

SOFTHORN CALCULATOR

USER MANUAL

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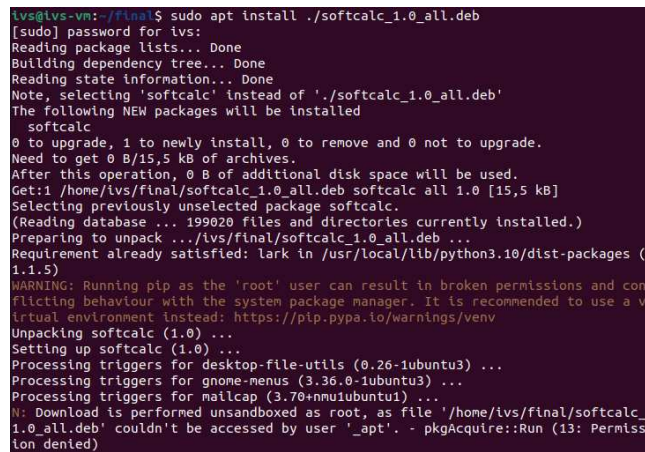
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1 Introduction

This application was made for Ubuntu 64-bit. It is a simple calculator that can solve addition, subtraction, multiplication and division. There are also other functions like root, logarithm, factorial and power. The calculator likewise supports usage of parentheses and decimal numbers.

2 Installation

1. Open up a terminal
2. Download debian package `softcalc_1.0_all.deb` in any directory you want
3. Execute following command in the same directory:
`sudo apt install ./softcalc_1.0_all.deb`



```
ivs@ivs-vm: ~/final$ sudo apt install ./softcalc_1.0_all.deb
[sudo] password for ivs:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'softcalc' instead of './softcalc_1.0_all.deb'
The following NEW packages will be installed
  softcalc
0 to upgrade, 1 to newly install, 0 to remove and 0 not to upgrade.
Need to get 0 B/15,5 kB of archives.
After this operation, 0 B of additional disk space will be used.
Get:1 /home/ivs/final/softcalc_1.0_all.deb softcalc all 1.0 [15,5 kB]
Selecting previously unselected package softcalc.
(Reading database ... 199020 files and directories currently installed.)
Preparing to unpack .../ivs/final/softcalc_1.0_all.deb ...
Requirement already satisfied: lark in /usr/local/lib/python3.10/dist-packages (1.1.5)
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behaviour with the system package manager. It is recommended to use a virtual environment instead: https://pip.pypa.io/warnings/venv
Unpacking softcalc (1.0) ...
Setting up softcalc (1.0) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
N: Download is performed unsandboxed as root, as file '/home/ivs/final/softcalc_1.0_all.deb' couldn't be accessed by user '_apt'. - pkgAcquire::Run (13: Permission denied)
```

Figure 1: Installation of Softhorn Calculator

2.1 Manual installation

Softhorn calculator needs certain dependencies to run correctly. You need to install `python3`, `python3-tk` and `lark` module for `python3`.

You can do so by running these commands:

```
sudo apt install python3
sudo apt install python3-tk python3-pip
pip3 install lark
```

Manual installation of Softhorn Calculator requires you to download repository via git. If you don't have git installed on your system you can do so by running this command in the terminal:

```
sudo apt install git
```

Right after that navigate to any directory where you wish to download our repository and execute following command:

```
git clone https://github.com/matusHubinsky/ivs-project-2
```

Next, navigate to `src` directory and run following commands:

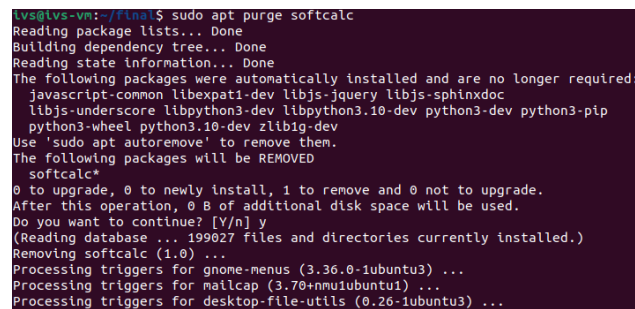
```
sudo mkdir /usr/share/softhorn/  
sudo cp gui.py mathlib.py core.py /usr/bin/softhorn/  
sudo cp icon.png /usr/share/pixmaps/  
cd ../installer/  
sudo cp softcalc /usr/bin  
sudo cp softcalc.desktop /usr/share/applications  
sudo chmod 775 /usr/bin/softhorn/gui.py  
sudo chmod 775 /usr/bin/softcalc
```

You can use the calculator by running `softcalc` command in the terminal or by pressing Meta button on the keyboard and typing `softcalc` and pressing enter.

3 Uninstallation

To uninstall softhorn calculator execute following command from any directory in terminal:

```
sudo apt purge softcalc
```



```
kravtys-vm: ~/src$ sudo apt purge softcalc  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  javascript-common libexpat1-dev libjs-jquery libjs-sphinxdoc  
  libjs-underscore libpython3-dev libpython3.10-dev python3-dev python3-pip  
  python3-wheel python3.10-dev zlib1g-dev  
Use 'sudo apt autoremove' to remove them.  
The following packages will be REMOVED:  
  softcalc*  
0 to upgrade, 0 to newly install, 1 to remove and 0 not to upgrade.  
After this operation, 0 B of additional disk space will be used.  
Do you want to continue? [Y/n] y  
(Reading database ... 199627 files and directories currently installed.)  
Removing softcalc (1.0) ...  
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...  
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...  
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
```

Figure 2: Uninstallation of Softhorn Calculator

3.1 Manual uninstallation

If you wish to manually uninstall Softhorn Calculator open up a terminal and run these commands:

```
sudo rm -r /usr/bin/softhorn /usr/bin/softcalc  
sudo rm /usr/share/pixmaps/icon.png  
sudo rm /usr/share/applications/softcalc.desktop
```

You can also unistall all the dependencies you have installed earlier:

```
sudo apt remove python3-tk pyhon3-pip
```

Uninstalling `python3` is not recommended as many other programs depend on it.

4 Usage



Figure 3: Softhorn Calculator

Buttons from 0 – 9 represent digits from 0 – 9.

Standard arithmetic functions:

- / – division
- + – addition
- – – subtraction
- * – multiplication

Bonus functions:

- () – parentheses
- . – decimal point

In figure 3 you can see softhorn calculator.

To close Softhorn Calculator click on the small cross in the right-up corner. To minimize the application simply click on the button right next to small cross. Use Help button and then Commands button to show brief manual on how to use all the functions.

If you click on the display, you can use your keyboard to insert numbers and all other functions. Use the red button to delete previous character or use backspace and use blue C button to clear whole display. Either press yellow = button or press enter to show the result.

Additional functions:

- \ln – natural logarithm.
Insert logarithm and then the value.
- $\sqrt[n]{x}$ – root.
Insert degree of the root n press the root button and insert value of x
- x^n – power of a number
Insert value x , then press the button and insert number n that will raise value of x .
- ! – factorial
Insert number and then factorial sign.