

LD BC, 0004	01, 04, 00
DEC BC	0B
LD HL, 0000	21, 00, 00
DEC HL	2B
LDA, H	2C
OR L	B5
JR NZ	20, FB
LDA, B	28
OR C	B1
JR NZ	20, F3
LDA, 00	3E, 00
OUT (1D), A	D3, 1D
LDA, 80	3E, 80
OUT (1B), A	D3, 1B
OUT (1A), A	D3, 1A
LDA, 00	
OUT (1D), A	
LD HL, (8018)	2A, 18, 80
PUSH HL	E5
LD HL, 9000	21, 00, 90
LD (8018), HL	22, 18, 80
CALL (R _x)	CD, 05, 03
CALL (R ₂ enc)	CD, 14, 04
POP HL	E1
LD (8018), HL	22, 18, 80
LDA, B5	3E, B5 ³²⁸¹⁵
OUT (1D), A	D3, 1D
LD DE, 8000	11, 00, 80 ³²⁸²⁰
LD HL, 9000	21, 00, 90
LD BC, 4000	01, 00, 40

18 FE

LD A, D	2A
OUT (1A), A	D3, 1A
LDA, E	2B
OUT (1A), A	D3, 1A
LDA, (HL)	2E
OUT (1B), A	D3, 1B
LDA, D	2A
AND 2F	E6, 2F
OUT (1A), A	D3, 1A
PUSH HL	E5 ³²⁸⁴³
LD HL, 2000	21, 00, 20
DEC HL	2B
LDA, H	2C
OR L	B5
JR NZ	20, FB
POP HL	E1
LDA, D	2A
OUT (1A), A	D3, 1A
INC DE	13
INC HL	23
DEC BC	0B
LDA, B	28
OR C	B1
JR NZ	20, DE (E1)
POP DE	D1
POP BC	C1
POP HL	E1
POP AF	F1
RTN	ED, 45
LDA 00	3E, 00
OUT (1D), A	D3, 1D
LDA, 80	3E, 80
OUT (1B), A	D3, 1B

(A)

WRITROM. 5.00

LD HL, (8018)	2A, 18, 80
PUSH HL	E5
LD HL, 9000	21, 00, 90
LD (8018), HL	22, 18, 80
CALL (RA)	CD, 05, 03
CALL (RA - 05)	CD, 14, 04
POP HL	E1
LD (8018), HL	22, 18, 80
LDA A, [BS]	3E [BS] 32 8 8 2
OUT (1D), A	D3, 1D
LD DE, C000	11, 00, [C0]
LD HL, 9000	21, 00, 90
LD BC, 4000	01, 00, 40
LD A, D	2A 4A
OUT (1A), A	D3, 1A
LDA, E	2B ←
OUT (19), A	D3, 19
LDA, (HL)	2E
OUT (18), A	D3, 18
LDA, D	2A
AND DF	EC, DF
OUT (1A), A	D3, 1A
PUSH HL	E5 32 9 11
LD HL, [2000]	21, 00, [20]
DEC HL	2B
LDA, H	2C
OR L	B5
JR NZ	20, FB
POP HL	E1
LD A, D	2A
OUT (1A), A	D3, 1A
INC DE	13
INC HL	23
DEC BC	0B

LD A, B	28
OR C	B1
JR NZ	20, E1 E1

AP 44

LD BC, 0004	01, 04, 00			
DEC BC	0B			
LD HL, 0000	21, 00, 00			
DEC HL	2B			
LD A, H	2C			
ORL	B5			
JR NZ	20, FB			
LD A, B	28			
OR C	B1			
JR NZ	20, F3			
LD A, 00	3E, 00			
OUT (1D), A	D3, 1D			
LD A, 80	3E, 80			
OUT (1B), A	D3, 1B			
OUT (1A), A	D3, 1A			
LD HL, (8018)	2A, 18, 80			
PUSH HL	E5			
LD HL, 9000	21, 00, 90			
LD (8018), HL	22, 18, 80			
CALL, (Rx)	CD, 05, 03			
CALL (Rx cnc)	CD, 14, 04			
POP HL	E1			
LD (8018), HL	22, 18, 80			

LD BC, 0004	01, 04, 00
DEC BC ←	0B
LD HL, 0000	21, 00, 00
DEC HL ←	2B
LD A, H	2C
OR L	B5
JR NZ	20, FB
LD A, B	28
OR C	B1
JR NZ	20, F3
LD A, 00	3E, 00
OUT(1D), A	D3, 1D
LD A, 90	3E, 90
OUT(1B), A	D3, 1B
LD A, C0	3E, C0
OUT(1A), A	D3, 1A
LD A, B5	3E, B5 (12V _{cc})
OUT(1D), A	D3, 1D @32802
LD DE, 8000	11, 00, 80 ←
LD HL, 9000	21, 00, 90
LD BC, 4000	01, 00, 40
LD A, D ←	2A
AND 2F	E6, 2F
OUT(1A), A	D3, 1A
LD A, E	2B
OUT(19), A	D3, 19
IN A, (18)	DB, 18
LD (HL), A	22
INC DE	13
INC HL	23
DEC BC	0B
LD A, B	28
OR C	B1
JR NZ	20, EE

LD A, 00	3E, 00
OUT(1D), A	D3, 1D
LD A, 80	3E, 80
OUT(1B), A	D3, 1B
LD HL, (8018)	2A, 18, 80
PUSH HL	E5
LD HL, 9000	21, 00, 90
LD(8018), HL	22, 18, 80
LD HL, 4000	21, 00, 40
LD(8016), HL	22, 16, 80
CALL (T _{cc})	CD, FF, 03
CALL (T ₁)	CD, 21, 03
POP HL	E1
LD(8018), HL	22, 18, 80
POP DE	D1
POP BC	C1
POP HL	E1
POP AF	F1
RTN	ED, 45

8	LD BC, 0004	01, 04, 00	844	LD A, 02	3E, 02
1	DEC BC	0B	46	OUT (E4), A	D3, E4
2	LD HL, 0000	21, 00, 00	48	LD A, 49	3E, 49
5	DEC HL	2B	50	OUT (F1), A	D3, F1
6	LD A, H	2C	52	LD A, 49	3E, 49
7	OR L	B5	54	OUT (F1), A	D3, F1
8	JR NZ	20, FB	56	LD A, 09	3E, 09
10	LD A, B	28	58	OUT (F1), A	D3, F1
11	OR C	B1	60	LD HL, (8018)	2A, 18, 80
12	JR NZ	20, F3	63	PUSH HL	E5
14	LD A, 3C	3E, 3C	64	IN A, (F2)	DB, F2
15	OUT (E8), A	D3, E8	66	AND 01	EC, 01
18	LD A, 80	3E, 80	68	CP 02	FE, 02
19	OUT (E8), A	D3, E8	70	JR NZ	20, FB
22	LD A, 02	3E, 02	72	LD A, 3C	3E, 3C
24	OUT (E8), A	D3, E8	74	OUT (E2), A	D3, E2
26	LD BC, 0004	01, 04, 00	76	LD A, 29	3E, 29
27	DEC BC	0B	78	OUT (F1), A	D3, F1
28	LD HL, 0000	21, 00, 00	80	LD A, 09	3E, 09
29	DEC HL	2B	82	LD (8038), A	32, 38, 80
30	LD A, H	2C	85	LD A, (8038)	3A, 38, 80
31	OR L	B5	88	DEC, A	3D
32	JR NZ	20, FB	89	JR Z	28, 2B
33	LD A, B	28	91	LD (8038), A	32, 38, 80
34	OR C	B1	94	LD HL, 9000	21, 00, 90
35	JR NZ	20, F3	92	LD (8018), HL	22, 18, 80
36	LD A, 3C	3E, 3C	900	LD BC, 4000	01, 00, 40
37	OUT (E8), A	D3, E8	03	LD (8016), BC	ED, 43, 16, 80
38	LD BC, 0004	01, 04, 00	02	IN A, F0	DB, F0
39	DEC BC	0B	09	LD (HL), A	2A
40	LD HL, 0000	21, 00, 00	10	INC HL	23
41	DEC HL	2B	11	DEC BC	0B
42	LD A, H	2C	12	LD A, B	28
43	OR L	B5	13	OR C	B1
44	JR NZ	20, FB	14	JR Z	28, 0A
45	LD A, B	28	16	LD A, 31	3E, 31
46	OR C	B1	18	OUT (F1), A	D3, F1
47	JR NZ	20, F3	20	LD A, 39	3E, 39
48	LD A, 91	3E, 91	22	OUT (F1), A	D3, F1
49	OUT (F3), A	D3, F3	24	JR	18, ED
50	LD A, 3C	3E, 3C	26	CALL (TX CRC)	CD, FF, 03
51	OUT (E2), A	D3, E2			
52	LD A, 80	3E, 80			
53	OUT (E4), A	D3, E4			

GEN 2800PV

LD BC, 0004	01, 04, 00
DEC BC ←	0B
LD HL, 0000	21, 00, 00
DEC HL ←	2B
LD A, H	2C
OR L	B5
JR NZ	20, FB
LD A, B	2B
OR C	B1
JR NZ	20, F3
PUSH LD HL, (8018)	2A, 18, 80
PUSH HL	ES
LD A,	3E, 21
OUT (F3), A	D3, F3
LD A,	3E, F1
OUT (F1), A	D3, F1
LD A, 3C	3E, 3C
OUT (ER), A	D3, ER
LD A, 09	3E, 09
LD (8038), A	32, 38, 80
LD A, (8038)	3A, 38, 80 ←
DEC, A	3D
JR Z	28,
LD (8038), A	32, 38, 80
LD HL, 9000	21, 00, 90
LD (8018), HL	22, 18, 80
LD BC, 0000	01, 00, 00
CALL (Rx)	
CALL (Rx CRC)	

LD BC, 0004	01, 04, 00	36 LDA, 02	3E, 02
DEC BC	0B	38 OUT (E8), A	D3, E8
LD HL, 0000	21, 00, 00	40 LD BC, 0004	01, 04, 00
DEC HL	2B	43 DEC BC	0B
LD A, H	2C	44 LD HL, 0000	21, 00, 00
OR L	B5	4A DEC HL	2B
JR NZ	20, FB	4B LD A, H	2C
LD A, B	28	49 OR L	B5
OR C	B1	50 JR NZ	20, FB
JR NZ	20, F3	52 LD A, B	28
LD A, 91	3E, 91	53 OR C	B1
OUT (F3), A	D3, F3	54 JR NZ	20, F3
LD A, 3C	3E, 3C	56 LDA, 3C	3E, 3C
OUT (E2), A	D3, E2	58 OUT (EB), A	D3, EB
LDA, 80	3E, 80	60 LD HL, (8018)	2A, 18, 80
OUT (E4), A	D3, E4	63 PUSH HL	E5
LDA, 02	3E, 02	64 IN A, (F2)	DB, F2
OUT (E4), A	D3, E4	66 AND 01	E6, 01
LD A, 49	3E, 49 (31)	68 CP 01	FE, 01
OUT (F1), A	D3, F1 (E8)	70 JR NZ	20, F8
LD A, 49	3E, 49	72 LD A, 3C	3E, 3C
OUT (F1), A	D3, F1	74 OUT (E2), A	D3, E2
LD A, 09	3E, 09	76 LD A, 29	3E, 29
OUT (F1), A	D3, F1	78 OUT (F1), A	D3, F1
LD BC, 0004	01, 04, 00	80 LD A, 09	3E, 09
DEC BC	0B	82 LD (8038), A	32, 38, 80
LD HL, 0000	21, 00, 00	85 LD A, (8038)	3A, 38, 80 (2)
DEC HL	2B	88 DEC A	3D
LD A, H	2C	89 JR Z	28, 2B
OR L	B5	91 LD (8038), A	32, 38, 80
JR NZ	20, FB	94 LD HL, 9000	21, 00, 90
LD A, B	28	92 LD (8018), HL	22, 18, 80
OR C	B1	900 LD BC, 4000	01, 00, 40
JR NZ	20, F3	03 LD (801C), BC	ED, 43, 1C, 80
LD A, 3C	3E, 3C	02 IN A, FB	DB, FB (2)
OUT (EB), A	D3, EB	09 LD (HL), A	22
LD A, 80	3E, 80	10 INC HL	23
OUT (E8), A	D3, E8	11 DEC BC	0B

C-4A

START SCAN

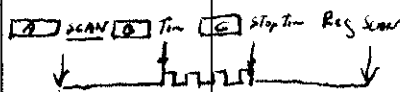
C-4B

START TIME

TOP
TIM

②

2 LD A, B	28	
3 OR C	B1	
4 JR Z →	28, 0A	→ ⑦
6 LD A, 31	3E, 31	
8 OUT (F1), A	D3, F1	
0 LD A, 39	3E, 39	
2 OUT (F1), A	D3, F1	
4 JR →	18, ED	→ ⑧
6 CALL (Tn reg)	CD, FF, 03	
9 CALL (Tn)	CD, 21, 03	
L JR →	18, CF	→ ⑨
4 LD A, C9	3E, C9	
6 OUT (F1), A	D3, F1	
8 POP HL	E1	
4 LD (8018), HL	22, 18, 80	
2 POP DE	D1	
3 POP BC	C1	
4 POP HL	E1	
5 POP AF	F1	
6 RTN	ED, 45	



~~INIT~~ INIT TIMER nTim. bus (32268)

LDBC, 0004	01, 04, 00
DEC BC	0B
LD HL, 0000	21, 00, 00
DEC HL	2B
LD A, H	2C
OR L	B5
JR NZ	20, FB
LD A, B	28
OR C	B1
JR NZ	20, F3
LD A, 91	3E, 91
OUT (F3), A	D3, F3
LD A, 36	3E, 36 ← (32289)
OUT (E2), A	D3, E2 ← (32291)
LD A, 80	3E, 80 ← (32293)
OUT (E4), A	D3, E4 ← (32295)
LD A, 02	3E, 02 ← (32297)
OUT (E4), A	D3, E4 ← (32299)
LD A, A1	3E, A1
OUT (F1), A	D3, F1
POP DE	D1
POP BC	C1
POP HL	E1
POP AF	F1
RTN	ED, 45

DEF SEG = 44400
 BLOAD "pgm/nim",
 32268
 POKE

strmi. bas

SCAN TIMER

68	LD BC, 0004	01, 04, 00	
21	DEC BC	0B	
22	LD HL, 0000	21, 00, 00	
25	DEC HL	2B	
26	LD A, H	2C	
22	OR L	B5	
28	JR NZ	20, FB	
80	LD A, B	28	
81	OR C	B1	
82	JR NZ	20, F3	
84	LD HL, (8018)	2A, 18, 80	
82	PUSH HL	E5	
89	LD A, 91	3E, 91	SPEED
90	OUT (F3), A	D3, F3	
92	LD A, 36	3E, 36	
94	OUT (E2), A	D3, E2 (32202)	
96	LD A, 80	3E, 80	(L)
98	OUT (E4), A	D3, E4	
00	LD A, 02	3E, 02	(H)
02	OUT (E4), A	D3, E4 (32801)	
04	LD A, 49	3E, 49 (136)	
06	OUT (F1), A	D3, F1 (E2) WR	
08	LD A, 49	3E, 49	
10	OUT (F1), A	D3, F1	START
12	LD A, 09	3E, 09	
14	OUT (F1), A	D3, F1	
16	IN A, (F2)	DB, F2	
18	AND 01	EC, 01	Wait END
20	CP 01	FE, 01	
22	JR NZ	20, FB	
24	LD A, 36	3E, 36	Stop Timer
26	OUT (E2), A	D3, E2	
28	LD A, 29	3E, 29	Rand Mod +80
30	OUT (F1), A	D3, F1	
32	LD A, 09	3E, 09	(B H)
34	LD (8038), A	32, 38, 80	
		(32833)	

32	LD A, (8038), A	3A, 38, 80	
40	DEC A	3D	
41	JR Z → (t)	28, 2B	
43	LD (8038), A	32, 38, 80	
46	LD HL, 9000	21, 00, 90 (3285)	
49	LD (8018), HL	22, 18, 80 (2285)	
52	LD BC, 4000	01, 00, 40	
55	LD (8016), BC	ED, 43, 16, 80	
59	IN A, (F0)	DB, F0	
61	LD (HL), A	22	
62	INC HL	23	
63	DEB BC	0B	
64	LD A, B	28	
65	OR C	B1	
66	JR Z → (y)	28, 0A	
68	LD A, 31	3E, 31	
20	OUT (F1), A	D3, F1	
22	LD A, 39	3E, 39	
24	OUT (F1), A	D3, F1	
26	JR → (x)	18, ED	
28	CALL (TA CRE)	CD, FF, 03	
81	CALL (TA)	CD, 21, 03	
84	JR → (3)	18, CF	
86	LD A, C9	3E, C9	STOP
68	OUT (F1), A	D3, F1	
90	POP HL	E1	
91	LD (8018), HL	22, 18, 80	Exit
94	POP DE	D1	
95	POP BC	C1	
96	POP HL	E1	
92	POP AF	F1	
98	RTN	ED, 45	

4

00	21, φφ, Dφ	LD HL, Dφφφ	42	CD, 8C, 88	CALL (Min.)
03	3E, φφ	LD A, φφ	4A	CD, A2, 88	CALL (Max)
05	22	LD (HL), A	4D	23	INC HL
06	23	INC HL	4E	13	INC DE
07	2C	LD A, H	4F	2C	LD A, H
08	FE, F8	CP F8	50	FE, F8	CP F8
0A	20, F2	JR NZ	52	20, F3	JR NZ
0C	2A, 18, 80	LD HL, (8018)	54	21, φφ, Dφ	LD HL, Dφφφ
0E	F5	PUSH HL	52	22, 18, 80	LD (8018), HL
10	21, φφ, F0	LD HL, F0φφ	5A	21, φφ, 28	LD HL, 2800
13	22, 42, 8φ	LD (8042), HL	5D	22, 16, 80	LD (8016), HL
16	21, φφ, 9φ	LD HL, 9φφφ	60	CD, FF, φ3	CALL (T _{max})
19	11, φφ, φφ	LD DE, φφφφ	63	CD, 21, φ3	CALL (T*)
1C	23	INC HL	66	E1	POP HL
1D	13	INC DE	62	22, 18, 80	LD (8018), HL
1E	23	INC HL	6A	D1	POP DE
1F	13	INC DE	6B	C1	POP BC
20	3E, φφ	LD A, φ	6C	E1	POP HL
22	32, 40, 8φ	LD (8040), A	6D	F1	POP AF
25	CD, 8C, 88	CALL (Min.)	6E	ED, 45	RTN
28	CD, A2, 88	CALL (Max)		(Difference)	
2B	23	INC HL	88	20, 3A, 4φ, 8φ	LD A, (8040)
2C	13	INC DE	23	96	SUB (HL)
2D	2C	LD A, H	24	38, φE	JRC
2E	FE, Dφ	CP Dφ	26	ED, 4B, 42, 80	LD BC (8042)
30	20, F3	JR NZ	2A	φ2	LD (BC), A
32	21, φφ, φφ	LD HL, φφφφ	2B	φ3	INC BC
35	22, 42, 80	LD (8042), HL	2C	ED, 43, 42, 80	LD (8042), BC
38	21, φφ, F0	LD HL, F0φφ	80	32, 40, 80	LD (8040), A
3B	11, φφ, φφ	LD DE, φφφφ	83	C9	RET
3E	23	INC HL	84	3A, 40, 80	LD A, (8040)
3F	13	INC DE	82	4F	LD C, A
40	23	INC HL	88	2E	LD A, (HL)
41	13	INC DE	89	91	SUB C
42	3E, φφ	LD A, φ	8A	18, EA	JR
44	32, 40, 80	LD (8040), A			

Min	
8C 7E	LD A, (HL)
8D 2B	DEC HL
8E BE	CP (HL)
8F 38, 0F	JR C
91 7E	LD A, (HL)
92 2B	DEC HL
93 BE	CP (HL)
94 30, 09	JR NC
96 23	INC HL
92 CD, 20, 88	CALL (Difference)
9A CD, 88, 88	CALL (Min/Max)
9D 18, 04	JR
9F 23	INC HL
00 23	INC HL
01 C9	RET

Max	
02 7E	LD A, (HL)
03 2B	DEC HL
04 BE	CP (HL)
05 30, 0F	JR NC
07 7E	LD A, (HL)
08 2B	DEC HL
09 BE	CP (HL)
0A 38, 09	JR C
0C 23	INC HL
0D CD, 20, 88	CALL (Difference)
0F CD, 88, 88	CALL (Min/Max)
13 18, 01	JR
15 23	INC HL
16 23	INC HL
17 C9	RET

18		
----	--	--

(M1 - Max R)

8	E5		PUSH HL				PUSH HL
9	32		LD A, E SCF				SCF
A	3F		CCF				CCF
B	2B	2A	LD A, E LDA, D				LD A, E
C	4A	1F	RLA RRA				RLA
D	5F	52	LDE, A LDD, A				LDE, A
E	2A	2B	LD A, D LDA, E				LDA, D
F	4A	1F	RLA RRA				RLA
0	5F	5F	LDD, A LDE, A				LDD, A
1	21, 00, D0		LD HL, D000				LD HL, D000
4	19		ADD HL, DE				ADD HL, DE
5	34		INC (HL)				
6	E1		POP HL				
2	11, 00, 00		LD DE, 0000				
A	49		RET				
6	2A, FE, F2		LD HL, (F2FE)				
9	23		INC HL HL				
A	22, FE, F2		LD (F2FE), HL				
D	E1		POP HL				
E	11, 00, 00		LD DE, 0000				
1	49		RET				

iport → (32218)

vin. bus

LD BC, 0004	01, 04, 00
DEC BC	0B
LD HL, 0000	21, 00, 00
DEC HL	2B
LD A, H	2C
OR L	B5
JR NZ	20, FB
LDA, B	28
OR C	B1
JR NZ	20, F3
IN A, (F3)	DB, F3 (32215)
LD HL, (8018)	2A, 18, 80
PUSH HL	E5
LD HL, 9000	21, 00, 90
LD (8018), HL	22, 18, 80
LD HL, 0002	21, 02, 00
LD (8016), HL	22, 16, 80
LD (9000), A	32, 00, 90
CALL (Tx, cr)	CD, FF, 03
CALL (Tx)	CD, 21, 03
POP HL	E1
LD (8018), HL	22, 18, 80
POP DE	D1
POP BC	C1
POP HL	E1
POP AF	F1
RTN	ED, 45

LD BC, 0004	01, 04, 00
DEC BC	0B
LD HL, 0000	21, 00, 00
DEC HL	2B
LD A, H	2C
OR L	B5
JR NZ	20, FB
LDA, B	28
OR C	B1
JR NZ	20, F3
LD HL, (8018)	2A, 18, 80
PUSH HL	E5 ³²²⁸⁹
LD A, 01	3E, 01
OUT (1E), A	D3, 1E
CALL (Vin)	CD, 48, 00
LD (8018), HL	
LD HL, 801F	21, 1F, 80
LD (8018), HL	22, 18, 80
LD HL, 0002	21, 02, 00
LD (8016), HL	22, 16, 80
CALL (Tx, cr)	CD, FF, 03
CALL (Tx)	CD, 21, 03
POP HL	E1
LD (8018), HL	22, 18, 80
POP DE	D1
POP BC	C1
POP HL	E1
POP AF	F1
RTN	ED, 45

(nFont. bus) & nport. bus → (32208) borrow. bus

0 LD BC, 0004	01, 04, 00	8800 LD HL, 9000	21, 00, 90
3 DEC BC	0B ← 23 ← 24	03 LD A, 00	3E, 00
4 LD HL, 0000	21, 00, 00	05 LD HL, A	22
2 DEC HL	2B	06 INC HL	23
8 LD A, H	2C	02 LD A, H	2C
9 OR L	B5	08 CP 00	FE, 00
A SR NZ	20, FB	0A SR NZ	20, F2
C LD A, B	28	0C POP DE	D1
D OR C	B1	6D POP BC	C1
E SR NZ	20, F3	0E POP HL	E1
0 LD A, 91	3E, 91 (32285)	6F POP AF	F1
2 OUT (F3), A	D3, F3 (32282)	10 RTN	ED, 45
4 POP DE	D1		
5 POP BC	C1		
6 POP HL	E1		
2 POP AF	F1		
8 RTN	ED, 45		

<u>borrow. bus</u>			
32208	LD HL, 9000	21, 00, 90	
21	LD BC, 6000	01, 00, 60	
24	LD D, 00	1E, 00	
26	LD (HL), D	22	
22	INC HL	23	
28	DEC BC	0B	
29	LD A, B	28	
80	OR C	B1	
81	SR NZ	20, F9	
83	POP DE	D1	
84	POP BC	C1	
85	POP HL	E1	
86	POP AF	F1	
82	RTN	ED, 45	

32266

median .log 2000/8000/(4152)

1E	MOV PUSH DS
B8, 00, 40	MOV AX, 4000
8E, D8	MOV DS, AX.
BB, 00, 00	MOV BX, 0000
BF, 00, 00	MOV DI, 0000
B0, 00	MOV AL, 00
B9, 00, 00	MOV CX, 0000
83, F9, 00	MOV CMP CX, 00
75, 04	JNZ
1F	RET POP DS
C3, 00, 00	RET 0000
88, 01	MOV(BX+DI), AL
42	INC DI
49	DEC CX
EB, F1	SMP

segen. bas

8 LD BC, 0004	01, 04, 00	53 JR → ②	18, CB
1 DEC BC	0B	55 LD A, 91 ← ①	3E, 91
2 LD HL, 0000	21, 00, 00	52 OUT (F3), A	D3, F3
5 DEC HL	2B	59 LD A, F1	3E, F1
6 LD A, H	2C	61 OUT (F1), A	D3, F1
2 OR L	B5	63 LDA, 36	3E, 36
28 JR NZ	20, FB	65 OUT (E2), A	D3, E2
10 LD A, B	28	12 LD A, 80	3E, 80 (xx)
1 OR C	B1	69 OUT (E4), A	D3, E4
2 JR NZ	20, F3	21 LDA, 02	3E, 02 (xx)
4 LD HL, (8018)	2A, 18, 80	23 OUT (E4), A	D3, E4
2 PUSH HL	E5	25 LDA, 29	3E, 29 (36)
28 LDA, 81	3E, 81	22 OUT (F1), A	D3, F1 (E2)
10 OUT (F3), A	D3, F3	29 LD HL, 0004	21, 04, 00
2 LDA, F9	3E, F9	82 LDA, 29 ←	3E, 29 (2 ^{xxxx})
4 OUT (F1), A	D3, F1	84 OUT (F1), A	D3, F1
6 LD HL, 0008	21, 08, 00	86 LDA, 39	3E, 39 (3 ^{xxxx})
9 LD (8038), HL	22, 38, 80	88 OUT (F1), A	D3, F1
2 LD HL, (8038) ← ②	2A, 38, 80	90 IN A, (F2) ←	DB, F2
5 LDA, H	2C	92 AND 01	EC, 01
6 OR L	B5	94 CP 01	FE, 01
2 JR Z → ①	28, 2E	96 JR NZ	20, FB
9 DEC HL	2B	98 DEC HL	2B
10 LD (8038), HL	22, 38, 80	99 LDA, H	2C
13 LD HL, 9000	21, 00, 90	329 00 OR L	B5
16 LD (8018), HL	22, 18, 80	01 JR NZ	20, EB
19 CALL Rn	CD, 05, 03	03 LDA, 91	3E, 91
22 CALL Rxcrc	CD, 14, 04	05 OUT (F1), A	D3, F1
25 LD HL, 9000	21, 00, 90	02 POP HL	E1
28 LD BC, (8016)	ED, 4B, 16, 80	08 LD (8018), HL	22, 18, 80
32 LDA, 11	3E, 11	11 POP DE	D1
34 OUT (F1), A	D3, F1	12 POP BC	C1
36 LDA, 31	3E, 31	13 POP HL	E1
38 OUT (F1), A	D3, F1	14 POP AF	F1
40 LDA, (HL)	2E	15 RTN	ED, 45
41 OUT (F0), A	D3, F0		
43 LDA, 39	3E, 39		
45 OUT (F1), A	D3, F1		
42 INC HL	23		
48 DEC BC	0B		
49 LDA, B	28		
50 OR C	B1		
51 JR NZ	20, EB		

scpu gen. bas

8 LDA, 0004	01, 04, 00	51 LDA, 31	3E, 31
1 DEC BC	0B	53 OUT(F1), A	D3, F1
2 LD HL, 0000	21, 00, 00	55 LD DE, 8000	11, 00, 80
5 DEC HL	2B	58 DEC DE	1B (Delay)
6 LDA, H	2C	59 LDA, D	2A
2 ORL	B5	60 OR E	B3
8 JR NZ	20, FB	61 JR NZ	20, FB
10 LDA, B	28	63 LDA, 39	3E, 39
11 ORL	B1	65 OUT(F1), A	D3, F1
12 JR NZ	20, F3	62 DEC BC	0B
14 LD HL, (8018)	2A, 18, 80	68 LDA, B	28
32 PUSH HL	E5	69 ORL	B1
		70 JR NZ	20, EB
88 LDA, 81	3E, 81	72 DEC HL	2B
90 OUT(F3), A	D3, F3	73 LDA, H	2C
92 LDA, 59	3E, 59	74 ORL	B5
94 OUT(F1), A	D3, F1	75 JR NZ → ⊕	20, DE
96 LD HL, 9000	21, 00, 90	77 LDA, B1	3E, 91
99 LD (8018), HL	22, 18, 80	79 OUT(F1), A	D3, F1
102 CALL Rx	CD, 05, 03	81 POP HL	E1
105 CALL Rx onc	CD, 14, 04	82 LD (8018), HL	22, 18, 80
108 LD HL, 9000	21, 00, 90	85 POP DE	D1
11 LD BC, (8016)	ED, 4B, 16, 80	86 POP BC	C1
15 LDA, (HL)	2E	87 POP HL	E1
16 OUT(F0), A	D3, F0	88 POP AF	F1
18 LDA, 11	3E, 11	89 RTN	ED, 45
20 OUT(F1), A	D3, F1		
22 LDA, 19	3E, 19		
24 OUT(F1), A	D3, F1		
26 INCHL	23		
27 DEC BC	0B		
28 LDA, B	28		
29 ORC	B1		
30 JR NZ	20, EF		
32 LDA, 91	3E, 91		
34 OUT(F3), A	D3, F3		
36 LDA, 36	3E, 36		
38 OUT(ED), A	D3, ED (No Time)		
40 LD HL, 0003	21, 03, 00		
43 LD BC, (8016)	ED, 4B, 16, 80		
42 LDA, F1	3E, F1		
49 OUT(F1), A	D3, F1		

PWGER. bas

LD BC, 0004	01, 04, 00	32 849 LD HL, (8016)	2A, 16, 80
DEC BC	0B	52 LD (8040), HL	22, 40, 80
LD HL, 0000	21, 00, 00	55 LD DE, 9000	11, 00, 90
DEC HL	2B	58 LD A, (DE)	1A
LD A, H	2C	859 OUT (1C), A	D3, 1C
OR L	B5	61 INC DE	13
JR NZ	20, FB	62 LD HL, (8040)	2A, 40, 80
LD A, B	28	65 DEC HL	2B
OR C	B1	66 LD A, H	2C
JR NZ	20, F3	62 OR L	B5
LD HL, (8018)	2A, 18, 80	68 JR Z → A	28, D2
PUSH HL	E5	20 LD (8040), HL	22, 40, 80
LD HL, 9000	21, 00, 90	23 LD BC, (8042)	ED, 4B, 42, 80
LD (8018), HL	22, 18, 80	22 LD HL, (8044)	2A, 44, 80
CALL Rx	CD, 05, 03	80 LD A, H	2C
CALL Rx cnc	CD, 14, 04	81 OR L	B5
LD HL, 0000	21, 00, 00	82 JR Z	28, 03
LD (8046), HL	22, 46, 80	84 DEC HL	2B
LD HL, 0010	21, 10, 00	85 JR	18, F9
LD (8048), HL	22, 48, 80	82 LD A, B	28
LD HL, 0000	21, 00, 00	88 OR C	B1
LD (8042), HL	22, 42, 80	89 JR Z	28, DF
LD HL, 1000	21, 00, 10	91 DEC BC	0B
LD (8044), HL	22, 44, 80	92 LD HL, FFFF	21, FF, FF
LD HL, (8048)	2A, 48, 80	95 JR	18, EF
LD A, H	2C	892 LD A, H	2E, 00
OR L	B5	899 OUT (1C), A	D3, 1C
JR NZ	20, 0E	32 901 POP HL	E1
LD HL, (8046)	2A, 46, 80	02 LD (8018), HL	22, 18, 80
LD A, H	2C	05 POP DE	D1
OR L	B5	06 POP BC	C1
JR Z → B	28, 3B	02 POP HL	E1
DEC HL	2B	08 POP AF	F1
LD (8046), HL	22, 46, 80	09 RTN	ED, 45
LD HL, 0000	21, 00, 00		
DEC HL	2B		
LD (8048), HL	22, 48, 80		