3sphere

1.0

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

Class Documentation

2.1 Files_and_strings Class Reference

Static Public Member Functions

- static bool is_integer (const string digit_string)

  Determines whether a string is an integer, useful for counting the number of spheres.
- static vector< string > split (const string &s, char delimiter)

  Splits and separates strings based on some delimiter.
- static char * get_command_option (char **begin, char **end, const string &option)

  retrieves string after command line options used at runtime
- static bool check_for_command_option (char **begin, char **end, const string &option)

  checks whether a command line option is used at runtime

2.1.1 Member Function Documentation

2.1.1.1 check_for_command_option()

```
static bool Files_and_strings::check_for_command_option (
            char ** begin,
            char ** end,
            const string & option )  [inline], [static]
```

checks whether a command line option is used at runtime

Parameters

begin	(char**) is the first character of the string that matches the "option"
begin	(char**) is the last character of the string that matches the "option"
option	is a string consisting of the command line option we want to retrieve

Returns

true if the string is of finite size

2.1.1.2 get_command_option()

```
static char* Files_and_strings::get_command_option (
            char ** begin,
            char ** end,
            const string & option )  [inline], [static]
```

retrieves string after command line options used at runtime

Parameters

begin	(char∗∗) is the first character of the string that matches the "option"
begin	(char∗∗) is the last character of the string that matches the "option"
option	is a string consisting of the command line option we want to retrieve

2.1.1.3 is_integer()

```
static bool Files_and_strings::is_integer (
            const string digit_string )  [inline], [static]
```

Determines whether a string is an integer, useful for counting the number of spheres.

Parameters

digit_string	is an arbitrary string containing information

Returns

the first index in the string that is not an integer

2.1.1.4 split()

```
static vector<string> Files_and_strings::split (
            const string & s,
            char delimiter )  [inline], [static]
```

Splits and separates strings based on some delimiter.

Parameters

s	is an arbitary string you want to separate into a vector
delimiter	is the character used to delimit separate quantities in the string

Returns

a vector of strings, with each element being a quantity separeted by the delimiter in the original string

The documentation for this class was generated from the following file:

- classes.hh

2.2 Foo_et_al Class Reference

Static Public Member Functions

- static double get_volume (double radius)

  Returns the volume of a single 3-sphere.

2.2.1 Member Function Documentation

2.2.1.1 get_volume()

```
static double Foo_et_al::get_volume (
            double radius )  [inline], [static]
```

Returns the volume of a single 3-sphere.

Parameters

radius	is a double precision float for the radius of the sphere. \returnis 4./3 ∗ pi ∗ radius∗radius∗radius

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- classes.hh

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