

Gcov

What is gcov?

- Gcov - a test coverage program
- Use it in concert with GCC
- Testsuites can verify that a program works as expected
- Gcov is used to analyze programs
 - To create more efficient, faster running code and to discover untested parts of the program
 - A coverage program tests to see how much of the program is exercised by the testsuite

What is gcov?

- gcov creates a logfile called sourcefile.gcov that indicates how many times each line of a source file sourcefile.c has executed
- gcov works only on code compiled with GCC.

Invoking gcov

```
$ gcc -fprofile-arcs -ftest-coverage temp.c
```

```
$ ./a.out
```

```
$ gcov temp.c
```

```
File 'temp.c'
```

```
Lines executed:100.00% of 39
```

```
Creating 'temp.c.gcov'
```

```
$ gcov -b temp.c
```

```
File 'temp.c'
```

```
Lines executed:100.00% of 39
```

```
Branches executed:100.00% of 10
```

```
Taken at least once:90.00% of 10
```

```
Calls executed:100.00% of 14
```

```
Creating 'temp.c.gcov'
```