

R , I , J Instructions (Register, Immediate, Jump)

MIPS Instruction Type Summary

(SHOWS HOW MANY BITS PER SEGMENT)

Instruction Type	Example	Instruction Coding						
	ALU Usage							
Non-Jump R-Type	add rd, rs, rt	R	<div><div>312625212016151110650</div><div><div>op</div><div>rs</div><div>rt</div><div>rd</div><div>sa</div><div>fn</div></div></div>					
	The ALU performs the operation indicated by the mnemonic, which is coded into the fn field.							
Immediate	addi rt, rs, imm	I	<div><div>312625212016150</div><div><div>op</div><div>rs</div><div>rt</div><div>imm</div></div></div>					
	The ALU performs the operation indicated by the mnemonic, which is coded into the op field.							
Branch	beq \$rs, \$rt, imm	I	<div><div>312625212016150</div><div><div>op</div><div>rs</div><div>rt</div><div>imm</div></div></div>					
	The ALU subtracts rt from rs for comparison.							
Load	lw rt, imm(rs)	I	<div><div>312625212016150</div><div><div>op</div><div>rs</div><div>rt</div><div>imm</div></div></div>					
	The ALU adds rs and imm to get the address.							
Store	sw rt, imm(rs)	I	<div><div>312625212016150</div><div><div>op</div><div>rs</div><div>rt</div><div>imm</div></div></div>					
	The ALU adds rs and imm to get the address.							
Non-Register Jump	jal target	J	<div><div>3126250</div><div><div>op</div><div>target</div></div></div>					
	The ALU is not used.							
Jump Register	jalr rd, rs	R	<div><div>312625212016151110650</div><div><div>op</div><div>rs</div><div>rt</div><div>rd</div><div>sa</div><div>fn</div></div></div>					
	The ALU is not used.							