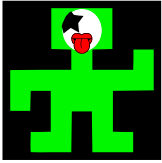


# Class CommandLine



**Propose:** C++ class to handle data from the command line.

## Version 2.0.0

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<https://github.com/FreeSource>

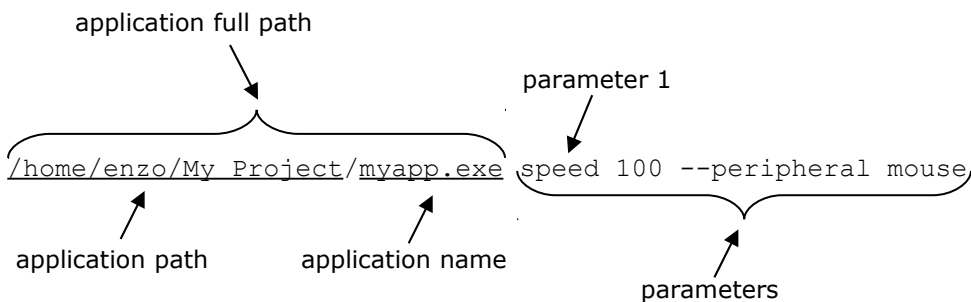
## Supported and tested platforms:

O.S.	Compiler	Make
WindowsXP SP2	MinGW gcc 4.6.1	gmake 3.82
Linux openSUSE 11.4 / 12.2	gcc 4.5.1 / 4.7.1	gmake 3.82
OpenIndiana 151a	gcc 3.4.3	gmake 3.81
FreeBSD 9.0	gcc 4.2.1	gmake 3.82
Solaris 9 / 10	gcc 3.3.2 / 3.4.6	gmake 3.80 / 3.81
Mac OS X 10.8.2	gcc 4.2.1	gmake 3.81

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## The standard structure of a command line:



## Members:

```
string getApplicationName()
string getApplicationPath()
string getCurrentWorkingDirectory()

int size()
string getParameter( int parameterPosition )

setOptionPrefix( string optionPrefix )
setOptionPostfix( string optionPostfix )

bool hasOption( string option )

string getOptionValue( string option )
string getOptionLongValue( string option )

optionCaseSensitive()
optionCaseInsensitive()
```

string getApplicationName() ↑

**Description:** Retrieves the name of the application for the current process.

### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main( int argc, char *argv[] ) {
13     try {
14         util::CommandLine commandLine;
15         cout << commandLine.getApplicationName() << endl;
16         return EXIT_SUCCESS;
17     }
18     catch ( runtime_error &error ) {
19         cout << "Exception occurred: " << error.what() << endl;
20         return EXIT_FAILURE;
21     }
22 }
23
```

### Output:

```
linux:/home/enzo # ./myapp
myapp
```

string getApplicationPath() ↑

**Description:** Retrieving the application path of the current process, not including the name of the program itself.

### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         cout << commandLine.getApplicationPath() << endl;
16         return EXIT_SUCCESS;
17     }
18     catch ( runtime_error &error ) {
19         cout << "Exception occurred: " << error.what() << endl;
20         return EXIT_FAILURE;
21     }
22 }
23
```

Output:

```
linux:/home/enzo # ./myapp
/home/enzo
```

`string getCurrentWorkingDirectory()` ↑

**Description:** Retrieves the current working directory for the current process.

**Example:**

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         cout << commandLine.getApplicationPath() << endl;
16         cout << commandLine.getCurrentWorkingDirectory() << endl;
17         return EXIT_SUCCESS;
18     }
19     catch ( runtime_error &error ) {
20         cout << "Exception occurred: " << error.what() << endl;
21         return EXIT_FAILURE;
22     }
23 }
24
```

Output:

```
linux-hevv:/home/enzo/CommandLine/main # ./myapp
/home/enzo
/home/enzo/CommandLine/main
```

`int size()` ↑

**Description:** Returns the total number of parameters on the command line for the current process, not including the name of the program itself.

**Example:**

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
```

```

13     try {
14         util::CommandLine commandLine;
15         cout << commandLine.size() << endl;
16         return EXIT_SUCCESS;
17     }
18     catch ( runtime_error &error ) {
19         cout << "Exception occurred: " << error.what() << endl;
20         return EXIT_FAILURE;
21     }
22 }
23

```

Output:

```

linux:/home/enzo # ./myapp The C++ Programming Language
4

```

string getParameter( int parameterPosition ) ↑

**Description:** Retrieves the parameter of the specified parameter position on the command line for the current process.

**Example:**

```

1  #include <CommandLine.h>
2
3  #include <iostream>
4  #include <cstdlib>
5  #include <stdexcept>
6
7  using std::cout;
8  using std::endl;
9  using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         cout << commandLine.getParameter( 2 ) << endl;
16         return EXIT_SUCCESS;
17     }
18     catch ( runtime_error &error ) {
19         cout << "Exception occurred: " << error.what() << endl;
20         return EXIT_FAILURE;
21     }
22 }
23

```

Output:

```

linux:/home/enzo # ./myapp C++ evolved from C
evolved

```

setOptionPrefix( string optionPrefix ) ↑

**Description:** Define the prefix (string added in front of the option name) used to recognize an option on the command line.

**Example:**

```

1  #include <CommandLine.h>
2

```

```

3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.setOptionPrefix( "--" );
16         cout << commandLine.getOptionValue( "price" ) << endl;
17         return EXIT_SUCCESS;
18     }
19     catch ( runtime_error &error ) {
20         cout << "Exception occurred: " << error.what() << endl;
21         return EXIT_FAILURE;
22     }
23 }
24

```

Output:

```

linux:/home/enzo # ./myapp --price 0.99
0.99

```

setOptionPostfix( string optionPostfix ) ↑

**Description:** Define the postfix (string added to the end of the option name) used to recognize an option on the command line.

**Example:**

```

1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.setOptionPostfix( "=" );
16         cout << commandLine.getOptionValue( "price" ) << endl;
17         return EXIT_SUCCESS;
18     }
19     catch ( runtime_error &error ) {
20         cout << "Exception occurred: " << error.what() << endl;
21         return EXIT_FAILURE;
22     }
23 }
24

```

Output:

```
linux:/home/enzo # ./myapp price=0.99
0.99
```

**bool** hasOption( string option ) ↑

**Description:** Checks if the specified option exists.

#### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.setOptionPostfix( ":" );
16         if( commandLine.hasOption( "ISBN-10" ) ) {
17             cout << "yes" << endl;
18         }
19         else {
20             cout << "no" << endl;
21         }
22         return EXIT_SUCCESS;
23     }
24     catch ( runtime_error &error ) {
25         cout << "Exception occurred: " << error.what() << endl;
26         return EXIT_FAILURE;
27     }
28 }
29
```

#### Output:

```
linux:/home/enzo # ./myapp Paperback: 208 pages Publisher: O'Reilly
Media; 1 edition (August 19, 2011) Language: English ISBN-10: 1449397670
Weight: 14.4 ounces
yes
```

**string** getOptionValue( string option ) ↑

**Description:** Retrieves the value of the specified option on the command line for the current process.

#### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
```

```

11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.setOptionPostfix( ":" );
16         cout << commandLine.getOptionValue( "Language" ) << endl;
17         return EXIT_SUCCESS;
18     }
19     catch ( runtime_error &error ) {
20         cout << "Exception occurred: " << error.what() << endl;
21         return EXIT_FAILURE;
22     }
23 }
24

```

Output:

```

linux:/home/enzo # ./myapp Paperback: 208 pages Publisher: O'Reilly
Media; 1 edition (August 19, 2011) Language: English ISBN-10: 1449397670
Weight: 14.4 ounces
English

```

string getOptionLongValue( string option ) ↑

**Description:** Retrieves the long value of the specified option (a range of parameters delimited by the next option if it exists) on the command line for the current process.

**Example:**

```

1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.setOptionPrefix( "--" );
16         cout << commandLine.getOptionLongValue( "peripheral" );
17         cout << endl;
18         return EXIT_SUCCESS;
19     }
20     catch ( runtime_error &error ) {
21         cout << "Exception occurred: " << error.what() << endl;
22         return EXIT_FAILURE;
23     }
24 }
25

```

Output:

```

linux:/home/enzo # ./myapp --speed 100 --peripheral mouse display
keyboard --price 1000
mouse display keyboard

```

optionCaseSensitive() ↑

**Description:** Differ use of uppercase and lowercase letters on the option parameter for the other functions. Option parameter is case sensitive by default.

#### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.optionCaseSensitive();
16         commandLine.setOptionPrefix( "--" );
17         cout << commandLine.getOptionLongValue( "PERIPHERAL" );
18         cout << endl;
19         return EXIT_SUCCESS;
20     }
21     catch ( runtime_error &error ) {
22         cout << "Exception occurred: " << error.what() << endl;
23         return EXIT_FAILURE;
24     }
25 }
26
```

Output:

```
linux:/home/enzo # ./myapp --peripheral mouse
```

optionCaseInsensitive() ↑

**Description:** No differ use of uppercase and lowercase letters on the option parameter for the other functions.

#### Example:

```
1 #include <CommandLine.h>
2
3 #include <iostream>
4 #include <cstdlib>
5 #include <stdexcept>
6
7 using std::cout;
8 using std::endl;
9 using std::string;
10 using std::runtime_error;
11
12 int main() {
13     try {
14         util::CommandLine commandLine;
15         commandLine.optionCaseInsensitive();
16         commandLine.setOptionPrefix( "--" );
17     }
18 }
```



```
17     cout << commandLine.getOptionLongValue( "PERIPHERAL" );
18     cout << endl;
19     return EXIT_SUCCESS;
20 }
21 catch ( runtime_error &error ) {
22     cout << "Exception occurred: " << error.what() << endl;
23     return EXIT_FAILURE;
24 }
25 }
26
```

Output:

```
linux:/home/enzo # ./myapp --peripheral mouse
mouse
```