MTAACP

```
CCCCCCCC    AAAAAA   LL            CCCCCCCC  TTTTTTTTTT  VV        VV
CCCCCCCC    AAAAAA   LL            CCCCCCCC  TTTTTTTTTT  VV        VV
CC         AA    AA  LL          CC              TT       VV      VV
CC         AA    AA  LL          CC              TT       VV      VV
CC         AA    AA  LL          CC              TT       VV      VV
CC         AA    AA  LL          CC              TT       VV      VV
CC         AA    AA  LL          CC              TT       VV      VV
CC         AAAAAAAAAA LL         CC              TT       VV      VV
CC         AAAAAAAAAA LL         CC              TT        VV    VV
CC         AA    AA  LL          CC              TT        VV    VV
CC         AA    AA  LL          CC              TT         VV  VV    ::::
CCCCCCCC   AA    AA  LLLLLLLLLL   CCCCCCCC       TT          VVVV     ::::
CCCCCCCC   AA    AA  LLLLLLLLLL   CCCCCCCC       TT           VV      ::::

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
```

CALCTV
V04-000

L 13
- CALCULATES ANSI TAPE VERSION   16-SEP-1984 02:03:31 VAX/VMS Macro V04-00   Page 1
                                         5-SEP-1984 02:10:29 [MTAACP.SRC]CALCTV.MAR;1   (1)

C
V

```
0000     1                    .TITLE  CALCTV - CALCULATES ANSI TAPE VERSION
0000     2                    .IDENT  'V04-000'
0000     3
0000     4    ;********************************************************************
0000     5    ;*                                                                  *
0000     6    ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                         *
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0000    18    ;*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
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0000    22    ;*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.         *
0000    23    ;*                                                                  *
0000    24    ;*                                                                  *
0000    25    ;********************************************************************
0000    26    ;
0000    27    ;++
0000    28    ;
0000    29    ; FACILITY:      MAGNETIC TAPE ACP
0000    30    ;
0000    31    ; ABSTRACT:
0000    32    ;
0000    33    ;       This routine calculates the generation and generation version fields
0000    34    ;       of the ANSI MAGNETIC TAPE from the FILES-11 version number.
0000    35    ;--
0000    36    ;
0000    37    ;
0000    38    ; ENVIRONMENT:
0000    39    ;       STARLET operating system, including privileged SYSTEM SERVICES and
0000    40    ;       internal EXEC routines.
0000    41    ;
0000    42    ;
0000    43    ;
0000    44    ; AUTHOR:  Deborah H. Gillespie,   CREATION DATE:  26-Jul-1977
0000    45    ;
0000    46    ; Modified By:
0000    47    ;
0000    48    ;       V02-003 REFORMAT         Frederick E. Deen, Jr.         29-Jul-1980
0000    49    ;               This code was reformatted to adhere to RMS standards
0000    50    ;
0000    51    ;       V02-002 MCN0014          Maria del C. Nasr              10-Jun-1980
0000    52    ;               If file version number is zero, set to 1.
0000    53    ;
0000    54    ;--
0000    55    ;
0000    56    ;
0000    57    ;
```

```
                    0000    58  ; INCLUDE FILES:
                    0000    59  ;
                    0000    60
                    0000    61  ;
                    0000    62  ; MACROS:
                    0000    63  ;
                    0000    64
                    0000    65
                    0000    66  ; EQUATED SYMBOLS:
                    0000    67  ;
                    0000    68  ; INPUT PARAMETERS
                    0000    69  ;
                    0000    70
      00000004      0000    71          VERSION = 4              ; binary version number
      00000008      0000    72          GENADDR = 8              ; addr of quad word to receive
                    0000    73                                   ;  generation and gen. number
                    0000    74
                    0000    75  ;
                    0000    76  ; OWN STORAGE:
                    0000    77  ;
                    0000    78
```

CALCTV
V04-000
    - CALCULATES ANSI TAPE VERSION   N 13   16-SEP-1984 02:03:31 VAX/VMS Macro V04-00   Page 3
                                              5-SEP-1984 02:10:29 [MTAACP.SRC]CALCTV.MAR;1   (3)

```
                        0000      80
                        0000      81  ;++
                        0000      82  ;
                        0000      83  ; CALC_TAPE_VER - This routine calculates the generation and generation version
                        0000      84  ;                 fields in the ANSI MAGNETIC TAPE from the FILES-11 version
                        0000      85  ;                 number.
                        0000      86  ;
                        0000      87  ; CALLING SEQUENCE:
                        0000      88  ;     CALC_TAPE_VER(ARG1,ARG2)
                        0000      89  ;
                        0000      90  ; INPUT PARAMETERS:
                        0000      91  ;     ARG1 - binary version number
                        0000      92  ;     ARG2 - address of quad word to receive generation and generation number
                        0000      93  ;
                        0000      94  ; IMPLICIT INPUTS:
                        0000      95  ;     None
                        0000      96  ;
                        0000      97  ; OUTPUT PARAMETERS:
                        0000      98  ;     ARG2 - address to receive
                        0000      99  ;                 4 bytes generation number
                        0000     100  ;                 4 bytes generation version number
                        0000     101  ;
                        0000     102  ; IMPLICIT OUTPUTS:
                        0000     103  ;     None
                        0000     104  ;
                        0000     105  ; ROUTINE VALUE:
                        0000     106  ;     None
                        0000     107  ;
                        0000     108  ; SIDE EFFECTS:
                        0000     109  ;     Generation number = (version -1) /100
                        0000     110  ;     Generation version number = MOD (version -1)/100
                        0000     111  ;
                        0000     112  ;--
                        0000     113
                    00000000     114          .PSECT   $CODE$,NOWRT,LONG
                        0000     115
                        0000     116  CALC_TAPE_VER::
                0004    0000     117          .WORD    ^M<R2>                        ; save register R2
                        0002     118
      52    08 AC   D0  0002     119          MOVL     GENADDR(AP),R2                ; get address of answer
            62       7C  0006     120          CLRQ     (R2)                          ; clear answer
      03 04 AC      F4  0008     121          SOBGEQ   VERSION(AP),1$                ; if version greater than 0, ok
         04 AC      D6  000C     122          INCL     VERSION(AP)                   ; otherwise, set to 1
   50    04 AC      3C  000F     123  1$:      MOVZWL   VERSION(AP),R0                ; pickup 16 bits of version
            51       D4  0013     124          CLRL     R1                            ; EDIV takes quad word
04 A2  62  50  00000064 8F  7B  0015  125          EDIV     #100,R0,(R2),4(R2)            ; calc quotient and remainder
            62       D6  001F     126          INCL     (R2)                          ; increment quotient
            04           0021     127          RET                                    ; return
                        0022     128
                        0022     129          .END
```

B 14

CALCTV   - CALCULATES ANSI TAPE VERSION   16-SEP-1984 02:03:31 VAX/VMS Macro V04-00   Page 4
Symbol table   5-SEP-1984 02:10:29 [MTAACP.SRC]CALCTV.MAR;1   (3)

```
AQB_TYPE        = 00000005
CALC_TAPE_VER     00000000 RG    01
FCB_TYPE        = 00000000
GEN_ADDR        = 00000008
MVL_TYPE        = 00000004
RVT_TYPE        = 00000003
VCB_TYPE        = 00000002
VERSION         = 00000004
WCB_TYPE        = 00000001
```

```
                              +-----------------+
                              ! Psect synopsis  !
                              +-----------------+

PSECT name                 Allocation         PSECT No.  Attributes
----------                 ----------         ---------  ----------
.   ABS  .                 00000000 (    0.)  00 (   0.)  NOPIC   USR   CON   ABS   LCL NOSHR NOEXE NORD  NOWRT NOVEC BYTE
$CODE$                     00000022 (   34.)  01 (   1.)  NOPIC   USR   CON   REL   LCL NOSHR  EXE   RD   NOWRT NOVEC LONG
```

```
                          +-------------------------+
                          ! Performance indicators  !
                          +-------------------------+

Phase                   Page faults   CPU Time      Elapsed Time
-----                   -----------   --------      ------------
Initialization               29       00:00:00.04   00:00:02.07
Command processing          124       00:00:00.68   00:00:07.08
Pass 1                       84       00:00:00.67   00:00:03.50
Symbol table sort             0       00:00:00.01   00:00:00.01
Pass 2                       39       00:00:00.50   00:00:03.15
Symbol table output           2       00:00:00.01   00:00:00.01
Psect synopsis output         1       00:00:00.02   00:00:00.02
Cross-reference output        0       00:00:00.00   00:00:00.00
Assembler run totals        282       00:00:01.93   00:00:15.86
```

The working set limit was 900 pages.
2621 bytes (6 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 9 non-local and 1 local symbols.
312 source lines were read in Pass 1, producing 11 object records in Pass 2.
7 pages of virtual memory were used to define 6 macros.

```
                          +------------------------------+
                          ! Macro library statistics     !
                          +------------------------------+

Macro library name                      Macros defined
------------------                      --------------
_$255$DUA28:[SYS.OBJ]LIB.MLB;1                0
_$255$DUA28:[SYSLIB]STARLET.MLB;2             0
TOTALS (all libraries)                        0
```

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:CALCTV/OBJ=OBJ$:CALCTV MSRC$:MTADEF1/UPDATE=(ENH$:MTADEF1)+MSRC$:CALCTV/UPDATE=(ENH$:CALCTV)+EXECML$/LIB

CALDAYNO
LIS

SYSFAC
DAT

ACPCTR
LIS

ALLOCB
LIS

SYSMSG
LIS

CHKACC
LIS

MTAACP

ACCESS
LIS

MTAAACP
MAP

ACCFL
LIS

CALCTV
LIS

BLOCK
LIS

CLOSFL
LIS

MTADEF
B32

CHKDMD
LIS