PDP-1 summary

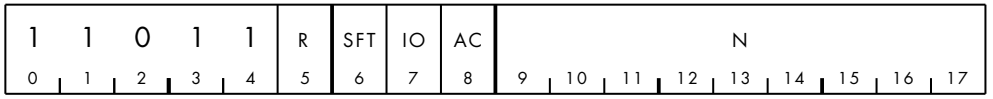
MAIN INSTRUCTIONS

00		
02 AND	AC ← AC ∧ C(Y)	AND
04 IOR	AC ← AC ∨ C(Y)	INCLUSIVE OR
06 XOR	AC ← AC ⊻ C(Y)	EXCLUSIVE OR
10 XCT	execute C(Y)	EXECUTE
12		
14		
16 CAL	JDA 100	CALL
17 JDA	C(Y) ← AC. AC ← PC. PC ← Y+1	JUMP, DEPOSIT AC
20 LAC	AC ← C(Y)	LOAD AC
22 LIO	IO ← C(Y)	LOAD IO
24 DAC	C(Y) ← AC	DEPOSIT AC
26 DAP	C(Y)6-17 ← AC	DEPOSIT ADDR. PART
30 DIP	C(Y)0-5 ← AC	DEPOSIT INST. PART
32 DIO	C(Y) ← IO	DEPOSIT IO
34 DZM	C(Y) ← 0	DEPOSIT ZERO
36		
40 ADD	AC ← AC + C(Y)	ADD
42 SUB	AC ← AC - C(Y)	SUBTRACT
44 IDX	C(Y), AC ← C(Y)+1	INDEX
46 ISP	IDX. AC ≥ 0: SKIP	INDEX, SKIP IF POSITIVE
50 SAD	AC ≠ C(Y): SKIP	SKIP IF DIFFERENT
52 SAS	AC = C(Y): SKIP	SKIP IF SAME
54 MUS		MULTIPLY STEP
56 DIS		DIVIDE STEP
60 JMP	PC ← Y	JUMP
62 JSP	AC ← PC. PC ← Y	JUMP, SAVE PC
64 SKP		SKIP GROUP
66 SFT		SHIFT GROUP
70 LAW	AC ← Y/~Y	LOAD AC WITH
72 IOT		IO TRANSFER
74		
76 OPR		OPERATE

SKIP GROUP

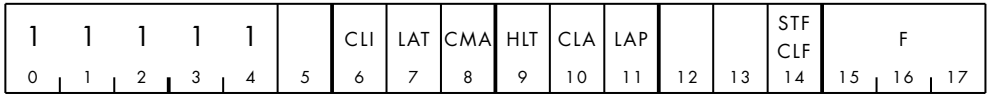
650000 SKP	reverse SKIP condition	SKIP
642000 SPI	IO0 = 0: SKIP	SKIP ON PLUS IO
641000 SZO	OV = 0: SKIP. OV ← 0	SKIP ON ZERO OV
640400 SMA	AC0 = 1: SKIP	SKIP ON MINUS AC
640200 SPA	AC0 = 0: SKIP	SKIP ON PLUS AC
640100 SZA	AC = +0: SKIP	SKIP ON ZERO AC
6400X0 SZS	SWn = 0: SKIP	SKIP ON ZERO SWITCH
64000X SZF	Fn = 0: SKIP	SKIP ON ZERO FLAG

SHIFT GROUP



SFT: 0: rotate (R__). 1: shift (S__)
IO:AC: 01: AC (_A_)
10: IO (_I_)
11: AC:IO (_C_)
R: 0: left (__L). 1: right (__R)
N: steps (number of 1's)

OPERATE GROUP



764000 CLI	IO ← 0	CLEAR IO
762000 LAT	AC ← AC ∨ TW	LOAD AC FROM TW
761000 CMA	AC ← ~AC	COMPLEMENT AC
760400 HLT	HALT	HALT
760200 CLA	AC ← 0	CLEAR AC
760100 LAP	AC ← AC ∨ PC	LOAD AC FROM PC
76000X CLF	Fn ← 0	CLEAR FLAG
76001X STF	Fn ← 1	SET FLAG