Superscaler.c vs five_stages.c Test-Cases

The result of running the short traces that you used in task 2 on both five_stage.c and superscalar.c with trace_view_on = 1

test-chunks-alu-first.tr

five_stages.c

** opening file test-chunks-alu-first.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 1)(sReg_b: 10)(dReg: 11)

[cycle 6] RTYPE: (PC: 1)(sReg_a: 7)(sReg_b: 8)(dReg: 9)

[cycle 7] RTYPE: (PC: 2)(sReg_a: 8)(sReg_b: 5)(dReg: 15)

[cycle 8] RTYPE: (PC: 3)(sReg_a: 20)(sReg_b: 14)(dReg: 7)

[cycle 9] STORE: (PC: 4)(sReg_a: 7)(sReg_b: 14)(addr: 50000)

[cycle 10] STORE: (PC: 5)(sReg_a: 1)(sReg_b: 20)(addr: 60000)

[cycle 11] LOAD: (PC: 6)(sReg_a: 1)(dReg: 3)(addr: 70000)

[cycle 12] LOAD: (PC: 7)(sReg_a: 7)(dReg: 14)(addr: 80000)

+ Simulation terminates at cycle : 12

Superscalar.c

** opening file test-chunks-alu-first.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 1)(sReg_b: 10)(dReg: 11)

[cycle 5] NOP:

[cycle 6] RTYPE: (PC: 2)(sReg_a: 8)(sReg_b: 5)(dReg: 15)

[cycle 6] NOP:

[cycle 7] STORE: (PC: 4)(sReg_a: 7)(sReg_b: 14)(addr: 50000)

[cycle 7] NOP:

[cycle 8] LOAD: (PC: 6)(sReg_a: 1)(dReg: 3)(addr: 70000)

[cycle 8] NOP:

+ Simulation terminates at cycle : 8

test-chunks-lwsw-first.tr

five_stages.c

** opening file test-chunks-lwsw-first.tr

[cycle 5] STORE: (PC: 0)(sReg_a: 7)(sReg_b: 14)(addr: 10000)

[cycle 6] STORE: (PC: 1)(sReg_a: 1)(sReg_b: 8)(addr: 20000)

[cycle 7] LOAD: (PC: 2)(sReg_a: 1)(dReg: 23)(addr: 30000)

[cycle 8] LOAD: (PC: 3)(sReg_a: 7)(dReg: 8)(addr: 40000)

[cycle 9] RTYPE: (PC: 4)(sReg_a: 3)(sReg_b: 7)(dReg: 1)

[cycle 10] RTYPE: (PC: 5)(sReg_a: 15)(sReg_b: 11)(dReg: 7)

[cycle 11] RTYPE: (PC: 6)(sReg_a: 11)(sReg_b: 17)(dReg: 11)

[cycle 12] RTYPE: (PC: 7)(sReg_a: 0)(sReg_b: 1)(dReg: 2)

+ Simulation terminates at cycle : 12

Superscalar.c

** opening file test-chunks-lwsw-first.tr

[cycle 5] STORE: (PC: 0)(sReg_a: 7)(sReg_b: 14)(addr: 10000)

[cycle 5] NOP:

[cycle 6] LOAD: (PC: 2)(sReg_a: 1)(dReg: 23)(addr: 30000)

[cycle 6] NOP:

[cycle 7] RTYPE: (PC: 4)(sReg_a: 3)(sReg_b: 7)(dReg: 1)

[cycle 7] NOP:

[cycle 8] RTYPE: (PC: 6)(sReg_a: 11)(sReg_b: 17)(dReg: 11)

[cycle 8] NOP:

+ Simulation terminates at cycle : 8

test-all-alus.tr

five_stages.c

** opening file test-all-alus.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 0)(sReg_b: 1)(dReg: 2)

[cycle 6] RTYPE: (PC: 1)(sReg_a: 8)(sReg_b: 4)(dReg: 6)

[cycle 7] RTYPE: (PC: 2)(sReg_a: 6)(sReg_b: 5)(dReg: 0)

[cycle 8] RTYPE: (PC: 3)(sReg_a: 5)(sReg_b: 5)(dReg: 7)

[cycle 9] RTYPE: (PC: 4)(sReg_a: 6)(sReg_b: 6)(dReg: 6)

[cycle 10] RTYPE: (PC: 5)(sReg_a: 1)(sReg_b: 7)(dReg: 9)

[cycle 11] RTYPE: (PC: 6)(sReg_a: 5)(sReg_b: 17)(dReg: 18)

[cycle 12] RTYPE: (PC: 7)(sReg_a: 14)(sReg_b: 12)(dReg: 7)

+ Simulation terminates at cycle : 12

Superscalar.c

** opening file test-all-alus.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 0)(sReg_b: 1)(dReg: 2)

[cycle 5] NOP:

[cycle 6] RTYPE: (PC: 2)(sReg_a: 6)(sReg_b: 5)(dReg: 0)

[cycle 6] NOP:

[cycle 7] RTYPE: (PC: 4)(sReg_a: 6)(sReg_b: 6)(dReg: 6)

[cycle 7] NOP:

[cycle 8] RTYPE: (PC: 6)(sReg_a: 5)(sReg_b: 17)(dReg: 18)

[cycle 8] NOP:

+ Simulation terminates at cycle : 8

test-normal-operation.tr

five_stages.c

** opening file test-normal-operation.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 8)(sReg_b: 9)(dReg: 10)

[cycle 6] LOAD: (PC: 1)(sReg_a: 89)(dReg: 233)(addr: 0)

[cycle 7] RTYPE: (PC: 2)(sReg_a: 8)(sReg_b: 9)(dReg: 0)

[cycle 8] STORE: (PC: 3)(sReg_a: 8)(sReg_b: 9)(addr: 1003)

[cycle 9] RTYPE: (PC: 4)(sReg_a: 5)(sReg_b: 6)(dReg: 7)

[cycle 10] LOAD: (PC: 5)(sReg_a: 5)(dReg: 3)(addr: 1005)

[cycle 11] RTYPE: (PC: 6)(sReg_a: 7)(sReg_b: 4)(dReg: 9)

[cycle 12] STORE: (PC: 7)(sReg_a: 3)(sReg_b: 2)(addr: 1007)

+ Simulation terminates at cycle : 12

Superscalar.c
** opening file test-normal-operation.tr

[cycle 5] RTYPE: (PC: 0)(sReg_a: 8)(sReg_b: 9)(dReg: 10)

[cycle 5] NOP:

[cycle 6] RTYPE: (PC: 2)(sReg_a: 8)(sReg_b: 9)(dReg: 0)

[cycle 6] NOP:

[cycle 7] RTYPE: (PC: 4)(sReg_a: 5)(sReg_b: 6)(dReg: 7)

[cycle 7] NOP:

[cycle 8] RTYPE: (PC: 6)(sReg_a: 7)(sReg_b: 4)(dReg: 9)

[cycle 8] NOP:

+ Simulation terminates at cycle : 8

customtrace1.tr

five_stages.c
** opening file customtrace1.tr

[cycle 5] LOAD: (PC: 2097312)(sReg_a: 29)(dReg: 16)(addr: 2147450880)

[cycle 6] RTYPE: (PC: 2097316)(sReg_a: 255)(sReg_b: 0)(dReg: 28)

[cycle 7] RTYPE: (PC: 2097320)(sReg_a: 28)(sReg_b: 0)(dReg: 28)

[cycle 8] STORE: (PC: 2097324)(sReg_a: 28)(sReg_b: 18)(addr: 268454020)

[cycle 9] LOAD: (PC: 2097328)(sReg_a: 30)(dReg: 12)(addr: 2147450887)

[cycle 10] BRANCH: (PC: 2097332)(sReg_a: 16)(sReg_b: 0)(addr: 21497352)

[cycle 11] RTYPE: (PC: 536918058)(sReg_a: 30)(sReg_b: 13)(dReg: 10)

[cycle 12] NOP:

[cycle 13] NOP:

[cycle 14] NOP:

+ Simulation terminates at cycle : 14

Superscalar.c
** opening file customtrace1.tr

[cycle 5] LOAD: (PC: 2097312)(sReg_a: 29)(dReg: 16)(addr: 2147450880)

[cycle 5] NOP:

[cycle 6] RTYPE: (PC: 2097320)(sReg_a: 28)(sReg_b: 0)(dReg: 28)

[cycle 6] NOP:

[cycle 7] LOAD: (PC: 2097328)(sReg_a: 30)(dReg: 12)(addr: 2147450887)

[cycle 7] NOP:

[cycle 8] RTYPE: (PC: 536918058)(sReg_a: 30)(sReg_b: 13)(dReg: 10)

[cycle 8] NOP:

[cycle 9] NOP:

[cycle 9] NOP:

+ Simulation terminates at cycle : 9

test-all-lwsws.tr

five_stages.c
** opening file test-all-lwsws.tr

[cycle 5] STORE: (PC: 0)(sReg_a: 17)(sReg_b: 14)(addr: 10000)

[cycle 6] STORE: (PC: 1)(sReg_a: 18)(sReg_b: 11)(addr: 20000)

[cycle 7] LOAD: (PC: 2)(sReg_a: 17)(dReg: 0)(addr: 30000)

[cycle 8] LOAD: (PC: 3)(sReg_a: 18)(dReg: 13)(addr: 40000)

[cycle 9] STORE: (PC: 4)(sReg_a: 5)(sReg_b: 4)(addr: 50000)

[cycle 10] STORE: (PC: 5)(sReg_a: 3)(sReg_b: 7)(addr: 60000)

[cycle 11] LOAD: (PC: 6)(sReg_a: 5)(dReg: 8)(addr: 70000)

[cycle 12] LOAD: (PC: 7)(sReg_a: 3)(dReg: 21)(addr: 80000)

+ Simulation terminates at cycle : 12

Superscalar.c
** opening file test-all-lwsws.tr

[cycle 5] STORE: (PC: 0)(sReg_a: 17)(sReg_b: 14)(addr: 10000)

[cycle 5] NOP:

[cycle 6] LOAD: (PC: 2)(sReg_a: 17)(dReg: 0)(addr: 30000)

[cycle 6] NOP:

[cycle 7] STORE: (PC: 4)(sReg_a: 5)(sReg_b: 4)(addr: 50000)

[cycle 7] NOP:

[cycle 8] LOAD: (PC: 6)(sReg_a: 5)(dReg: 8)(addr: 70000)

[cycle 8] NOP:

+ Simulation terminates at cycle : 8

The result of running your simulators with *trace_view_on* = 0 for each short and long trace file.

Short-Traces

Sample.tr

Five_stage.c
** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample.tr

+ Simulation terminates at cycle : 1004

Superscalar.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample.tr

+ Simulation terminates at cycle : 504

Sample1.tr

Five_stage.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample1.tr

+ Simulation terminates at cycle : 1000004

Superscalar.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample1.tr

+ Simulation terminates at cycle : 500004

Sample2.tr

Five_stage.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample2.tr

+ Simulation terminates at cycle : 1000004

Superscaler.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample2.tr

+ Simulation terminates at cycle : 500004

Sample3.tr

Five_stages.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample3.tr

+ Simulation terminates at cycle : 1000004

Superscalar.c

** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample3.tr

+ Simulation terminates at cycle : 500004

Sample4.tr

Five_stages.c
** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample4.tr

+ Simulation terminates at cycle : 3000004

Superscalar.c
** opening file /afs/cs.pitt.edu/courses/1541/short_traces/sample4.tr

+ Simulation terminates at cycle : 1500004

Long Traces

Sample_large1.tr

Five_stages.c
** opening file /afs/cs.pitt.edu/courses/1541/long_traces/sample_large1.tr

+ Simulation terminates at cycle : 93672793

Superscalar.c
** opening file /afs/cs.pitt.edu/courses/1541/long_traces/sample_large1.tr

+ Simulation terminates at cycle : 46836399

Sample_large2.tr

Five_stages.c
** opening file /afs/cs.pitt.edu/courses/1541/long_traces/sample_large2.tr

+ Simulation terminates at cycle : 93672793

Superscalar.c
** opening file /afs/cs.pitt.edu/courses/1541/long_traces/sample_large2.tr

+ Simulation terminates at cycle : 46836399