

ImageProcessing

Generated by Doxygen 1.9.1

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Chapter 1

Class Index

1.1 Class List

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

FileHeader	5
Image	6
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Pixel	10

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

Image.cpp	11
Image.h	11
main.cpp	12

Chapter 3

Class Documentation

3.1 FileHeader Struct Reference

```
#include <Image.h>
```

Public Attributes

- uint16_t [type](#)
- uint32_t [file_size](#)
- uint16_t [reversed1](#)
- uint16_t [reversed2](#)
- uint32_t [offset](#)

3.1.1 Member Data Documentation

3.1.1.1 file_size

```
uint32_t FileHeader::file_size
```

3.1.1.2 offset

```
uint32_t FileHeader::offset
```

3.1.1.3 reversed1

```
uint16_t FileHeader::reversed1
```

3.1.1.4 reversed2

```
uint16_t FileHeader::reversed2
```

3.1.1.5 type

```
uint16_t FileHeader::type
```

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

- [Image.h](#)

3.2 Image Class Reference

```
#include <Image.h>
```

Public Member Functions

- [Image](#) ()
- [~Image](#) ()
- bool [readFile](#) (const std::string &path)
- bool [writeFile](#) (const std::string &path)
- void [clearMemory](#) ()
- void [rotateClockwise](#) ()
- void [rotateCounterClockwise](#) ()
- void [gaussianBlur](#) ()

3.2.1 Constructor & Destructor Documentation

3.2.1.1 Image()

```
Image::Image ( )
```

3.2.1.2 ~Image()

```
Image::~Image ( )
```

3.2.2 Member Function Documentation

3.2.2.1 clearMemory()

```
void Image::clearMemory ( )
```

3.2.2.2 gaussianBlur()

```
void Image::gaussianBlur ( )
```

3.2.2.3 readFile()

```
bool Image::readFile (
    const std::string & path )
```

3.2.2.4 rotateClockwise()

```
void Image::rotateClockwise ( )
```

3.2.2.5 rotateCounterClockwise()

```
void Image::rotateCounterClockwise ( )
```

3.2.2.6 writeFile()

```
bool Image::writeFile (
    const std::string & path )
```

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

- [Image.h](#)
- [Image.cpp](#)

3.3 InfoHeader Struct Reference

```
#include <Image.h>
```

Public Attributes

- uint32_t [header_size](#)
- int32_t [width](#)
- int32_t [height](#)
- uint16_t [planes](#)
- uint16_t [bit_count](#)
- uint32_t [compression](#)
- uint32_t [image_size](#)
- int32_t [x_pxl_per_mtr](#)
- int32_t [y_pxl_per_mtr](#)
- uint32_t [colors_used](#)
- uint32_t [colors_important](#)

3.3.1 Member Data Documentation

3.3.1.1 bit_count

```
uint16_t InfoHeader::bit_count
```

3.3.1.2 colors_important

```
uint32_t InfoHeader::colors_important
```

3.3.1.3 colors_used

```
uint32_t InfoHeader::colors_used
```

3.3.1.4 compression

```
uint32_t InfoHeader::compression
```

3.3.1.5 header_size

```
uint32_t InfoHeader::header_size
```

3.3.1.6 height

```
int32_t InfoHeader::height
```

3.3.1.7 image_size

```
uint32_t InfoHeader::image_size
```

3.3.1.8 planes

```
uint16_t InfoHeader::planes
```

3.3.1.9 width

```
int32_t InfoHeader::width
```

3.3.1.10 x_pxl_per_mtr

```
int32_t InfoHeader::x_pxl_per_mtr
```

3.3.1.11 y_pxl_per_mtr

```
int32_t InfoHeader::y_pxl_per_mtr
```

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

- [Image.h](#)

3.4 Pixel Struct Reference

```
#include <Image.h>
```

Public Attributes

- `uint8_t` [blue](#)
- `uint8_t` [green](#)
- `uint8_t` [red](#)

3.4.1 Member Data Documentation

3.4.1.1 blue

```
uint8_t Pixel::blue
```

3.4.1.2 green

```
uint8_t Pixel::green
```

3.4.1.3 red

```
uint8_t Pixel::red
```

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

- [Image.h](#)

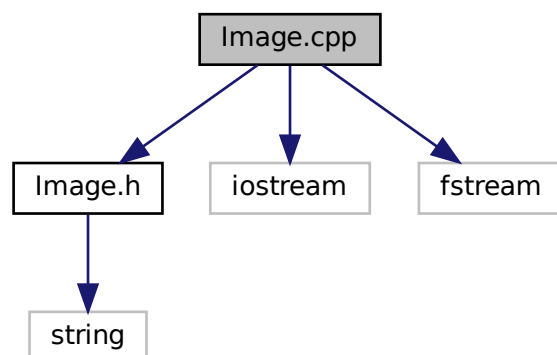
Chapter 4

File Documentation

4.1 Image.cpp File Reference

```
#include "Image.h"  
#include <iostream>  
#include <fstream>
```

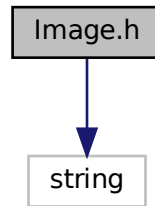
Include dependency graph for Image.cpp:



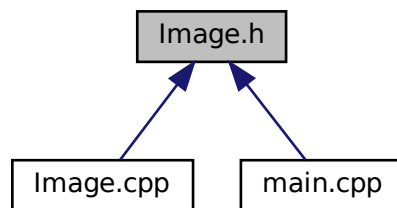
4.2 Image.h File Reference

```
#include <string>
```

Include dependency graph for Image.h:



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



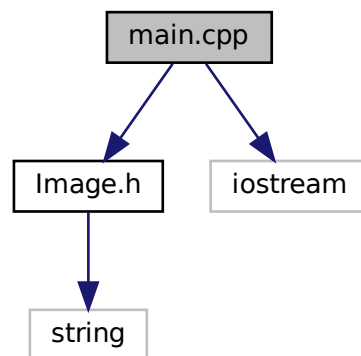
Classes

- struct [FileHeader](#)
- struct [InfoHeader](#)
- struct [Pixel](#)
- class [Image](#)

4.3 main.cpp File Reference

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


Include dependency graph for main.cpp:



Functions

- int `main` ()

4.3.1 Function Documentation

4.3.1.1 `main()`

```
int main ( )
```


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