GetOpt++ Documentation

Release 1

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Jan 06, 2018

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CHAPTER 1

Introduction

1.1 Intent

GetOpt++ is C++ library for command line argument parsing. Core values of the project are:

- Performance
- Simplicity
- Clarity

Okay, enough of buzzwords - this library should be easy to deploy - performance and documentation are secondary values (at least for the time being). Our mission is to make life easier. Not neccessarily by coming up with something mind-blowing.

1.1.1 Contact

You can reach me at:

Twitter.

GitHub.

Personal page.

CHAPTER 2

Setup

2.1 How to get going

1. *git clone https://github.com/PiotrOsiewicz/GetOptPlusPlus*
2. *cd GetOptPlusPlus*
3. *sudo make install*

2.2 Prequisites

This library is being developed on Linux and so I cannot guarantee that it will work on other operating systems. It does not make use of any propriertary system libraries.

It requires:

- C++11-compatible compiler.
- Criterion unit testing library (if running tests).

CHAPTER 3

Examples

3.1 We will fill this void one day.

CHAPTER 4

API quick reference

class GOpp::**Parser**

Intent

Parser is the object that user should interact with. Its responsibilites include:

- parsing arguments and assigning them to appropiate parameters.
- providing interface to check state of parsed arguments.

Assumptions

After being handed command line arguments in constructor, Parser should not be mutated in any way. It can be thought of as a container (and interpreter) for Command objects.

GOpp::Parser::**Parser**(**const** std::vector<std::string> *Parameters*, **const** std::vector<Command::Definition> *CommandParameters*)

Parameters

- **Parameters** – Command line parameters. Size will be deduced from vector size.
- **CommandParameters** – Definitions of viable parameters, along with their accepted arguments and flags.

Returns None:

Throws

- **invalid_argument** – If 'argc' is smaller than 1.
- **logic_error** – If *CommandParameters* Contains clashing names.

GOpp::Parser::**Parser**(**const** std::initializer_list<std::string> *Parameters*, **const** std::initializer_list<Command::Definition> *CommandParameters*)

Delegates work to vector-based constructor.

Parameters

- **Parameters** – Command line parameters. Size will be deduced from container size.

- **CommandParameters** – Definitions of viable parameters, along with their accepted arguments and flags.

Returns None

Throws

- **invalid_argument** – If *argc* is smaller than 1.
- **logic_error** – If *CommandParameters* contains clashing names.

GOpp::Parser::**Parser**(int *argc*, char ***argv*, **const** std::initializer_list<Command::Definition> *CommandParameters*)

Uses C-style arguments and molds them to fit initializer-list constructor.

Parameters

- **argc** – Argument count.
- **argv** – C-style string argument array.
- **CommandParameters** – Definitions of viable parameters, along with their accepted arguments and flags.

Returns None:

Throws

- **invalid_argument** – If *argc* is smaller than 1.
- **logic_error** – If *CommandParameters* contains clashing names.

CHAPTER 5

FAQ

Ask away, we'll fill it gradually.

CHAPTER 6

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