Vowel Shapes

Contents

The Basics

1) Download the zip file and extract the contents.
2) In the directory "./VowelShapes" double click on "Application.exe"
3) This is the default startup window
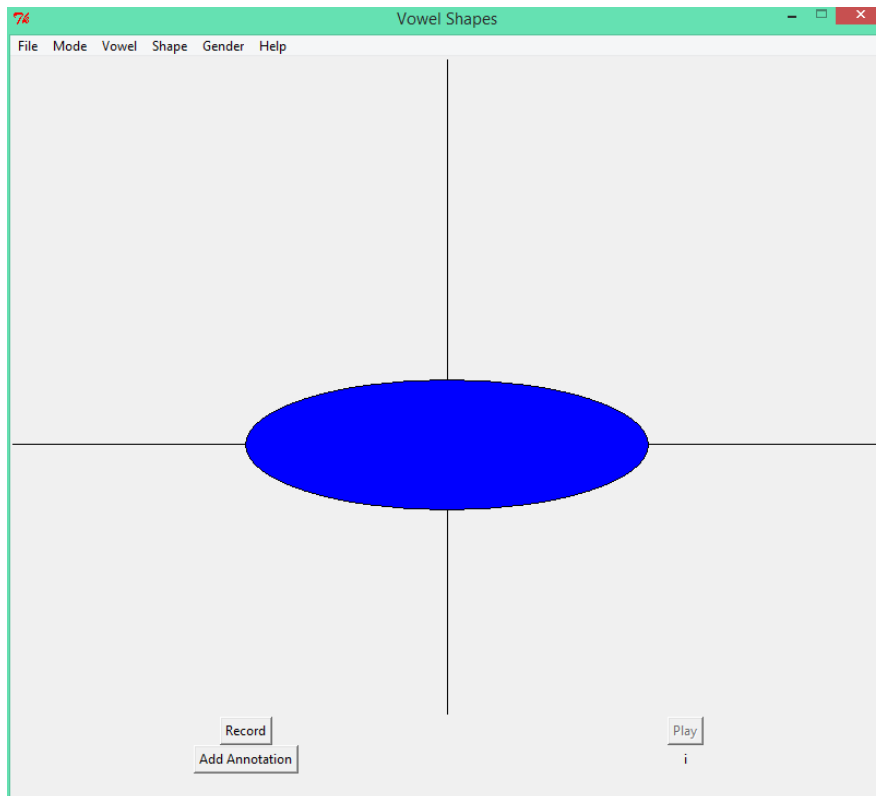
4) Click on "Help->The Different Modes ", for general understanding of the menu items under "Mode".
5) Click on "File->About" to learn a little bit about why the program was developed.
6) The goal is to match the vowel shape by singing the correct vowel. When this is accomplished the active singing shape will change from yellow to green.
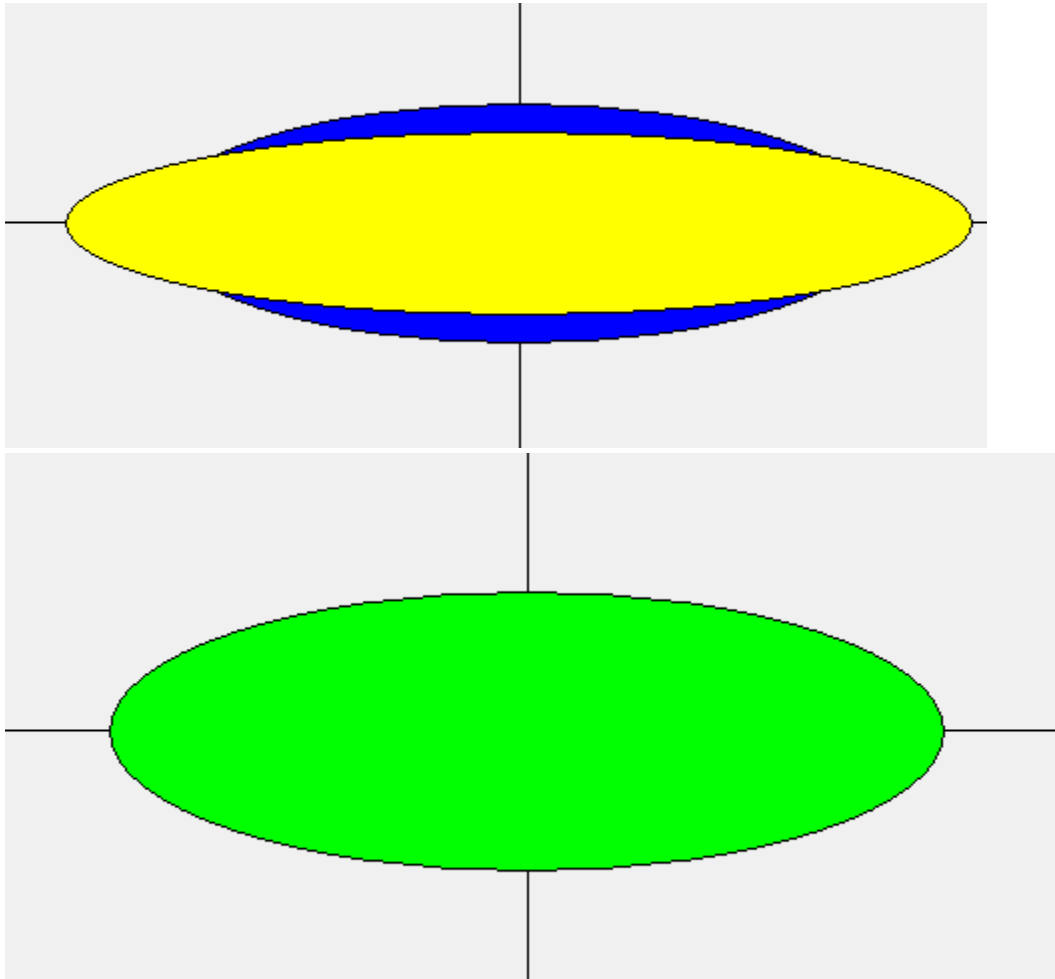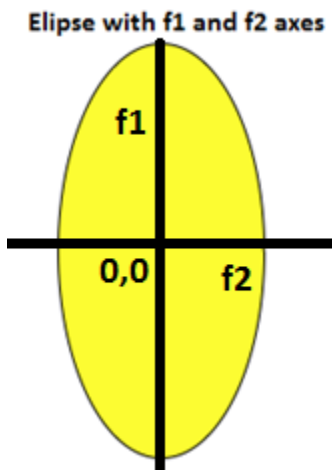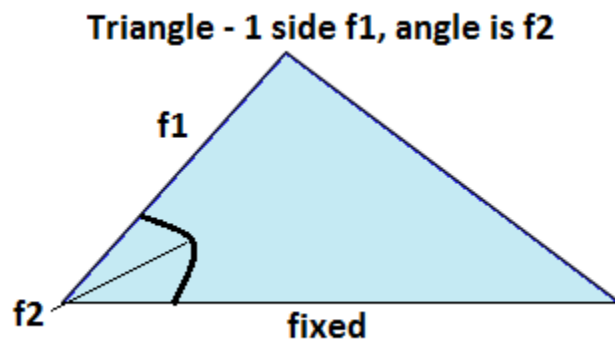
The Shapes, The Basic Vowels, Gender

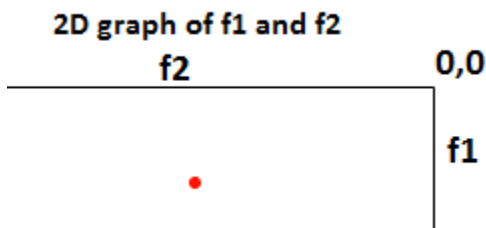1) Click on the menu item "Shape". These 3 shapes are available to help you sing the correct vowel.
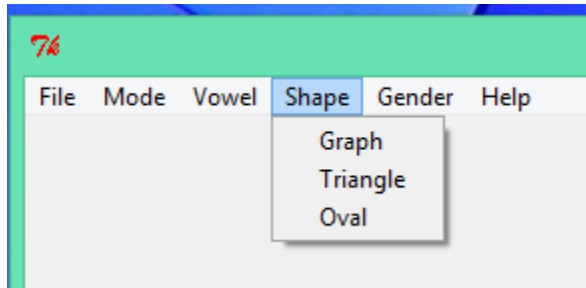
2) Oval – The oval with adjust length and width as the vowel changes.

3) Triangle – The triangle will adjust the upper leg and the angle as the vowel changes.

4) Graph – The graph will plot the dot on the x/y axes as the vowel changes.

5) The Vowel menu has predefined vowel definitions for practice. Selecting a vowel from the menu will load a shape for you to match. There is not associated sound with these vowels.

File   Mode   Vowel   Shape   Gender   Help

i
I
E
ae
as
o
u
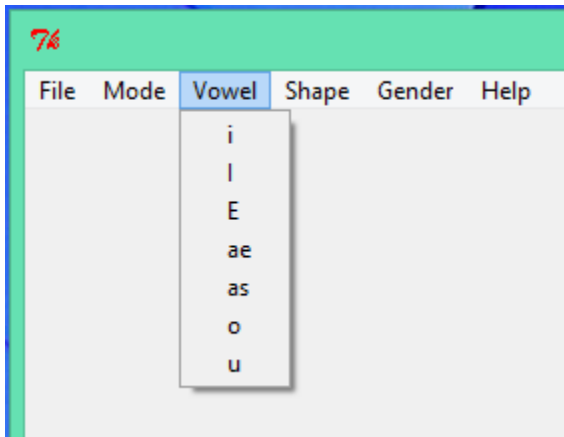
6) The gender menu is used when recording and then saving a vowel. The normalization of the singing is different for males and females.

File   Mode   Vowel   Shape   Gender   Help

✔ Female
Male
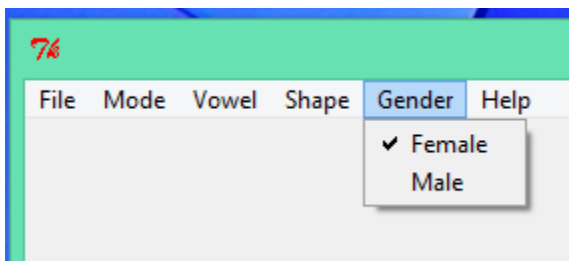
The Modes

1) There are four modes. Depending on the mode different buttons are active on the application.
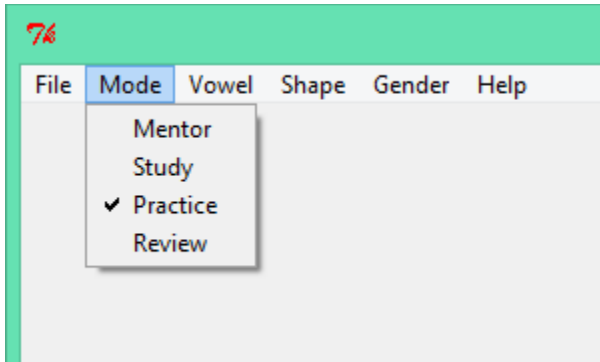

2) The four modes are:
   a. Mentor Mode – Records an audio input, and displays it on the screen. It does not compare the input to a baseline. The input can be saved with an annotation for review and practice later. This mode is intended for creating baseline vowels for others to strive to match.
   b. Study Mode – Displays a baseline vowel and allows the user to listen to it. In this mode, the application will not accept audio input.
   c. Practice Mode – Accepts audio input from the user, converts the audio input to a vowel shape and places the shape over the user selected baseline vowel shape. Practice mode will have an option to record and play.
   d. Review Mode – Allows the user to replay a previously recorded practice-session vowel recording with the visualization from the practice session and a selected baseline vowel. (Future implementation)

Basic Vowel Actions

1) The user may elect not to use the mode. The "File" menu offers the user the basic vowel options
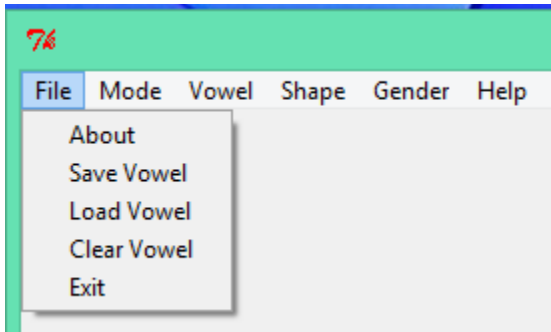
2) Save Vowel – The user must have completed a successful recording before a vowel can be saved. The vowel will be saved with all of the information needed to load it in the future in the vowel repository directory.

   a. If desired an annotation may be added to the vowel definition using the "Add Annotation" button under the "Record" button.
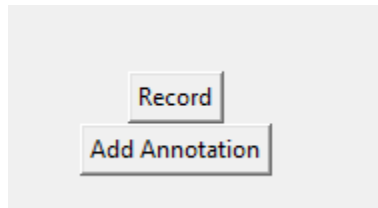
   b. A pop up window will accept the annotation input.
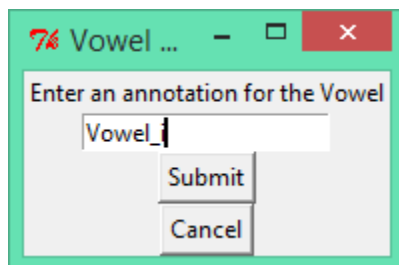
   c. The vowel annotation is used when a vowel is loaded. It is placed under the "Play" button of the application.

3) Load Vowel – The user may browse the vowel repository directory and select a vowel. The default vowel file extension is ".dip". Depending on the content of the vowel it may or may not include annotation or sound.

4) Clear Vowel – This will remove all vowel information from the application.

Trial Feature – input Devices

The application may be used with an external recording device (microphone). This is an experimental feature. Most people will want to use the application with the internal microphone on their PC.

The menu "Input Devices" will show all possible recording options as the operating system sees them. This may not be very description to the user. But if you know the brand of you external microphone you should be able to use it.

Testing also indicates that the operating system may assume that the input device also has an output device (speakers) you may need to find the control for sound on your system and reset the output device to the internal speakers.

Additionally you should make sure that only the external device is recording. This may mean disabling the internal microphone using the sound control of your PC.

The following diagram shows the input device menu when there are no external devices on a Windows 8 system. Generally you should not use this menu if there are no external microphones.
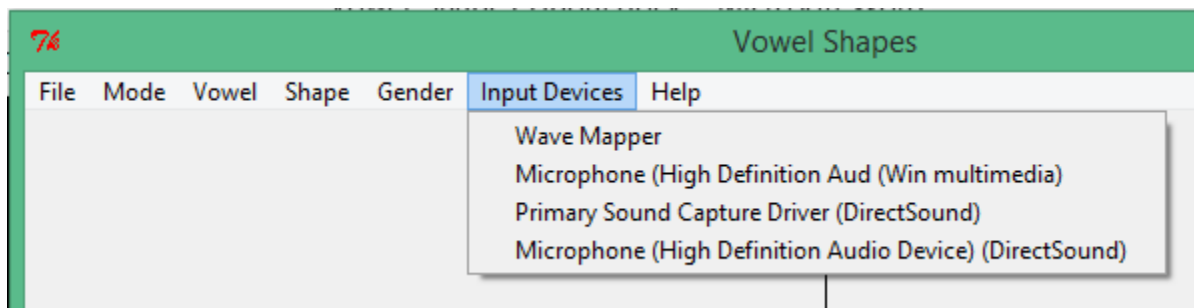
Below is the menu when an external microphone is attached. The brand in Samson and selecting either entry should permit recording from that device.
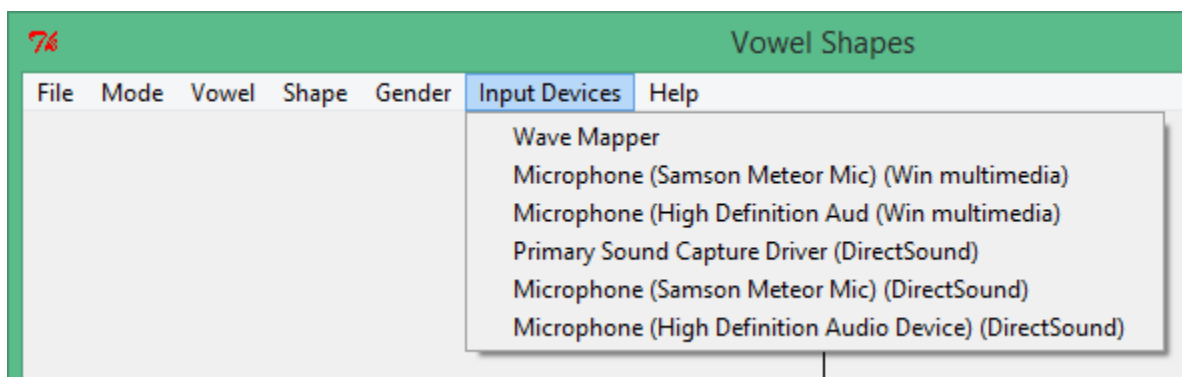
Know Issue

Sometimes the shape will continue to redraw after clicking stop to stop the recording.

If this occurs exit the application and restart.

This may have an association with the Clear Vowel action. If you need to clear the display select Mentor mode or just load a different vowel.

This appears to be a timing issue on some PCs/displays.