# Instrumentation

## Run code before or after function call

* 1. gcc –finstrument –functions

<http://gcc.gnu.org/onlinedocs/gcc-4.4.4/gcc/Code-Gen-Options.html>

[http://stackoverflow.com/questions/2281739/automatically-adding-enter-exit-function-logs-to-a-project/2291426#2291426](http://stackoverflow.com/questions/2281739/automatically-adding-enter-exit-function-logs-to-a-project/2291426" \l "2291426)

<http://blog.csdn.net/hengshan/article/details/7869472>

<http://www.cnblogs.com/wangkangluo1/archive/2012/07/09/2583228.html>

<https://balau82.wordpress.com/2010/10/06/trace-and-profile-function-calls-with-gcc/>

* 1. gprof
  2. AspectC++

## Code coverage

* 1. Gcov

gcov is a code coverage tool for C or C++. Add CXXFLAGS = -fprofile-arcs -ftest-coverage to makefile and add -lgcov when link. Run the target program. gcov -b <filename>. <filename>.gcov is a detailed coverage report file which contains function coverage information.