



Integer Arithmetic

		op_instr	a	b	result	compare	reg_wr_addr
ADDI	$Rd \leq Rs1 + \{ \{20\{imm[11]\}}, imm[11:0] \}$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	x	rd
SLTI	$Rd = (\$signed(Rs1) < \{ \{20\{imm[11]\}}, imm[11:0] \})$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	o	rd
SLTIU	$Rd = (Rs1 < \{ \{20\{imm[11]\}}, imm[11:0] \})$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	o	rd
XORI	$Rd \leq Rs1 \wedge \{ \{20\{imm[11]\}}, imm[11:0] \}$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	x	rd
ORI	$Rd \leq Rs1 \vee \{ \{20\{imm[11]\}}, imm[11:0] \}$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	x	rd
ANDI	$Rd \leq Rs1 \& \{ \{20\{imm[11]\}}, imm[11:0] \}$		Rs1	$\{ \{20\{imm[11]\}}, imm[11:0] \}$	o	x	rd
SLLI	$Rd \leq Rs1 \ll shamt[4:0]$		Rs1	shamt[4:0]	o	x	rd
SRLI	$Rd \leq Rs1 \gg shamt[4:0]$		Rs1	shamt[4:0]	o	x	rd
SRAI	$Rd \leq \$signed(Rs1) \ggg shamt[4:0]$		Rs1	shamt[4:0]	o	x	rd
AUIPC	$Rd \leq PC + \{ U-imm[31:12], \{12\{1'b0\} \} \}$		PC	$\{ U-imm[31:12], \{12\{1'b0\} \} \}$	o	x	rd
LUI	$Rd \leq \{ U-imm[31:12], \{12\{1'b0\} \} \}$		x0	$\{ U-imm[31:12], \{12\{1'b0\} \} \}$	o	x	rd
NOP			x0	0	x	x	x