

ZEAP Z80 Assembler - Source Listing

```

0010 ; MEMORY BLOCK 16 BIT CHECKSUM : V1.1
0020 ; for Nas-Sys

0050 ; Execute: (CHKSUM) XXXX YYYY
0060 ; where: (CHKSUM) = location of program
0070 ;         XXXX = start of memory block,
0080 ;         YYYY = length of memory block
0090 ; (all values are hexadecimal).

0110 ; The result is:
0120 ; AAAA SSSS NAS-SYS 1;
0130 ; where: AAAA = address of last byte,
0140 ;         SSSS=16 bit checksum (any
0150 ;         carries beyond this are discarded)
0160 ;         and: NAS-SYS 1 indicates that the
0170 ; program has returned to the monitor.

0190 ; Program is fully relocatable (and
0200 ; may run in ROM).

```

```

0D00          0220          ORG  0D00H
0D00 0060      0230 ZARGS  EQU  60H
0D00 006C      0240 ZTX1   EQU  6CH
0D00 005B      0250 ZMRET  EQU  5BH
0D00 DF60      0260 CHKSUM SCAL ZARGS ; Get the arguments.
0D02 EB        0270      EX   DE,HL ; Mem pointer into HL
0D03 110000    0280      LD   DE, 0; Clear D & pushed sum store.
0D06 D5        0290      PUSH DE
0D07 5E        0300 LOOP   LD   E,(HL); Get current value.
0D08 E3        0310      EX   (SP),HL
0D09 19        0320      ADD  HL,DE; Add value to
0D0A E3        0330      EX   (SP),HL; pushed sum store.
0D0B 23        0340      INC  HL;   To next location.
0D0C 0B        0350      DEC  BC;   Decrement counter.
0D0D 78        0360      LD   A,B
0D0E B1        0370      OR   C;    Set /reset Z flag
0D0F 20F6      0380      JR   NZ LOOP
0D11 2B        0390      DEC  HL;   Back to last byte.
0D12 D1        0400      POP  DE;   Get checksum.
0D13 DF6C      0410      SCAL ZTX1 ; Display HL & DE
0D15 DF5B      0420      SCAL ZMRET; Return to NAS-SYS
0430 ; END

```

Object code:

NASBUG version

```

>T 0D00 0D27
  0D00 2A 0E 0C ED 4B 10 0C 11
  0D08 00 00 D5 5E E3 19 E3 23
  0D10 0B 78 B1 20 F6 2B CD 32
  0D18 02 E1 CD 32 02 CD 40 02
  0D20 31 33 0C C3 59 03 00 00

```

Nas-Sys version

```

T 0D00 0D17
  0D00 DF 60 EB 11 00 00 D5 5E
  0D08 E3 19 E3 23 0B 78 B1 20
  0D10 F6 2B D1 DF 6C DF 5B 00

```