SOUTH AUSTRALIAN

MICROPROCESSOR GROUP

INC.

P.O. BOX 113,
PLYMPTON, S.A. 5038
TEL. 278 7288

Meetings held at
THEBARTON HIGH SCHOOL
ASHLEY ST., THEBARTON

NEWSLETTER

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Our thanks must go to Geoff Maloney and associates from Computerland for the display of Apple equipement and demonstrations of software at the June meeting. It certainly created alot of interest particularly the colour graphics plotting and high level games playing.

The July meeting featured Rick Matthews who gave us a very interesting talk on the 6800 Microprocessor and its family. No doubt you all realise now how superior the 6800 is to other processors of the 8 bit class. Seriously, it was interesting to note the comments made by members on the subject of 16 bit machines. So if enough members request it we will try to organize a lecture giving us the facts and figures.

August

The August meeting will be a B.Y.O.S. (Bring your own system) night. If you do not own a micro bring a friend who may be interested. Also any member who has ordered one of the V.D.U. kits from the group should bring along a blank cheque as the kits should be ready and available at the next meeting. At the time this newsletter went to the press a firm price was not given as some parts are still on the way.

September

In September Tony Beresford will be giving us a talk on the structural requirements of high level languages, whats around and why. Languages covered will include Basic, Fortran, Pascal and the like. Tony has all of these languages on his machine and plus the fact that he is a professional programmer should make it quite an interesting evening.

If anyone wishes to contribute an article to our newsletter we would appreciate the offer. It need not be a literary masterpiece or a technical gem. It is rather difficult at times to come up with interesting articles so rummage around in your software or hardware scribblings and see what you can come up with.

Many thanks go to Electronics Today International for publishing the details of our group. We have had a number of inquiries as a result and we will welcome these people to our future meetings.

Our August meeting will be held on the 10th at 7.30pm
Our September meeting will be held on the 14th at 7.30pm

YOUR COMMITTEE FOR 1979

CHAIRMAN: Eric Clarke — Work Phone 278 7288
SECRETARY/TREASURER: Bob Stunell — Work Phone 352 5811
ACTING SEC/TREASURER: John Moffatt

COMMITTEE MEMBERS:
Tony Beresford
Bob Daniells
Howie Harvey
Rick Matthews

FOR SALE

S100 boards surplus to my requirements

Imsai PIC-8 priority interrupt board, enables priority interrupts for 8080 cpu boards not providing them, also provision for speaker output and a real time clock.

Imsai 1702a EPROM board 4K capacity, addressable with jumpered sockets to any 4K boundary, 2 1702a's on the board.

DYNABYTE 16k bytes memory boards (2 available), dynamic memory chips, (MM5271). working without problems for a year at least. Replacing for technical reasons.

SZERLIP RAM/ROM board almost assembled for 8K 2708 EPROMS, 1K RAM. Not tested, available on as is basis.

Prices subject to discussion.

Tony Beresford Phone 79 2936 AH

We are calling for a member who is willing and able to help construct the group V.D.U. Already the keyboard and 2650 Microprocessor unit have been assembled so once the V.D.U. has been built we can fire the system up and give those that do not have a system a bit of practice.

Starting from the August meeting Mr. Bob Hourigan will be arranging a 2650 machine language guide series, so all you 2650 owners or prospective owners come along and see Bob about the sessions.

On the following pages you will find a complete listing of Z80 opcodes in numerical order. Ian Fisk supplied this listing together with the method of generation. Unfortunately due to the size of the listing we will publish the programs in the next newsletter. I only hope we never have to print the full opcode listings for a 16 bit machine.

Z80 OP CODES IN ALPHABETICAL ORDER

PROCESSED BY I. B. FISK

NOTE: NN VALUE IS ppqq(pp high byte - qq low byte)
N VALUE nn (HEX)
DIS AND IND VALUE IS yy(a signed 2's complement two digit hex number)

00	NOP		34	INC	(HL)
01qqpp	LD	BC,NN	35	DEC	(HL)
02	LD	(BC),A	36nn	LD	(HL),N
03	INC	BC	37	SCF	
04	INC	B	38yy	JR	C,DIS
05	DEC	B	39	ADD	HL,SP
06nn	LD	B,N	3Aqqpp	LD	A,(NN)
07	RLCA		3B	DEC	SP
08	EX	AF,AF'	3C	INC	A
09	ADD	HL,BC	3D	DEC	A
0A	LD	A,(BC)	3Enn	LD	A,N
0B	DEC	BC	3F	CCF	
0C	INC	C	40	LD	B,B
0D	DEC	C	41	LD	B,C
0Enn	LD	C,N	42	LD	B,D
0F	RRCA		43	LD	B,E
10yy	DJNZ	DIS	44	LD	B,H
11qqpp	LD	DE,NN	45	LD	B,L
12	LD	(DE),A	46	LD	B,(HL)
13	INC	DE	47	LD	B,A
14	INC	D	48	LD	C,B
15	DEC	D	49	LD	C,C
16nn	LD	D,N	4A	LD	C,D
17	RLA		4B	LD	C,E
18yy	JR	DIS	4C	LD	C,H
19	ADD	HL,DE	4D	LD	C,L
1A	LD	A,(DE)	4E	LD	C,(HL)
1B	DEC	DE	4F	LD	C,A
1C	INC	E	50	LD	D,B
1D	DEC	E	51	LD	D,C
1Enn	LD	E,N	52	LD	D,D
1F	RRA		53	LD	D,E
20yy	JR	NZ,DIS	54	LD	D,H
21qqpp	LD	HL,NN	55	LD	D,L
22qqpp	LD	(NN),HL	56	LD	D,(HL)
23	INC	HL	57	LD	D,A
24	INC	H	58	LD	E,B
25	DEC	H	59	LD	E,C
26nn	LD	H,N	5A	LD	E,D
27	DAA		5B	LD	E,E
28yy	JR	Z,DIS	5C	LD	E,H
29	ADD	HL,HL	5D	LD	E,L
2Aqqpp	LD	HL,(NN)	5E	LD	E,(HL)
2B	DEC	HL	5F	LD	E,A
2C	INC	L	60	LD	H,B
2D	DEC	L	61	LD	H,C
2Enn	LD	L,N	62	LD	H,D
2F	CPL		63	LD	H,E
30yy	JR	NC,DIS	64	LD	H,H
31qqpp	LD	SP,NN	65	LD	H,L
32qqpp	LD	(NN),A	66	LD	H,(HL)
33	INC	SP	67	LD	H,A

68	LD	L,B
69	LD	L,C
6A	LD	L,D
6B	LD	L,E
6C	LD	L,H
6D	LD	L,L
6E	LD	L,(HL)
6F	LD	L,A
70	LD	(HL),B
71	LD	(HL),C
72	LD	(HL),D
73	LD	(HL),E
74	LD	(HL),H
75	LD	(HL),L
76	HALT	
77	LD	(HL),A
78	LD	A,B
79	LD	A,C
7A	LD	A,D
7B	LD	A,E
7C	LD	A,H
7D	LD	A,L
7E	LD	A,(HL)
7F	LD	A,A
80	ADD	A,B
81	ADD	A,C
82	ADD	A,D
83	ADD	A,E
84	ADD	A,H
85	ADD	A,L
86	ADD	A,(HL)
87	ADD	A,A
88	ADC	A,B
89	ADC	A,C
8A	ADC	A,D
8B	ADC	A,E
8C	ADC	A,H
8D	ADC	A,L
8E	ADC	A,(HL)
8F	ADC	A,A
90	SUB	B
91	SUB	C
92	SUB	D
93	SUB	E
94	SUB	H
95	SUB	L
96	SUB	(HL)
97	SUB	A
98	SBC	A,B
99	SBC	A,C
9A	SBC	A,D
9B	SBC	A,E
9C	SBC	A,H
9D	SBC	A,L
9E	SBC	A,(HL)
9F	SBC	A,A
A0	AND	B
A1	AND	C
A2	AND	D
A3	AND	E
A4	AND	H
A5	AND	L
A6	AND	(HL)
A7	AND	A
A8	XOR	B
A9	XOR	C
AA	XOR	D
AB	XOR	E
AC	XOR	H
AD	XOR	L
AE	XOR	(HL)
AF	XOR	A
B0	OR	B
B1	OR	C
B2	OR	D
B3	OR	E
B4	OR	H
B5	OR	L
B6	OR	(HL)
B7	OR	A
B8	CP	B
B9	CP	C
BA	CP	D
BB	CP	E
BC	CP	H
BD	CP	L
BE	CP	(HL)
BF	CP	A
C0	RET	NZ
C1	POP	BC
C2qqpp	JP	NZ,NN
C3qqpp	JP	NN
C4qqpp	CALL	NZ,NN
C5	PUSH	BC
C6nn	ADD	A,N
C7	RST	0
C8	RET	Z
C9	RET	
CAqqpp	JP	Z,NN
CB00	RLC	B
CB01	RLC	C
CB02	RLC	D
CB03	RLC	E
CB04	RLC	H
CB05	RLC	L
CB06	RLC	(HL)
CB07	RLC	A
CB08	RRC	B
CB09	RRC	C
CB0A	RRC	D
CB0B	RRC	E
CB0C	RRC	H
CB0D	RRC	L
CB0E	RRC	(HL)
CB0F	RRC	A
CB10	RL	B
CB11	RL	C
CB12	RL	D
CB13	RL	E
CB14	RL	H

CB15	RL	L
CB16	RL	(HL)
CB17	RL	A
CB18	RR	B
CB19	RR	C
CB1A	RR	D
CB1B	RR	E
CB1C	RR	H
CB1D	RR	L
CB1E	RR	(HL)
CB1F	RR	A
CB20	SLA	B
CB21	SLA	C
CB22	SLA	D
CB23	SLA	E
CB24	SLA	H
CB25	SLA	L
CB26	SLA	(HL)
CB27	SLA	A
CB28	SRA	B
CB29	SRA	C
CB2A	SRA	D
CB2B	SRA	E
CB2C	SRA	H
CB2D	SRA	L
CB2E	SRA	(HL)
CB2F	SRA	A
CB38	SRL	B
CB39	SRL	C
CB3A	SRL	D
CB3B	SRL	E
CB3C	SRL	H
CB3D	SRL	L
CB3E	SRL	(HL)
CB3F	SRL	A
CB40	BIT	0,B
CB41	BIT	0,C
CB42	BIT	0,D
CB43	BIT	0,E
CB44	BIT	0,H
CB45	BIT	0,L
CB46	BIT	0,(HL)
CB47	BIT	0,A
CB48	BIT	1,B
CB49	BIT	1,C
CB4A	BIT	1,D
CB4B	BIT	1,E
CB4C	BIT	1,H
CB4D	BIT	1,L
CB4E	BIT	1,(HL)
CB4F	BIT	1,A
CB50	BIT	2,B
CB51	BIT	2,C
CB52	BIT	2,D
CB53	BIT	2,E
CB54	BIT	2,H
CB55	BIT	2,L
CB56	BIT	2,(HL)
CB57	BIT	2,A
CB58	BIT	3,B
CB59	BIT	3,C
CB5A	BIT	3,D
CB5B	BIT	3,E
CB5C	BIT	3,H
CB5D	BIT	3,L
CB5E	BIT	3,(HL)
CB5F	BIT	3,A
CB60	BIT	4,B
CB61	BIT	4,C
CB62	BIT	4,D
CB63	BIT	4,E
CB64	BIT	4,H
CB65	BIT	4,L
CB66	BIT	4,(HL)
CB67	BIT	4,A
CB68	BIT	5,B
CB69	BIT	5,C
CB6A	BIT	5,D
CB6B	BIT	5,E
CB6C	BIT	5,H
CB6D	BIT	5,L
CB6E	BIT	5,(HL)
CB6F	BIT	5,A
CB70	BIT	6,B
CB71	BIT	6,C
CB72	BIT	6,D
CB73	BIT	6,E
CB74	BIT	6,H
CB75	BIT	6,L
CB76	BIT	6,(HL)
CB77	BIT	6,A
CB78	BIT	7,B
CB79	BIT	7,C
CB7A	BIT	7,D
CB7B	BIT	7,E
CB7C	BIT	7,H
CB7D	BIT	7,L
CB7E	BIT	7,(HL)
CB7F	BIT	7,A
CB80	RES	0,B
CB81	RES	0,C
CB82	RES	0,D
CB83	RES	0,E
CB84	RES	0,H
CB85	RES	0,L
CB86	RES	0,(HL)
CB87	RES	0,A
CB88	RES	1,B
CB89	RES	1,C
CB8A	RES	1,D
CB8B	RES	1,E
CB8C	RES	1,H
CB8D	RES	1,L
CB8E	RES	1,(HL)
CB8F	RES	1,A
CB90	RES	2,B
CB91	RES	2,C
CB92	RES	2,D
CB93	RES	2,E
CB94	RES	2,H

CB95	RES	2,L
CB96	RES	2,(HL)
CB97	RES	2,A
CB98	RES	3,B
CB99	RES	3,C
CB9A	RES	3,D
CB9B	RES	3,E
CB9C	RES	3,H
CB9D	RES	3,L
CB9E	RES	3,(HL)
CB9F	RES	3,A
CBA0	RES	4,B
CBA1	RES	4,C
CBA2	RES	4,D
CBA3	RES	4,E
CBA4	RES	4,H
CBA5	RES	4,L
CBA6	RES	4,(HL)
CBA7	RES	4,A
CBA8	RES	5,B
CBA9	RES	5,C
CBAA	RES	5,D
CBAB	RES	5,E
CBAC	RES	5,H
CBAD	RES	5,L
CBAE	RES	5,(HL)
CBAF	RES	5,A
CBB0	RES	6,B
CBB1	RES	6,C
CBB2	RES	6,D
CBB3	RES	6,E
CBB4	RES	6,H
CBB5	RES	6,L
CBB6	RES	6,(HL)
CBB7	RES	6,A
CBB8	RES	7,B
CBB9	RES	7,C
CBBA	RES	7,D
CBBB	RES	7,E
CBBC	RES	7,H
CBBD	RES	7,L
CBBE	RES	7,(HL)
CBBF	RES	7,A
CBC0	SET	0,B
CBC1	SET	0,C
CBC2	SET	0,D
CBC3	SET	0,E
CBC4	SET	0,H
CBC5	SET	0,L
CBC6	SET	0,(HL)
CBC7	SET	0,A
CBC8	SET	1,B
CBC9	SET	1,C
CBCA	SET	1,D
CBCB	SET	1,E
CBCC	SET	1,H
CBCD	SET	1,L
CBCE	SET	1,(HL)
CBCF	SET	1,A
CBD0	SET	2,B
CBD1	SET	2,C
CBD2	SET	2,D
CBD3	SET	2,E
CBD4	SET	2,H
CBD5	SET	2,L
CBD6	SET	2,(HL)
CBD7	SET	2,A
CBD8	SET	3,B
CBD9	SET	3,C
CBDA	SET	3,D
CBDB	SET	3,E
CBDC	SET	3,H
CBDD	SET	3,L
CBDE	SET	3,(HL)
CBDF	SET	3,A
CBE0	SET	4,B
CBE1	SET	4,C
CBE2	SET	4,D
CBE3	SET	4,E
CBE4	SET	4,H
CBE5	SET	4,L
CBE6	SET	4,(HL)
CBE7	SET	4,A
CBE8	SET	5,B
CBE9	SET	5,C
CBEA	SET	5,D
CBEB	SET	5,E
CBEC	SET	5,H
CBED	SET	5,L
CBEE	SET	5,(HL)
CBEF	SET	5,A
CBF0	SET	6,B
CBF1	SET	6,C
CBF2	SET	6,D
CBF3	SET	6,E
CBF4	SET	6,H
CBF5	SET	6,L
CBF6	SET	6,(HL)
CBF7	SET	6,A
CBF8	SET	7,B
CBF9	SET	7,C
CBFA	SET	7,D
CBFB	SET	7,E
CBFC	SET	7,H
CBFD	SET	7,L
CBFE	SET	7,(HL)
CBFF	SET	7,A
CCqqpp	CALL	Z,NN
CDqqpp	CALL	NN
CEnn	ADC	A,N
CF	RST	08H
D0	RET	NC
D1	POP	DE
D2qqpp	JP	NC,NN
D3nn	OUT	(N),A
D4qqpp	CALL	NC,NN
D5	PUSH	DE
D6nn	SUB	N
D7	RST	10H
D8	RET	C

D9	EXX	
DAqqpp	JP	C,NN
DBnn	IN	A,(N)
DCqqpp	CALL	C,NN
DD09	ADD	IX,BC
DD19	ADD	IX,DE
DD21qqpp	LD	IX,NN
DD22qqpp	LD	(NN),IX
DD23	INC	IX
DD29	ADD	IX,IX
DD2Aqqpp	LD	IX,(NN)
DD2B	DEC	IX
DD34yy	INC	(IX+IND)
DD35yy	DEC	(IX+IND)
DD36yynn	LD	(IX+IND),N
DD39	ADD	IX,SP
DD46yy	LD	B,(IX+IND)
DD4Eyy	LD	C(IX+IND)
DD56yy	LD	D,(IX+IND)
DD5Eyy	LD	E,(IX+IND)
DD66yy	LD	H,(IX+IND)
DD6Eyy	LD	L,(IX+IND)
DD70yy	LD	(IX+IND),B
DD71yy	LD	(IX+IND),C
DD72yy	LD	(IX+IND),D
DD73yy	LD	(IX+IND),E
DD74yy	LD	(IX+IND),H
DD75yy	LD	(IX+IND),L
DD77yy	LD	(IX+IND),A
DD7Eyy	LD	A,(IX+IND)
DD86yy	ADD	A,(IX+IND)
DD8Eyy	ADC	A,(IX+IND)
DD96yy	SUB	(IX+IND)
DD9Eyy	SBC	A,(IX+IND)
DDA6yy	AND	(IX+IND)
DDAEyy	XOR	(IX+IND)
DDB6yy	OR	(IX+IND)
DDBEyy	CP	(IX+IND)
DDCByy06	RLC	(IX+IND)
DDCByy0E	RRC	(IX+IND)
DDCByy16	RL	(IX+IND)
DDCByy1E	RR	(IX+IND)
DDCByy26	SLA	(IX+IND)
DDCByy2E	SRA	(IX+IND)
DDCByy3E	SRL	(IX+IND)
DDCByy46	BIT	0,(IX+IND)
DDCByy4E	BIT	1,(IX+IND)
DDCByy56	BIT	2,(IX+IND)
DDCByy5E	BIT	3,(IX+IND)
DDCByy66	BIT	4,(IX+IND)
DDCByy6E	BIT	5,(IX+IND)
DDCByy76	BIT	6,(IX+IND)
DDCByy7E	BIT	7,(IX+IND)
DDCByy86	RES	0,(IX+IND)
DDCByy8E	RES	1,(IX+IND)
DDCByy96	RES	2,(IX+IND)
DDCByy9E	RES	3,(IX+IND)
DDCByyA6	RES	4,(IX+IND)
DDCByyAE	RES	5,(IX+IND)
DDCByyB6	RES	6,(IX+IND)
DDCByyBE	RES	7,(IX+IND)
DDCByyC6	SET	0,(IX+IND)
DDCByyCE	SET	1,(IX+IND)
DDCByyD6	SET	2,(IX+IND)
DDCByyDE	SET	3,(IX+IND)
DDCByyE6	SET	4,(IX+IND)
DDCByyEE	SET	5,(IX+IND)
DDCByyF6	SET	6,(IX+IND)
DDCByyFE	SET	7,(IX+IND)
DDE1	POP	IX
DDE3	EX	(SP),IX
DDE5	PUSH	IX
DDE9	JP	(IX)
DDF9	LD	SP,IX
DEnn	SBC	A,N
DF	RST	18H
E0	RET	PO
E1	POP	HL
E2qqpp	JP	PO,NN
E3	EX	(SP),HL
E4qqpp	CALL	PO,NN
E5	PUSH	HL
E6nn	AND	N
E7	RST	20H
E8	RET	PE
E9	JP	(HL)
EAqqpp	JP	PE,NN
EB	EX	DE,HL
ECqqpp	CALL	PE,NN
ED40	IN	B,(C)
ED41	OUT	(C),B
ED42	SBC	HL,BC
ED43qqpp	LD	(NN),BC
ED44	NEG	
ED45	RETN	
ED46	IM	0
ED47	LD	I,A
ED48	IN	C,(C)
ED49	OUT	(C),C
ED4A	ADC	HL,BC
ED4Bqqpp	LD	BC,(NN)
ED4D	RETI	
ED4F	LD	R,A
ED50	IN	D,(C)
ED51	OUT	(C),D
ED52	SBC	HL,DE
ED53qqpp	LD	(NN),DE
ED56	IM	1
ED57	LD	A,I
ED58	IN	E,(C)
ED59	OUT	(C),E
ED5A	ADC	HL,DE
ED5Bqqpp	LD	DE,(NN)
ED5E	IM	2
ED5F	LD	A,R
ED60	IN	H,(C)
ED61	OUT	(C),H
ED62	SBC	HL,HL
ED67	RRD	
ED68	IN	L,(C)

ED69	OUT	(C),L
ED6A	ADC	HL,HL
ED6F	RLD	
ED70	IN	F,(C)
ED72	SBC	HL,SP
ED73qqpp	LD	(NN),SP
ED78	IN	A,(C)
ED79	OUT	(C),A
ED7A	ADC	HL,SP
ED7Bqqpp	LD	SP,(NN)
EDA0	LDI	
EDA1	CPI	
EDA2	INI	
EDA3	OUTI	
EDA8	LDD	
EDA9	CPD	
EDAA	IND	
EDAB	OUTD	
EDB0	LDIR	
EDB1	CPIR	
EDB2	INIR	
EDB3	OTIR	
EDB8	LDDR	
EDB9	CPDR	
EDBA	INDR	
EDBB	OTDR	
EEnn	XOR	N
EF	RST	28H
F0	RET	P
F1	POP	AF
F2qqpp	JP	P,NN
F3	DI	
F4qqpp	CALL	P,NN
F5	PUSH	AF
F6nn	OR	N
F7	RST	30H
F8	RET	M
F9	LD	SP,HL
FAqqpp	JP	M,NN
FB	EI	
FCqqpp	CALL	M,NN
FD09	ADD	IY,BC
FD19	ADD	IY,DE
FD21qqpp	LD	IY,NN
FD22qqpp	LD	(NN),IY
FD23	INC	IY
FD29	ADD	IY,IY
FD2Aqqpp	LD	IY,(NN)
FD2B	DEC	IY
FD34yy	INC	(IY+IND)
FD35yy	DEC	(IY+IND)
FD36yynn	LD	(IY+IND),N
FD39	ADD	IY,SP
FD46yy	LD	B,(IY+IND)
FD4Eyy	LD	C,(IY+IND)
FD56yy	LD	D,(IY+IND)
FD6Eyy	LD	L,(IY+IND)
FD66yy	LD	H,(IY+IND)
FD6Eyy	LD	L,(IY+IND)
FD70yy	LD	(IY+IND),B
FD71yy	LD	(IY+IND),C
FD72yy	LD	(IY+IND),D
FD73yy	LD	(IY+IND),E
FD74yy	LD	(IY+IND),H
FD75yy	LD	(IY+IND),L
FD77yy	LD	(IY+IND),A
FD7Eyy	LD	A,(IY+IND)
FD86yy	ADD	A,(IY+IND)
FD8Eyy	ADC	A,(IY+IND)
FD96yy	SUB	(IY+IND)
FD9Eyy	SBC	A,(IY+IND)
FDA6yy	AND	(IY+IND)
FDAEyy	XOR	(IY+IND)
FDB6yy	OR	(IY+IND)
FDBEyy	CP	(IY+IND)
FDCByy06	RLC	(IY+IND)
FDCByy0E	RRC	(IY+IND)
FDCByy16	RL	(IY+IND)
FDCByy1E	RR	(IY+IND)
FDCByy26	SLA	(IY+IND)
FDCByy2E	SRA	(IY+IND)
FDCByy3E	SRL	(IY+IND)
FDCByy46	BIT	0,(IY+IND)
FDCByy4E	BIT	1,(IY+IND)
FDCByy56	BIT	2,(IY+IND)
FDCByy5E	BIT	3,(IY+IND)
FDCByy66	BIT	4,(IY+IND)
FDCByy6E	BIT	5,(IY+IND)
FDCByy76	BIT	6,(IY+IND)
FDCByy7E	BIT	7,(IY+IND)
FDCByy86	RES	0,(IY+IND)
FDCByy8E	RES	1,(IY+IND)
FDCByy96	RES	2,(IY+IND)
FDCByy9E	RES	3,(IY+IND)
FDCByyA6	RES	4,(IY+IND)
FDCByyAE	RES	5,(IY+IND)
FDCByyB6	RES	6,(IY+IND)
FDCByyBE	RES	7,(IY+IND)
FDCByyC6	SET	0,(IY+IND)
FDCByyCE	SET	1,(IY+IND)
FDCByyD6	SET	2,(IY+IND)
FDCByyDE	SET	3,(IY+IND)
FDCByyE6	SET	4,(IY+IND)
FDCByyEE	SET	5,(IY+IND)
FDCByyF6	SET	6,(IY+IND)
FDCByyFE	SET	7,(IY+IND)
FDE1	POP	IY
FDE3	EX	(SP),IY
FDE5	PUSH	IY
FDE9	JP	(IY)
FDF9	LD	SP,IY
FEnn	CP	N
FF	RST	38H