

Coronablinkern

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# Chapter 1

## Data Structure Index

### 1.1 Data Structures

Here are the data structures with brief descriptions:

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## Chapter 2

# File Index

### 2.1 File List

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

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<a href="#">config.h</a>	7
<a href="#">list.h</a>	8
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## Chapter 3

# Data Structure Documentation

### 3.1 `contact_i` Struct Reference

#### Data Fields

- long int **id**
- long int **date**

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

- [list.h](#)

### 3.2 `contact_I` Struct Reference

#### Data Fields

- int **size**
- [contact](#) \* **items**

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

- [list.h](#)

### 3.3 `menu_i` Struct Reference

#### Data Fields

- int **type**
- char \* **text**
- void \* **ptr1**
- void \* **ptr2**

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

- [menu.h](#)

## 3.4 menu\_t Struct Reference

### Data Fields

- char \* **title**
- int **size**
- struct [menu\\_t](#) \* **parent**
- struct [menu\\_i](#) \* **items**

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

- [menu.h](#)

## Chapter 4

# File Documentation

### 4.1 actions.h File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <string.h>
#include "list.h"
#include "config.h"
```

#### Functions

- int **userInput** (char \*prompt)
- int **createContacts** ([contact\\_list](#) list)
- int **saveList** ([contact\\_list](#) list)
- int **loadList** ([contact\\_list](#) list)
- int **pruneList** ([contact\\_list](#) list)
- int **showList** ([contact\\_list](#) list)
- int **addContact** ([contact\\_list](#) list, long int id, char \*date)
- int **sendAlert** ([contact\\_list](#) list, int code)
- int **reciveAlert** ([contact\\_list](#) list, long int id)

### 4.2 config.h File Reference

#### Macros

- #define [DEVICE\\_ID](#) 1234567890
- #define [DEVICE\\_CODE](#) 123
- #define [MAX\\_AGE](#) 1814400
- #define [FILE\\_NAME](#) "list.bin"

#### 4.2.1 Macro Definition Documentation

#### 4.2.1.1 DEVICE\_CODE

```
#define DEVICE_CODE 123
```

Unlock code for reporting infection

#### 4.2.1.2 DEVICE\_ID

```
#define DEVICE_ID 1234567890
```

Id number of this device

#### 4.2.1.3 FILE\_NAME

```
#define FILE_NAME "list.bin"
```

Name of file to store contacts in

#### 4.2.1.4 MAX\_AGE

```
#define MAX_AGE 1814400
```

Max age of entries in the device list

### 4.3 list.h File Reference

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

#### Data Structures

- struct [contact\\_i](#)
- struct [contact\\_l](#)

#### Typedefs

- typedef struct [contact\\_i](#) [contact](#)  
*Contact list item.*
- typedef struct [contact\\_l](#) \* [contact\\_list](#)  
*List of contacts.*

## Functions

- [contact\\_list](#) [listCreate](#) ()
- void [listDestroy](#) ([contact\\_list](#) list)
- void [listAdd](#) ([contact\\_list](#) list, long int id, long int date)
- void [listPrune](#) ([contact\\_list](#) list, long int age)
- bool [listIdExist](#) ([contact\\_list](#) list, long int id)
- void [listSave](#) ([contact\\_list](#) list, char \*file)
- void [listLoad](#) ([contact\\_list](#) list, char \*file)

### 4.3.1 Function Documentation

#### 4.3.1.1 listAdd()

```
void listAdd (  
    contact\_list list,  
    long int id,  
    long int date )
```

Function for adding a new item to a list

##### Parameters

<i>list</i>	The list to add new item to.
<i>id</i>	Id number of the new entry.
<i>date</i>	Timestamp of the new entry.

#### 4.3.1.2 listCreate()

```
contact\_list listCreate ( )
```

Function for creating a new empty list.

##### Returns

A new empty list.

#### 4.3.1.3 listDestroy()

```
void listDestroy (  
    contact\_list list )
```

Function for destroying a list.

**Parameters**

<i>list</i>	The list to destroy.
-------------	----------------------

**4.3.1.4 listIdExist()**

```
bool listIdExist (
    contact_list list,
    long int id )
```

Function for checking if id exist in list

**Parameters**

<i>list</i>	The list to check.
<i>id</i>	Id to look for.

**4.3.1.5 listLoad()**

```
void listLoad (
    contact_list list,
    char * file )
```

Function for loading a list from file

**Parameters**

<i>list</i>	The list to load to.
<i>file</i>	Name of file to load from.

**4.3.1.6 listPrune()**

```
void listPrune (
    contact_list list,
    long int age )
```

Function for removing old items from a list

**Parameters**

<i>list</i>	The list to remove old items from.
<i>age</i>	Max age of items to keep in seconds.

#### 4.3.1.7 listSave()

```
void listSave (
    contact_list list,
    char * file )
```

Function for saving a list to file

##### Parameters

<i>list</i>	The list to save.
<i>file</i>	Name of file to save to.

## 4.4 menu.h File Reference

```
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include "actions.h"
```

### Data Structures

- struct [menu\\_i](#)
- struct [menu\\_t](#)

### Macros

- #define **M\_QUIT** 0
- #define **M\_MENU** 1
- #define **M\_CALL** 2

### Typedefs

- typedef struct [menu\\_i](#) [menu\\_i](#)  
*Menu item.*
- typedef struct [menu\\_t](#) [menu\\_t](#)  
*Menu.*

### Functions

- [menu\\_t](#) \* [menuCreate](#) ([menu\\_t](#) \*parent, char \*title)
- void [menuAddCall](#) ([menu\\_t](#) \*menu, char \*text, void \*func, void \*arg)
- void [menuShow](#) ([menu\\_t](#) \*menu)
- int [menuSelection](#) ([menu\\_t](#) \*menu)

## 4.4.1 Function Documentation

### 4.4.1.1 menuAddCall()

```
void menuAddCall (
    menu_t * menu,
    char * text,
    void * func,
    void * arg )
```

Function for adding item to menu

#### Parameters

<i>menu</i>	Menu to addd item to.
<i>text</i>	Name of menu item.
<i>func</i>	Function to call.
<i>arg</i>	Argument for function.

### 4.4.1.2 menuCreate()

```
menu_t* menuCreate (
    menu_t * parent,
    char * title )
```

Function for creating a new menu.

#### Parameters

<i>parent</i>	Parent meny, NULL if root menu.
<i>title</i>	Title of the menu.

#### Returns

A new menu.

### 4.4.1.3 menuSelection()

```
int menuSelection (
    menu_t * menu )
```

Function for getting menu choice



## Parameters

<i>menu</i>	Menu to get choice from.
-------------	--------------------------

**4.4.1.4 menuShow()**

```
void menuShow (
    menu_t * menu )
```

Function for displaying menu

## Parameters

<i>menu</i>	Menu to display.
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