

Block Diagram:

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Base  
Components

Pipeline  
Registers

Control Unit

Changes

Enables -  
1 - ID\_shift\_imm  
2 - ID\_ALU\_op  
3 - ID\_load\_instr  
4 - ID\_RF\_enable  
5 - EX\_RF\_enable  
6 - MEM\_RF\_enable  
7 - WB\_RF\_enable

Data Hazards by Load inst. -  
8 - Disable PC  
9 - Nop insertion selection  
10 - EX\_load\_instr  
11 - EX\_Rd

Forwarding Operand -  
12 - MEM\_load\_instr

Data Hazards -  
13 - Control\_Hazard  
14 - ID\_B\_instr  
15 - Condition Codes  
16 - Instruction Condition

