

6502 Instructionset

Nr	Opcode	Undocumented	Instruction
	0 00		BRK
	1 01		ORA (zp,X)
	2 02	*	HALT
	3 03	*	ASL-ORA (zp,X)
	4 04	*	NOP zp
	5 05		ORA zp
	6 06		ASL zp
	7 07	*	ASL-ORA zp
	8 08		PHP
	9 09		ORA #n
	10 0A		ASL A
	11 0B	*	AND #n/MOV b7->Cy
	12 0C	*	NOP abs
	13 0D		ORA abs
	14 0E		ASL abs
	15 0F	*	ASL-ORA abs
	16 10		BPL rel
	17 11		ORA (zp),Y
	18 12	*	HALT
	19 13	*	ASL-ORA (zp),Y
	20 14	*	NOP zp
	21 15		ORA zp,X
	22 16		ASL zp,X
	23 17	*	ASL-ORA abs,X
	24 18		CLC
	25 19		ORA abs,Y
	26 1A	*	NOP
	27 1B	*	ASL-ORA abs,Y
	28 1C	*	NOP abs
	29 1D		ORA abs,X
	30 1E		ASL abs,X
	31 1F	*	ASL-ORA abs,X
	32 20		JSR abs
	33 21		AND (zp,X)
	34 22	*	HALT
	35 23	*	ROL-AND (zp,X)
	36 24		BIT zp
	37 25		AND zp
	38 26		ROL zp
	39 27	*	ROL-AND zp
	40 28		PLP
	41 29		AND #n
	42 2A		ROL A
	43 2B	*	AND #n-MOV b7->Cy
	44 2C		BIT abs
	45 2D		AND abs
	46 2E		ROL abs
	47 2F	*	ROL-AND abs

48	30		BMI rel
49	31		AND (zp),Y
50	32	*	HALT
51	33	*	ROL-AND (zp),Y
52	34	*	NOP zp
53	35		AND zp,X
54	36		ROL zp,X
55	37	*	ROL-AND zp,X
56	38		SEC
57	39		AND abs,Y
58	3A	*	NOP
59	3B	*	ROL-AND abs,Y
60	3C	*	NOP abs
61	3D		ORA abs,X
62	3E		ASL abs,X
63	3F	*	ROL-AND abs,X
64	40		RTI
65	41		EOR (zp,X)
66	42	*	HALT
67	43	*	LSR-EOR (zp,X)
68	44	*	NOP zp
69	45		EOR zp
70	46		LSR zp
71	47	*	LSR-EOR zp
72	48		PHA
73	49		EOR #n
74	4A		LSR A
75	4B	*	AND #n-LSR A
76	4C		JMP abs
77	4D		EOR abs
78	4E		LSR abs
79	4F	*	LSR-EOR abs
80	50		BVC rel
81	51		EOR (zp),Y
82	52	*	HALT
83	53	*	LSR-EOR (zp),Y
84	54	*	NOP zp
85	55		EOR zp,X
86	56		LSR zp,X
87	57	*	LSR-EOR abs,X
88	58		CLI
89	59		EOR abs,Y
90	5A	*	NOP
91	5B	*	LSR-EOR abs,Y
92	5C	*	NOP abs
93	5D		EOR abs,X
94	5E		LSR abs,X
95	5F	*	LSR-EOR abs,X
96	60		RTS
97	61		ADC (zp,X)

98 62	*	HALT
99 63	*	ROR-ADC (zp,X)
100 64	*	NOP zp
101 65		ADC zp
102 66		ROR zp
103 67	*	ROR-ADC zp
104 68		PLA
105 69		ADC #n
106 6A		ROR A
107 6B	*	AND #n-ROR A
108 6C		JMP (abs)
109 6D		ADC abs
110 6E		ROR abs
111 6F	*	ROR-ADC abs
112 70		BCS rel
113 71		ADC (zp),Y
114 72	*	HALT
115 73	*	ROR-ADC (zp),Y
116 74	*	NOP zp
117 75		ADC zp,X
118 76		ROR zp,X
119 77	*	ROR-ADC abs,X
120 78		SEI
121 79		ADC abs,Y
122 7A	*	NOP
123 7B	*	ROR-ADC abs,Y
124 7C	*	NOP abs
125 7D		ADC abs,X
126 7E		ROR abs,X
127 7F	*	ROR-ADC abs,X
128 80	*	NOP zp
129 81		STA (zp,X)
130 82	*	HALT
131 83	*	STA-STX (zp,X)
132 84		STY zp
133 85		STA zp
134 86		STX zp
135 87	*	STA-STX zp
136 88		DEY
137 89	*	NOP zp
138 8A		TXA A
139 8B	*	TXA-AND #n
140 8C		STY abs
141 8D		STA abs
142 8E		STX abs
143 8F	*	STA-STX abs
144 90		BCC rel
145 91		STA (zp),Y
146 92	*	HALT
147 93	*	STA-STX (zp),Y

148	94		STY zp
149	95		STA zp,X
150	96		STX zp,Y
151	97	*	STA-STX zp,Y
152	98		TYA
153	99		STA abs,Y
154	9A		TXS
155	9B	*	STA-STX abs,Y
156	9C	*	STA-STX abs,X
157	9D		STA abs,X
158	9E	*	STA-STX abs,X
159	9F	*	STA-STX abs,X
160	A0		LDY #n
161	A1		LDA (zp,X)
162	A2		LDX #n
163	A3	*	LDA-LDX (zp,X)
164	A4		LDY zp
165	A5		LDA zp
166	A6		LDX zp
167	A7	*	LDA-LDX zp
168	A8		TAY
169	A9		LDA #n
170	AA		TAX
171	AB	*	LDA-LDX
172	AC		LDY abs
173	AD		LDA abs
174	AE		LDX abs
175	AF	*	LDA-LDX abs
176	B0		BCS rel
177	B1		LDA (zp),Y
178	B2	*	HALT
179	B3	*	LDA-LDX (zp),Y
180	B4		LDY zp
181	B5		LDA zp,X
182	B6		LDX zp,Y
183	B7	*	LDA-LDX zp,Y
184	B8		CLV
185	B9		LDA abs,Y
186	BA		TSX
187	BB	*	LDA-LDX abs,Y
188	BC		LDY abs,X
189	BD		LDA abs,X
190	BE		LDX abs,Y
191	BF	*	LDA-LDX abs,Y
192	C0		CPY #n
193	C1		CMP (zp,X)
194	C2	*	HALT
195	C3	*	DEC-CMP (zp,X)
196	C4		CPY zp
197	C5		CMP zp

198	C6		DEC zp
199	C7	*	DEC-CMP zp
200	C8		INY
201	C9		CMP #n
202	CA		DEX
203	CB	*	SBX #n
204	CC		CPY abs
205	CD		CMP abs
206	CE		DEC abs
207	CF	*	DEC-CMP abs
208	D0		BNE rel
209	D1		CMP (zp),Y
210	D2	*	HALT
211	D3	*	DEC-CMP (zp),Y
212	D4	*	NOP zp
213	D5		CMP zp,X
214	D6		DEC zp,X
215	D7	*	DEC-CMP zp,X
216	D8		CLD
217	D9		CMP abs,Y
218	DA	*	NOP
219	DB	*	DEC-CMP abs,Y
220	DC	*	NOP abs
221	DD		CMP abs,X
222	DE		DEC abs,X
223	DF	*	DEC-CMP abs,X
224	E0		CPX #n
225	E1		SBC (zp,X)
226	E2	*	HALT
227	E3	*	INC-SBC (zp,X)
228	E4		CPX zp
229	E5		SBC zp
230	E6		INC zp
231	E7	*	INC-SBC zp
232	E8		INX
233	E9		SBC #n
234	EA		NOP
235	EB		SBC #n
236	EC		CPX abs
237	ED		SBC abs
238	EE		INC abs
239	EF	*	INC-SBC abs
240	F0		BEQ rel
241	F1		SBC (zp),Y
242	F2	*	HALT
243	F3	*	INC-SBC (zp),Y
244	F4	*	NOP zp
245	F5		SBC zp,X
246	F6		INC zp,X
247	F7	*	INC-SBC zp,X

248 F8		SED
249 F9		SBC abs,Y
250 FA	*	NOP
251 FB	*	INC-SBC abs,Y
252 FC	*	NOP abs
253 FD		SBC abs,X
254 FE		INC abs,X
255 FF	*	INC-SBC abs,X