

Architecture	Additional instruction formats	Format function and use
ARMv8	At least 10 (many small variations); major forms are shown.	Logical immediates with 13-bit immediate field.
		Shifts with constant amount. (16-bit opcode)
		16-bit immediate form
		Exclusive operations: three register fields
		Branch register: long opcode
		Load/store with address mode bits.
MIPS64	1	A PC-relative set of load/stores using register-immediate format but with 18-bit immediates (since the other source is the PC).
Power	9 (not including a number of small variations or the vector extensions)	DQ-mode: uses the ALU immediate form but takes four bits of the displacement for other functions.
		DQ-mode: uses the ALU immediate form but takes two bits of the displacement for other functions.
		DX-form: Like register-immediate. but with a register-source replaced by PC.
		MD, MDS formats: like register-register but used for shifts and rotates.
		X, XS, and several minor variations: used for indexed addressing modes, shifts, and a variety of extended purposes.
		Z22, Z23 formats: used for manipulating floating point numbers
RV64	2	SB format: a variant of the branch format with different immediate treatment
		UJ format: a variant of the jump/call format with different immediate treatment
SPARC	3	Another format for conditional branches containing 3 more bits of displacement (22 total versus 19) but no prediction hints.
		A format with 22-bit immediate used to load the upper half of a register,
		A format for conditional branches based on a register compare with zero.

FIGURE E.7 Other instruction formats beyond the four major formats of the previous figure. In some cases, there are formats very similar to one of the four core formats, but where a register field is used for other purposes. The Power architecture also includes a number of formats for vector operations.