ProtoMath

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1 Namespace Index 1

1.1 Namespace List . . . 1

2 Class Index 3

2.1 Class List . . . 3

3 File Index 5

3.1 File List . . . 5

4 Namespace Documentation 7

4.1 pm Namespace Reference . . . 7

4.1.1 Detailed Description . . . 7

5 Class Documentation 9

5.1 pm::Vector2i Class Reference . . . 9

5.1.1 Detailed Description . . . 9

5.1.2 Constructor & Destructor Documentation . . . 9

5.1.2.1 Vector2i() . . . 9

5.1.3 Member Function Documentation . . . 10

5.1.3.1 getX() . . . 10

5.1.3.2 getY() . . . 10

5.1.3.3 print() . . . 10

5.1.3.4 setX() . . . 11

5.1.3.5 setY() . . . 11

6 File Documentation 13

6.1 Enum.hpp . . . 13

6.2 include/vector2i.hpp File Reference . . . 13

6.2.1 Detailed Description . . . 13

6.3 vector2i.hpp . . . 14

Index 15

Chapter 1

Namespace Index

1.1 Namespace List

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

pm

Namespace pm is the main namespace for the ProtoMath library. It contains all the classes and functions of the library 7

Chapter 2

Class Index

2.1 Class List

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

pm::Vector2i
Vector2i is a class that represents a 2D vector with integer components. It provides essential features for 2D vector manipulation 9

Chapter 3

File Index

3.1 File List

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

include/Enum.hpp 13
include/vector2i.hpp
The Vector2i class 13

Chapter 4

Namespace Documentation

4.1 pm Namespace Reference

Namespace pm is the main namespace for the ProtoMath library. It contains all the classes and functions of the library.

Classes

- class Vector2i

  Vector2i is a class that represents a 2D vector with integer components. It provides essential features for 2D vector manipulation.

4.1.1 Detailed Description

Namespace pm is the main namespace for the ProtoMath library. It contains all the classes and functions of the library.

Chapter 5

Class Documentation

5.1 pm::Vector2i Class Reference

Vector2i is a class that represents a 2D vector with integer components. It provides essential features for 2D vector manipulation.

`#include <vector2i.hpp>`

Public Member Functions

- **Vector2i** ()
  The empty constructor creates a new Vector2i with both components set to 0.
- Vector2i (int x, int y)
  A constructor that creates a new Vector2i with the given components.
- int getX () const
  X coordinate getter.
- int getY () const
  Y coordinate getter.
- void setX (int x)
  X coordinate setter.
- void setY (int y)
  Y coordinate setter.
- void print (pmEnum mode=PM_PRINT_DEFAULT) const
  Print method that outputs the vector to the console in different formats.

5.1.1 Detailed Description

Vector2i is a class that represents a 2D vector with integer components. It provides essential features for 2D vector manipulation.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 Vector2i()

```
pm::Vector2i::Vector2i (
            int x,
            int y )
```

A constructor that creates a new Vector2i with the given components.

Parameters

x	- x coordinate
y	- y coordinate

5.1.3 Member Function Documentation

5.1.3.1 getX()

```
int pm::Vector2i::getX ( ) const
```

X coordinate getter.

Returns

X coordinate

5.1.3.2 getY()

```
int pm::Vector2i::getY ( ) const
```

Y coordinate getter.

Returns

Y coordinate

5.1.3.3 print()

```
void pm::Vector2i::print (
            pmEnum mode = PM_PRINT_DEFAULT ) const
```

Print method that outputs the vector to the console in different formats.

Parameters

mode	- The print mode that will be used to format the output. Default is PM_PRINT_DEFAULT. Possible values are:

PM_PRINT_DEFAULT - Prints the vector in the format ¨(x, y)\n¨.

PM_PRINT_SIMPLEST - Prints the vector in the format ¨x y\n¨.

PM_PRINT_POLAR - Prints the vector in the format ¨(r, angle)\n¨.

5.1.3.4 setX()

```
void pm::Vector2i::setX (
            int x )
```

X coordinate setter.

Parameters

x	- Value that will be set as X coordinate

5.1.3.5 setY()

```
void pm::Vector2i::setY (
            int y )
```

Y coordinate setter.

Parameters

y	- Value that will be set as Y coordinate

The documentation for this class was generated from the following files:

- include/vector2i.hpp
- src/vector2i.cpp

Chapter 6

File Documentation

6.1 Enum.hpp

```
00001
00009 enum pmEnum {
00010     PM_PRINT_DEFAULT,
00011     PM_PRINT_SIMPLEST,
00012     PM_PRINT_POLAR
00013 };
```

6.2 include/vector2i.hpp File Reference

The Vector2i class.

```
#include <iostream>
#include ¨Enum.hpp¨
```

Classes

- class pm::Vector2i

  Vector2i is a class that represents a 2D vector with integer components. It provides essential features for 2D vector manipulation.

Namespaces

- namespace pm

  Namespace pm is the main namespace for the ProtoMath library. It contains all the classes and functions of the library.

6.2.1 Detailed Description

The Vector2i class.

This file contains the Vector2i class. It is a class that represents a 2D vector with integer components. The implementation of all member methods is done in

See also

Vector2i.cpp.

6.3 vector2i.hpp

Go to the documentation of this file.

```
00001
00009 #ifndef VECTOR2I_HPP
00010 #define VECTOR2I_HPP
00011
00012 #include <iostream>
00013
00014 #include "Enum.hpp"
00015
00020 namespace pm {
00021
00026     class Vector2i {
00027         public:
00031             Vector2i();
00032
00038             Vector2i(int x, int y);
00039
00044             int getX() const;
00045
00050             int getY() const;
00051
00056             void setX(int x);
00057
00062             void setY(int y);
00063
00079             void print(pmEnum mode = PM_PRINT_DEFAULT) const;
00080
00081         private:
00085             int x;
00086
00090             int y;
00091     };
00092 }
00093
00094 #endif // VECTOR2I_HPP
```

Index

getX
    pm::Vector2i, 10
getY
    pm::Vector2i, 10

include/Enum.hpp, 13
include/vector2i.hpp, 13, 14

pm, 7
pm::Vector2i, 9
    getX, 10
    getY, 10
    print, 10
    setX, 10
    setY, 11
    Vector2i, 9
print
    pm::Vector2i, 10

setX
    pm::Vector2i, 10
setY
    pm::Vector2i, 11

Vector2i
    pm::Vector2i, 9