

Exception

1.0.8

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# Chapter 1

## Hierarchical Index

### 1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

std::exception	
std::runtime_error	
Exception . . . . .	5



## Chapter 2

# Class Index

### 2.1 Class List

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

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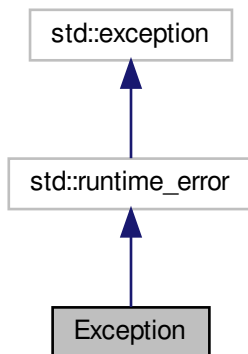
## Chapter 3

# Class Documentation

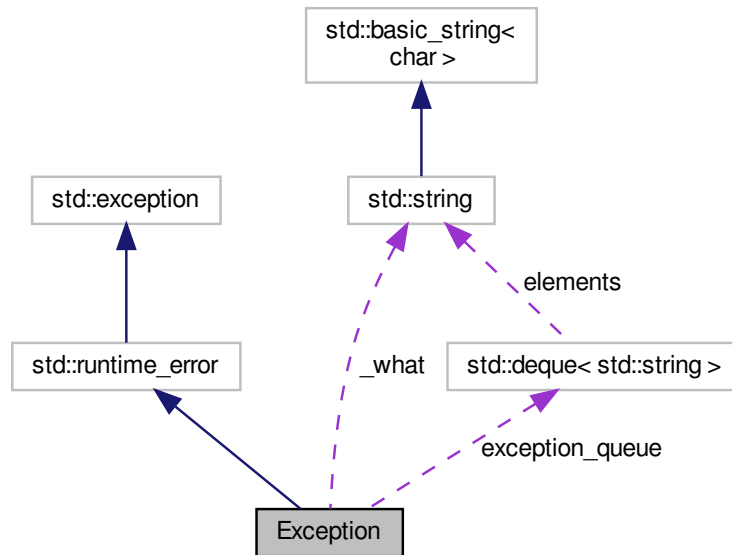
### 3.1 Exception Class Reference

```
#include <Exception.h>
```

Inheritance diagram for Exception:



Collaboration diagram for Exception:



## Public Member Functions

- [Exception](#) ()
- **Exception** (const [Exception](#) &e)
- [Exception](#) (const std::string &arg)
- [Exception](#) & **operator=** (const [Exception](#) &rhs)
- std::deque< std::string >::const\_iterator [begin](#) () const
- std::deque< std::string >::const\_iterator [end](#) () const
- std::string [get\\_message](#) (void) const
- void [set\\_message](#) (const std::string &msg)
- void **set\_rethrow\_message** (const std::string &file, const int linenum)
- const char \* **what** () const noexcept
- void **update\_what** ()

## Protected Member Functions

- virtual void [print](#) (std::ostream &os=std::cerr) const

## Protected Attributes

- std::deque< std::string > **exception\_queue**
- std::string **\_what**

## Friends

- `std::ostream & operator<< (std::ostream &os, Exception &a)`
- `std::ostream & operator<< (std::ostream &os, Exception *a)`

### 3.1.1 Detailed Description

The class [Exception](#), all the subclasses as defined by the user, are a form of conditions that a reasonable application might want to catch.

### 3.1.2 Constructor & Destructor Documentation

#### 3.1.2.1 [Exception\(\)](#) [1/2]

```
Exception::Exception ( ) [inline]
```

Constructs an [Exception](#) with no specified detail message.

#### 3.1.2.2 [Exception\(\)](#) [2/2]

```
Exception::Exception (
    const std::string & arg ) [inline]
```

Constructs an [Exception](#) with a specified detail message.

References `set_message()`.

### 3.1.3 Member Function Documentation

#### 3.1.3.1 [begin\(\)](#)

```
std::deque<std::string>::const_iterator Exception::begin ( ) const [inline]
```

Get the iterator pointing to the beginning of the dequeue.

Referenced by `print()`.

### 3.1.3.2 end()

```
std::deque<std::string>::const_iterator Exception::end ( ) const [inline]
```

Get the iterator pointing to the end of the dequeue.

Referenced by print().

### 3.1.3.3 get\_message()

```
std::string Exception::get_message (
    void ) const [inline]
```

Get the most current message

### 3.1.3.4 print()

```
void Exception::print (
    std::ostream & os = std::cerr ) const [protected], [virtual]
```

Prints this and its backtrace to the specified output stream.

References begin(), and end().

### 3.1.3.5 set\_message()

```
void Exception::set_message (
    const std::string & msg )
```

Add a message.

Referenced by Exception().

## 3.1.4 Friends And Related Function Documentation

### 3.1.4.1 operator<< [1/2]

```
std::ostream& operator<< (
    std::ostream & os,
    Exception & a ) [friend]
```

Prints this and its backtrace to the specified output stream.

### 3.1.4.2 `operator<<` [2/2]

```
std::ostream& operator<< (  
    std::ostream & os,  
    Exception * a ) [friend]
```

Prints this and its backtrace to the specified output stream.

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

- Exception.h
- Exception.cc



## Chapter 4

# Example Documentation

### 4.1 test.cc

This is an example of how to use the Test class. More details about this example.





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