CS2720 Practical Software Development

Profiling Tutorial Spring 2011

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Purpose of profiling

We have a profiler, **gprof**. To use **gprof** :

- compile the program using the `-pg` switch on both the compiler and linker

- run the program, this will create a file **gmon.out**

- run the profiler on the program. eg `gprof progName`

- by default, the output goes to the screen, may be redirected

- output consists of three tables of information

  - flat profile – functions are listed, ordered by the amount of time used

  - call graph – each function is listed with an index number on the left. Functions that call this function are listed before the function. Functions that this function calls, are listed after the function.

  - index – all function names are listed.

Optimization switches

- -O1

- -O2

- -O3

Moral