gds

Generated by Doxygen 1.8.1.2

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Chapter 3

Data Structure Documentation

3.1 gdt_generic_datatype Struct Reference

Data Fields

- enum gds_datatype **type**
- gds_cfunc **compfunc**
- union {
    char **c**
    unsigned char **uc**
    signed char **sc**
    int **i**
    unsigned int **ui**
    long **l**
    unsigned long **ul**
    long long int **ll**
    unsigned long long int **ull**
    size_t **st**
    double **d**
    char ∗ **pc**
    void ∗ **p**
  } **data**

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

- include/private/gdt.h

3.2 hms Struct Reference

Data Fields

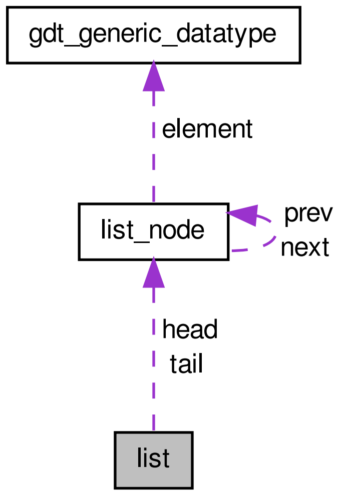
- int **hour**
- int **minute**
- int **second**

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

- tests/test_list.c
- tests/test_vector.c

3.3 list Struct Reference

Collaboration diagram for list:



Data Fields

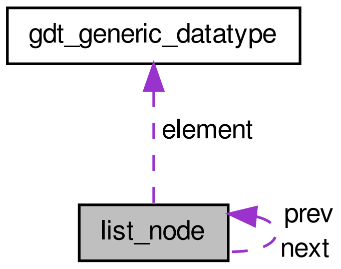
- size_t **length**
- enum gds_datatype **type**
- gds_cfunc **compfunc**
- struct list_node ∗ **head**
- struct list_node ∗ **tail**
- bool **free_on_destroy**
- bool **exit_on_error**

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

- src/list.c

3.4 list_node Struct Reference

Collaboration diagram for list_node:



Data Fields

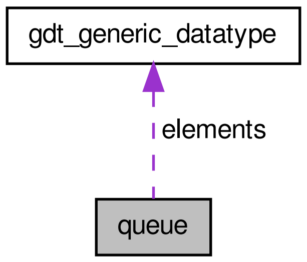
- struct gdt_generic_datatype **element**
- struct list_node ∗ **prev**
- struct list_node ∗ **next**

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

- src/list.c

3.5 queue Struct Reference

Collaboration diagram for queue:



Data Fields

- size_t **front**

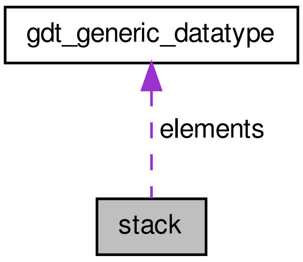
- size_t **back**
- size_t **capacity**
- size_t **size**
- enum gds_datatype **type**
- struct gdt_generic_datatype ∗ **elements**
- bool **resizable**
- bool **free_on_destroy**
- bool **exit_on_error**

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

- src/queue.c

3.6 stack Struct Reference

Collaboration diagram for stack:



Data Fields

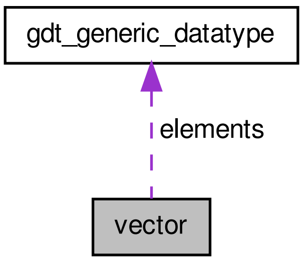
- size_t **top**
- size_t **capacity**
- enum gds_datatype **type**
- struct gdt_generic_datatype ∗ **elements**
- bool **resizable**
- bool **free_on_destroy**
- bool **exit_on_error**

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

- src/stack.c

3.7 vector Struct Reference

Collaboration diagram for vector:



Data Fields

- size_t **length**
- size_t **capacity**
- enum gds_datatype **type**
- struct gdt_generic_datatype $*$ **elements**
- int($*$ **compfunc**)(const void $*$, const void $*$)
- bool **free_on_destroy**
- bool **exit_on_error**

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

- src/vector.c

Chapter 4

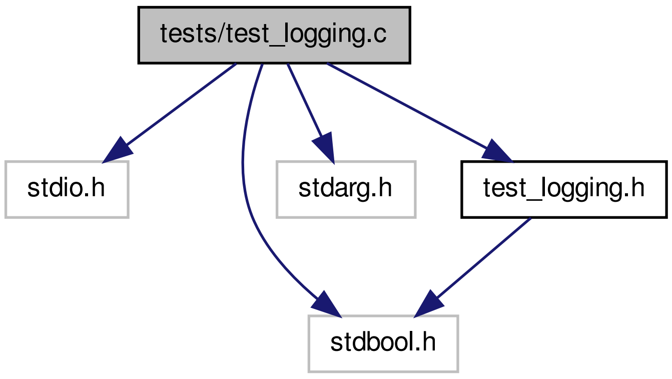
File Documentation

4.1 tests/test_logging.c File Reference

Implementation of unit test logging functionality.

```
#include <stdio.h>
#include <stdbool.h>
#include <stdarg.h>
#include "test_logging.h"
```

Include dependency graph for test_logging.c:



Functions

- void tests_log_test (const bool success, const char ∗fmt,...)

  Logs the result of a unit test.
- int tests_get_total_tests (void)

  Returns the total number of tests run.
- int tests_get_successes (void)

  Returns the total number of successful tests.
- int tests_get_failures (void)

  Returns the total number of failed tests.

4.1.1 Detailed Description

Implementation of unit test logging functionality.

Author

Paul Griffiths

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4.1.2 Function Documentation

4.1.2.1 int tests_get_failures (void)

Returns the total number of failed tests.

Returns

The total number of failed tests.

4.1.2.2 int tests_get_successes (void)

Returns the total number of successful tests.

Returns

The total number of successful tests.

4.1.2.3 int tests_get_total_tests (void)

Returns the total number of tests run.

Returns

The total number of tests run.

4.1.2.4 void tests_log_test (const bool *success*, const char $*$ *fmt*, ...)

Logs the result of a unit test.

Parameters

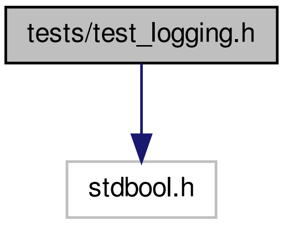
success	`true` if the test succeeded, `false` otherwise.
fmt	Format string for failure message.
...	Arguements to format string.

4.2 tests/test_logging.h File Reference

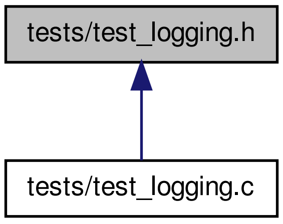
Interface to unit test logging functionality.

```
#include <stdbool.h>
```

Include dependency graph for test_logging.h:



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



Functions

- void tests_log_test (const bool success, const char ∗fmt,...)

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- int tests_get_total_tests (void)

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4.2.1 Detailed Description

Interface to unit test logging functionality.

Author

Paul Griffiths

Copyright

4.2.2 Function Documentation

4.2.2.1 int tests_get_failures (void)

Returns the total number of failed tests.

Returns

The total number of failed tests.

4.2.2.2 int tests_get_successes (void)

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Returns

The total number of successful tests.

4.2.2.3 int tests_get_total_tests (void)

Returns the total number of tests run.

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The total number of tests run.

4.2.2.4 void tests_log_test (const bool *success*, const char ∗ *fmt*, ...)

Logs the result of a unit test.

Parameters

success	`true` if the test succeeded, `false` otherwise.
fmt	Format string for failure message.
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