

SqEq

1.1

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Chapter 1

File Index

1.1 File List

Here is a list of all documented files with brief descriptions:

SqEq.cc	File with most important SqEq functions	3
SqEq.h	??

Chapter 2

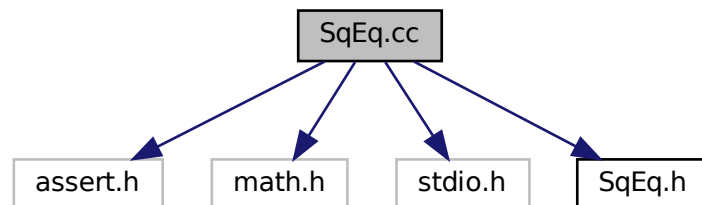
File Documentation

2.1 SqEq.cc File Reference

File with most important SqEq functions.

```
#include <assert.h>
#include <math.h>
#include <stdio.h>
#include "SqEq.h"
```

Include dependency graph for SqEq.cc:



Functions

- bool [read_coeffs](#) (const char *prompt, double coeffs[COEFF_NUM])
Reading 3 coefficients from stdin.
- int [solve_sqeq](#) (const double coeffs[COEFF_NUM], double results[MAX_ROOT_NUM])
Solving square equation.
- int [solve_linear](#) (double b, double c, double *x_ptr)
Solving linear equation.
- int [is_equal](#) (double n1, double n2)
Compares two double numbers.
- void [print_res](#) (int res_type, const double results[MAX_ROOT_NUM])
Print squaree equations roots.
- int [ret_code](#) (int res_type)
Generate program return code.

2.1.1 Detailed Description

File with most important SqEq functions.

Author

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2.1.2 Function Documentation

2.1.2.1 `is_equal()`

```
int is_equal (
    double n1,
    double n2 )
```

Compares two double numbers.

Parameters

in	<i>n1</i>	1st num
in	<i>n2</i>	2nd num

Returns

int

2.1.2.2 `print_res()`

```
void print_res (
    int res_type,
    const double results[MAX_ROOT_NUM] )
```

Print squaree equations roots.

Parameters

in	<i>res_type</i>	defines error/number of roots
in	<i>results</i>	roots

2.1.2.3 read_coeffs()

```
bool read_coeffs (
    const char * prompt,
    double coeffs[COEFF_NUM] )
```

Reading 3 coefficients from stdin.

Parameters

in	<i>prompt</i>	message to user
out	<i>coeffs</i>	array for coeffs, length must be ≥ 3

Returns

true if all OK
false on error

2.1.2.4 ret_code()

```
int ret_code (
    int res_type )
```

Generate program return code.

Parameters

in	<i>res_type</i>	value returned by solve function
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Returns

int

2.1.2.5 solve_linear()

```
int solve_linear (
    double b,
    double c,
    double * x_ptr )
```

Solving linear equation.

Parameters

in	<i>b</i>	coeff on x
in	<i>c</i>	free member
out	<i>x_ptr</i>	result pointer

Returns

result type

2.1.2.6 solve_sseq()

```
int solve_sseq (
    const double coeffs[COEFF_NUM],
    double results[MAX_ROOT_NUM] )
```

Solving square equation.

Parameters

in	<i>coeffs</i>	array with coefficients, length must must be ≥ 3
out	<i>results</i>	array with roots, length must must be ≥ 2

Returns

result type

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