support for adding audio to a specified portion of video, limiting the duration of said audio, looping said audio for a specified duration, and altering the volume of said audio relative to the video.

Vidivox is particularly integrated with text-to-speech synthesis systems, allowing users to quickly create and add computer synthesized commentary to a video. Vidivox currently allows users to select from a range of diphone voices, as well as altering the pitch or speed of speech. Vidivox also comes with two emotional settings, which use the pitch and speed to create speech that conveys emotion.

Vidivox utilizes a project functionality which uses a folder on the user's system to store dependent files. This allows the user to edit audio which has previously been added to the video or remove added audio altogether. The user should note that tampering with project files could cause unexpected behaviour on the part of the application.

1.1 VIDIVOX DEPENDENCIES

Vidivox has been designed with the intent to be used on Linux systems, and has been particularly optimised in terms of the user interface to be used on the Ubuntu operating system.

Vidivox is dependent on three packages being installed on the users system, namely been the:

1. VLC video player package
2. Festival text-to-speech synthesis package
 - a. For voice selection, the four basic diphone voices must be installed
3. Ffmpeg video editing package

In the absence of any of these packages the application will run with reduced or no functionality.

Vidivox has been designed to utilise .avi video and .mp3 audio files. While the application can handle other file types, other file types are not guaranteed to function correctly or well.

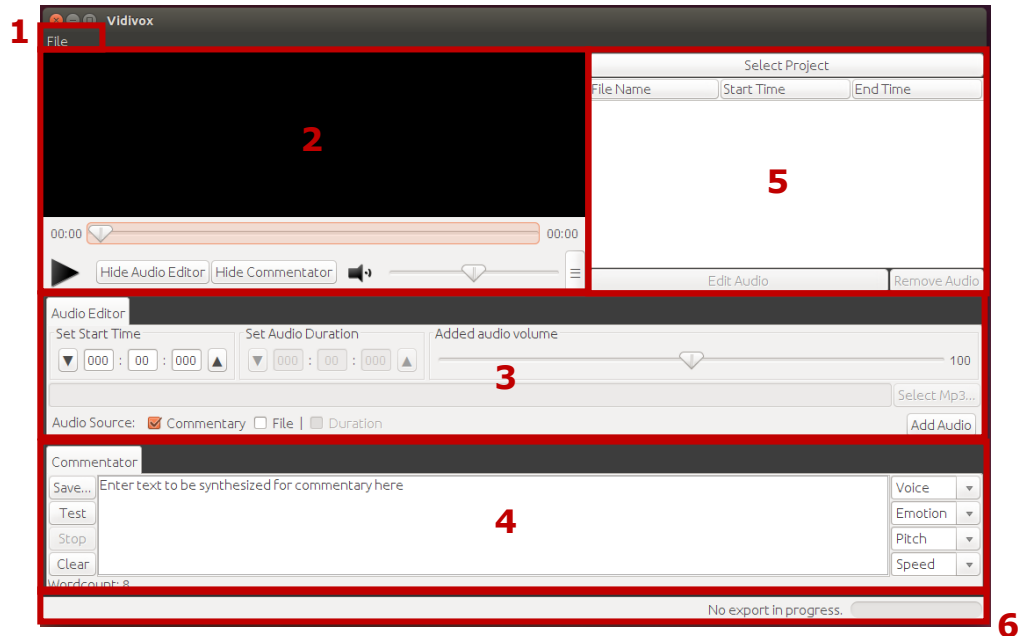
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2. USING VIDIVOX

2.1 VIDIVOX NAVIGATION

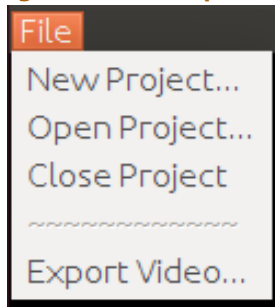
Figure 1: Vidivox User Interface



1. See [section 2.2](#), Project Management for information on the file drop down.
2. See [section 2.3](#), Video Playback for information on the vidivox video player.
3. See [section 2.4](#), Adding Audio for information on how to use vidivox to add audio to video.
4. See [section 2.5](#), Creating Commentary for information on how to use vidivox to create commentary from text.
5. See [section 2.6](#), Audio List on how to interpret and use the audio list.
6. See [section 2.7](#), Export Progress on how to interpret the export progress bar footer.

2.2 PROJECT MANAGEMENT

Figure 2: File Dropdown



The project can be managed through the file dropdown. The dropdown allows users to create, open, and close projects. It also allows the user to export video that has been edited.

CREATING PROJECTS

On clicking the "New Project..." item the user will be prompted to select a folder to use as the project folder. The user also has the opportunity to create a new folder if required. The user will then be asked to associate the video file to be edited with the project.

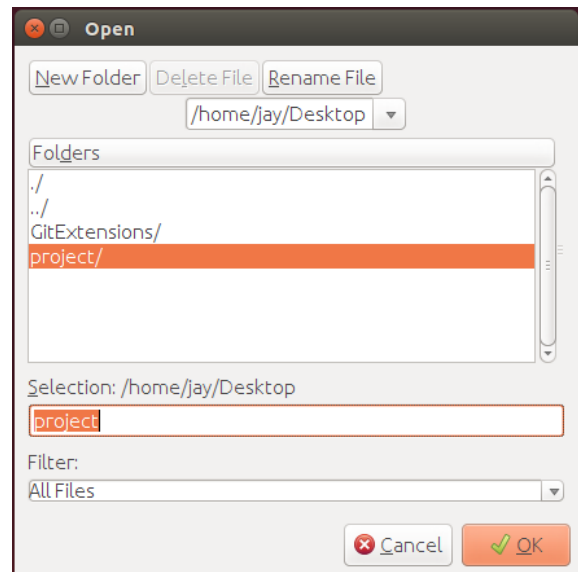
OPENING PROJECTS

On clicking the "Open Project..." item the user will be prompted to select an existing project. Should the folder selected not be a valid project, the user will receive a prompt as to whether the folder should be made a project. Should the user confirm, they will continue with the project creation process.

EXPORTING VIDEO

On clicking the "Export Video..." item (enabled on loading a project) the user will be prompted to select an export location and filename, where the project video combined with the newly added audio will be exported to as a single video file.

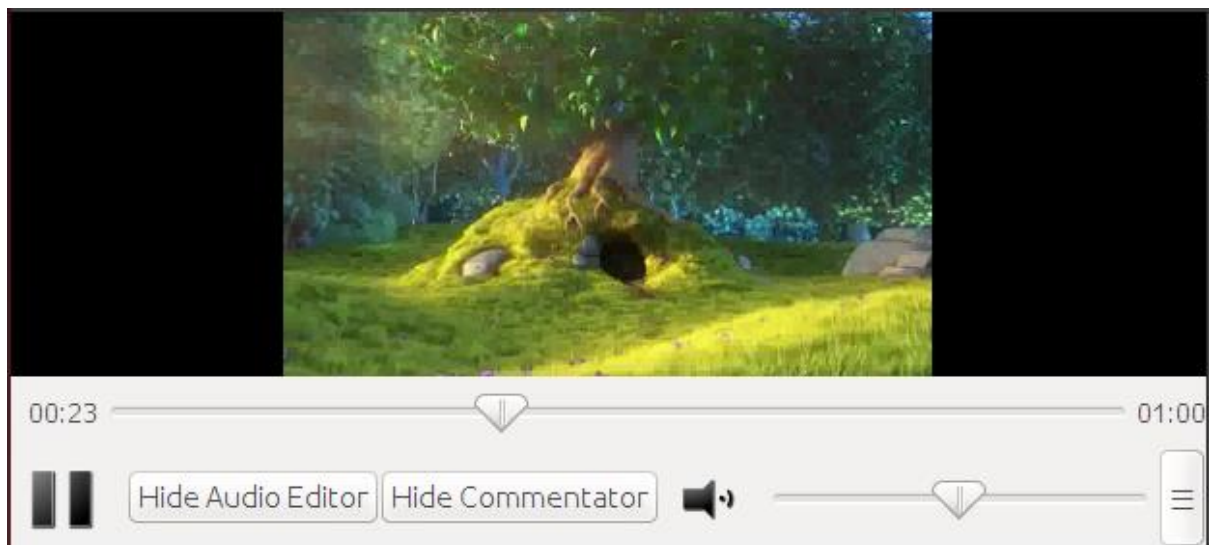
Figure 3: Project Selection



ADDED AUDIO

The added audio is copied to the project directory. This means that should the file in the project directory be deleted, the application will not be able to find it and may behave unexpectedly. However no reference is made to the original audio files used and as such they may be moved/alterd at will.

Figure 4: Video Player



The Vidivox application comes installed with a functional video player, with play/pause, user operable progress bar, and volume settings. The current playback time is displayed on the left of the progress bar, while total video length is displayed on the right.

PLAYING VIDEO

To play a video, the user must first select a project. On project selection, the user can use the play button to begin the video playback. The video is paused on initially loading the project.

SETTING PLAYBACK TIME

The user can also click on the progress bar to jump to the time selected, or dragged to move through the video. Should the user wish to go to a specific time in the video, the current playback time can be set from the audio editing panel detailed in [section 2.4, AUDIO SETTINGS](#).

VOLUME SETTINGS

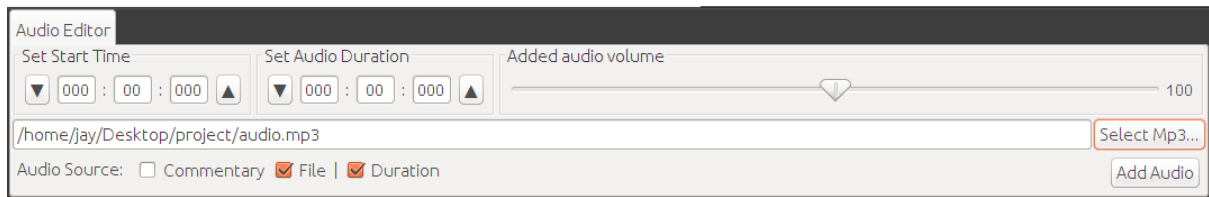
The user can set the volume to be used when playing the video at any time. The speaker icon can also be pressed to mute the video.

SHOW/HIDE FUNCTIONALITY

The video player also features buttons to show and hide vidivox functionality. The show/hide buttons will show or hide the audio editing or commentary functionality. The trigram "≡" button will show/hide the list of audio added to the project video.

2.4 ADDING AUDIO

Figure 5: Audio Editor



AUDIO SOURCE

COMMENTARY: The *commentary* checkbox is ticked by default. As duration does not cause the commentary to finish in the allotted time, merely ending it prematurely, it is disabled when adding from commentary. When the commentary checkbox is ticked the audio is taken from the commentary creator, with the currently input text and settings.

FILE: When the *file* checkbox is ticked, the user will be able to add audio from a file selected with the "Select mp3..." file browser. They will also be able to tick the *duration* checkbox to indicate they want the audio to stop within a specified duration.

AUDIO SETTINGS

SET START TIME: The start time of the audio can be set before the audio is added, in the form of minutes, seconds, and milliseconds. The audio will start at the entered start time.

SET AUDIO DURATION: When adding audio files, the duration of the audio can be set. Should the set duration be less than the length of the audio, the audio will stop prematurely after the given duration. Should the set duration be longer than the audio, the audio will loop until the given duration. To enable setting the duration, the *duration* checkbox must be checked.

▼: This icon enables the user to set the time in the boxes to the video time.

▲: This icon enables the user to set the video time to the set time in the boxes.

ADDED AUDIO VOLUME: The volume of the added audio can be altered so that the audio is of a different volume relative to the video, whether that be quieter or louder.

2.5 CREATING COMMENTARY

Figure 6: Commentator



COMMENTATOR FUNCTIONS

SAVE: The save function allows the user to save the entered text as synthesized speech in an mp3 file with the given settings from the four setting dropdowns.

TEST: The test function allows the user to hear the entered text with the given settings from the four setting dropdowns. Pressing the test button will also allow the stop button to be pressed to stop the synthesized speech. Consecutive presses of the test button will interrupt currently speaking audio and start the speech with the current settings and text.

STOP: The stop function stops any speech that is speaking. It is enabled when the test button is pressed and speech is playing.

CLEAR: The clear function removes any text currently entered in the text box.

COMMENTATOR SETTINGS

VOICE: The vidivox editor comes with four voices to select: Kal, Ked, Don, and Rab. The Rab voice is an Englishman, whereas the other voices are a selection of Americans. All voices are male. In order to use the voices, the diphone festival voices must be installed on the system.

EMOTION: The emotions of happy and sad are available to be selected. Selecting an emotion overrides and disables the pitch and speed functions. Setting the emotion to neutral enables use of the pitch and speed functions again.

PITCH: The pitch setting comes with a low, normal, and high pitch. The pitch setting is used should an emotion not be selected or is set to neutral.

SPEED: The pitch setting comes with a slow, normal, and fast speed. The speed setting is used should an emotion not be selected or is set to neutral.

A word counter is also provided as some reference to how long the text is. The user should note that punctuation will make a difference in how the text is spoken and should be used appropriately.

Figure 7: Audio List

Select Project		
File Name	Start Time	End Time
audio.mp3	00:07	00:11
enigma.mp3	00:00	00:00
Edit Audio		Remove Audio

DISPLAYED AUDIO

FILENAME: The simple filename (without directory path) is displayed in the first column of the audio list. This name is used to reference the file represented by the filename.

START TIME: The start time (represented in minutes and seconds) is displayed in the second column of the audio list. The time is that of when the audio will start playing in the video.

END TIME: The end time (represented in minutes and seconds) is displayed in the third column of the audio list. The time is that of when the audio will stop playing in the video.

AUDIO LIST FUNCTIONS

SELECT PROJECT: The "select project" button prompts the user to open a project. See [section 2.2](#), Opening Projects for more information about opening projects.

EDIT AUDIO: The "edit audio" button is enabled on selection of an added audio file in the list. It will extract the audio settings, as well as commentary text and settings if it was added from the commentator. The "add audio" button on the audio editor will change to a "confirm edits" button to finalize the edits. Editing can be cancelled by clicking the *edit audio* button again, which will display "cancel edits".

REMOVE AUDIO: The "remove audio" button is enabled on selection of an added audio file in the list. It will remove the selected audio.

2.7 EXPORT PROGRESS

Figure 8: Not Exporting

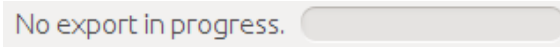
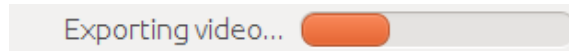
A light gray rectangular box containing the text "No export in progress." followed by a horizontal progress bar that is completely empty and light gray.

Figure 9: Exporting

A light gray rectangular box containing the text "Exporting video..." followed by a horizontal progress bar. The progress bar has an orange segment on the left, indicating progress, and a light gray segment on the right.

EXPORTING VIDEO

On selecting "*Export Video...*" in the *file* drop down, the export progress bar will indicate it is exporting video with the text "Exporting video..." The progress bar records the real time progress of each audio file being added to the video file. The application should not be exited during export or the video file will not have all of the audio added.