

# My Project

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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

# File Index

### 2.1 File List

Here is a list of all files with brief descriptions:

<a href="#">susan.c</a> . . . . .	7
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## Chapter 3

# Class Documentation

### 3.1 CORNER\_LIST Struct Reference

#### Public Attributes

- int [x](#)
- int [y](#)
- int [info](#)
- int [dx](#)
- int [dy](#)
- int [l](#)

#### 3.1.1 Member Data Documentation

3.1.1.1 int CORNER\_LIST::dx

3.1.1.2 int CORNER\_LIST::dy

3.1.1.3 int CORNER\_LIST::l

3.1.1.4 int CORNER\_LIST::info

3.1.1.5 int CORNER\_LIST::x

3.1.1.6 int CORNER\_LIST::y

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

- [susan.c](#)



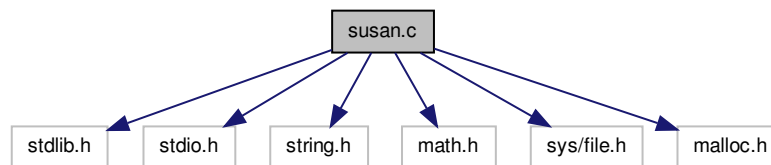
## Chapter 4

# File Documentation

### 4.1 susan.c File Reference

```
#include <stdlib.h>
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <sys/file.h>
#include <malloc.h>
```

Include dependency graph for susan.c:



### Classes

- struct [CORNER\\_LIST](#)

### Macros

- `#define` [SEVEN\\_SUPP](#) /\* size for non-max corner suppression; SEVEN\_SUPP or FIVE\_SUPP \*/
- `#define` [MAX\\_CORNERS](#) 15000 /\* max corners per frame \*/
- `#define` [exit\\_error](#)(IFB, IFC) { fprintf(stderr,IFB,IFC); exit(0); }
- `#define` [FTOI](#)(a) ( (a) < 0 ? ((int)(a-0.5)) : ((int)(a+0.5)) )

### Typedefs

- `typedef int` [TOTAL\\_TYPE](#)
- `typedef unsigned char` [uchar](#)

## Functions

- [usage](#) ()
- [int getint](#) (FILE \*fd)
- [void get\\_image](#) (filename, unsigned char \*\*in, int \*x\_size, int \*y\_size)
- [put\\_image](#) (filename,\*in, int x\_size, int y\_size)
- [int\\_to\\_uchar](#) (int \*r, [uchar](#) \*in, int size)
- [void setup\\_brightness\\_lut](#) ([uchar](#) \*\*bp, int thresh, int form)
- [susan\\_principle](#) ([uchar](#) \*in, int \*r, [uchar](#) \*bp, int max\_no, int x\_size, int y\_size)
- [susan\\_principle\\_small](#) ([uchar](#) \*in, int \*r, [uchar](#) \*bp, int max\_no, int x\_size, int y\_size)
- [uchar median](#) ([uchar](#) \*in, int i, int j, int x\_size)
- [enlarge](#) ([uchar](#) \*\*in, [uchar](#) \*tmp\_image, int \*x\_size, int \*y\_size, int border)
- [void susan\\_smoothing](#) (int three\_by\_three, [uchar](#) \*in, float dt, int x\_size, int y\_size, [uchar](#) \*bp)
- [edge\\_draw](#) ([uchar](#) \*in, [uchar](#) \*mid, int x\_size, int y\_size, int drawing\_mode)
- [susan\\_thin](#) (int \*r, [uchar](#) \*mid, int x\_size, int y\_size)
- [susan\\_edges](#) ([uchar](#) \*in, int \*r, [uchar](#) \*mid, [uchar](#) \*bp, int max\_no, int x\_size, int y\_size)
- [susan\\_edges\\_small](#) ([uchar](#) \*in, int \*r, [uchar](#) \*mid, [uchar](#) \*bp, int max\_no, int x\_size, int y\_size)
- [corner\\_draw](#) ([uchar](#) \*in, [CORNER\\_LIST](#) corner\_list, int x\_size, int drawing\_mode)
- [susan\\_corners](#) ([uchar](#) \*in, int \*r, [uchar](#) \*bp, int max\_no, [CORNER\\_LIST](#) corner\_list, int x\_size, int y\_size)
- [susan\\_corners\\_quick](#) ([uchar](#) \*in, int \*r, [uchar](#) \*bp, int max\_no, [CORNER\\_LIST](#) corner\_list, int x\_size, int y\_size)
- [main](#) (int argc, argv)

### 4.1.1 Macro Definition Documentation

4.1.1.1 `#define exit_error( IFB, IFC ) { fprintf(stderr,IFB,IFC); exit(0); }`

4.1.1.2 `#define FTOI( a ) ( (a) < 0 ? ((int)(a-0.5)) : ((int)(a+0.5)) )`

4.1.1.3 `#define MAX_CORNERS 15000 /* max corners per frame */`

4.1.1.4 `#define SEVEN_SUPP /* size for non-max corner suppression; SEVEN_SUPP or FIVE_SUPP */`

### 4.1.2 Typedef Documentation

4.1.2.1 `typedef int TOTAL_TYPE`

4.1.2.2 `typedef unsigned char uchar`

### 4.1.3 Function Documentation

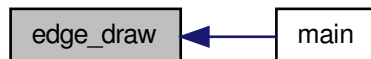
4.1.3.1 `corner_draw ( uchar * in, CORNER_LIST corner_list, int x_size, int drawing_mode )`

Here is the caller graph for this function:



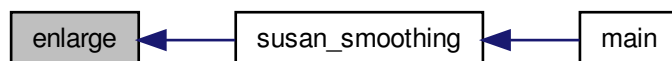
#### 4.1.3.2 `edge_draw ( uchar * in, uchar * mid, int x_size, int y_size, int drawing_mode )`

Here is the caller graph for this function:



#### 4.1.3.3 `enlarge ( uchar ** in, uchar * tmp_image, int * x_size, int * y_size, int border )`

Here is the caller graph for this function:



#### 4.1.3.4 `void get_image ( filename , unsigned char ** in, int * x_size, int * y_size )`

Here is the call graph for this function:

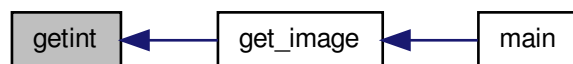


Here is the caller graph for this function:



#### 4.1.3.5 `int getint ( FILE * fd )`

Here is the caller graph for this function:



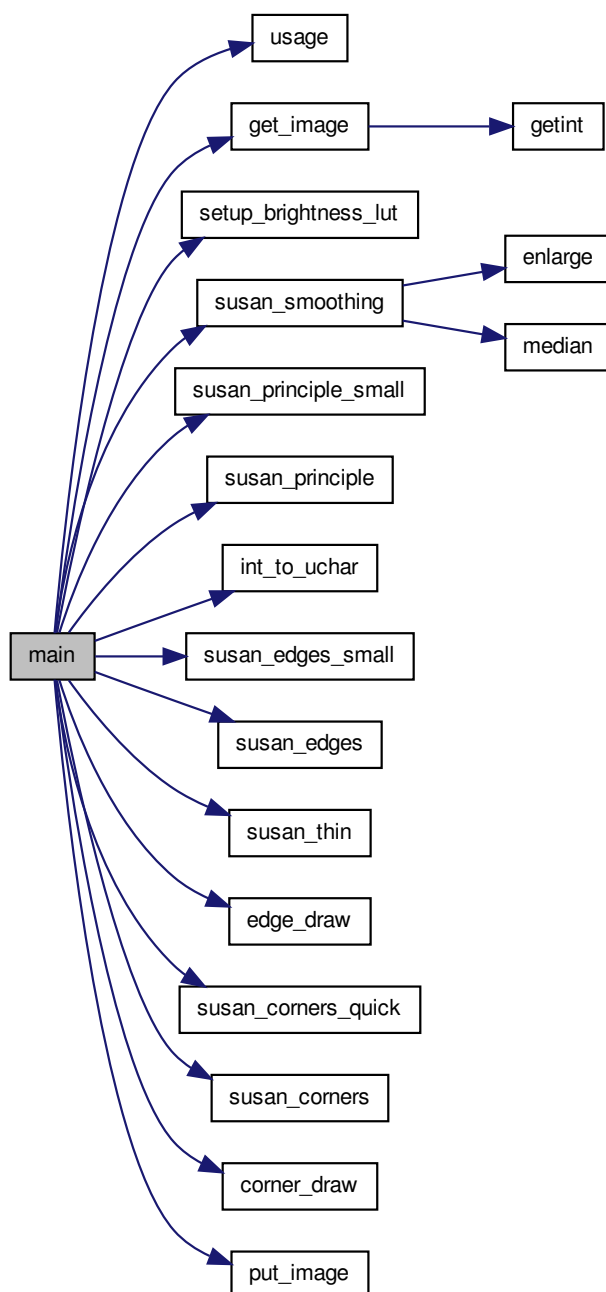
#### 4.1.3.6 `int_to_uchar ( int * r, uchar * in, int size )`

Here is the caller graph for this function:



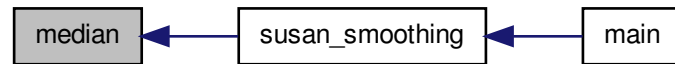
## 4.1.3.7 main ( int argc, argv )

Here is the call graph for this function:



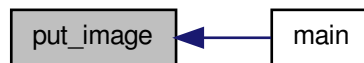
#### 4.1.3.8 uchar median ( uchar \* *in*, int *i*, int *j*, int *x\_size* )

Here is the caller graph for this function:



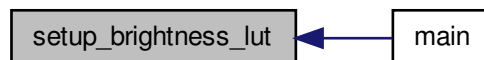
#### 4.1.3.9 put\_image ( filename , \* *in*, int *x\_size*, int *y\_size* )

Here is the caller graph for this function:



#### 4.1.3.10 void setup\_brightness\_lut ( uchar \*\* *bp*, int *thresh*, int *form* )

Here is the caller graph for this function:





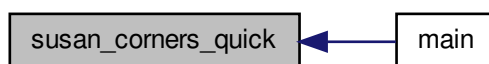
4.1.3.11 `susan_corners ( uchar * in, int * r, uchar * bp, int max_no, CORNER_LIST corner_list, int x_size, int y_size )`

Here is the caller graph for this function:



4.1.3.12 `susan_corners_quick ( uchar * in, int * r, uchar * bp, int max_no, CORNER_LIST corner_list, int x_size, int y_size )`

Here is the caller graph for this function:



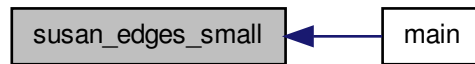
4.1.3.13 `susan_edges ( uchar * in, int * r, uchar * mid, uchar * bp, int max_no, int x_size, int y_size )`

Here is the caller graph for this function:



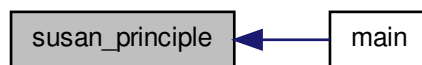
4.1.3.14 `susan_edges_small ( uchar * in, int * r, uchar * mid, uchar * bp, int max_no, int x_size, int y_size )`

Here is the caller graph for this function:



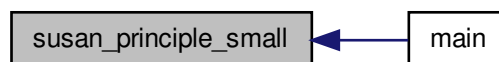
4.1.3.15 `susan_principle ( uchar * in, int * r, uchar * bp, int max_no, int x_size, int y_size )`

Here is the caller graph for this function:



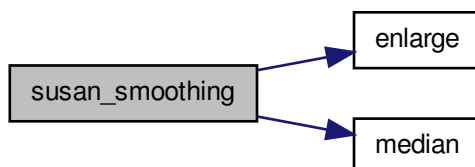
4.1.3.16 `susan_principle_small ( uchar * in, int * r, uchar * bp, int max_no, int x_size, int y_size )`

Here is the caller graph for this function:

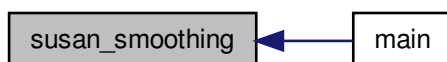


4.1.3.17 void susan\_smoothing ( int *three\_by\_three*, uchar \* *in*, float *dt*, int *x\_size*, int *y\_size*, uchar \* *bp* )

Here is the call graph for this function:



Here is the caller graph for this function:



4.1.3.18 susan\_thin ( int \* *r*, uchar \* *mid*, int *x\_size*, int *y\_size* )

Here is the caller graph for this function:



#### 4.1.3.19 usage ( )

Here is the caller graph for this function:



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