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page    60,132
TITLE   A04ASM1      (COM)  Move and add operations plus display
.MODEL  SMALL
.CODE
ORG 100H
BEGIN:  JMP MAIN
; -----
FLDD    DW      0AH
FLDE    DW      0F120H
FLDF    DW      ?
; -----
MAIN    PROC    NEAR
        MOV     AX, CS
        MOV     DS, AX          ; - init DS by CS

        MOV     AX, FLDD
        ADD     AX, FLDE
        MOV     FLDF, AX      ; - FLDF = FLDD + FLDE

        MOV     CX, 2          ; - 2 byte, 2 loop
        LEA     DI, FLDF
        ADD     DI, CX        ; - for load byte of FLDF
A10PRINTLOOP:
        DEC     DI
        MOV     DH, [DI]      ; - load 1 byte of FLDF
        MOV     BX, 2          ; - 1 byte need 2 character,
                                ; so, 2 print loop

A20LOADDL:
        MOV     DL, 11110000B
        AND     DL, DH        ; - load upper 4 bit into DL

        MOV     AH, CL
        MOV     CL, 4
        SHR     DL, CL
        MOV     CL, AH        ; - shift DL's bit to bottom

        CMP     DL, 10        ; - 0~9 or A~F
        JB      ARABIT
        JMP     ALPHABET

ARABIT:
        ADD     DL, 30H

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JMP     A30PRINTDL

ALPHABET:
        ADD     DL, 37H
        JMP     A30PRINTDL

A30PRINTDL:
        MOV     AH, 02H
        INT     21H          ; - print DL character

        MOV     AH, CL
        MOV     CL, 4
        SHL     DH, CL
        MOV     CL, AH        ; - shift DH left 4 bit to reuse above
                                ; DL 4bit loading codes.

        DEC     BX
        JNZ     A20LOADDL    ; - loop for loading twice
                                ; (2 character per 1 byte)

        LOOP    A10PRINTLOOP

        MOV     AX, 4C00H
        INT     21H

MAIN    ENDP

        END     BEGIN

```