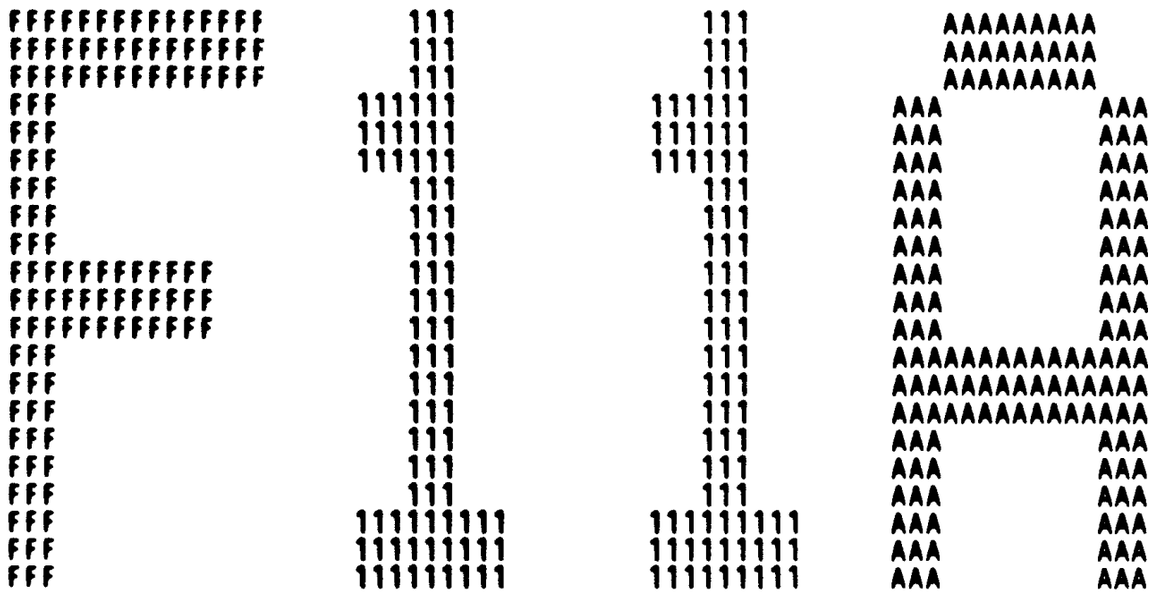
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  CCCCCCCC  HH      HH  KK      KK    SSSSSSSS  UU      UU  MM      MM
  CCCCCCCC  HH      HH  KK      KK    SSSSSSSS  UU      UU  MM      MM
CC          HH      HH  KK      KK  SS          UU      UU  MMMM  MMMM
CC          HH      HH  KK      KK  SS          UU      UU  MMMM  MMMM
CC          HH      HH  KK    KK    SS          UU      UU  MM  MM  MM
CC          HH      HH  KK    KK    SS          UU      UU  MM  MM  MM
CC          HHHHHHHHHH  KKKKK         SSSSSS    UU      UU  MM      MM
CC          HHHHHHHHHH  KKKKK         SSSSSS    UU      UU  MM      MM
CC          HH      HH  KK    KK            SS  UU      UU  MM      MM
CC          HH      HH  KK    KK            SS  UU      UU  MM      MM
CC          HH      HH  KK      KK          SS  UU      UU  MM      MM      ....
CC          HH      HH  KK      KK          SS  UU      UU  MM      MM      ....
  CCCCCCCC  HH      HH  KK      KK  SSSSSSSS    UUUUUUUUUU  MM      MM      ....
  CCCCCCCC  HH      HH  KK      KK  SSSSSSSS    UUUUUUUUUU  MM      MM      ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
;     1          0001  0 MODULE CHKSUM (
;     2          0002  0                 LANGUAGE (BLISS32),
;     3          0003  0                 IDENT = 'V04-000'
;     4          0004  0                 ) =
;     5          0005  1 BEGIN
;     6          0006  1
;     7          0007  1 !
;     8          0008  1 !*****************************************************************************
;     9          0009  1 !*                                                                           *
;    10          0010  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
;    11          0011  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                    *
;    12          0012  1 !*  ALL RIGHTS RESERVED.                                                      *
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;    16          0016  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER     *
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;    18          0018  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY     *
;    19          0019  1 !*  TRANSFERRED.                                                              *
;    20          0020  1 !*                                                                           *
;    21          0021  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE     *
;    22          0022  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT     *
;    23          0023  1 !*  CORPORATION.                                                              *
;    24          0024  1 !*                                                                           *
;    25          0025  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS     *
;    26          0026  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                   *
;    27          0027  1 !*                                                                           *
;    28          0028  1 !*                                                                           *
;    29          0029  1 !*****************************************************************************
;    30          0030  1
;    31          0031  1 !++
;    32          0032  1 !
;    33          0033  1 ! FACILITY:  F11ACP Structure Level 1
;    34          0034  1 !
;    35          0035  1 ! ABSTRACT:
;    36          0036  1 !
;    37          0037  1 !       This routine computes and checks a file header checksum.
;    38          0038  1 !
;    39          0039  1 ! ENVIRONMENT:
;    40          0040  1 !
;    41          0041  1 !       STARLET operating system, including privileged system services
;    42          0042  1 !       and internal exec routines.
;    43          0043  1 !
;    44          0044  1 !--
;    45          0045  1 !
;    46          0046  1 !
;    47          0047  1 ! AUTHOR:  Andrew C. Goldstein,  CREATION DATE:  22-Nov-1977  22:25
;    48          0048  1 !
;    49          0049  1 ! MODIFIED BY:
;    50          0050  1 !
;    51          0051  1 !       A0100   ACG0001         Andrew C. Goldstein,  10-Oct-1978  20:01
;    52          0052  1 !               Previous revision history moved to F11A.REV
;    53          0053  1 !
;    54          0054  1 !--
;    55          0055  1
;    56          0056  1
;    57          0057  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
```

```
;  58          0058  1 REQUIRE 'SRC$:FCPDEF.B32';
```

```
;    60          0373  1 GLOBAL ROUTINE CHECKSUM (HEADER) =
;    61          0374  1
;    62          0375  1 !++
;    63          0376  1 !
;    64          0377  1 ! FUNCTIONAL DESCRIPTION:
;    65          0378  1 !
;    66          0379  1 !       This routine computes, checks, and stores the checksum of a file header.
;    67          0380  1 !
;    68          0381  1 ! CALLING SEQUENCE:
;    69          0382  1 !       CHECKSUM (ARG1)
;    70          0383  1 !
;    71          0384  1 ! INPUT PARAMETERS:
;    72          0385  1 !       ARG1: address of file header buffer
;    73          0386  1 !
;    74          0387  1 ! IMPLICIT INPUTS:
;    75          0388  1 !       NONE
;    76          0389  1 !
;    77          0390  1 ! OUTPUT PARAMETERS:
;    78          0391  1 !       NONE
;    79          0392  1 !
;    80          0393  1 ! IMPLICIT OUTPUTS:
;    81          0394  1 !       NONE
;    82          0395  1 !
;    83          0396  1 ! ROUTINE VALUE:
;    84          0397  1 !       1 if checksum was correct
;    85          0398  1 !       0 if checksum was wrong
;    86          0399  1 !
;    87          0400  1 ! SIDE EFFECTS:
;    88          0401  1 !       Correct checksum stored in header
;    89          0402  1 !
;    90          0403  1 !--
;    91          0404  1
;    92          0405  2 BEGIN
;    93          0406  2
;    94          0407  2 MAP
;    95          0408  2         HEADER          : REF VECTOR [,WORD];
;    96          0409  2
;    97          0410  2 LOCAL
;    98          0411  2         P               : REF VECTOR [,WORD], ! pointer to scan header
;    99          0412  2         SUM             : WORD,         ! checksum value
;   100          0413  2         MATCH;                          ! success flag
;   101          0414  2
;   102          0415  2
;   103          0416  2 ! We simply sum the first 255 words of the file header. Then we compare the
;   104          0417  2 ! checksum in the header with the one computed, and store the new one.
;   105          0418  2 !
;   106          0419  2
;   107          0420  2 SUM = 0;
;   108          0421  2 P = .HEADER;
;   109          0422  2 DECR I FROM 255 TO 1
;   110          0423  2 DO
;   111          0424  3     BEGIN
;   112          0425  3     SUM = .SUM + .P[0];
;   113          0426  3     P = .P + 2;
;   114          0427  2     END;
;   115          0428  2
;   116          0429  2 MATCH = .SUM EQL .P[0];
```

```
;  117          0430  2 P[0] = .SUM;
;  118          0431  2
;  119          0432  2 RETURN .MATCH;
;  120          0433  2
;  121          0434  1 END;

                                                    ! end of routine CHECKSUM

                                                            .TITLE  CHKSUM
                                                            .IDENT  \V04-000\


                                                            .PSECT  $CODE$,NOWRT,2

                                              0004 00000    .ENTRY  CHECKSUM, Save R2                       ; 0373
                                         52   B4 00002      CLRW    SUM                                     ; 0420
                                    51   04   AC   D0 00004  MOVL    HEADER, P                               ; 0421
                                    50   FF   8F   9A 00008  MOVZBL  #255, I                                ; 0422
                                    52        81   A0 0000C 1$:  ADDW2   (P)+, SUM                         ; 0425
                                    FA        50   F5 0000F  SOBGTR  I, 1$                                  ; 0422
                                              50   D4 00012  CLRL    R0                                      ; 0429
                                    61        52   B1 00014  CMPW    SUM, (P)                                ;
                                              02   12 00017  BNEQ    2$                                      ;
                                              50   D6 00019  INCL    R0                                      ;
                                    61        52   B0 0001B 2$:  MOVW    SUM, (P)                            ; 0430
                                              04   0001E      RET                                           ; 0434

; Routine Size:  31 bytes,    Routine Base:  $CODE$ + 0000

;  122          0435  1
;  123          0436  1 END
;  124          0437  0 ELUDOM
```

PSECT SUMMARY

Name	Bytes	Attributes
$CODE$	31	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	Symbols Total	Symbols Loaded	Symbols Percent	Pages Mapped	Processing Time
_255DUA28:[SYSLIB]LIB.L32;1	18619	1	0	1000	00:01.9

```
;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:CHKSUM/OBJ=OBJ$:CHKSUM MSRC$:CHKSUM/UPDATE=(ENH$:CHKSUM)

; Size:         31 code + 0 data bytes
; Run Time:       00:05.1
; Elapsed Time:   00:19.2
; Lines/CPU Min:   5161
; Lexemes/CPU-Min: 12224
; Memory Used:  62 pages
; Compilation Complete
```

CHKSUM
LIS

ACPCNTRL
LIS

CHKPRO
LIS

FCPDEF
B32

DEACCS
LIS

BADSCN
LIS

CLENUP
LIS

CPYNAM
LIS

CHKHDR
LIS

COMMON
LIS

CREHDR
LIS

CREWIN
LIS

ACCESS
LIS

CHKDMO
LIS

DELETE
LIS

CREATE
LIS

CREFCB
LIS