My Voice Controller

Created by Mike Barrett at 5 Hyphen Studios, Inc. on 6/15/08.

About

This software allows you to emulate mouse and keyboard inputs by using your voice. Common uses for this software are gaming and assistance for the disabled/injured. I wrote this program to assist me with playing various games including World of Warcraft. The software is free and source code is available.

Prerequisites

- Windows XP or Vista (May work with 95 but is untested)
- Microsoft .net framework 3.5
    - http://www.microsoft.com/downloads/details.aspx?FamilyID=333325FD-AE52-4E35-B531-508D977D32A6&displaylang=en
- Microsoft speech API
    - Windows Vista
        - The speech API v5.3 is built into Vista
    - Windows XP
        - Free download from Microsoft (v5.1)
        - http://www.microsoft.com/downloads/details.aspx?FamilyID=5e86ec97-40a7-453f-b0ee-6583171b4530&DisplayLang=en
- A microphone. I am using the Logitech Premium USB Headset 350.
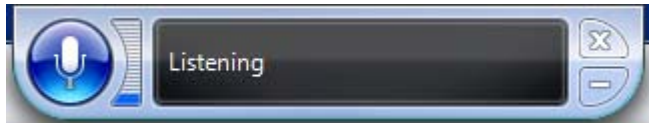
Features

- Mapping voice keywords to common tasks
- Keyboard input
    - Send a single key
    - Send a text phrase
    - Key down
    - Key up
- Mouse input
    - Mouse click
        - Left, right, middle
    - Mouse cursor move
    - Mouse cursor position save and load
- Delay
    - Useful for keyboard, mouse and macro input
- Macro
    - Allows common/long commands to be referenced by a single key word
- Auto update
    - As new versions of the software become available you will be notified upon the program launch
- Special voice commands

o Example is repeat last command

Usage

Program startup

Voice are stored in a plain text file which I will refer to as **profile**. Upon the program launch your last profile will automatically be loaded and activated. That Microsoft speech recognition program should launch automatically. You will need to set the speech recognition software into listen mode by saying "start listening" or by clicking on the blue microphone button.
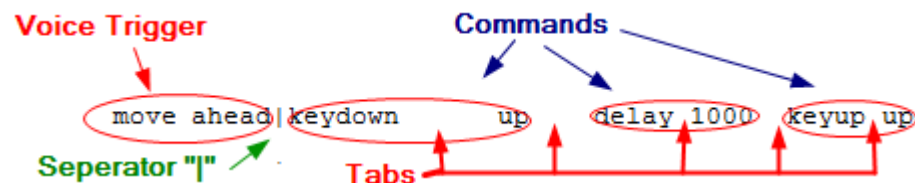

Profile setup

Until the profile editor is created you will need to modify your profile in any text editor such as notepad.

Here is an example of the file format:

```
#test
{heal}|sendkey    4       sendkey    5       sendkey    6
renew|sendkey     2
heal|macro   {heal}
move ahead|keydown       up     delay 1000  keyup up
move mouse|mousemove     500,500
```

There are two types of lines:

1. Blank lines or comment lines.
   a. Comment start with #
2. Command lines
   a. Start with the voice trigger followed by commands and actions
   b. Voice trigger and commands are separated by |
   c. Commands and actions are separated by TABS

Commands

KEYBOARD

- SENDKEY
  o Sends a single key
  o Examples
    ▪ SENDKEY   A

- ▪ Sendkey   left
  - o Command line example
    - ▪ Press b|Sendkey   b
- KEYDOWN, KEYUP
  - o Keeps a single key held down/up
  - o Example
    - ▪ Keydown   shift
    - ▪ Keyup   shift
- SENDTEXT
  - o Sends more than one key
  - o Example
    - ▪ Sendtext   Hello
  - o Certain characters are reserved. See this link for more information
    http://msdn.microsoft.com/en-us/library/system.windows.forms.sendkeys.send.aspx

  - o You may also press multiple modifier keys such as SHIFT,CTRL,ALT
  - o Example to send SHIFT + CTRL + R
    - ▪ Sendtext   +^R

  NOTE: Special key commands are located in a file called KEYS.DAT that is located in your application directory

MOUSE

- MOUSECLICK
  - o Sends a single mouse click
  - o Examples
    - ▪ Mouseclick left
    - ▪ Mouseclick right
    - ▪ Mouseclick middle
- MOUSEDOWN, MOUSEUP
  - o Presses the mouse button and keeps it held down
  - o Examples
    - ▪ Mousedown   left
    - ▪ Mousedown   right
    - ▪ Mouseup   middle
- MOUSEMOVE
  - o Moves the mouse cursor to a set of X/Y coordinates on the screen. You can use my voice controller to show you the current coordinates of your mouse.
  - o Examples
    - ▪ Mousemove   100,1000
- MOUSE LOAD/SAVE
  - o When the MOUSE SAVE command is given the current mouse cursor coordinates will be stored in memory. When the MOUSE LOAD command is given the mouse will be moved to the saved coordinates.
  - o Examples. Please note there is a tab between mouse{TAB}save/load
    - ▪ Mouse   save
    - ▪ Mouse   load

MACROS

- MACRO

- o Macros allow you to enter a string of commands once and refer to them with a shortcut. These are useful for commands that may change in the future.

  - o To set up a macro you need to place brackets {} around the macro name. The macro name is placed at the beginning of the line. Commands and actions follow the |
    - ▪ Example
      - • {HEAL ME}|sendkey   F1   sendkey   4

  - o To reference the macro all you need to do is referred to it by MACRO and the macro name without the brackets {}
    - ▪ Example
      - • heal|macro   heal me

SPECIAL COMMANDS
- • DELAY
  - o Inserts a pause in milliseconds. (1000 = 1 second)
  - o Example
    - ▪ Delay   500
SPECIAL VOICE COMMANDS
      NOTE: These commands are to be spoken.
- • REPEAT, AGAIN
  - o Repeats the last spoken command

Source code

The software is programmed in Microsoft visual basic 2008. I am releasing the source code so that others may learn and adapt the software. Because of the constant threat of key loggers and Trojans in programs related to online gaming I've made the source available for anyone to review and recompile. This software does **not** contain any malicious agenda such as keys loggers, Trojans or viruses. The Microsoft visual basic 2008 developer software is freely available from Microsoft (http://www.microsoft.com/express/vb/).

The source code may not be sold or distributed without the express written agreement from 5 Hyphen Studios. The source code remains property of Mike Barrett at 5 Hyphen Studios.