C 10

```
EEEEEEEEEEEEEEE  DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEEEEEEEEEEE     DDD         DDD        TTT
EEEEEEEEEEEE     DDD         DDD        TTT
EEEEEEEEEEEE     DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEE              DDD         DDD        TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD           TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD           TTT
EEEEEEEEEEEEEEE  DDDDDDDDDDDD           TTT
```

```
EXE

Moc
---
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
SYS
LBI
LII
```

```
**FILE**ID**CHMMESS                                  G 2                                                                                  EDT
                                                                                                                                          V04
```

```
  CCCCCCCC  HH      HH  MM      MM  MM      MM  EEEEEEEEEE    SSSSSSSS    SSSSSSSS
  CCCCCCCC  HH      HH  MM      MM  MM      MM  EEEEEEEEEE    SSSSSSSS    SSSSSSSS
CC          HH      HH  MMMM  MMMM  MMMM  MMMM  EE          SS          SS
CC          HH      HH  MMMM  MMMM  MMMM  MMMM  EE          SS          SS
CC          HH      HH  MM  MM  MM  MM  MM  MM  EE          SS          SS
CC          HH      HH  MM  MM  MM  MM  MM  MM  EE          SS          SS
CC          HHHHHHHHHH  MM      MM  MM      MM  EEEEEEEE      SSSSSS      SSSSSS
CC          HHHHHHHHHH  MM      MM  MM      MM  EEEEEEEE      SSSSSS      SSSSSS
CC          HH      HH  MM      MM  MM      MM  EE                  SS          SS
CC          HH      HH  MM      MM  MM      MM  EE                  SS          SS
CC          HH      HH  MM      MM  MM      MM  EE                  SS          SS      ....
CC          HH      HH  MM      MM  MM      MM  EE                  SS          SS      ....
  CCCCCCCC  HH      HH  MM      MM  MM      MM  EEEEEEEEEE  SSSSSSSS    SSSSSSSS        ....
  CCCCCCCC  HH      HH  MM      MM  MM      MM  EEEEEEEEEE  SSSSSSSS    SSSSSSSS        ....

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
```

```
0 %TITLE 'EDT$CHMMESS - output a message'
0 MODULE EDT$CHMMESS (                                 ! Output a message
0               IDENT = 'V04-000'                              ! File: CHMMESS.BLI Edit: JBS1010
0               ) =
1 BEGIN
1 !
1 !****************************************************************************
1 !*                                                                          *
1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                  *
1 !*  ALL RIGHTS RESERVED.                                                    *
1 !*                                                                          *
1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED   *
1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE   *
1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY   *
1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
1 !*  TRANSFERRED.                                                            *
1 !*                                                                          *
1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
1 !*  CORPORATION.                                                            *
1 !*                                                                          *
1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                 *
1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! FACILITY:     EDT -- The DEC Standard Editor
1 !
1 ! ABSTRACT:
1 !
1 !       This module outputs a message on the last line of the terminal.
1 !
1 ! ENVIRONMENT:  Runs at any access mode - AST reentrant
1 !
1 ! AUTHOR: Bob Kushlis, CREATION DATE: Unknown
1 !
1 ! MODIFIED BY:
1 !
1 ! 1-001 - Original.  DJS 04-Feb-1981.  This module was created by
1 !       extracting the routine EDT$$OUT_MSG  from module CHANGE.BLI.
1 ! 1-002 - Regularize headers.  JBS 03-Mar-1981
1 ! 1-003 - Make this routine general for messages or strings.  SMB 30-Jun-1982
1 ! 1-004 - Remove setting to TI_WRSTR in case HCPY change mode.  SMB 02-Jul-1982
1 ! 1-005 - Set EDT$$G_LASTMSG.  JBS 05-Jul-1982
1 ! 1-006 - Call EDT$$FMT_STR instead of EDT$$FMT_LIT, so EDT$$G_PRV_COL will be
1 !         kept up to date.  JBS 05-Oct-1982
1 ! 1-007 - Don't clear EDT$$G_SCR_CHGD.  JBS 09-Oct-1982
1 ! 1-008 - Bypadd most of the fancy stuff if we are in hardcopy change mode.  JBS 16-Nov-1982
1 ! 1-009 - Check for terminal type unkown also.  SMB 03-Dec-1982
1 ! 1-010 - Treat message number 0 as meaning no message.  JBS 01-Apr-1983
1 !--
1
```

```
;    59          0058   1 %SBTTL 'Declarations'
;    60          0059   1 !
;    61          0060   1 ! TABLE OF CONTENTS:
;    62          0061   1 !
;    63          0062   1
;    64          0063   1 REQUIRE 'EDTSRC:TRAROUNAM';
;    65          0502   1
;    66          0503   1 FORWARD ROUTINE
;    67          0504   1     EDT$$OUT_MSG : NOVALUE;                       ! Output a message on the last line of the terminal
;    68          0505   1
;    69          0506   1 !
;    70          0507   1 ! INCLUDE FILES:
;    71          0508   1 !
;    72          0509   1
;    73          0510   1 REQUIRE 'EDTSRC:EDTREQ';
;    74          0645   1
;    75          0646   1 !
;    76          0647   1 ! MACROS:
;    77          0648   1 !
;    78          0649   1 !       NONE
;    79          0650   1 !
;    80          0651   1 ! EQUATED SYMBOLS:
;    81          0652   1 !
;    82          0653   1 !       NONE
;    83          0654   1 !
;    84          0655   1 ! OWN STORAGE:
;    85          0656   1 !
;    86          0657   1 !       NONE
;    87          0658   1 !
;    88          0659   1 ! EXTERNAL REFERENCES:
;    89          0660   1 !
;    90          0661   1 !       In the routine
;   92      0662  1 %SBTTL 'EDT$$OUT_MSG  - output a message'
;   93      0663  1
;   94      0664  1 GLOBAL ROUTINE EDT$$OUT_MSG (                           ! Output a message
;   95      0665  1     POS,                                                ! Line number for this message
;   96      0666  1     MESS,                                               ! The message number to output
;   97      0667  1     ADDR,                                               ! Address of a string
;   98      0668  1     LEN                                                 ! Length of a string
;   99      0669  1     ) : NOVALUE =
;  100      0670  1
;  101      0671  1 !++
;  102      0672  1 ! FUNCTIONAL DESCRIPTION:
;  103      0673  1 !
;  104      0674  1 !       This routine outputs a message on the last line of the terminal.
;  105      0675  1 !       The input parameters are the line position for the message,
;  106      0676  1 !       the message number (if it is a message), or the message string and
;  107      0677  1 !       its length if no message number is present.
;  108      0678  1 !
;  109      0679  1 ! FORMAL PARAMETERS:
;  110      0680  1 !
;  111      0681  1 !  POS                      The line number on which to print message
;  112      0682  1 !
;  113      0683  1 !  MESS                     The number of the message to output
;  114      0684  1 !
;  115      0685  1 !  ADDR                     The address of a string message
;  116      0686  1 !
;  117      0687  1 !  LEN                      The length of the string message
;  118      0688  1 !
;  119      0689  1 ! IMPLICIT INPUTS:
;  120      0690  1 !
;  121      0691  1 !       EDT$$A_FMT_WRRUT
;  122      0692  1 !       EDT$$G_MESSAGE_LINE
;  123      0693  1 !       EDT$$G_TI_TYP
;  124      0694  1 !
;  125      0695  1 ! IMPLICIT OUTPUTS:
;  126      0696  1 !
;  127      0697  1 !       EDT$$G_PRV_COL
;  128      0698  1 !       EDT$$G_TIN_ECHOPOS
;  129      0699  1 !       EDT$$G_MSGFLG
;  130      0700  1 !       EDT$$G_LASTMSG
;  131      0701  1 !
;  132      0702  1 ! ROUTINE VALUE:
;  133      0703  1 !
;  134      0704  1 !       NONE
;  135      0705  1 !
;  136      0706  1 ! SIDE EFFECTS:
;  137      0707  1 !
;  138      0708  1 !       NONE
;  139      0709  1 !
;  140      0710  1 !--
;  141      0711  1
;  142      0712  2     BEGIN
;  143      0713  2
;  144      0714  2     EXTERNAL ROUTINE
;  145      0715  2         EDT$$STOP_WKINGMSG,                             ! Stop the working message
;  146      0716  2         EDT$$FMT_STR,                                   ! Put a string in format buffer
;  147      0717  2         EDT$$OUT_FMTBUF,                                ! Output the format buffer
;  148      0718  2         EDT$$SC_POSCSIF,                                ! Put cursor position in format buffer
;  149        0719  2             EDT$$SC_ERATOEOL,                          ! Erase to end of line
;  150        0720  2             EDT$$SC_REVID,                             ! Start reverse video
;  151        0721  2             EDT$$MSG_TOSTR;                            ! Get message text
;  152        0722  2
;  153        0723  2         EXTERNAL
;  154        0724  2             EDT$$G_MESSAGE_LINE,                       ! Message line
;  155        0725  2             EDT$$G_TIN_ECHOPOS,                        ! Column to start message echo
;  156        0726  2             EDT$$G_MSGFLG,                             ! 1 = erase the message line on the next keystroke
;  157        0727  2             EDT$$G_PRV_COL,                            ! Previous column number.
;  158        0728  2             EDT$$G_LASTMSG,                            ! The last message printed
;  159        0729  2             EDT$$G_TI_TYP;                             ! The type of the terminals
;  160        0730  2
;  161        0731  2         EDT$$STOP_WKINGMSG ();
;  162        0732  2 !+
;  163        0733  2 ! If the message is being printed on the last line, then we want it to
;  164        0734  2 ! stay there until the user hits a key, but we don't want to issue the
;  165        0735  2 ! PRTC message.
;  166        0736  2 !-
;  167        0737  2
;  168        0738  3         IF (.POS EQL .EDT$$G_MESSAGE_LINE + 1)
;  169        0739  2         THEN
;  170        0740  3             BEGIN
;  171        0741  3             EDT$$G_TIN_ECHOPOS = 0;
;  172        0742  3             EDT$$G_MSGFLG = 1;
;  173        0743  2             END;
;  174        0744  2
;  175        0745  2 !+
;  176        0746  2 ! Don't do anything fancy if this is a hard copy terminal.
;  177        0747  2 !-
;  178        0748  2
;  179        0749  3         IF (.EDT$$G_TI_TYP NEQ TERM_HCPY) AND (.EDT$$G_TI_TYP NEQ TERM_UNKNOWN)
;  180        0750  2         THEN
;  181        0751  3             BEGIN
;  182        0752  3 !+
;  183        0753  3 ! Force the cursor to the indicated line and column
;  184        0754  3 !-
;  185        0755  3             EDT$$SC_POSCSIF (.POS, .EDT$$G_TIN_ECHOPOS);
;  186        0756  3 !+
;  187        0757  3 ! Erase the line.
;  188        0758  3 !-
;  189        0759  3             EDT$$SC_ERATOEOL ();
;  190        0760  3 !+
;  191        0761  3 ! Turn reverse video on.
;  192        0762  3 !-
;  193        0763  3             EDT$$SC_REVID ();
;  194        0764  2             END;
;  195        0765  2
;  196        0766  2 !+
;  197        0767  2 ! Get the message.
;  198        0768  2 !-
;  199        0769  2
;  200        0770  3         IF (.LEN NEQ 0)
;  201        0771  2         THEN
;  202        0772  3             BEGIN
;  203        0773  3             EDT$$FMT_STR (.ADDR, .LEN);
;  204        0774  3             EDT$$G_LASTMSG = 1;
;  205        0775  3             END
;  206       0776  2       ELSE
;  207       0777  2
;  208       0778  3           IF (.MESS NEQ 0)
;  209       0779  2           THEN
;  210       0780  3               BEGIN
;  211       0781  3               EDT$$MSG_TOSTR (.MESS);
;  212       0782  3               EDT$$G_LASTMSG = .MESS;
;  213       0783  2               END;
;  214       0784  2
;  215       0785  2 !+
;  216       0786  2 ! Write out the buffer.
;  217       0787  2 !-
;  218       0788  2       EDT$$OUT_FMTBUF ();
;  219       0789  1       END;                                         ! of routine EDT$$OUT_MSG


                                                                   .TITLE  EDT$CHMMESS EDT$CHMMESS - output a message
                                                                   .IDENT  \V04-000\

                                                                   .EXTRN  EDT$$STOP_WKINGMSG
                                                                   .EXTRN  EDT$$FMT_STR, EDT$$OUT_FMTBUF
                                                                   .EXTRN  EDT$$SC_POSCSIF
                                                                   .EXTRN  EDT$$SC_ERATOEOL
                                                                   .EXTRN  EDT$$SC_REVID, EDT$$MSG_TOSTR
                                                                   .EXTRN  EDT$$G_MESSAGE_LINE
                                                                   .EXTRN  EDT$$G_TIN_ECHOPOS
                                                                   .EXTRN  EDT$$G_MSGFLG, EDT$$G_PRV_COL
                                                                   .EXTRN  EDT$$G_LASTMSG, EDT$$G_TI_TYP

                                                                   .PSECT  _EDT$CODE,NOWRT,  SHR,  PIC,2

                                              001C 00000           .ENTRY  EDT$$OUT_MSG, Save R2,R3,R4                          ; 0664
                         54 00000000G  00  9E 00002           MOVAB   EDT$$G_LASTMSG, R4                                   ;
                         53 00000000G  00  9E 00009           MOVAB   EDT$$G_TIN_ECHOPOS, R3                               ;
                00000000G  00              00  FB 00010           CALLS   #0, EDT$$STOP_WKINGMSG                               ; 0731
             50 00000000G  00              01  C1 00017           ADDL3   #1, EDT$$G_MESSAGE_LINE, R0                          ; 0738
                           50          04  AC  D1 0001F           CMPL    POS, R0                                              ;
                                           09  12 00023           BNEQ    1$                                                   ;
                                           63  D4 00025           CLRL    EDT$$G_TIN_ECHOPOS                                   ; 0741
                00000000G  00              01  D0 00027           MOVL    #1, EDT$$G_MSGFLG                                    ; 0742
                         50 00000000G  00  D0 0002E 1$:       MOVL    EDT$$G_TI_TYP, R0                                    ; 0749
                           03              50  D1 00035           CMPL    R0, #3                                               ;
                                           1E  13 00038           BEQL    2$                                                   ;
                                           50  D5 0003A           TSTL    R0                                                   ;
                                           1A  13 0003C           BEQL    2$                                                   ;
                                           63  DD 0003E           PUSHL   EDT$$G_TIN_ECHOPOS                                   ; 0755
                                       04  AC  DD 00040           PUSHL   POS                                                  ;
                00000000G  00              02  FB 00043           CALLS   #2, EDT$$SC_POSCSIF                                  ;
                00000000G  00              00  FB 0004A           CALLS   #0, EDT$$SC_ERATOEOL                                 ; 0759
                00000000G  00              00  FB 00051           CALLS   #0, EDT$$SC_REVID                                    ; 0763
                                       10  AC  D5 00058 2$:       TSTL    LEN                                                  ; 0770
                                           10  13 0005B           BEQL    3$                                                   ;
                           7E          0C  AC  7D 0005D           MOVQ    ADDR, -(SP)                                          ; 0773
                00000000G  00              02  FB 00061           CALLS   #2, EDT$$FMT_STR                                     ;
                           64              01  D0 00068           MOVL    #1, EDT$$G_LASTMSG                                   ; 0774
                                           12  11 0006B           BRB     4$                                                   ; 0770
                           52          08  AC  D0 0006D 3$:       MOVL    MESS, R2                                             ; 0778
```

```
                                              0C  13 00071         BEQL    4$                                                    ;
                                              52  DD 00073         PUSHL   R2                                                    ; 0781
                           00000000G  00      01  FB 00075         CALLS   #1, EDT$$MSG_TOSTR                                    ;
                                      64      52  D0 0007C         MOVL    R2, EDT$$G_LASTMSG                                    ; 0782
                           00000000G  00      00  FB 0007F 4$:     CALLS   #0, EDT$$OUT_FMTBUF                                   ; 0788
                                                  04 00086         RET                                                           ; 0789

; Routine Size:  135 bytcs,    Routine Base:  _EDT$CODE + 0000


;  220            0790  1
;  221            0791  1 !<BLF/PAGE>
;  223          0792  1 END                                                  ! of module EDT$CHMMES
;  224          0793  1
;  225          0794  0 ELUDOM




;                                          PSECT SUMMARY
;
;       Name                        Bytes                         Attributes
;
;   _EDT$CODE                            135  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)




;                                 Library Statistics
;
;                                                  -------- Symbols --------       Pages        Processing
;       File                                      Total    Loaded   Percent        Mapped       Time
;
;   _$255$DUA28:[EDT.SRC]EDT.L32;1                  377         2         0           40          00:00.2
;   _$255$DUA28:[EDT.SRC]PSECTS.L32;1                 2         1        50            7          00:00.1




;                                          COMMAND QUALIFIERS
;
;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS$:CHMMESS/OBJ=OBJ$:CHMMESS MSRC$:CHMMESS.BLI/UPDATE=(ENH$:CHMMESS
;       )

; Size:         135 code + 0 data bytes
; Run Time:        00:11.9
; Elapsed Time:    00:15.0
; Lines/CPU Min:    4006
; Lexemes/CPU-Min: 10289
; Memory Used:  72 pages
; Compilation Complete
```

0132 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY