## Options calculator - project

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29 stycznia 2023

## 1 Introduction

This options calculator operates in command line in infinite loop unless exited or stopped. This software is able to calculate optimal prices for European, Asian and American stock options. It is made using model program "PaymentCalculator".

## 2 Available Commands

- 1. help to access help description
- 2. quit exiting application
- 3. fx followed by target and trade currency codes and float value to add FX rate (e.g. fx USD EUR 1.25)
- 4. base followed by currency code to set base (target) currency (e.g. base USD)
- 5. summary to print summary including payments and every option with their prices
- 6. add to add a Payment trade with random field values
- 7. addoption to add Option with following parameters: S0 (initial stock price), K (Strike), T (time), r(interest rate), sigma(volatility) and last parameter type of option:
  - (a) eput/ecall for European Put/European Call option
  - (b) asianput/asiancall for Asian Put/Asian Call option
  - (c) american put/american call for American Put/American Call option