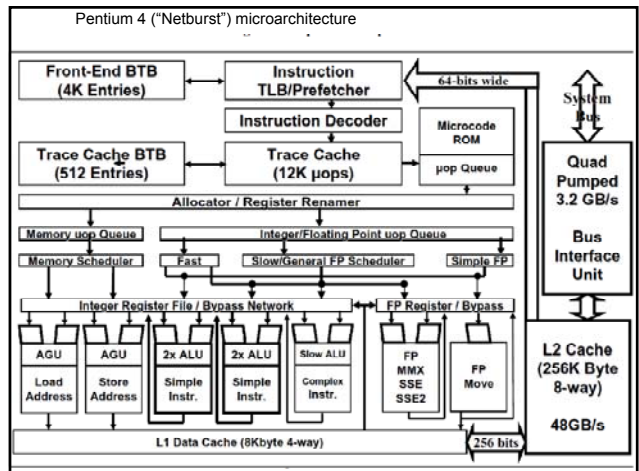
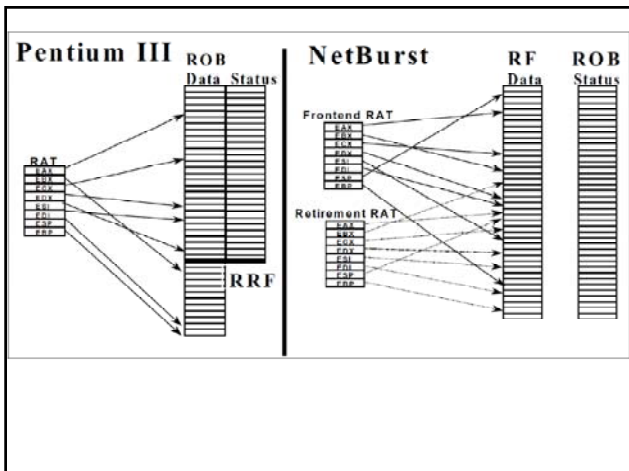
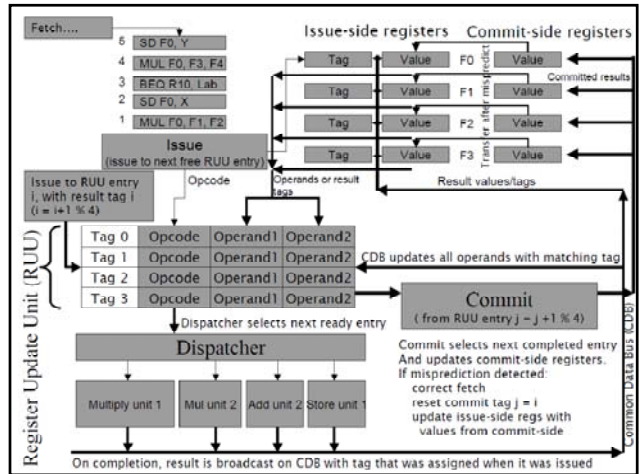


Chapter 3.5: design alternatives for o-o-o processor architectures

- See:
 - The Microarchitecture of the Pentium[®] 4 Processor (Hinton et al, Intel Tech Jnl Q1 2001)
 - The SimpleScalar Tool Set, Version 2.0 (Burger and Austin, http://www.simplescalar.com/docs/users_guide_v2.pdf)
 - Wattch: a framework for architectural-level power analysis and optimizations (Brooks et al, ISCA 2000) www.tortolaproject.com/papers/brooks00wattch.pdf

Paul Kelly Adv Comp Arch Imperial College London 2010



Basic Pentium III Processor Misprediction Pipeline

1	2	3	4	5	6	7	8	9	10
Fetch	Fetch	Decode	Decode	Decode	Rename	ROB Rd	Rdy/Sch	Dispatch	Exec

Basic Pentium 4 Processor Misprediction Pipeline

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TC Nxt IP	TC Fetch	Drive	Alloc	Rename	Que	Sch	Sch	Sch	Sch	Disp	Disp	RF	RF	Ex	Figs	Br CK	Drive		