

SmartCalc v1.0

keenambu

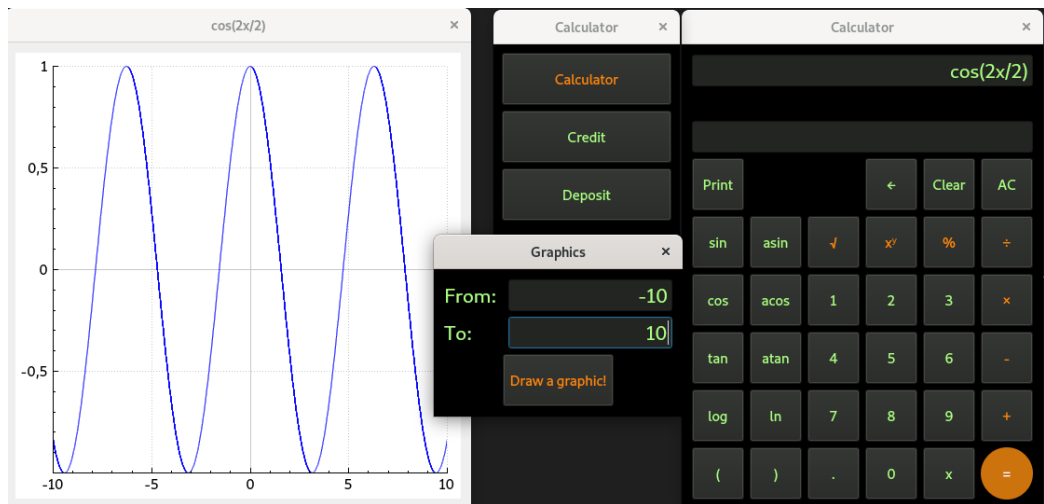
August 2023

## Abstract

This is a program with a Qt-based interface which contains a regular calculator, a credit calculator and a deposit one.

The regular calculator allows you to calculate arbitrary bracketed arithmetic expressions in infix notation, including the expressions with an  $x$  variable, which will be substituted with an additionally entered number.

It can also plot a graphic of a specific function. To do that you should enter the function in the calculator and press the "Print" button.



The credit calculator shows you monthly payment, overpayment on the credit and total payment.

Credit

×

The whole sum:	150000
Amount of months:	12
Interest rate (%):	8
Annuity	• Differentiated
Calculate!	
Monthly payment:	13500.00 ... 12583.33
Overpayment:	6500.00
Total payment:	156500.00

The deposit calculator counts accrued interest, tax amount and the deposit amount by the end of the term.

The screenshot displays a deposit calculator application with three main panels: Replenishments, Withdrawals, and Deposit.

**Replenishments Panel:**

Date:	Amount:
30.11.2023	15000
31.12.2023	5000
31.01.2024	12000

Buttons: Add +, OK

**Withdrawals Panel:**

Date:	Amount:
25.12.2023	7000

Buttons: Add +, OK

**Deposit Panel:**

The whole sum: 255000

The starting date: 31.10.2023

Term: 3 years

Interest rate (%): 11

Tax rate: 7

Periodicity: Every month

Capitalization: ☒ Yes ☐ No

Replenishments: Add +

Withdrawals: Add +

Calculate!

Accrued interest: 108278.87

Tax amount: 0.00

Total payment: 388278.87

## Contents

1	Installation	5
2	Making an archive	5
3	Running tests	5
4	Cleaning	5

## 1 Installation

To install and run this program use the *install* target of the Makefile:

```
make install
```

To uninstall use the *uninstall* target:

```
make uninstall
```

## 2 Making an archive

It is possible to archive the program using the *dist* target of the Makefile:

```
make dist
```

## 3 Running tests

To run style tests use the *style\_check* target:

```
make style_check
```

To run functional tests use the *test* target:

```
make test
```

To check the test coverage use the *gcov\_report* target. It generates an html file containing all the relevant data.

```
make gcov_report
```

To check for the memory leaks use the *leaks* target:

```
make leaks
```

## 4 Cleaning

To clean the directory from all generated files use the *clean* target of the Makefile:

```
make clean
```