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:

Chapter 2

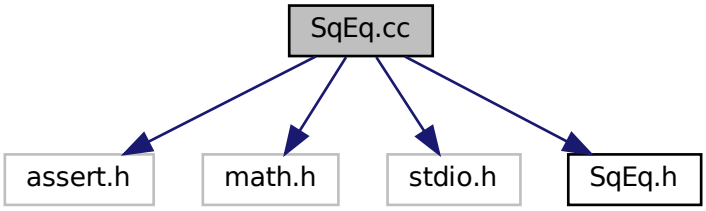
File Documentation

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

Tako

2.1.2 Function Documentation

2.1.2.1 is_equal()

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

Compares two double numbers.

Parameters

in	*n1*	1st num
in	*n2*	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	*res_type*	defines error/number of roots
in	*results*	roots

2.1.2.3 read_coeffs()

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

Reading 3 coefficients from stdin.

Parameters

in	*prompt*	message to user
out	*coeffs*	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	*res_type*	value returned by solve function

Returns

int

2.1.2.5 solve_linear()

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

Solving linear equation.

Parameters

in	*b*	coeff on x
in	*c*	free member
out	*x_ptr*	result pointer

Returns

resutl type

2.1.2.6 solve_sqeq()

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

Solving square equation.

Parameters

in	*coeffs*	array with coefficients, length must must be >= 3
out	*results*	array with roots, length must must be >= 2

Returns

result type

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