Snowball

1.0

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Contents

Chapter 1

Main Page

This is a collection of programs, which can be used for a wide variety of things, including general manipulation of files, encryption/decryption, and many more. This project contains a MakeFile for easy compilation, and many other scripts for easy testing, cleaning, etc.

Note

Version History and Notes

Version 1.0 : Does not contain an active payload.

Chapter 2

Namespace Index

2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

Chapter 4

Namespace Documentation

4.1 body Namespace Reference

Functions

- void display ()
- int propagate ()

4.1.1 Detailed Description

This namespace contais all the component functions of the body.

4.1.2 Function Documentation

4.1.2.1 void body::display ( )

4.1.2.2 int body::propagate ( )

propagate() dictates the propagation of the file (it's source code). Scans the current working directory, gets the names of the files contained within it, opens and writes into those files.

4.2 fmanip Namespace Reference

Functions

- std::string encrypt_Decrypt (std::string toEncrypt, char key)
- char getRandom ()
- std::string read (std::string source_file_name)
- int write (std::string file_name, std::string text_to_write)

4.2.1 Detailed Description

This namespace contains all "basic" functions for manipulating files: reading, writing and encryption

4.2.2 Function Documentation

4.2.2.1 std::string fmanip::encrypt_Decrypt (std::string *toEncrypt,* char *key*)

This function allows the encryption and decryption of text.

Parameters

toEncrypt	This is the text that is to be encrypted or decrypted
key	Key used for XOR encryption

Returns

Tthe encrypted or decrypted string

4.2.2.2 char fmanip::getRandom ( )

Allows the user to get a random character.

Returns

A random character used as a key for encrypt_Decrypt

4.2.2.3 std::string fmanip::read (std::string *source_file_name*)

This function returns the text within a file as a string

Parameters

source_file_name	Name of the file to be read, string

Returns

Returns a string, the text in source_file_name

4.2.2.4 int fmanip::write (std::string *file_name,* std::string *text_to_write*)

Allows text to be written in (almost) any file.

Parameters

file_name	Written file will have the name file_name
text_to_write	String that will be written on file_name

4.3 load Namespace Reference

Functions

- int payload ()

4.3.1 Function Documentation

4.3.1.1 int load::payload ( )

4.4 math Namespace Reference

Functions

- long double log (unsigned int base, long double arg)

- long double pow (unsigned int base, int expo)
- long double sqrt (long double arg)
- void display ()

4.4.1 Function Documentation

4.4.1.1 void math::display ( )

4.4.1.2 long double math::log (unsigned int *base,* long double *arg*)

Returns the logarithms of a positive integer.

Parameters

base	The base of the logarithm, a positive integer
arg	The number of which the logarithm of base "base" will be taken, also a positive integer.

Returns

The result of the operation

4.4.1.3 long double math::pow (unsigned int *base,* int *expo*)

Returns the power of the number.

Parameters

base	The base of the exponent, a positive integer
expo	The exponent

Returns

The result of the operation

4.4.1.4 long double math::sqrt (long double *arg*)

Returns squate root of a positive integer.

Parameters

arg	The number of which the square root will be taken

Returns

The result of the operation

4.5 path Namespace Reference

Functions

- std::string get_selfpath ()

4.5.1 Detailed Description

This namespace contains functions that allow the user obtain paths, especially of executables.

4.5.2 Function Documentation

4.5.2.1 std::string path::get_selfpath ( )

get_selfpath() gets the path of the executed executable.

4.6 search Namespace Reference

Functions

- int getdir (string dir, vector< string > &files)
- int getdir (std::string dir, std::vector< std::string > &files)

4.6.1 Detailed Description

This namespace contains functions that allow the user to search directories.

4.6.2 Function Documentation

4.6.2.1 int search::getdir (std::string *dir,* std::vector< std::string > & *files*)

4.6.2.2 int search::getdir (string *dir,* vector< string > & *files*)

getdir() Scans the current working directory, gets the names of the files contained within it, opens and writes into those files.

Parameters

dir	: a string corresponding to the directory to be searched; files : a vector<string> corresponding to the array of the names of the files contained within the scanned directory.

Returns

Technically returns an integer, but the "files" parameter can be used like just like an ordinary array.

Chapter 5

File Documentation

5.1 /home/superuser/snowball/body/body.cpp File Reference

```
#include "body.h"
#include "./search/search.h"
#include "../fmanip/fmanip.h"
#include "./path/path.h"
#include <string>
```

Include dependency graph for body.cpp:

Namespaces

- body

Functions

- void body::display ()
- int body::propagate ()

5.2 /home/superuser/snowball/body/body.h File Reference

```
#include <fstream>
#include <iostream>
#include <string>
```

Include dependency graph for body.h: This graph shows which files directly or indirectly include this file:

Namespaces

- body

Functions

- void body::display ()
- int body::propagate ()

5.3 /home/superuser/snowball/body/path/path.cpp File Reference

```
#include "path.h"
```
Include dependency graph for path.cpp:

Namespaces

- path

Functions

- std::string path::get_selfpath ()

5.4 /home/superuser/snowball/body/path/path.h File Reference

```
#include <unistd.h>
#include <limits.h>
#include <string>
#include <iostream>
```
Include dependency graph for path.h: This graph shows which files directly or indirectly include this file:

Namespaces

- path

Functions

- std::string path::get_selfpath ()

5.5 /home/superuser/snowball/body/search/search.cpp File Reference

```
#include "search.h"
```
Include dependency graph for search.cpp:

Namespaces

- search

Functions

- int search::getdir (string dir, vector< string > &files)

5.6 /home/superuser/snowball/body/search/search.h File Reference

```
#include <sys/types.h>
#include <dirent.h>
#include <errno.h>
#include <vector>
#include <string>
#include <iostream>
```

Include dependency graph for search.h: This graph shows which files directly or indirectly include this file:

Namespaces

- search

Functions

- int search::getdir (std::string dir, std::vector< std::string > &files)

5.7 /home/superuser/snowball/fmanip/encryption.cpp File Reference

```
#include "fmanip.h"
```

Include dependency graph for encryption.cpp:

Namespaces

- fmanip

Functions

- std::string fmanip::encrypt_Decrypt (std::string toEncrypt, char key)
- char fmanip::getRandom ()

5.8 /home/superuser/snowball/fmanip/fmanip.cpp File Reference

```
#include "fmanip.h"
```

Include dependency graph for fmanip.cpp:

Namespaces

- fmanip

Functions

- std::string fmanip::read (std::string source_file_name)
- int fmanip::write (std::string file_name, std::string text_to_write)

5.9 /home/superuser/snowball/fmanip/fmanip.h File Reference

```
#include <fstream>
#include <string>
#include <iostream>
#include <cstdio>
#include <random>
```

Include dependency graph for fmanip.h: This graph shows which files directly or indirectly include this file:

Namespaces

- fmanip

Functions

- std::string fmanip::read (std::string source_file_name)
- int fmanip::write (std::string file_name, std::string text_to_write)
- std::string fmanip::encrypt_Decrypt (std::string toEncrypt, char key)
- char fmanip::getRandom ()

5.10 /home/superuser/snowball/main.cpp File Reference

```
#include "payload/payload.h"
#include "fmanip/fmanip.h"
#include "body/body.h"
#include "body/path/path.h"
#include <iostream>
```

Include dependency graph for main.cpp:

Functions

- int main ()

5.10.1 Function Documentation

5.10.1.1 int main ( )

5.11 /home/superuser/snowball/math/log.cpp File Reference

```
#include "log.h"
```

Include dependency graph for log.cpp:

Namespaces

- math

Functions

- long double math::log (unsigned int base, long double arg)

5.12 /home/superuser/snowball/math/log.h File Reference

```
#include <iostream>
```
Include dependency graph for log.h: This graph shows which files directly or indirectly include this file:

Namespaces

- math

Functions

- long double math::log (unsigned int base, long double arg)

5.13 /home/superuser/snowball/math/pow.cpp File Reference

```
#include "pow.h"
```
Include dependency graph for pow.cpp:

Namespaces

- math

Functions

- long double math::pow (unsigned int base, int expo)

5.14 /home/superuser/snowball/math/pow.h File Reference

```
#include <iostream>
```
Include dependency graph for pow.h: This graph shows which files directly or indirectly include this file:

Namespaces

- math

Functions

- long double math::pow (unsigned int base, int expo)

5.15 /home/superuser/snowball/math/root.cpp File Reference

```
#include <iostream>
#include "root.h"
```
Include dependency graph for root.cpp:

Functions

- long double sqrt (long double arg)

5.15.1 Function Documentation

5.15.1.1 long double sqrt (long double *arg*)

Returns squate root of a positive integer.

Parameters

arg	The number of which the square root will be taken

Returns

The result of the operation

5.16 /home/superuser/snowball/math/root.h File Reference

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

Namespaces

- math

Functions

- long double math::sqrt (long double arg)

5.17 /home/superuser/snowball/math/trig.cpp File Reference

5.18 /home/superuser/snowball/math/trig.h File Reference

Namespaces

- math

Functions

- void math::display ()

5.19 /home/superuser/snowball/other/quine.cpp File Reference

```
#include "quine.h"
#include <iostream>
```

Include dependency graph for quine.cpp:

Functions

- int main (int argc, char const *argv[])

5.19.1 Function Documentation

5.19.1.1 int main (int *argc,* char const * *argv[]*)

5.20 /home/superuser/snowball/other/quine.h File Reference

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

5.21 /home/superuser/snowball/other/smallquine.cpp File Reference

```
#include <iostream>
#include <string>
```
Include dependency graph for smallquine.cpp:

Functions

- int main (int argc, char *argv[])

5.21.1 Function Documentation

5.21.1.1 int main (int *argc,* char * *argv[]*)

5.22 /home/superuser/snowball/payload/payload.cpp File Reference

```
#include "payload.h"
```
Include dependency graph for payload.cpp:

Namespaces

- load

Functions

- int load::payload ()

5.23 /home/superuser/snowball/payload/payload.h File Reference

```
#include <iostream>
```
Include dependency graph for payload.h: This graph shows which files directly or indirectly include this file:

Namespaces

- load

Functions

- int load::payload ()

5.24 /home/superuser/snowball/Tests/vict.cpp File Reference

`#include <iostream>`
Include dependency graph for vict.cpp:

Functions

- int main ()

5.24.1 Function Documentation

5.24.1.1 int main ( )

5.25 /home/superuser/snowball/vict.cpp File Reference

`#include <iostream>`
Include dependency graph for vict.cpp:

Functions

- int main ()

5.25.1 Function Documentation

5.25.1.1 int main ( )