

Random Test

The random functions are quite straightforward. `inputChar()` returns a random integer in the range 32-126 cast as a char. I chose this range because it is the set of standard printable ASCII characters.

I initially had `inputString` return a string of length between 3-8 characters, with its contents determined by `inputChar()`, but the odds of getting the “reset” string were too low ($1/7 * 94^5 =$ about $1/1,000,000,000$), so I changed it to a string fixed at a length of 5 composed of random lowercase alphabetical characters ($1/26^5 = 1/11,000,000$).

I also had the output saved to a log file instead of printed to `stdout`, which increases the speed of the program significantly. This can result in a massive file being created if the string is not found within a few million iterations.

```
≡ results.txt
1  File 'testme.c'
2  Lines executed:97.30% of 37
3  Branches executed:100.00% of 52
4  Taken at least once:94.23% of 52
5  Calls executed:100.00% of 12
6  Creating 'testme.c.gcov'
7
8  File 'c:/mingw/include/stdio.h'
9  Lines executed:100.00% of 10
10 No branches
11 Calls executed:100.00% of 2
12 Creating 'stdio.h.gcov'|
13
```