**CS 410000Computer Architecture**

**Homework1**

**(Due: 2020-09-28 23:59)**

[109062633] [程筱珺]

Please evaluate your computer performance by executing the following benchmarks, and fill the blanks of table. In addition, basic hardware information of your computer has to be reported too. You can download the benchmark source code from iLms, and re-compile them for your Linux system.

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| --- |
| **Compile Instructions**  1) Change directories to “src” of benchmarks. (eq. SPEC2000\_SS/CINT2000/164.gzip/src)  2) Make sure your gcc location in *Makefile.defaults*(eq. cc=gcc), and type "make",  3) Execute the “./run” script, and report your program elapsed time. |

|  |  |
| --- | --- |
| Referencemachineinformation | |
| Processor model | Intel(R) Core(TM) i5-1038NG7 CPU @ 2.00GHz |
| Memory size | 16 GB |
| Operating system (OS) | Mac OS X 10.15.4 |

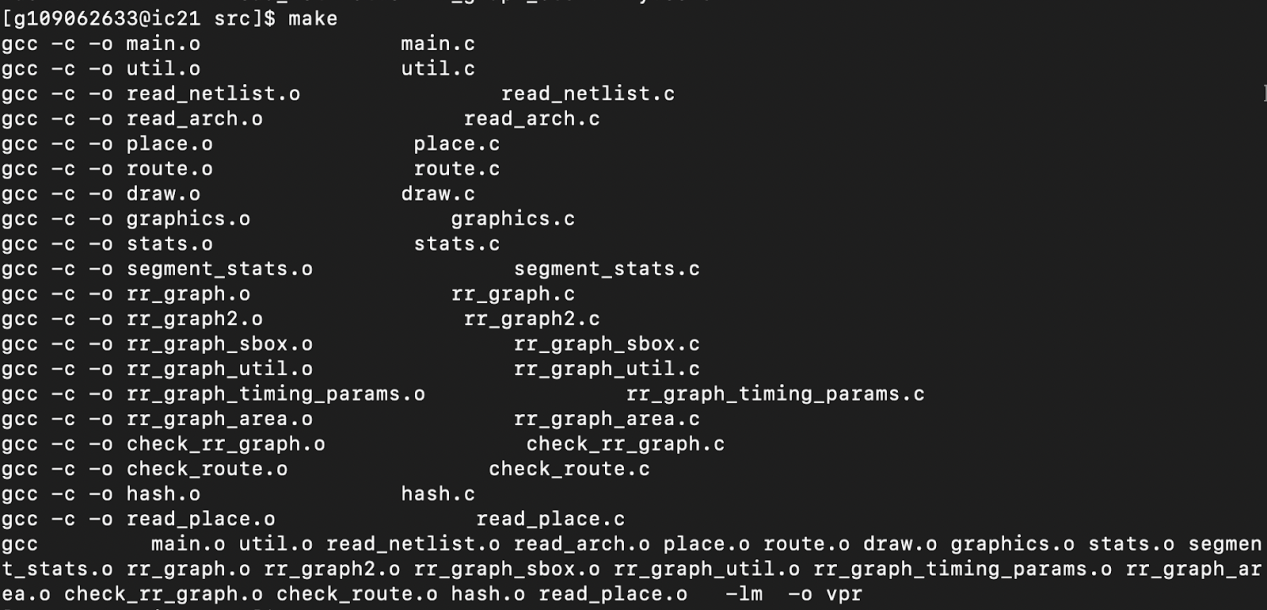
|  |  |  |  |
| --- | --- | --- | --- |
| Benchmark | Execution time of your machine (second) | Execution timeof reference machine (second) | Speedup of your machine w.r.t. reference machine |
| 175.vpr | 0.762 | 0.853 | 1.12 |
| 181.mcf | 0.127 | 0.362 | 2.85 |
| 256.bzip2 | 4.522 | 2.933 | 0.65 |
| Arithmetic mean |  |  | 1.54 |

|  |  |
| --- | --- |
| Your machineinformation | |
| Processor number | X5570 |
| Memory | 49431916 kB |
| Operating system (OS) | CentOS release 5.11 (Final) |

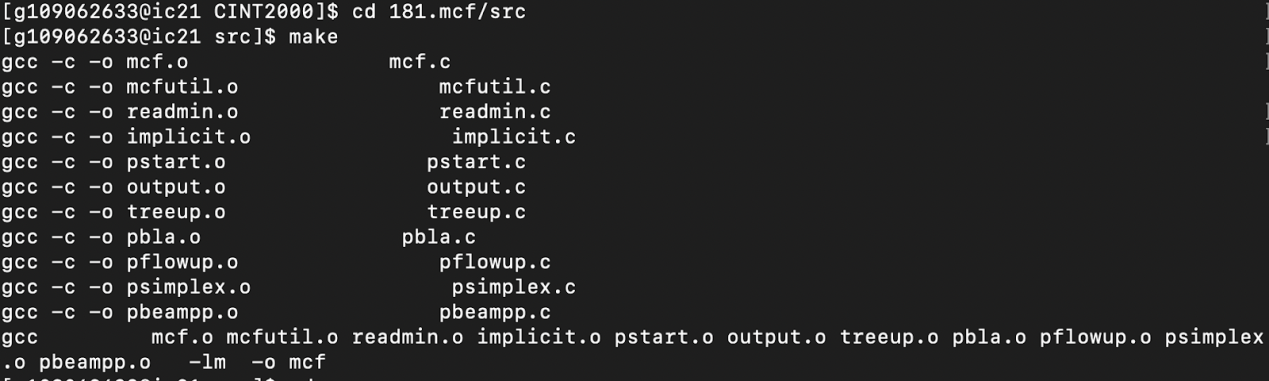
Snapshots of compilation results (including 175.vpr,181.mcf,and 256.bzip2).3\*5%

E.g.

175.vpr



181.mcf



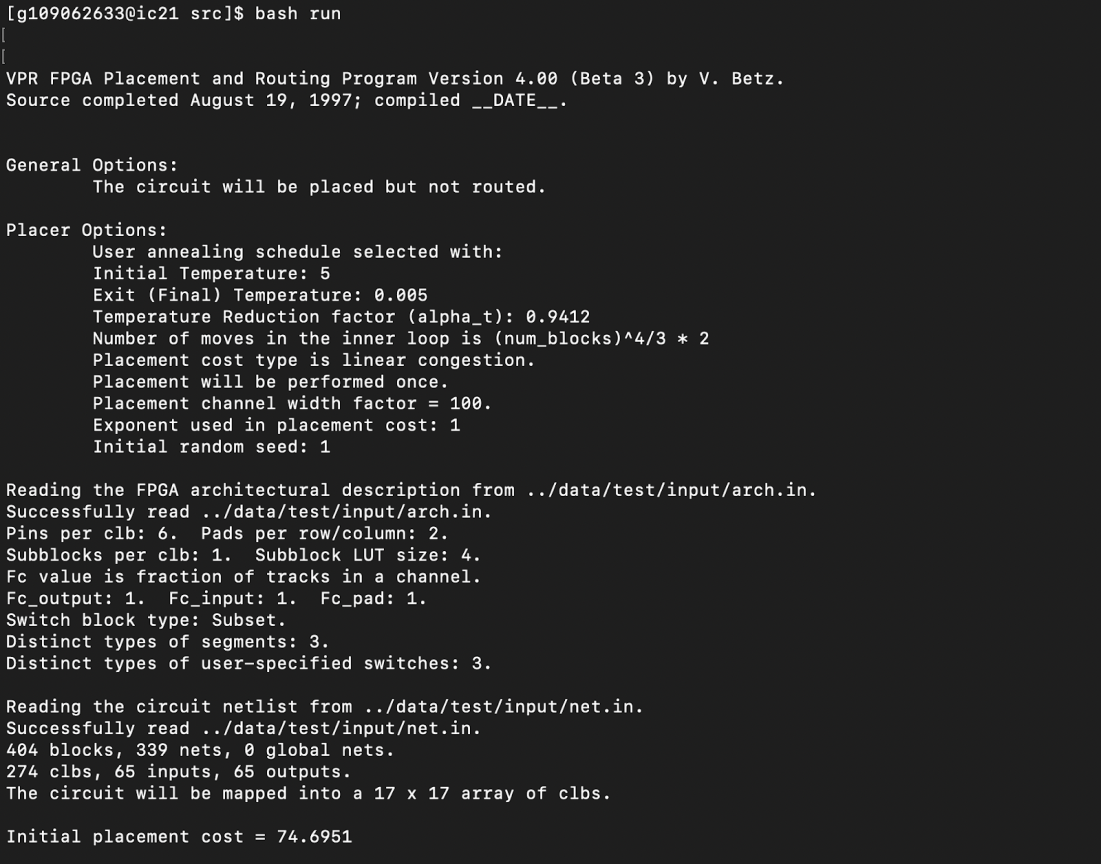
256.bzip2

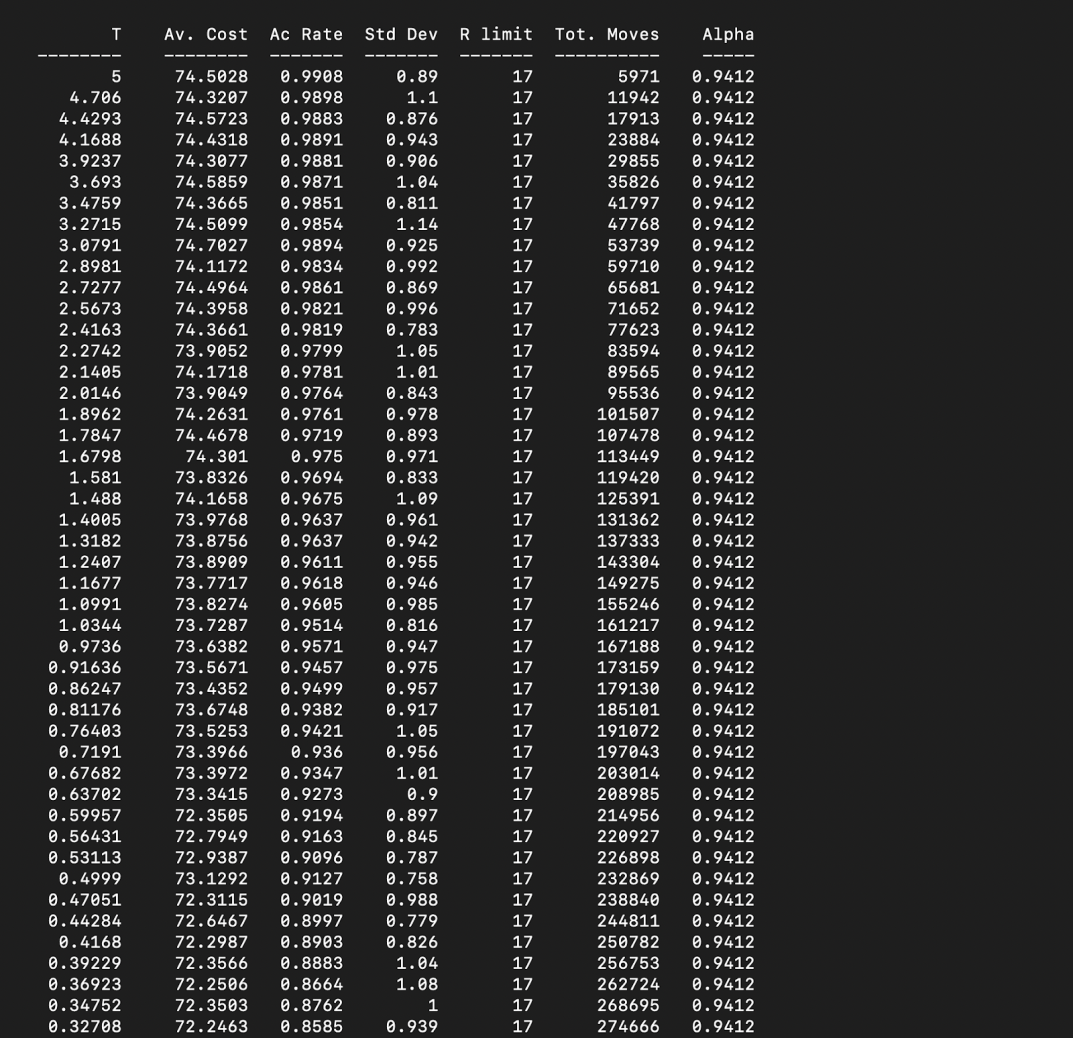


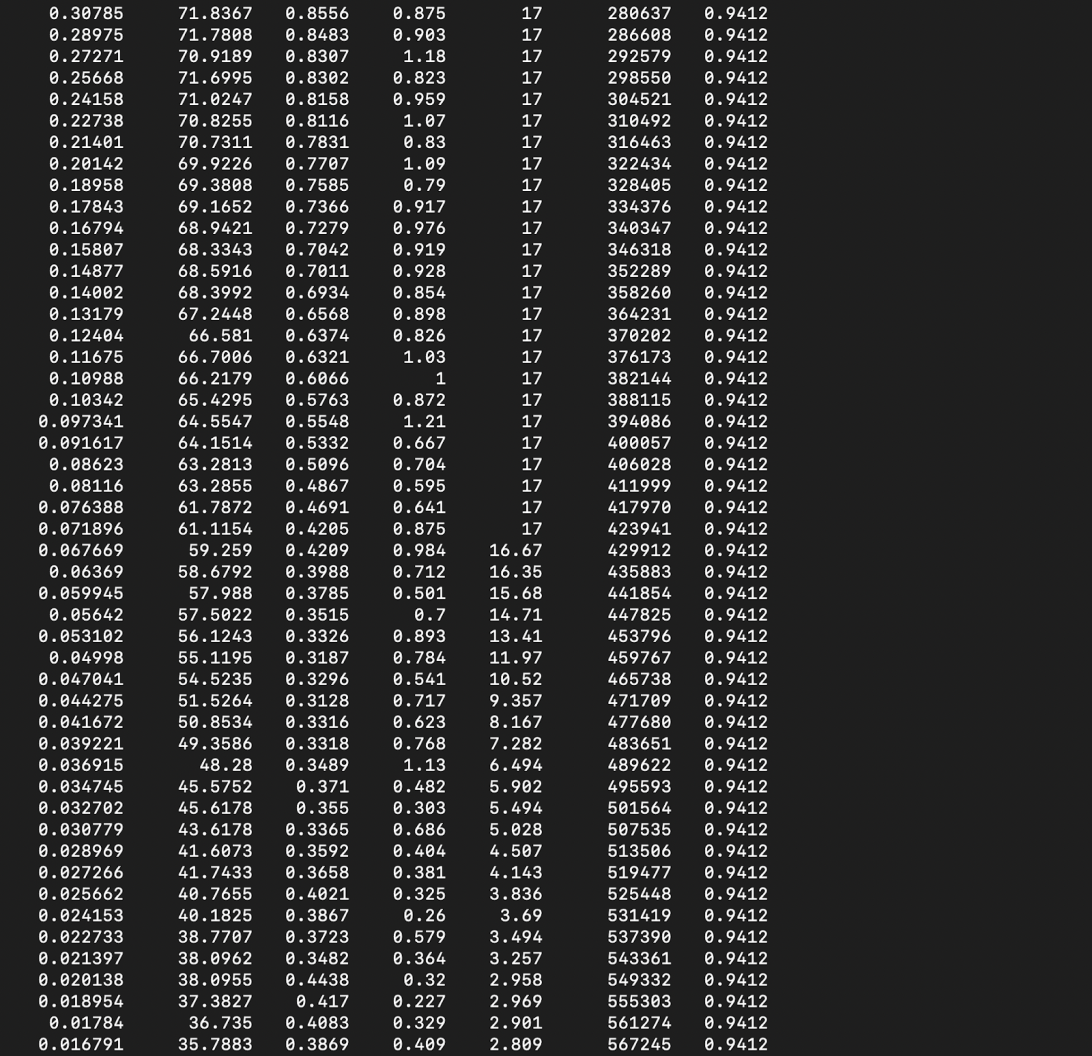
Snapshots of execution results (including 175.vpr,181.mcf,and 256.bzip2).3\*5%

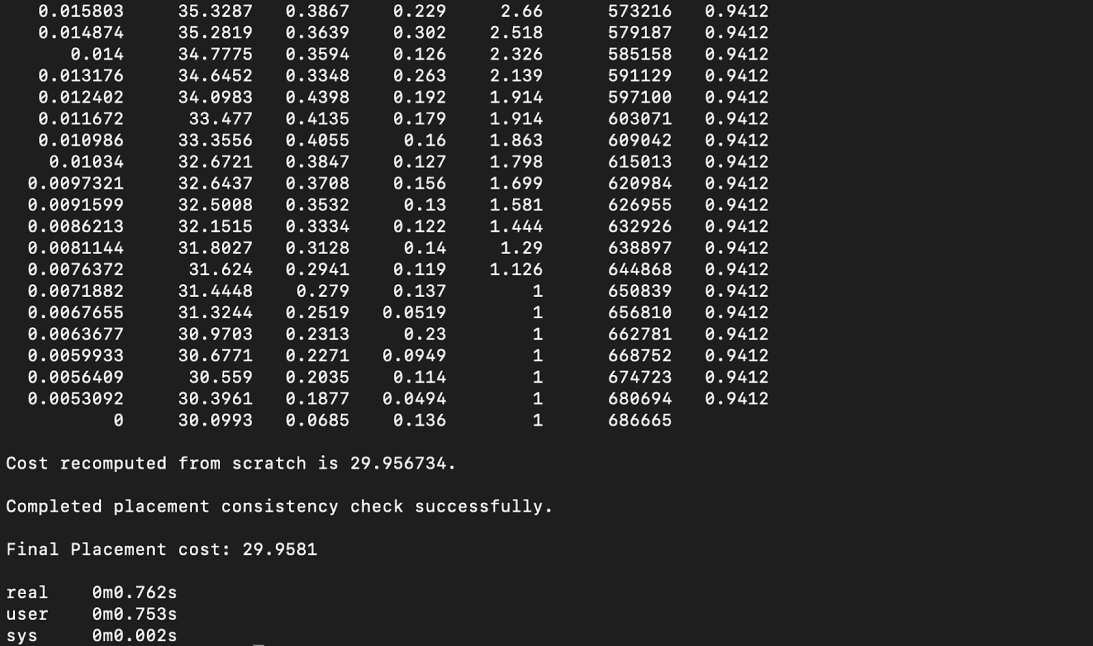
E.g.

175.vpr





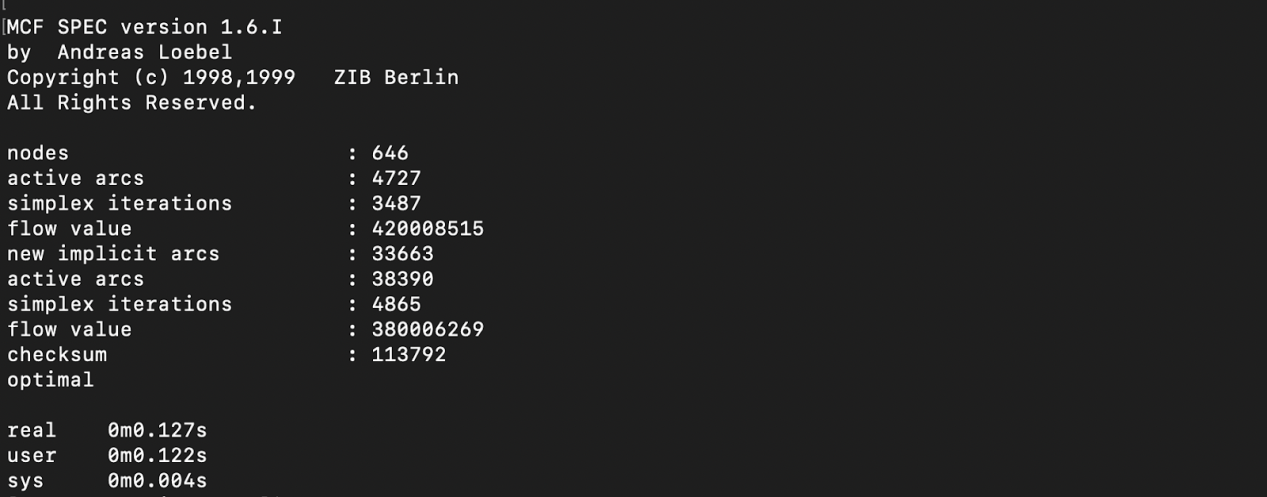




181.mcf（下頁）

256.bzip2（下頁）

181.mcf



256.bzip2

