

.Z80

```
LD      SP,ENDMC+100
LD      A,BITB
OUT     (PIOAC),A
LD      A,01110100B
OUT     (PIOAC),A
LD      A,(PIO)
OR      01111111B ; ZUSTAND ZX/CPM RETTEN
OUT     (PIOAD),A

CA1:    CALL CIST
OR      A
JR      Z,CARA ; TASTEN ABHOLEN
CALL    CI
JR      CA1

CARA:   CALL UPCR
CALL    UPCR
CALL    PRINT
DEFM    " Codecard Leser "
DEFB    0
CALL    UPCR

LD      HL,CABYTE
LD      DE,CABYTE
LD      BC,3000H
LD      (HL),0FFH
INC     DE
LDIR                    ; PUFFER LOESCHEN

; INTVEKTOR VERBIEGEN

LD      HL,(0FF00H) ; INT SIO A
LD      (MEMINT),HL
LD      HL,INTN
LD      (0FF00H),HL

; INT PROGRAMMIERUNG PIO

DI
LD      HL,CREAD
LD      (0FF10H),HL ; INTVEKTOR
LD      A,10H ;INTVEKTOR
OUT     (PIOAC),A
LD      A,10010111B ; INT STEUER: ODER/LOW/EI
OUT     (PIOAC),A
LD      A,11101111B ; INT MASKE
OUT     (PIOAC),A
LD      A,10000011B ; INT ERLAUBT
OUT     (PIOAC),A
EI

LD      HL,CABIT
CRHAL:  HALT ; SCHLEIFE WARTEN AUF INT
CRHAL0: LD      A,L
LD      B,0
CRHAL1: DJNZ    CRHAL1
CRHAL2: DJNZ    CRHAL2
CRHAL3: DJNZ    CRHAL3
CP      L ; TEST AENDERUNG HL
JR      Z,CARE0 ; OHNE AENDERUNG AUSPRUNG
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JR          CRHAL0

; INT ROUTINE PIO

CREAD:      IN      A,(PIOAD)
            LD      (HL),A
            INC     HL
            EI
            RETI

; INT SIO ABFANGEN

INTN:       DEFB    0CDH      ; BEFEHLSCODE CALL
MEMINT:     DEFW    0
            CALL    CI
            CP      3
            JP      Z,CAREN    ; AUSSPRUNG BEI ^C
CARE0:      LD      A,00000011B ; INT PIO VERBOTEN
            OUT     (PIOAC),A
            LD      HL,(MEMINT)
            LD      (0FF00H),HL ; INTVEKTOR CI ORIGINAL
            LD      HL,CABIT
CARE1:      LD      A,(HL)
            CP      0FFH
            JP      Z,CARW      ; AUSWERTUNG
            BIT     5,A
            LD      (HL),0
            JR      NZ,CARE2
            LD      (HL),1
CARE2:      LD      A,(HL)
            ADD     A,30H
            CALL    COA
            INC     HL
            JR      CARE1

CARW:       LD      HL,CABIT
            LD      DE,CABYTE
            CALL    UPCR
CARW1:      LD      A,(HL)
            INC     HL
            CP      0FFH
            JP      Z,CARA      ; FERTIG
            CP      1
            JR      NZ,CARW1
            DEC     HL
CARW3:      LD      BC,0500H    ; 5 BITS BYTE 0
CARW2:      LD      A,(HL)
            INC     HL
            CP      0FFH
            JP      Z,CARK      ; FERTIG
            ADD     A,0FFH      ; BEI 1 CARRY , BEI 0 NC
            RR      C
            DJNZ    CARW2
            LD      A,C
            RRA
            RRA
            RRA
            AND     1FH        ; PARITAETSKONTROLLE
            LD      C,A
            LD      A,"?"
            JP      PE,COUTH2
            LD      A,C
            AND     0FH
            ADD     A,30H

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	CP	3AH	
	JR	C, COUTH2	
	ADD	A, 7	
COUTH2:	LD	(DE), A	
	INC	DE	
	CALL	COA	
	JR	CARW3	; NAECHSTES BYTE
CARK:	LD	A, (CABYTE+33)	
	CP	"D"	
	CALL	Z, CARKS	
	LD	A, (CABYTE+33)	
	CP	"0"	
	CALL	Z, CARKE	
	JP	CARA	
CARKS:	LD	HL, CABYTE+3	
	CALL	UPCR	
	CALL	UPCR	
	CALL	PRINT	
	DEFM	"Sparkasse	Konto-Nummer : "
	DEFB	0	
	LD	B, 4	
CARK1:	LD	A, (HL)	
	INC	HL	
	CALL	COA	
	DJNZ	CARK1	
	LD	A, "-"	
	CALL	COA	
	LD	B, 8	
CARK2:	LD	A, (HL)	
	INC	HL	
	CALL	COA	
	DJNZ	CARK2	
	CALL	PRINT	
	DEFB	" Geburtsdatum : ", 0	
	LD	B, 2	
CARK3:	LD	A, (HL)	
	INC	HL	
	CALL	COA	
	DJNZ	CARK3	
	LD	A, "."	
	CALL	COA	
	LD	B, 2	
CARK4:	LD	A, (HL)	
	INC	HL	
	CALL	COA	
	DJNZ	CARK4	
	LD	A, "."	
	CALL	COA	
	LD	B, 2	
CARK5:	LD	A, (HL)	
	INC	HL	
	CALL	COA	
	DJNZ	CARK5	
	CALL	UPCR	
	CALL	PRINT	
	DEFB	" PKZ : ", 0	
	LD	HL, CABYTE+15	
	LD	B, 12	
CARK6:	LD	A, (HL)	
	INC	HL	
	CALL	COA	

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        DJNZ    CARKE6
        CALL    UPCR
        RET

; EUROCARD

CARKE:   LD      HL,CABYTE+10
        CALL    UPCR
        CALL    UPCR
        CALL    PRINT
        DEFM    "Euro Card           Konto-Nummer : "
        DEFB    0
        LD      B,9
CARKE1:  LD      A,(HL)
        INC     HL
        CALL    COA
        DJNZ    CARKE1
        CALL    UPCR
        RET

        JP      CARA           ; ENDE AUSWERTUNG

CAREN:   LD      A,00000011B    ; INT PIO VERBOTEN
        OUT     (PIOAC),A
        LD      HL,(MEMINT)
        LD      (0FF00H),HL    ; INTVEKTOR CI ORIGINAL
        JP      0

;-----
ZEIT:    PUSH    HL
ZZ1:     DEC     HL
        LD      A,H
        OR      L
        JR      NZ,ZZ1
        POP     HL
        RET

;-----
; UP SAMMLUNG
;-----

; INHEX
INHEX:   LD      A,20H
        CALL    COA
        CALL    INL0
ASHEX:   CALL    FNEXT
        CALL    CNVBN
        LD      A,(DE)
        RET     C              ;kein hex
        PUSH    BC
        LD      HL,0
ASH1:    LD      A,(DE)
        CALL    CNVBN
        JR      C,ASH4
ASH3:    ADD     HL,HL
        ADD     HL,HL
        ADD     HL,HL
        ADD     HL,HL
        LD      B,0
        LD      C,A
        ADD     HL,BC
        INC     DE

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        JR      ASH1
ASH4:   POP     BC
        XOR     A
        RET
CNVBN:  SUB     30H
        RET     C
        CP     10
        CCF
        RET     NC
        CP     11H
        RET     C
        CP     17H
        CCF
        RET     C
        SUB     7
        RET

;
FNEXT:  LD      A, (DE)
        CP     20H
        JR     NZ, FNEX3
FNEX1:  INC     DE
        LD      A, (DE)
        CP     20H
        JR     Z, FNEX1
        CP     0DH
        JR     Z, FNEX4
FNEX2:  XOR     A
        LD      A, (DE)
        RET
FNEX3:  CP     0DH
FNEX4:  SCF
        RET     Z
        CCF
        CP     2CH
        INC     DE
        JR     Z, FNEX2
        OR      A
        DEC     DE
        RET

;---Eingabe Befehlszeile-----
;
TXTBU:  DS      90
MBULEN: DEFB    4

INLN:   CALL    PRINT
        DEFB    0DH, 23H, 20H, 0
        LD      B, 78
        LD      DE, TXTBU
        LD      A, 20H
INLN01: LD      (DE), A
        INC     DE
        DJNZ    INLN01
INLN0:  LD      DE, TXTBU
        LD      B, 78          ; PUFFERLAENGE
INLN1:  LD      A, B
        LD      (MBULEN), A
INLN19: CALL    CI
        CP     01          ; FN TASTE
        JR     Z, INLN5
        CP     08          ; Rueckschritt
        JR     Z, INLN3
        CP     0DH
        JR     Z, INLN2

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CP      12      ; KURSOR RECHTS
JR      Z, INL6
CP      3      ; ^C
JP      Z, 0
CP      20H
JR      C, INL19
LD      (DE), A
CALL    COA
INC     DE
DJNZ    INL19
INL3:   LD      A, (MBULEN)
CP      B
JR      Z, INL19
DEC     DE
INC     B
LD      A, 8; Delete
CALL    COA
JR      INL19
INL2:   LD      (DE), A
LD      A, 0DH
CALL    COA
LD      DE, TXTBU
RET
INL5:   CALL    CI      ; NUMMER
CALL    CI      ; ENTER
JR      INL19
INL6:   LD      A, (DE)
CALL    COA
INC     DE
DJNZ    INL19
;-----

COA:    PUSH    BC
LD      C, A
CALL    CO
POP     BC
RET

CO:     PUSH    AF
PUSH    HL
PUSH    BC
PUSH    DE
CALL    BIOS+0CH
POP     DE
POP     BC
POP     HL
POP     AF
RET

UPCR:   PUSH    BC
LD      C, 0AH
CALL    CO
LD      C, 0DH
CALL    CO
POP     BC
RET

SPACE:  PUSH    BC
LD      C, 32
CALL    CO
CALL    CO
POP     BC
RET

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CIST:      JP      BIOS+6
CI:        JP      BIOS+9

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;      PRINT Zeichenkette bis 00
PRINT:     EX      (SP),HL
PR1:       LD      A,(HL)
           INC     HL
           OR      A
           JR      Z,PR2
           CALL    COA
           JR      PR1
PR2:       EX      (SP),HL
           RET

```

```

;
OUTHEX:    PUSH    AF
           RRA
           RRA
           RRA
           RRA
           CALL    OUTH1
           POP     AF
OUTH1:     PUSH    AF
           AND     0FH
           ADD     A,30H
           CP      3AH
           JR      C,OUTH2
           ADD     A,7
OUTH2:     CALL    COA
           POP     AF
           RET

OUTH1:     PUSH    AF
           LD      A,H
           CALL    OUTHEX
           LD      A,L
           CALL    OUTHEX
           POP     AF
           RET

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; HARDWARADRESSEN PERIPHERIE-SCHALTkreISE

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CABIT      EQU      1000H      ; BITSTRING
CABYTE     EQU      0F00H      ; BYTES
PIOAST     EQU      086H      ;PORT A STEUER
PIOBST     EQU      087H      ;PORT B STEUER
PIOADA     EQU      084H      ;PORT A DATEN
PIOBDA     EQU      085H      ;PORT B DATEN
SIOD       EQU      088H      ; DATEN      / MONITORSCHNITTSTELLE /
A KANAL SIO
SIOC       EQU      08AH      ; STEUERWORT
SIOBD     EQU      089H      ; DATEN      / HOSTSCHNITTSTELLE / B
KANAL SIO
SIOBC     EQU      08BH      ; STEUERWORT
CTC        EQU      080H      ; CTC ADRESSE (BAUDRATE FUER SIO A)
CTC1       EQU      081H      ; CTC ADRESSE (BAUDRATE FUER SIO B)
CTC2       EQU      082H
CTC3       EQU      083H
SIOVEK     EQU      00H      ; INTERRUPTVEKTOR SIO
CTCVEK     EQU      10H
IREG       EQU      0FFH      ; INTERRUPTREGISTER
CR         EQU      0DH
LF         EQU      0AH      ; LINE FEED
ESC        EQU      01BH

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PIOAD      EQU      94H      ; PIO AUF 3. LP
PIOAC      EQU      96H
PDATOU     EQU      90H
BITB       EQU      0CFH    ; BITBETRIEB
PIOBD      EQU      95H
PIOBC      EQU      97H
OUTB       EQU      0FH    ; BYTE AUSGABE
CFDC       EQU      9CH
DFDC       EQU      9DH
BFDC       EQU      9EH
DMAC       EQU      8CH
BIOS       EQU      0E600H
LST        EQU      BIOS+0FH
;-----
; SPEICHERZELLEN WERTE

ARG0:      DEFW      0
ARG1:      DEFW      0
ARG2:      DEFW      0      ; ENDE IM SPEICHER
ARG3:      DEFW      0
PIO:       DEFB      0      ; PIO URSPRUNGSBYTE
STRING:    DS        20

ENDMC:     DEFS      110H    ; STACKRAUM

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end