Timer

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Contents

Chapter 1

Simple Timer

This is a simple function timer that can be used to time operations performed by a program. It has 3 primary functions: start, stop, and getElapsedTime, which function as they are named.

Chapter 2

Class Index

2.1 Class Hierarchy

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

Chapter 3

Class Index

3.1 Class List

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

Chapter 4

File Index

4.1 File List

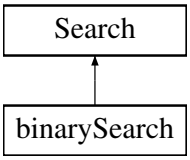
Here is a list of all documented files with brief descriptions:

Chapter 5

Class Documentation

5.1 binarySearch Class Reference

Inheritance diagram for binarySearch:



Public Member Functions

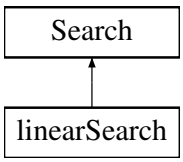
- bool **operator()** (int searchValue, const vector< int > &keys) const

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

- search.cpp

5.2 linearSearch Class Reference

Inheritance diagram for linearSearch:



Public Member Functions

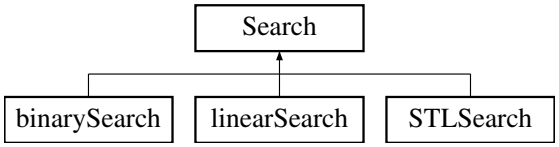
- bool **operator()** (int searchValue, const vector< int > &keys) const

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

- search.cpp

5.3 Search Class Reference

Inheritance diagram for Search:

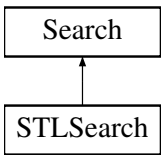


The documentation for this class was generated from the following file:

- search.cpp

5.4 STLSearch Class Reference

Inheritance diagram for STLSearch:



Public Member Functions

- bool **operator()** (int searchValue, const vector< int > &keys) const

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

- search.cpp

5.5 TestVector Class Reference

Public Member Functions

- **TestVector** (int size)
- **TestVector** (const TestVector &rhs)
- TestVector & **operator++** ()
- TestVector **operator++** (int ignored)
- int **operator[]** (int loc) const

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

- testvector.h
- testvector.cpp

5.6 Timer Class Reference

Public Member Functions

Constructor

Creates a timer object and initializes the wasStarted parameter to false.

Precondition

Timer object is not instantiated

Postcondition

Timer is initialized

- **Timer** ()

start

Starts the timer.

Precondition

Timer is not started

Postcondition

Timer is started and the start time is stored in beginTime.

- void **start** ()

stop

Stops the timer and calculates the duration. Stores the stopping time and converts this to a double by adding the microseconds to the seconds component of the timeval struct. The beginning time is then converted in the same way and subtracted from the end value. The result is stored in the duration data member.

Precondition

Timer has been started

Postcondition

Timer is stopped, duration is stored in the duration data member.

- void **stop** ()

getElapsedTime

Returns elapsed time of the timer.

Precondition

Timer is stopped

Returns

Duration timer was running.

- double **getElapsedTime** () const

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

- Timer.h
- Timer.cpp
- TimerOld.cpp

Chapter 6

File Documentation

6.1 Timer.cpp File Reference

```
#include "Timer.h"
```

6.1.1 Detailed Description

Author

Daniel Goodnow

6.2 Timer.h File Reference

```
#include <sys/time.h> #include <iostream>
```

Classes

- class Timer

6.2.1 Detailed Description

Author

Daniel Goodnow