ImageProcessing

Generated by Doxygen 1.9.1

Chapter 1

Class Index

1.1 Class List

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

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

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

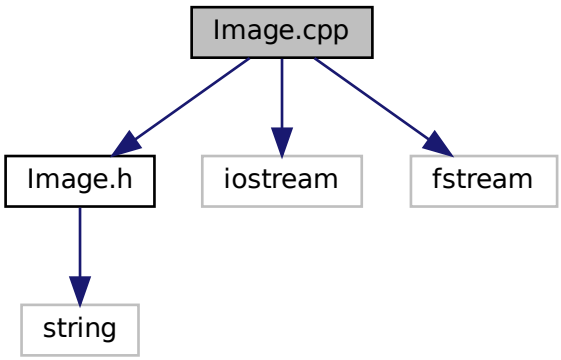
Chapter 4

File Documentation

4.1 Image.cpp File Reference

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

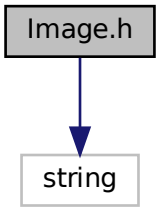
Include dependency graph for Image.cpp:



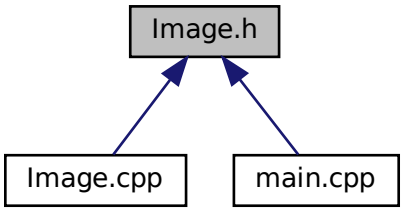
4.2 Image.h File Reference

```
#include <string>
```

Include dependency graph for Image.h:



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



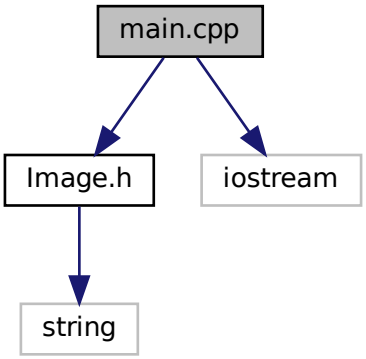
Classes

- 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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