How to Install Soft Keyboard

This tutorial tests with "2016-05-27-raspbian-jessie" version, if you want to use wheezy or an earlier version of the image, there are differences in the fifth and sixth step file path, you can have a reference of virtual-keyboard on office installation tutorials

Official reference address (English)

http://ozzmaker.com/virtual-keyboard-for-the-raspberry-pi/

1. Install the necessary files

```
sudo apt-get update
sudo apt-get install libfakekey-dev libpng-dev autoconf libxft-dev libtool automake -y
```

2.Install the virtual keyboard "matchbox-keyboard"

```
git clone https://github.com/mwilliams03/matchbox-keyboard.git
cd matchbox-keyboard
./autogen.sh
```

Note: "./autogen.sh" execution time needs about a few minutes,It will shows as picrtured after correct implementation. If not similiar as pictured after implementation, you need check if there are error tips

```
            Matchbox-keyboard 0.2
            =========================

    prefix:                     /usr/local
    source code location:       .
    compiler:                   gcc

    Building with Debug:        no
    Building with Cairo:        no
    Building Gtk widget:        no
    Building Examples:          no
    Building GTK+ Input Method: no
    Building panel applet:      no
```

Then execute:

```
sudo make
sudo make install
```

3.Shared library for installing virtual keyboard

```
 sudo apt-get install libmatchbox1 –y
```

As pictured:

```
pi@raspberrypi:~ $ sudo apt-get install libmatchbox1
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  libxsettings-client0
The following NEW packages will be installed:
  libmatchbox1 libxsettings-client0
0 upgraded, 2 newly installed, 0 to remove and 55 not upgraded.
Need to get 57.6 kB of archives.
After this operation, 126 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://mirrordirector.raspbian.org/raspbian/ jessie/main libxsettings-client0 armhf 0.17-6 [8,724 B]
Get:2 http://mirrordirector.raspbian.org/raspbian/ jessie/main libmatchbox1 armhf 1.9-osso8-3.1 [48.9 kB]
Fetched 57.6 kB in 1s (34.7 kB/s)
Selecting previously unselected package libxsettings-client0.
(Reading database ... 120276 files and directories currently installed.)
Preparing to unpack .../libxsettings-client0_0.17-6_armhf.deb ...
Unpacking libxsettings-client0 (0.17-6) ...
Selecting previously unselected package libmatchbox1:armhf.
Preparing to unpack .../libmatchbox1_1.9-osso8-3.1_armhf.deb ...
Unpacking libmatchbox1:armhf (1.9-osso8-3.1) ...
Setting up libxsettings-client0 (0.17-6) ...
Setting up libmatchbox1:armhf (1.9-osso8-3.1) ...
Processing triggers for libc-bin (2.19-18+deb8u4) ...
```

4.Create a virtual keyboard to start the script

sudo nano /usr/bin/toggle-matchbox-keyboard.sh

Paste the below text and press ctr+x and Y, save and exit

```bash
#!/bin/bash
#This script toggle the virtual keyboard
PID=`pidof matchbox-keyboard`
if [ ! -e $PID ]; then
killall matchbox-keyboard
else
matchbox-keyboard -s 50 extended&
fi
```

Add executable permissions for the above script

sudo chmod +x /usr/bin/toggle-matchbox-keyboard.sh

5.Add the script to the start menu

sudo nano /usr/share/applications/toggle-matchbox-keyboard.desktop

Paste the below text and press ctr+x and Y, save and exit

```
[Desktop Entry]
Name=Toggle Matchbox Keyboard
Comment=Toggle Matchbox Keyboard
Exec=toggle-matchbox-keyboard.sh
Type=Application
Icon=matchbox-keyboard.png
Categories=Panel;Utility;MB
```

```
X-MB-INPUT-MECHANSIM=True
```

```
nano ~/.config/lxpanel/LXDE-pi/panels/panel
```

7.Find similiar command with the following (different raspberry version may have different default content)

```
Plugin {
 type=launchbar
 Config {
  Button {
    id=/usr/share/applications/lxde-x-www-browser.desktop
  }
  Button {
    id=/usr/share/raspi-ui-overrides/applications/pcmanfm.desktop
  }
  Button {
    id=/usr/share/raspi-ui-overrides/applications/lxterminal.desktop
  }
  Button {
    id=/usr/share/applications/wolfram-mathematica.desktop
  }
  Button {
    id=/usr/share/applications/wolfram-language.desktop
  }
 }
}
```

Add the following code to add an icon item

```
 Button {
    id=toggle-matchbox-keyboard.desktop
  }
```

```
Plugin {
  type=space
  Config {
    Size=8
  }
}
Plugin {
  type=launchbar
  Config {
    Button {
      id=toggle-matchbox-keyboard.desktop
    }
    Button {
      id=/usr/share/applications/lxde-x-www-browser.desktop
    }
    Button {
      id=/usr/share/raspi-ui-overrides/applications/pcmanfm.desktop
    }
    Button {
      id=/usr/share/raspi-ui-overrides/applications/lxterminal.desktop
    }
    Button {
      id=/usr/share/applications/wolfram-mathematica.desktop
    }
    Button {
      id=/usr/share/applications/wolfram-language.desktop
    }
  }
}
Plugin {
  type=space
  Config {
    Size=8
  }
}
```

8.Execute the following command and restart after modification,if successfully, you can see a virtual keyboard Icon on the taskbar of screen.

```
sudo reboot
```

P.S.Change the size of the virtual keyboard by logining in SSH

```
DISPLAY=:0.0 matchbox-keyboard -s 50 extended
DISPLAY=:0.0 matchbox-keyboard -s 100 extended
```