代码覆盖率

工具：gcov lcov

终局生成

执行命令：

```
./sudoku -c 10
```
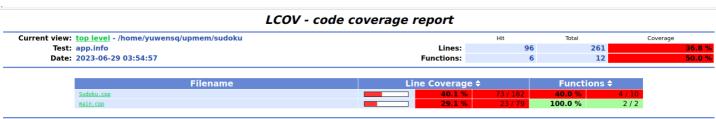
LCOV - code coverage report

	Hit	Total	Coverage
Current view: top level - /home/yuwensq/upmem/sudoku			
Test: app.info			
Lines:	61	261	23.4 %
Date: 2023-06-29 03:48:57			
Functions:	5	12	41.7 %

Filename	Line Coverage ⬍		Functions ⬍	
Sudoku.cpp	22.0 %	40 / 182	30.0 %	3 / 10
main.cpp	26.6 %	21 / 79	100.0 %	2 / 2

Generated by: LCOV version 1.14

游戏生成

执行命令：

```
./sudoku -n 1000
```

LCOV - code coverage report

	Hit	Total	Coverage
Current view: top level - /home/yuwensq/upmem/sudoku			
Test: app.info			
Lines:	96	261	36.8 %
Date: 2023-06-29 03:54:57			
Functions:	6	12	50.0 %

Filename	Line Coverage ⬍		Functions ⬍	
Sudoku.cpp	40.1 %	73 / 182	40.0 %	4 / 10
main.cpp	29.1 %	23 / 79	100.0 %	2 / 2

Generated by: LCOV version 1.14

```
./sudoku -n 1000 -m 3
```

LCOV - code coverage report

	Hit	Total	Coverage
Current view: top level - /home/yuwensq/upmem/sudoku			
Test: app.info			
Lines:	98	261	37.5 %
Date: 2023-06-29 04:04:39			
Functions:	6	12	50.0 %

Filename	Line Coverage ⬍		Functions ⬍	
Sudoku.cpp	39.6 %	72 / 182	40.0 %	4 / 10
main.cpp	32.9 %	26 / 79	100.0 %	2 / 2

Generated by: LCOV version 1.14

```
./sudoku -n 1000 -r 30~50
```

```
./sudoku -n 1000 -u
```

```
./sudoku -n 1000 -m 3 -r 20~55 -u
```

数独求解

执行命令:

```
./sudoku -s game.txt
```

覆盖率如上所示，所有测试样例相加几乎覆盖了所有的代码。