Bus Bridge Server

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Chapter 1

Bus Bridge Server

Chapter 2

Test List

File test_math.cpp

MathTest.Add

- Verifies that the `add` function correctly computes the sum of two integers.
- Example: `add(2, 3)` should return `5`.

MathTest.Subtract

- Verifies that the `subtract` function correctly computes the difference between two integers.
- Examples:
  - `subtract(10, 3)` should return `7`.
  - `subtract(9, 3)` should return `6`.

MathTest.SubtractNegative

- Verifies that the `subtract` function handles subtraction with negative integers correctly.
- Example: `subtract(10, -3)` should return `13`.

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

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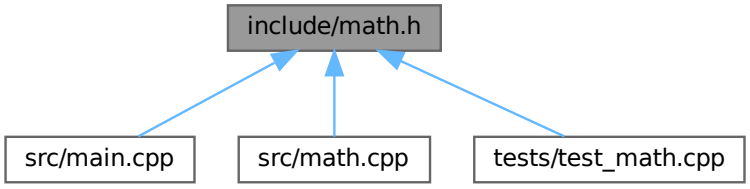
Chapter 4

File Documentation

4.1 include/math.h File Reference

Header file for math.cpp.

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



Functions

- int add (int a, int b)

  Adds two integers.
- int subtract (int a, int b)

  Subtracts two integers.

4.1.1 Detailed Description

Header file for math.cpp.

This file contains declarations for basic math operations.

Author

Daan Breur

Definition in file math.h.

4.1.2 Function Documentation

4.1.2.1 add()

```
int add (
            int a,
            int b )
```

Adds two integers.

Parameters

a	First integer.
b	Second integer.

Returns

The sum of a and b.

This function takes two integers as input and returns their sum.

Definition at line 16 of file math.cpp.

4.1.2.2 subtract()

```
int subtract (
            int a,
            int b )
```

Subtracts two integers.

Parameters

a	First integer.
b	Second integer.

Returns

The difference of a and b.

This function takes two integers as input and returns the result of subtracting b from a.

Definition at line 26 of file math.cpp.

4.2 math.h

Go to the documentation of this file.

```
00001
```

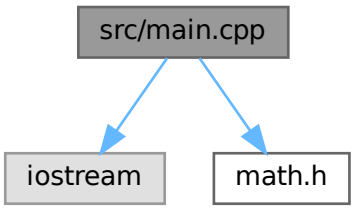
```
00008 #ifndef MATH_H
00009 #define MATH_H
00010
00011 int add(int a, int b);
00012 int subtract(int a, int b);
00013
00014 #endif
```

4.3 README.md File Reference

4.4 src/main.cpp File Reference

```
#include "iostream"
#include "math.h"
```

Include dependency graph for main.cpp:



Functions

- int main ()

4.4.1 Function Documentation

4.4.1.1 main()

```
int main ( )
```

Definition at line 4 of file main.cpp.

4.5 main.cpp

Go to the documentation of this file.

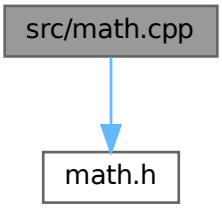
```
00001 #include "iostream"
00002 #include "math.h"
00003
00004 int main() {
00005     std::cout « add(6, 9) « std::endl;
00006     return 0;
00007 }
```

4.6 src/math.cpp File Reference

Implementation of basic math operations.

```
#include "math.h"
```

Include dependency graph for math.cpp:



Functions

- int add (int a, int b)
  Adds two integers.
- int subtract (int a, int b)
  Subtracts two integers.

4.6.1 Detailed Description

Implementation of basic math operations.

Author

Daan Breur

Definition in file math.cpp.

4.6.2 Function Documentation

4.6.2.1 add()

```
int add (
            int a,
            int b )
```

Adds two integers.

Parameters

a	First integer.
b	Second integer.

Returns

The sum of a and b.

This function takes two integers as input and returns their sum.

Definition at line 16 of file math.cpp.

4.6.2.2 subtract()

```
int subtract (
              int a,
              int b )
```

Subtracts two integers.

Parameters

a	First integer.
b	Second integer.

Returns

The difference of a and b.

This function takes two integers as input and returns the result of subtracting b from a.

Definition at line 26 of file math.cpp.

4.7 math.cpp

Go to the documentation of this file.

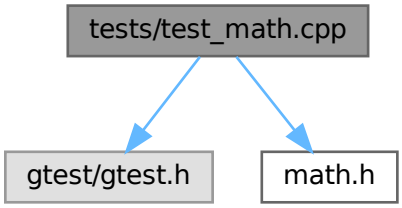
```
00001
00006 #include "math.h"
00007
00016 int add(int a, int b) { return a + b; }
00017
00026 int subtract(int a, int b) { return a - b; }
```

4.8 tests/test_math.cpp File Reference

Unit tests for mathematical operations using Google Test framework.

```
#include <gtest/gtest.h>
#include "math.h"
```

Include dependency graph for test_math.cpp:



Functions

- TEST (MathTest, Add)
- TEST (MathTest, Subtract)
- TEST (MathTest, SubtractNegative)

4.8.1 Detailed Description

Unit tests for mathematical operations using Google Test framework.

This file contains test cases for verifying the correctness of functions defined in the "math.h" header. The tests ensure that the mathematical operations behave as expected under various conditions.

Test MathTest.Add

- Verifies that the `add` function correctly computes the sum of two integers.
- Example: `add(2, 3)` should return `5`.

Test MathTest.Subtract

- Verifies that the `subtract` function correctly computes the difference between two integers.
- Examples:
  - `subtract(10, 3)` should return `7`.
  - `subtract(9, 3)` should return `6`.

Test MathTest.SubtractNegative

- Verifies that the `subtract` function handles subtraction with negative integers correctly.
- Example: `subtract(10, -3)` should return `13`.

Definition in file test_math.cpp.

4.8.2 Function Documentation

4.8.2.1 TEST() [1/3]

```
TEST (
            MathTest ,
            Add  )
```

Definition at line 29 of file test_math.cpp.

4.8.2.2 TEST() [2/3]

```
TEST (
            MathTest ,
            Subtract  )
```

Definition at line 31 of file test_math.cpp.

4.8.2.3 TEST() [3/3]

```
TEST (
            MathTest ,
            SubtractNegative  )
```

Definition at line 36 of file test_math.cpp.

4.9 test_math.cpp

Go to the documentation of this file.

```
00001
00025 #include <gtest/gtest.h>
00026
00027 #include "math.h"
00028
00029 TEST(MathTest, Add) { EXPECT_EQ(add(2, 3), 5); }
00030
00031 TEST(MathTest, Subtract) {
00032     EXPECT_EQ(subtract(10, 3), 7);
00033     EXPECT_EQ(subtract(9, 3), 6);
00034 }
00035
00036 TEST(MathTest, SubtractNegative) { EXPECT_EQ(subtract(10, -3), 13); }
```

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