Brent Lee

Kunal Sharma

ECEC 621 Project 5B

1 Extra Credit: With an OoO memory controller, do you still need to consider data hazards?

Yes, there are RAW and WAW data hazards.

Trace	FCFS/OOO	Bank Conflicts (FCFS Only)	Execution Time
511.povray_r.trace.processed	FCFS	2129918	2287521
	OOO		1093652
520.omnetpp.trace.processed	FCFS	6292452	7054792
	OOO		5077278
523.xalancbmk_r.trace.processed	FCFS	6491281	6954365
	OOO		3120592
538.imagick_r.trace.processed	FCFS	19653100	20916912
	OOO		8378127
541.leela_r.trace.processed	FCFS	2247887	2314151
	OOO		442549

A smaller execution time indicates a better performance. The Out of Order memory controller significantly decreases the execution time of the traces. Therefore, the Out of Order memory controller has a greater performance compared to the First Come First Serve memory controller.