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2.1 File List

Here is a list of all files with brief descriptions:

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Class Documentation

3.1 Circle Class Reference

```
#include <circle.h>
```

Public Member Functions

- Circle (double radius=0, const Color &color=Color())

  Create a circle with color and radius, a radius or with nothing.
- Circle (const Color &color)

  Create a circle with an object color.
- Circle (Color::Code code)

  Create a circle with a color by a color code (enum)
- Circle & setRadius (double radius)

  Change the radius of the circle.
- Circle & setColor (const Color &color)

  Change the color of the circle with an object color.
- Circle & setColor (Color::Code color)

  Change the color of the circle with a color code (enum)
- double getRadius () const

  Get the radius of the circle.
- double getSurface () const

  Calculate the surface of the circle.
- Color::Code getColor () const

  Get the color of the circle.
- std::ostream & display (std::ostream &stream=std::cout) const

  Display a circle.

3.1.1 Constructor & Destructor Documentation

3.1.1.1 Circle() [1/3]

```
Circle::Circle (
            double radius = 0,
            const Color & color = Color() )
```

Create a circle with color and radius, a radius or with nothing.

Parameters

radius	default value 0
color	default value Color()

3.1.1.2 Circle() [2/3]

```
Circle::Circle (
            const Color & color )
```

Create a circle with an object color.

Parameters

color	

3.1.1.3 Circle() [3/3]

```
Circle::Circle (
            Color::Code code )
```

Create a circle with a color by a color code (enum)

Parameters

code	

3.1.2 Member Function Documentation

3.1.2.1 display()

```
std::ostream& Circle::display (
            std::ostream & stream = std::cout ) const
```

Display a circle.

Parameters

stream	default valut cout

Returns

The stream

3.1.2.2 getColor()

```
Color::Code Circle::getColor ( ) const
```

Get the color of the circle.

Returns

The color of the circle

3.1.2.3 getRadius()

```
double Circle::getRadius ( ) const
```

Get the radius of the circle.

Returns

The radius of the circle

3.1.2.4 getSurface()

```
double Circle::getSurface ( ) const
```

Calculate the surface of the circle.

Returns

The surface of the circle

3.1.2.5 setColor() [1/2]

```
Circle& Circle::setColor (
             const Color & color )
```

Change the color of the circle with an object color.

Parameters

color	

Returns

The circle

3.1.2.6 setColor() [2/2]

```
Circle& Circle::setColor (
             Color::Code color )
```

Change the color of the circle with a color code (enum)

Parameters

color	

Returns

The circle

3.1.2.7 setRadius()

```
Circle& Circle::setRadius (
             double radius )
```

Change the radius of the circle.

Parameters

radius	

Returns

The circle

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

- circle.h

3.2 Color Class Reference

```
#include <color.h>
```

Public Types

- enum Code {
  Code::WHITE, Code::BLUE, Code::GREEN, Code::RED,
  Code::BLACK }

Public Member Functions

- Color (Code code=Code::WHITE)

  Create a color with a color by code (enum) or with nothing.
- Code getColor () const

  Get the color.
- Color & setColor (Code code)

  Change the color.
- std::string getName () const

  Get the name of the color.
- std::ostream & display (std::ostream &stream=std::cout) const

  Display a color.

3.2.1 Member Enumeration Documentation

3.2.1.1 Code

```
enum Color::Code [strong]
```

Enumerator

WHITE	
BLUE	
GREEN	
RED	
BLACK	

3.2.2 Constructor & Destructor Documentation

3.2.2.1 Color()

```
Color::Color (
            Code code = Code::WHITE )
```

Create a color with a color by code (enum) or with nothing.

Parameters

code	default value WHITE

3.2.3 Member Function Documentation

3.2.3.1 display()

```
std::ostream& Color::display (
            std::ostream & stream = std::cout ) const
```

Display a color.

Parameters

stream	

Returns

The srteam

3.2.3.2 getColor()

```
Code Color::getColor ( ) const
```

Get the color.

Returns

The code of the color (enum)

3.2.3.3 getName()

```
std::string Color::getName ( ) const
```

Get the name of the color.

Returns

The name of the color

3.2.3.4 setColor()

```
Color& Color::setColor (
              Code code )
```

Change the color.

Parameters

code	

Returns

The color

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

- color.h

3.3 Rectangle Class Reference

```
#include <rectangle.h>
```

Public Member Functions

- Rectangle (double width=0, double height=0, const Color &color=Color())

  Create a rectangle with a width, a height and a color, a width and a height, a width or with nothing.
- Rectangle (const Color &color)

  Create a rectangle with an object color.
- Rectangle (Color::Code code)

  Create a rectangle with a color code (enum)
- double getHeight () const

  Get the height of the rectangle.
- double getWidth () const

  Get the width of the rectangle.

- double getSurface () const

  Calculate the surface of the rectangle.
- Color::Code getColor () const

  Get the color of the rectangle.
- Rectangle & setHeight (double height)

  Change the height of the rectangle.
- Rectangle & setWidth (double width)

  Change the width of the rectangle.
- Rectangle & setColor (const Color &color)

  Change the color of the rectangle with an object color.
- Rectangle & setColor (Color::Code color)

  Change the color of the rectangle with a color code (enum)
- std::ostream & display (std::ostream &stream=std::cout) const

  Display a rectangle.

3.3.1 Constructor & Destructor Documentation

3.3.1.1 Rectangle() [1/3]

```
Rectangle::Rectangle (
             double width = 0,
             double height = 0,
             const Color & color = Color() )
```

Create a rectangle with a width, a height and a color, a width and a height, a width or with nothing.

Parameters

width	default value 0
height	default value 0
color	default value Color()

3.3.1.2 Rectangle() [2/3]

```
Rectangle::Rectangle (
             const Color & color )
```

Create a rectangle with an object color.

Parameters

color	

3.3.1.3 Rectangle() [3/3]

```
Rectangle::Rectangle (
            Color::Code code )
```

Create a rectangle with a color code (enum)

Parameters

code	

3.3.2 Member Function Documentation

3.3.2.1 display()

```
std::ostream& Rectangle::display (
            std::ostream & stream = std::cout ) const
```

Display a rectangle.

Parameters

stream	

Returns

The stream

3.3.2.2 getColor()

```
Color::Code Rectangle::getColor ( ) const
```

Get the color of the rectangle.

Returns

The color of the rectangle

3.3.2.3 getHeight()

```
double Rectangle::getHeight ( ) const
```

Get the height of the rectangle.

Returns

The height of the rectangle

3.3.2.4 getSurface()

```
double Rectangle::getSurface ( ) const
```

Calculate the surface of the rectangle.

Returns

The surface f the rectangle

3.3.2.5 getWidth()

```
double Rectangle::getWidth ( ) const
```

Get the width of the rectangle.

Returns

The width of the rectangle

3.3.2.6 setColor() [1/2]

```
Rectangle& Rectangle::setColor (
             const Color & color )
```

Change the color of the rectangle with an object color.

Parameters

color	

Returns

The rectangle

3.3.2.7 setColor() [2/2]

```
Rectangle& Rectangle::setColor (
              Color::Code color )
```

Change the color of the rectangle with a color code (enum)

Parameters

color	

Returns

The rectangle

3.3.2.8 setHeight()

```
Rectangle& Rectangle::setHeight (
              double height )
```

Change the height of the rectangle.

Parameters

height	

Returns

The rectangle

3.3.2.9 setWidth()

```
Rectangle& Rectangle::setWidth (
              double width )
```

Change the width of the rectangle.

Parameters

base	

Returns

The rectangle

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

- rectangle.h

3.4 Square Class Reference

```
#include <square.h>
```

Public Member Functions

- Square (double side=0, const Color &color=Color())

  Create a square with a side and a color, a side or with nothing.
- Square (const Color &color)

  Create a square with an object color.
- Square (Color::Code code)

  Create a square with a color code (enum)
- double getSide () const

  Get the side of the square.
- double getSurface () const

  Calculate the surface of the square.
- Color::Code getColor () const

  Get the color of the square.
- Square & setSide (double side)

  Change the side of the square.
- Square & setColor (const Color &color)

  Change the color of the square with an object color.
- Square & setColor (Color::Code color)

  Change the color of the square with a color code (enum)
- std::ostream & display (std::ostream &stream=std::cout) const

  Display a square.

3.4.1 Constructor & Destructor Documentation

3.4.1.1 Square() [1/3]

```
Square::Square (
             double side = 0,
             const Color & color = Color() )
```

Create a square with a side and a color, a side or with nothing.

Parameters

side	defalut value 0
color	default value Color()

3.4.1.2 Square() [2/3]

```
Square::Square (
            const Color & color )
```

Create a square with an object color.

Parameters

color	

3.4.1.3 Square() [3/3]

```
Square::Square (
            Color::Code code )
```

Create a square with a color code (enum)

Parameters

code	

3.4.2 Member Function Documentation

3.4.2.1 display()

```
std::ostream& Square::display (
            std::ostream & stream = std::cout ) const
```

Display a square.

Parameters

stream	

Returns

The stream

3.4.2.2 getColor()

```
Color::Code Square::getColor ( ) const
```

Get the color of the square.

Returns

The color of the square

3.4.2.3 getSide()

```
double Square::getSide ( ) const
```

Get the side of the square.

Returns

The side of the square

3.4.2.4 getSurface()

```
double Square::getSurface ( ) const
```

Calculate the surface of the square.

Returns

The surface of the square

3.4.2.5 setColor() [1/2]

```
Square& Square::setColor (
             const Color & color )
```

Change the color of the square with an object color.

Parameters

color	

Returns

The square

3.4.2.6 setColor() [2/2]

```
Square& Square::setColor (
             Color::Code color )
```

Change the color of the square with a color code (enum)

Parameters

color	

Returns

The square

3.4.2.7 setSide()

```
Square& Square::setSide (
             double side )
```

Change the side of the square.

Parameters

side	

Returns

The square

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

- square.h

3.5 Triangle Class Reference

```
#include <triangle.h>
```

Public Member Functions

- Triangle (double base=0, double height=0, const Color &color=Color())
- Triangle (const Color &color)
- Triangle (Color::Code code)
- double getHeight () const
- double getBase () const
- double getSurface () const
- Color::Code getColor () const

  Get the color of the triangle.
- Triangle & setHeight (double height)
- Triangle & setBase (double base)
- Triangle & setColor (const Color &color)
- Triangle & setColor (Color::Code color)
- std::ostream & display (std::ostream &stream=std::cout) const

3.5.1 Constructor & Destructor Documentation

3.5.1.1 Triangle() [1/3]

```
Triangle::Triangle (
             double base = 0,
             double height = 0,
             const Color & color = Color() )
```

Create a triangle with a base, a height and a color, a base and a height, a base or with nothing

Parameters

base	defalut value 0
height	default value 0
color	default value Color()

3.5.1.2 Triangle() [2/3]

```
Triangle::Triangle (
             const Color & color )
```

Create a triangle with an object color

Parameters

color	

3.5.1.3 Triangle() [3/3]

```
Triangle::Triangle (
            Color::Code code )
```

Create a triangle with a color code (enum)

Parameters

code	

3.5.2 Member Function Documentation

3.5.2.1 display()

```
std::ostream& Triangle::display (
            std::ostream & stream = std::cout ) const
```

Display a triangle

Parameters

stream	

Returns

The stream

3.5.2.2 getBase()

```
double Triangle::getBase ( ) const
```

Get the base of the triangle

Returns

The base of the triangle

3.5.2.3 getColor()

```
Color::Code Triangle::getColor ( ) const
```

Get the color of the triangle.

Returns

The color of the triangle

3.5.2.4 getHeight()

```
double Triangle::getHeight ( ) const
```

Get the height of the triangle

Returns

The height of the triangle

3.5.2.5 getSurface()

```
double Triangle::getSurface ( ) const
```

Calculat the surface of the triangle

Returns

The surface of the triangle

3.5.2.6 setBase()

```
Triangle& Triangle::setBase (
             double base )
```

Change the base of the triangle

Parameters

base	

Returns

The triangle

3.5.2.7 setColor() [1/2]

```
Triangle& Triangle::setColor (
             const Color & color )
```

Change the color of the triangle with an object color

Parameters

color	

Returns

The triangle

3.5.2.8 setColor() [2/2]

```
Triangle& Triangle::setColor (
             Color::Code color )
```

Change the color of the triangle with a color code (enum)

Parameters

color	

Returns

The triangle

3.5.2.9 setHeight()

```
Triangle& Triangle::setHeight (
             double height )
```

Change the height of the triangle

Parameters

height	

Returns

The triangle

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

- triangle.h

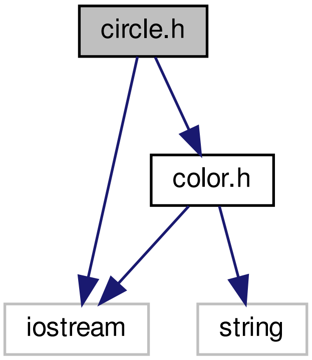
Chapter 4

File Documentation

4.1 circle.h File Reference

```
#include <iostream>
#include "color.h"
```

Include dependency graph for circle.h:



Classes

- class Circle

Functions

- std::ostream & operator<< (std::ostream &stream, const Circle &circle)

  Overload of the output stream to display a circle.

4.1.1 Function Documentation

4.1.1.1 operator<<()

```
std::ostream& operator<< (
            std::ostream & stream,
            const Circle & circle )
```

Overload of the output stream to display a circle.

Parameters

stream	
circle	

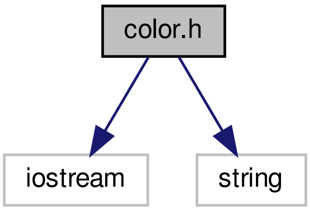
Returns

The stream

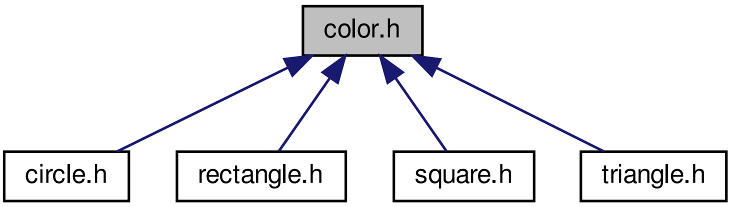
4.2 color.h File Reference

```
#include <iostream>
#include <string>
```

Include dependency graph for color.h:



This graph shows which files directly or indirectly include this file:



Classes

- class Color

Functions

- std::string toString (const Color::Code &code)

    Convert the code color in a string.
- std::ostream & operator<< (std::ostream &stream, const Color &color)

    Overload of the output sream to display a color.

4.2.1 Function Documentation

4.2.1.1 operator<<()

```
std::ostream& operator<< (
             std::ostream & stream,
             const Color & color )
```

Overload of the output sream to display a color.

Parameters

stream	
color	

Returns

The stream

4.2.1.2 toString()

```
std::string toString (
            const Color::Code & code )
```

Convert the code color in a string.

Parameters

code	

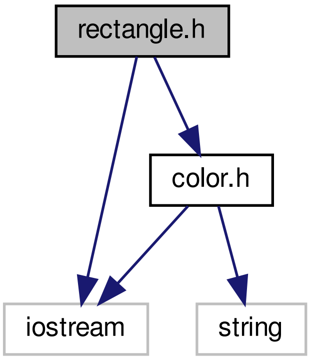
Returns

The color in string

4.3 rectangle.h File Reference

```
#include <iostream>
#include "color.h"
```

Include dependency graph for rectangle.h:



Classes

- class Rectangle

Functions

- std::ostream & operator<< (std::ostream &stream, const Rectangle &rectangle)

  Overload of the output stream to display a rectangle.

4.3.1 Function Documentation

4.3.1.1 operator<<()

```
std::ostream& operator<< (
            std::ostream & stream,
            const Rectangle & rectangle )
```

Overload of the output stream to display a rectangle.

Parameters

stream	
rectangle	

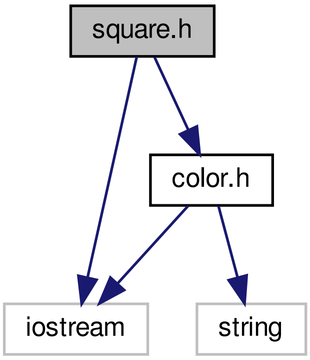
Returns

The stream

4.4 square.h File Reference

```
#include <iostream>
#include "color.h"
```

Include dependency graph for square.h:



Classes

- class Square

Functions

- std::ostream & operator<< (std::ostream &stream, const Square &square)

  Overload of the output stream to display a square.

4.4.1 Function Documentation

4.4.1.1 operator<<()

```
std::ostream& operator<< (
             std::ostream & stream,
             const Square & square )
```

Overload of the output stream to display a square.

Parameters

stream	
square	

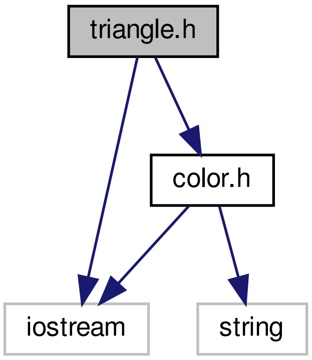
Returns

The stream

4.5 triangle.h File Reference

```
#include <iostream>
#include "color.h"
```

Include dependency graph for triangle.h:



Classes

- class Triangle

Functions

- std::ostream & operator<< (std::ostream &stream, const Triangle &triangle)

4.5.1 Function Documentation

4.5.1.1 operator<<()

```
std::ostream& operator<< (
            std::ostream & stream,
            const Triangle & triangle )
```

Overload of the output stream to display a triangle

Parameters

stream	
triangle	

Returns

The stream

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