

FACULTY OF INFORMATION TECHNOLOGY
BRNO UNIVERSITY OF TECHNOLOGY

User manual
Calculator

1 Install and launch the program

1.1 Install

1.1.1 Automatic

Install the deb package.

1.1.2 Manual

For manual instalation use this manual:

First you need install dependency:

Open terminal and install dependencies.

for example: `sudo apt-get install python2.7`

```
python2.7
python - matplotlib
python - numpy
python - gtk2
pygtk - http://ftp.gnome.org/pub/GNOME/sources/pygtk/2.24/
```

second:

Create new folder, where you want install The Calculator.

Movet on new folder.

open terminal : git clone https://github.com/barvirm/ivs_projekt2

Install with sudo.

```
create directory thecalculator at /usr/share/
sudo mkdir /usr/share/thecalculator
copy Glades.glade to /usr/share/thecalculator
copy main.py to /usr/share/thecalculator
copy plot.py to /usr/share/thecalculator
copy mymath.py to /usr/share/thecalculator
copy transformstring.py to /usr/share/thecalculator
copy directory logo to /usr/share/thecalculator/
copy thecalculator - icon.png to /usr/share/pixmaps
copy thecalculator.desktop to /usr/share/applications
```

You can copy thecalculator.desktop to desktop if you want desktop icon.
You install your application to menu.

1.2 Uninstall

It's performed using the command: `sudo apt-get -remove thecalculator`

1.3 Launch

After starting the program will be displayed on Classic version of calculator .

2 Program Control

2.1 Menu

Between bookmarks of calculator you can switch on the top bar of the window. You can choose between the mods classic, science, programing, plot, history and autors.

2.2 Inserting data

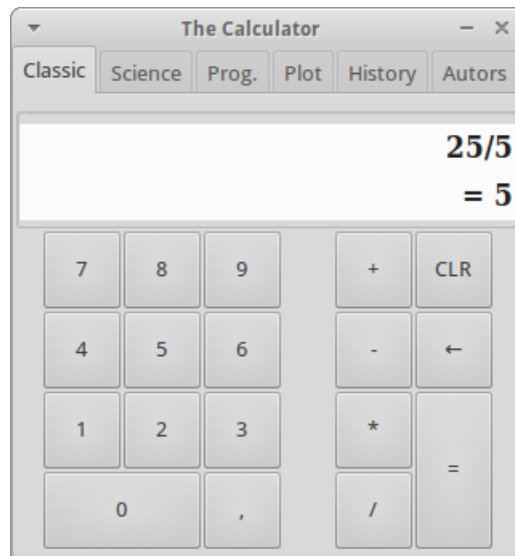
In the window for the input data you can insert in a two ways. Either by using buttons or using keyboard. In each of the mods you are allowed to use only operations that you can input by using the buttons.

3 Mods

Individual mods has their own specified functions.

3.1 Classic

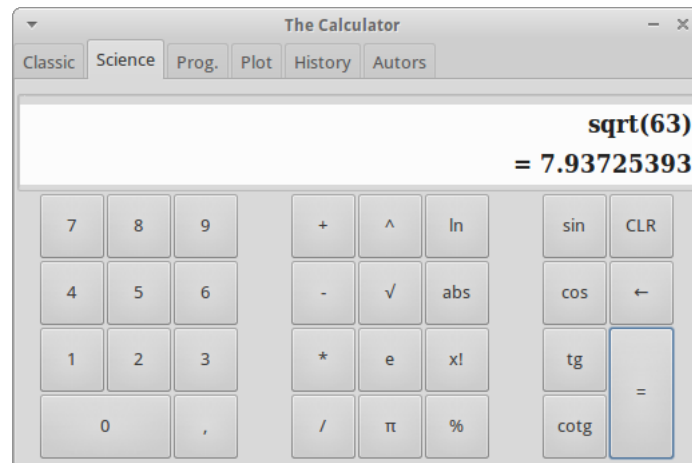
In the classic mod are basic mathematic operations for example: add(+), subtraction(−), multiplication(*), division(/) and button for result(=). There are two buttons for delete characters first delete only one character(←) the second clear all entry input(CLR).



Obrázek 1: Classic mode layout

3.2 Science

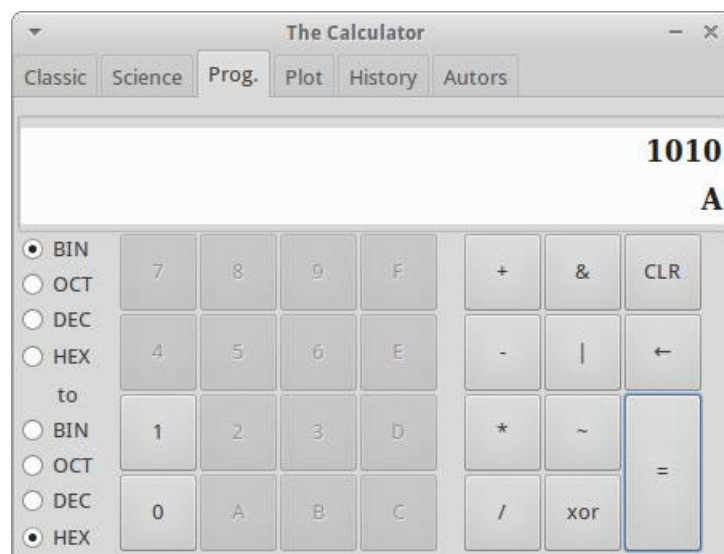
In the Science includes Classic mode, which is expanded into an other operations. These operations are factorial($x!$), logarithm(\ln), absolute value(abs), square root($\sqrt{}$), power(\wedge), modulo($\%$) and then goniometrical functions like sinus(\sin), cosinus(\cos), tangens(tg) and cotangens(cotg).



Obrázek 2: Science mode layout

3.3 Programing

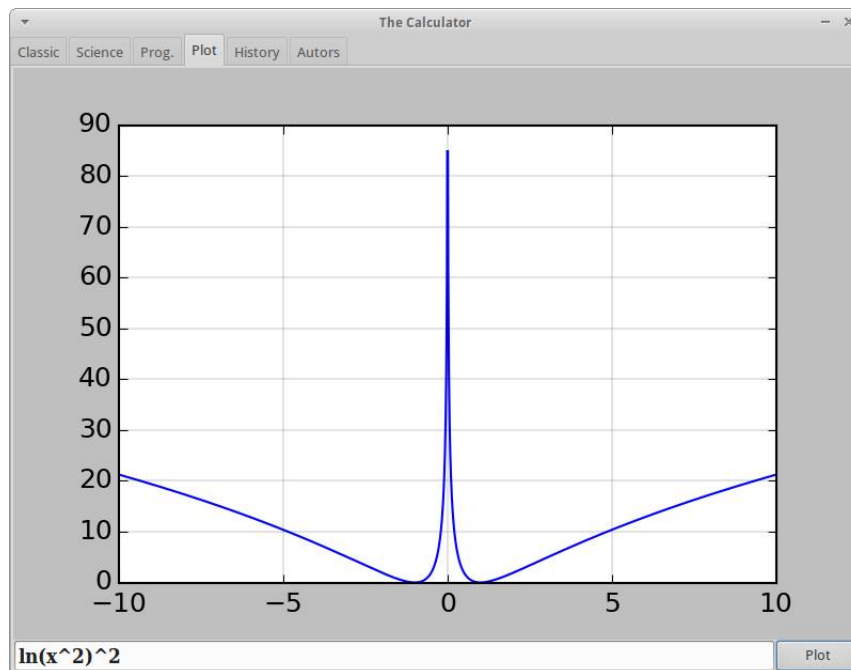
The mode Programing an important part, there are switch between numbers systems like binary(BIN), octal(OCT), decadic(DEC) and hexadecimal(HEX). When switching from different number systems are key numbers, or letters are deactivated, so we can not enter it. Math operations are counting, subtraction, multiplication and division. It also contains logical operations such as and($\&$), or($|$), not(\sim) and xor(xor).



Obrázek 3: Programing mode layout

3.4 Plot

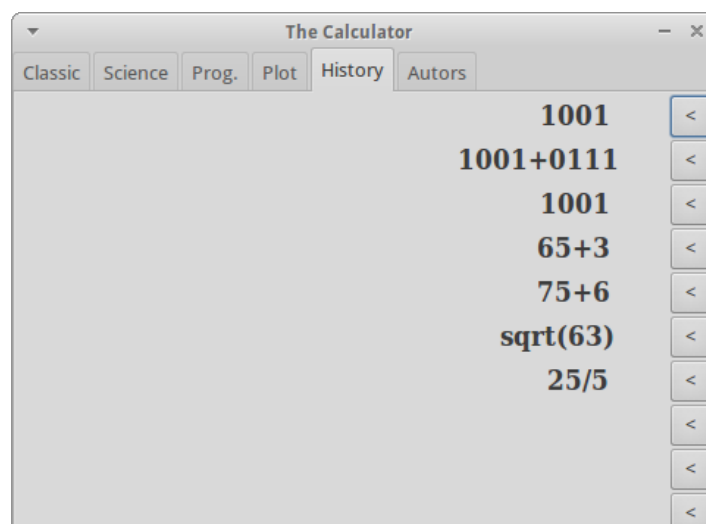
Mode plot can draw specified function.



Obrázek 4: Plot mode layout

3.5 History

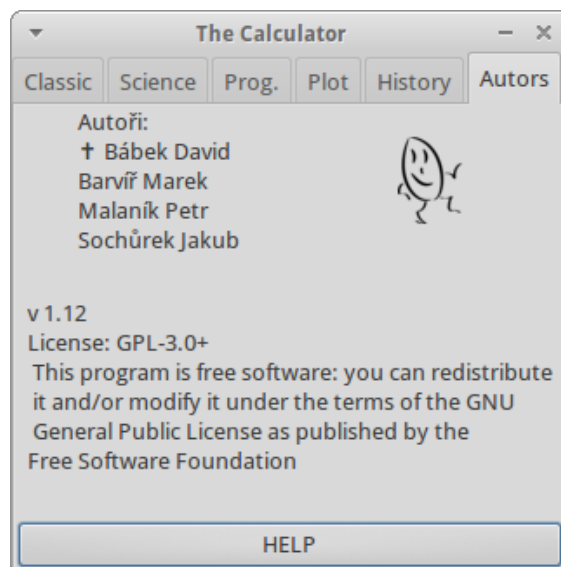
We can see our calculations in the history bookmaks. After clicking the button a given calculation it can be replace in entry window.



Obrázek 5: History layout

3.6 Authors

Authors bookmakr includes a names of authors of the project and a link to help. After click on button displayed window with help.



Obrázek 6: Authors layout