

Dependency Breaking Idioms

Instruction parallelism can be improved by using common instructions to clear register contents to zero. The renamer can detect them on the zero evaluation of the destination register.

Use one of these dependency breaking idioms to clear a register when possible.

- XOR REG,REG
- SUB REG,REG
- PXOR/VPXOR XMMREG,XMMREG
- PSUBB/W/D/Q XMMREG,XMMREG
- VPSUBB/W/D/Q XMMREG,XMMREG
- XORPS/PD XMMREG,XMMREG
- VXORPS/PD YMMREG, YMMREG

Since zero idioms are detected and removed by the renamer, they have no execution latency.