

editor ??

main

hl = optmsg

0 0 6  
0 0 1  
3 1 5

b = 001  
call OUTPAG

3 1 5

call inpchr

3 7 6  
3 4 2

i-a  
342

c2 build

Editor ??

MAIN h1= OPTMSG, b='001 page 1  
call OUTPAG  
call INPCHR  
i-a' 342  
cz BUILD  
i-a' 344  
cz DISPLAY  
i-a' 347  
cz ENTERDATA  
Jmp MAIN

•  
OUTPAG pshbc, call '343000  
popbs  
NXTOUT call OUTLINE  
b-1, JNZ NXTOUT  
ret

•  
BUILD h1= BLDMSG, b='001  
Call OUTPAG  
axora, ()=a ASC 64  
Call INPUT  
i-a' 240  
r2  
a8' 017  
()=a LINECNT  
()=a DSPCNT  
h1= PRMPT1, call OUTLINE  
• format  
h1='000 343  
()=h1 PNTFMT

•  
bc='377 001  
NXTBL m='240  
h1+1, bc-1, a=b, aorc, JNZ NXTBL

•  
NXTBLD Call INPLINE  
de= LINE, h1=() PNTFMT  
Call MOVLINE  
()=h1 PNTFMT, a=() LINECNT  
a-1, ()=a LINECNT  
JNZ NXTBLD

hl = PRMPT1, Call OUTLINE

Page 2

.

enT buf

hl = '000 045

format

.

de = '000 043

bc = '377 001

call MOUBLR

call PSPLYBUF

hl = ENDBMSG, Call OUTLINE

call INPCHR, ret

.

MOUMLINE pshbc, b = '040

NXTML a = (de), i-a '240

Jc BLN

m = a, hl+1, de + 1

b-1 JNZ NXTML

popbc, ret

.

BLN m = '240

hl+1, b-1, JNZ BLN

popbc, ret

.

OUTLINE pshbc, b = '040

NXTOL a = m, i-a '240

Jc BLNKS

call '372 000

hl+1, b-1, JNZ NXTOL

popbc, ret

.

BLNKS a = '240

call '372 000

b-1 JNZ BLNKS

.

ENDOL popbc, ret

.

INPUT call INPCHR

pshaf, call 372 000

popaf

ret

IN 000 in '000

page 3

RET

.

INPCHR Call IN 000

SHFL , JNC INPCHR

Call IN 000

psh af

WAIT Call IN 000

SHFL JC WAIT

pop af , ()=a CHAR

Call EOLCHK

RZ

i-a' 214

RZ

Call CNVT64

RET

.

CNVT64 a=() ASC64

aora , a=() CHAR, RZ

i-a' 240

JC SETBL

i-a' 340

RC

a & 337

()=a CHAR, RET

.

SETBL a='240

RET

.

INPL0 call 343 000

pop bc

.

INPLINE hl=LINE, psh bc a=1

a+i' 040

c=a

NXTIL Call INPUT

m=a Call EOLCHK

JZ INPL0

i-a' 214

JZ ENDIL

hl+1 m='000

a=1, C-a, JC NXTIL

page 4

ENDIL popbc, ret

EOLCHK i-a'202

JZ

i-a'212

ret

LINE, 0000 0000 0000 0000 0000 0000  
0000 0000 0000 0000 0000 0000  
0000 0000 0000 0000 0000 0000  
0000 0000 0000 0000 0000 0000  
000

MOUBLK a=(de), mca

hl+1, de+1

bc-1, a=b, aorc, JNZ MOUBLK

ENTER DATA axora, a+1

()=a ASC64

NXTAB Call TAB

SETCURS a='375

m=a Call DSPLYBUF

NXTIN Call INPCHR

i-a'214

JZ NXTAB

hl=() LASTTAB

i-a'212

C2 BACKUP

hl=() PNTBUF

i-a'202

JZ BKSP

hl+1, call FULLCHK

Jmp SETCURS

BKSP Call BACKUP, Jmp SETCURS

LASTAB '000

page 5

• TAB h1=() PNTBUF  
NXTT a=m i-a' 333  
JZ ENDT  
Call FULLCHK Tmp NXTT

• ENDT h1+1 ()=h1 LASTAB  
Call FULLCHK, ret

• BACKUP h1-1 ()=h1 PNTBUF, ret

• FULLCHR ()=h1 PNTBUF  
• end fmT

• de = '377 044  
a=e, l-a, rnz  
Call TRNSFR  
h1=MAIN, ehl(sp), ret

• DSPLYBUF Call HOME  
• ent buf

• h1='000 045  
bc= DSPCNT  
NXTDB Call OUTLINE  
a=(bc), a-1 (bc)=a  
INZ NXTDB  
ret

• HOME, a='377  
Call '372 000  
ret

• OPTMSG "OPTIONS--B-D-E  
'203

BLDMSG " BUILDING\_FORMAT  
'203

ENDBMSG " END\_FORMAT\_BUILDING  
'203

PRMPT1 " SP-TO-CONTINUE  
203

page 6

CHAR ? 000  
LINECNT ? 000  
DSPCNT ? 000  
ASC 64 ? 000

PNTFMT ? 000 000  
PNTBUF ? 000 000

nop!

MAIN hL = OPTMSG b = 001  
 Call OUTPAG  
 Call INPCHR  
 i-a 342 (B)  
 C2 BUILD  
 i-a 344 (D)  
 C2 DISPLAY  
 i-a 347 (G)  
 C2 ENTERDATA  
 Jmp MAIN  
 OUTPAG psh BC, call '343000  
 pop BC  
 NXTOUT Call OUTLINE  
 b-1, JNZ NXTOUT  
 ret

BUILD hL = BLDMSG, b = 001  
 Call OUTPAG  
 axora, () = A ASC64  
 Call INPCHR  
 i-a 240  
 r2  
 a2 017  
 () = a LINECNT  
 () = a DSPCNT  
 hL = FMT, () = hL PNTFMT  
 de = ENDFMT, call BLNKFIL

NXTBLD Call INPLINE  
 de = LINE, hL = () PNTFMT  
 Call MOVLINE  
 () = hL PNTFNT, a = () LINECNT  
 a-1, () = a LINECNT  
 JNZ NXTBLD

de = FMT, hL = BUFF  
 Call MOVLINE  
 Call DSPLYBUF  
 hL = ENDBMSG, call OUTLINE  
 Call INPCHR, ret

MOVLINE a=(de), i-a 240

page 2

rc

m=a, hL+1, de+1, Jmp MOVLINE

.

OUTLINE pshbc, b=040

NXTOL a=m, i-a 240

Jc BLNKS

Call 372 000

hL+1, b-1, JNZ NXTOL

pop bc, ret

.

BLNKS a=240

Call 372 000

b-1, JNZ BLNKS

.

ENDOL popbc, ret

.

INPUT Call INPCHR

psh af, Call 372 000

pop af

ret

.

IN000 in 000

ret

.

INPCHR Call IN000

shiftl, JNC INPCHR

Call IN000

psh af

WAIT Call IN000

shiftl Jc WAIT

pop af, ()=a CHR

Call EOLCHK

rz

i-a 214

rz

Call CNVT64

ret

CNVT64 a-(C) ASC64

aora , a=() CHAR , r2

i-a 240

Jc SETBL

i-a 340

rc

ad 337

( ) = a CHAR, ret

6

SETBL a=240

ret

INPL0 Call 343 000

pop be

**INPLINE**       $hL = \text{LINE}$ ,  $pshBC$ ,  $a=L$

anti 040

C-a

NXTIL Call INPUT

Call EOL C HR

J2 IN PLO

i-a 214

J2 ENDIL

$$m=a, hL+1, m=000$$

$a=1, c-a, \text{Jc } NXTIL$

6

ENDL pop bc, RET

10

FOLCHK i-a 202

12

i-a 212

ret

6

•  
EJECTDATA ax0ra, a+1  
C)=a ASC64  
NEXTAB C=11 TAB  
m=a C=11 DISPLAYBUF  
NEXTIN C=11 INPCHR  
I-a 214  
T2 NEXTAB  
HL=(C) LASTAB  
I-a 212  
C2 BACKUP  
HL=(C) PUTBUF  
I-a 202  
T2 BKSP  
HL+1 C=11 FULLCHR  
I-a 333  
NEXTIT a=m, i-a  
TAB HL=(C) PUTBUF  
I2 ENDT  
C=11 FULLCHRS, Tmp NEXTT  
LASTAB 000  
•  
BKSP C=11 BACKUP, C=11 SETCURS  
T2 BKSP  
HL+1 C=11 FULLCHR  
I-a 333  
NEXTIT a=m, i-a  
TAB HL=(C) PUTBUF  
I2 ENDT  
C=11 FULLCHRS, Tmp NEXTT  
LASTAB EJECT  
ENDT HL+1, (C)=HL PUTBUF  
C=11 FULLCHR, RET  
de = ENDBUF, ae, i-a, rnz  
HL = MAIN eHL(Sp), RET

DSPLYBUF Call HOME  
hL=BUFF, bc=DSPCNT  
NXTRDB Call OUTLINE  
a=(bc), a-1 (bc)=a  
JNZ NXTRDB  
RET

\*

HOME a=377  
Call 372000  
RET

\*

BLNKFIL b=240  
FILL m=B, hL+1  
a=e, L-a, JNZ FILL  
a=d h-a, JNZ FILL  
RET

\*

OPTMSG "OPTIONS-  
203  
BLDMSG "BUILD\_FORMAT  
203  
ENDBMSG "END\_FORMAT-BUILDING

203  
\*

CHAR 000  
LINECNT 000  
DSPCNT 000  
ASC64 000

\*

PNTFMT 000000  
PNTBUF 000000

\*

FMT 00000000000000000000000000000000 (24)  
00000000000000000000000000000000

ENDFMT 000

\*

BUFF 00000000000000000000000000000000  
00000000000000000000000000000000  
ENDBUF 000

\*

nop!

With memory and timeapse C++

300006

1

20

丁

320

卷之三

60

8765704-7  
NOT 70000  
MOMMOMM0000000

page 1

Input

• Input and count binary record  
START-INP-BIN  $h1 = 137\ 004$   
INP-BIN  $C = h1, 113\ 002$   
• Input lines  
CALL 135 002

INP-BIN-ENTRY  $(= h1)$  WRP-PTR  
•  $b = 000$   
--- $b$  counts bytes  
NEXT-WRD  $de = OCTET-BUFF$   
pushde,  $c = 003$

NEXT-CHR  $a = m, h1+1, i-a, 240$   
T2 NEXT-CHR  
 $i-a, 215$   
( $de = a$ )  $de + 1$ . To oct buff  
T2 ERRE. must have 3 octets

C-1, T2 NEXT-CHR  
convert and set next

$C = h1 \cdot LAST, poph1$   
• ASCII to bin

CALL 255 001

$h1 = (C) WRP-PTR, m = a, h1+1$   
 $i-a, 215$   
• Test if end line  
 $C = h1 WRP-PTR$   
 $h1 = (C) WRP-PTR, m = a, h1+1$   
 $i-a, 215$

T2 NEXT-WRD  
--- $b$  returns

CALL 386 001  
ERR popde  $h1 = ERR-MSG$

ADDR 000 000

jmp, 000 006  
JL NXT-CODE

I-A, 240  
CALL 000 002

blok To continue

pop hl

push hl, hl=MSGC, call, 326 001

NXT-STOKE CALL, 130 003

display NXT ADDR

CALL MOV-BY-CNT

hl=( ) ADDR

de =, 137 004

Transfer bytes

CALL START-INPUT-BIN

inp bin

hl=MSGC, call 326 001

NXTCODE C0=hl ADDR

BIN-CODE CALL INPUT-ADDR

absoute binary coding

ERR-MSG "ERR?"  
203

LAST 000 000

WRP-PTR 000 000

ACTIT-BUFF 000 000 000

TMP START-INPUT-BIN

CALL 211 001

display succ

page 2

MSGC " CODE?"

' 203

MSGL " IS\_NEXT

' 203

.

INP\_ADDR h1= ' 363 001

call ' 326 001

call START\_INP\_BIN

h1=() ' 137 004

call ' 070 006

RET

.

MOV\_BY\_CNT a=(de), m=a

h1+1, de+1, b-1 JNZ MOU\_BY\_CNT

RET

.

BPMMSG ' 342

BYT ' 260 260 260 240 360

PAG ' 260 260 260 214

nop!

## SEARCH

page 1

SEARCH hl=MSG, call 326 001

, input Addr to Search for

Call 045 003

psh hl

pop BC . save in BC

. start at page 001

de = ? 377 000

.

NEXT\_Pair psh de, pop hl

a=b, i-a' 100

.

. carry rest at page 100

Inc 000 006

.

hl+1 . To next high Byte

psh HL, pop de, save Addr inde

.

. modify instruction

(2=hl) FETCH-ADPR

.

' 052

FETCH-ADDR ' 000 000

.

. TEST if found

Call COMPARE

JNZ NEXT\_Pair . not found if NZ

.

. found display hl

psh de, pop hl

call 130 003

Jmp NEXT\_Pair

.

MSG " ADDRESS\_TO\_SEARCH\_FOR? "

' 203

.

COMPARE a=c, a-1, rnz

a=b, a-h, ret

.

nop!

## Search

- search for empty (zero) pages page 2
  - START  $hl = '137\ 004$ ,  $(-) = hl$  BUFF
  - $hl = '000\ 025$ ,  $(-) = hl$  SAVE
  - $hl = \text{ENTRIES}$ ,  $m = '000$
  - RESET\_P/F  $de = '000\ 000$
- TEST-PAGE  $hl = (-)$  SAVE,  $i = '000$ 
  - $hl + 1$  - To next page
- $c = '000$ 
  - $a = h$ ,  $i - a = '050$ , JZ PONE
  - NXT-BYT  $a = m$
  - C-1, JZ FOUND-ZERO-PAGE
  - $hl + 1$   $(-) = hl$  SAVE
  - aora, JZ NXT-BYT
- - page  $h$  not empty
  - $a = e$  . prev page empty
  - aora, JNZ PAGE-TO-BUFF
  - Jmp TEST-PAGE
- FOUND-ZERO-PAGE  $a = e$  . Page cntr
  - aora, JNZ CONTIGUOUS
  - '124 .  $d = h$  empty page to d
- - COUNT empty pages
  - CONTIGUOUS  $e + 1$  Jmp TEST-PAGE
- DONE  $hl = \text{ENTRIES}$   $m = '007$  . Terminate
  - $a = e$ , aora, JZ WRITE-BUFF
- PAGE-TO-BUFF  $i - a = 202$ 
  - Test if Contiguous
  - JC SINGLE-PAGE
- - $a = d$ ,  $a = e$ ,  $a = 1$ ,  $a = e$
  - Contig d Thru e
  - pshde . and save and set up Buffer

e = '255 Call D-TO-BUFF  
pop de  
'123 . d = e

page 2

SINGLE\_PAGE e = '240  
call D-TO-BUFF, jmp RESET\_PIF

D-TO-BUFF '172 . a=d (page)  
hl = () BUFF, call 225 001 . To Ascii  
hl+1, hl+1, hl+1, m=e . Separator  
hl+1 ()=hl BUFF, m = '215  
hl = ENTRIES, m+1, a=m  
j-a '010 , rnz

WRITE-BUFF hl = '137 004  
call '326 001, jmp 000 006

ENTRIES '000  
BUFF ' 000 000  
SAVE ' 000 000  
nop!

5 1 5

1 3 3

5 2 5

9 4 6

6 1 6

3 6 2

6 4 6

1 0 4

0 4 0

5 1 5

0 0 1

0 0 0

8 5 2

9 4 6

5 3 5

0 4 2

1 2 3

0 3 0

5 4 5

8 4 0

9 0 6

0 0 0

8 2 2

1 0 0

3 7 6

1 1 1

0 2 0

1 4 3

5 2 5

0 0 0

3 7 7

1 2 0

1 0 3

5 4 5

0 0 3

0 1 0

0 4 5

3 1 5

1 0 0

3 2 6

5 1 8

9 4 6

0 5 5

0 4 1

0 0 0

0 3 0

0 0 0

Search

003

210

045

267

060

111

224

110

170

300

225

171

203

277

322R

3170

160

306+

337-

310H

303C

322R

301A

305E

323S

070

337-

3170

324T

-337

323S

323S

305E

322R

090

304D

304D

301A

046

016

303

003

130

050 636