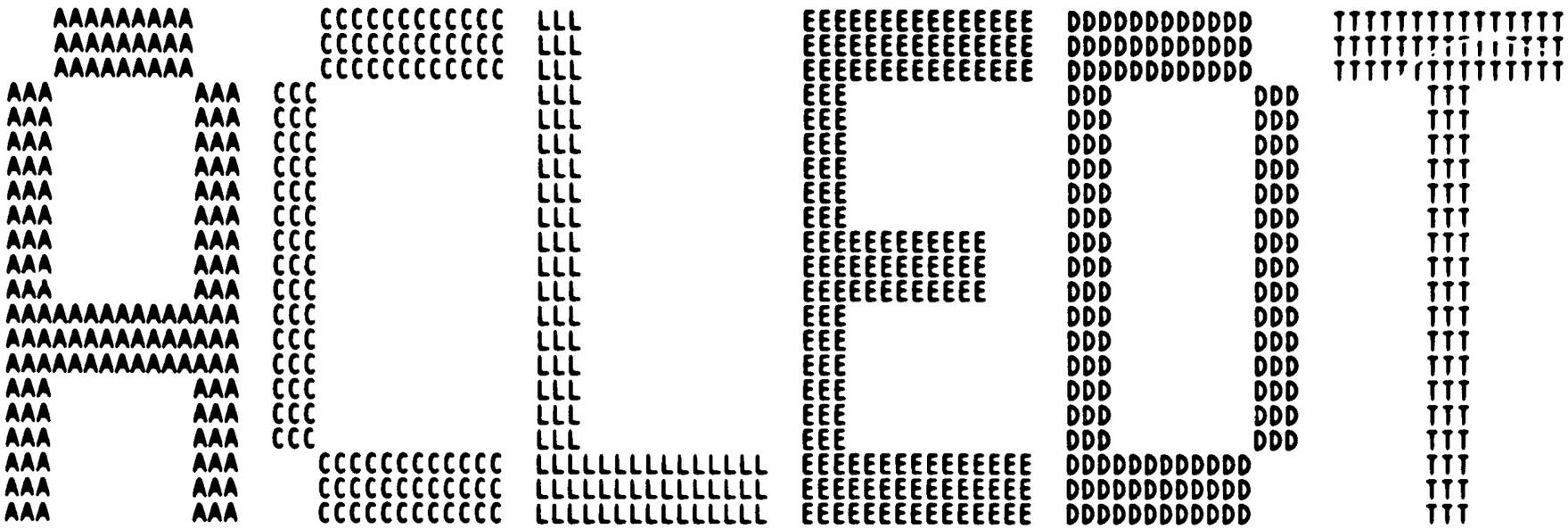
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FILEID**AEDSUBR

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  AAAAAA    EEEEEEEEEE  DDDDDDDD      SSSSSSSS  UU      UU  BBBBBBBB    RRRRRRRR
  AAAAAA    EEEEEEEEEE  DDDDDDDD      SSSSSSSS  UU      UU  BBBBBBBB    RRRRRRRR
AA      AA  EE          DD      DD  SS          UU      UU  BB      BB  RR      RR
AA      AA  EE          DD      DD  SS          UU      UU  BB      BB  RR      RR
AA      AA  EE          DD      DD  SS          UU      UU  BB      BB  RR      RR
AA      AA  EE          DD      DD  SS          UU      UU  BB      BB  RR      RR
AA      AA  EEEEEEEE    DD      DD    SSSSSS    UU      UU  BBBBBBBB    RRRRRRRR
AA      AA  EEEEEEEE    DD      DD    SSSSSS    UU      UU  BBBBBBBB    RRRRRRRR
AAAAAAAAAA  EE          DD      DD          SS  UU      UU  BB      BB  RR  RR
AAAAAAAAAA  EE          DD      DD          SS  UU      UU  BB      BB  RR  RR
AA      AA  EE          DD      DD          SS  UU      UU  BB      BB  RR    RR      ....
AA      AA  EE          DD      DD          SS  UU      UU  BB      BB  RR    RR      ....
AA      AA  EEEEEEEEEE  DDDDDDDD    SSSSSSSS    UUUUUUUUUU  BBBBBBBB    RR      RR    ....
AA      AA  EEEEEEEEEE  DDDDDDDD    SSSSSSSS    UUUUUUUUUU  BBBBBBBB    RR      RR    ....

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```

AED
V04

```
;     1          0001  0 MODULE AED$SUBR (
;     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 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
;    10          0010  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
;    11          0011  1 !*  ALL RIGHTS RESERVED.                                                     *
;    12          0012  1 !*                                                                           *
;    13          0013  1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED   *
;    14          0014  1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE  *
;    15          0015  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
;    16          0016  1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY   *
;    17          0017  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
;    18          0018  1 !*  TRANSFERRED.                                                             *
;    19          0019  1 !*                                                                           *
;    20          0020  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
;    21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
;    22          0022  1 !*  CORPORATION.                                                             *
;    23          0023  1 !*                                                                           *
;    24          0024  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
;    26          0026  1 !*                                                                           *
;    27          0027  1 !*                                                                           *
;    28          0028  1 !*****************************************************************************
;    29          0029  1
;    30          0030  1 !++
;    31          0031  1 !
;    32          0032  1 ! FACILITY:     Miscellaneous utilities
;    33          0033  1 !
;    34          0034  1 ! ABSTRACT:
;    35          0035  1 !
;    36          0036  1 !       This module contains miscellaneous routines utilized by the
;    37          0037  1 !       ACL editor.
;    38          0038  1 !
;    39          0039  1 ! ENVIRONMENT:
;    40          0040  1 !
;    41          0041  1 !       VAX/VMS operating system, user mode utilities.
;    42          0042  1 !
;    43          0043  1 !--
;    44          0044  1 !
;    45          0045  1 !
;    46          0046  1 ! AUTHOR:       L. Mark Pilant          CREATION DATE:  27-Dec-1982  11:45
;    47          0047  1 !
;    48          0048  1 ! MODIFIED BY:
;    49          0049  1 !
;    50          0050  1 !       V03-009 LMP0213         L. Mark Pilant,         24-Mar-1984  12:23
;    51          0051  1 !               Add support for locking and unlocking the object's ACL.
;    52          0052  1 !
;    53          0053  1 !       V03-008 LMP0193         L. Mark Pilant,         15-Feb-1984  9:37
;    54          0054  1 !               Remove the ACL twiddling in AED_UPDATEACL.  The actual ACL
;    55          0055  1 !               modification takes place when the session is ended.
;    56          0056  1 !
;    57          0057  1 !       V03-007 LMP0181         L. Mark Pilant,         15-Dec-1983  9:52
```

```
;    58          0058  1 !                   Change code to use $CHANGE_ACL instead of the ACP to do
;    59          0059  1 !                   ACL twiddling.
;    60          0060  1 !
;    61          0061  1 !           V03-006 LMP0172         L. Mark Pilant,         28-Nov-1983  12:11
;    62          0062  1 !                   Numerous bug fixes, support for VT2xx terminals, and a
;    63          0063  1 !                   session keystroke logger.
;    64          0064  1 !
;    65          0065  1 !           V03-005 LMP0103         L. Mark Pilant,         28-Apr-1983  9:45
;    66          0066  1 !                   Add support for HIDDEN and PROTECTED ACEs.
;    67          0067  1 !
;    68          0068  1 !           V03-004 LMP0100         L. Mark Pilant,         14-Apr-1983  12:11
;    69          0069  1 !                   Add the $FORMAT_ACL and $PARSE_ACL system services.
;    70          0070  1 !
;    71          0071  1 !           V03-003 LMP0080         L. Mark Pilant,         16-Feb-1983  15:48
;    72          0072  1 !                   Include some additional screen positioning to get around
;    73          0073  1 !                   some problems with the new screen package.
;    74          0074  1 !
;    75          0075  1 !           V03-002 LMP0076         L. Mark Pilant,         2-Feb-1983  14:43
;    76          0076  1 !                   Correct a bug that caused an access violation if the last
;    77          0077  1 !                   line of the ACL text being compressed was empty.
;    78          0078  1 !
;    79          0079  1 !           V03-001 LMP0074         L. Mark Pilant,         20-Jan-1983  12:13
;    80          0080  1 !                   Correctly handle the RMS journal ACE's by setting or
;    81          0081  1 !                   resetting the flags in the header when an ACE is added
;    82          0082  1 !                   or deleted.
;    83          0083  1 !
;    84          0084  1 !**
;    85          0085  1
;    86          0086  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;    87          0087  1 LIBRARY 'SYS$LIBRARY:TPAMAC.L32';
;    88          0088  1 REQUIRE 'SRC$:ACLEDTDEF';
```

```
;    90          0541  1 FORWARD ROUTINE
;    91          0542  1           AED_COMPRESS     : NOVALUE,          ! Compress the screen
;    92          0543  1           AED_SEGSPLIT,                        ! Split segment into two pieces
;    93          0544  1           AED_SEGCOMBINE,                      ! Combine two segments
;    94          0545  1           AED_COPSEGMENT,                      ! Copy segment to working storage
;    95          0546  1           AED_REPSEGMENT,                      ! Replace segment from working storage
;    96          0547  1           AED_POSITION     : NOVALUE,          ! Position to selected line
;    97          0548  1           AED_UPDATEACL,                       ! Update the file's ACL
;    98          0549  1           AED_SET_CURSOR;                      ! Set cursor position & remember
;    99          0550  1
;   100          0551  1 EXTERNAL ROUTINE
;   101          0552  1           AED_PUTOUTPUT;                       ! General purpose output routine
```

```
;  103          0553  1 GLOBAL ROUTINE AED_COMPRESS : NOVALUE =
;  104          0554  1
;  105          0555  1 !++
;  106          0556  1 !
;  107          0557  1 ! FUNCTIONAL DESCRIPTION:
;  108          0558  1 !
;  109          0559  1 !       This routine updates the screen display with the most recent copy of
;  110          0560  1 !       the text stored in memory.  In updating, and blank lines (DUMMY) are
;  111          0561  1 !       eliminated from the display and the line table.
;  112          0562  1 !
;  113          0563  1 ! CALLING SEQUENCE:
;  114          0564  1 !       AED_COMPRESS ()
;  115          0565  1 !
;  116          0566  1 ! INPUT PARAMETERS:
;  117          0567  1 !       none
;  118          0568  1 !
;  119          0569  1 ! IMPLICIT INPUTS:
;  120          0570  1 !       AED_L_BEGINLINE: address of the first line of the display
;  121          0571  1 !       AED_Q_LINETABLE: address of the line table list head
;  122          0572  1 !
;  123          0573  1 ! OUTPUT PARAMETERS:
;  124          0574  1 !       none
;  125          0575  1 !
;  126          0576  1 ! IMPLICIT OUTPUTS:
;  127          0577  1 !       none
;  128          0578  1 !
;  129          0579  1 ! ROUTINE VALUE:
;  130          0580  1 !       none
;  131          0581  1 !
;  132          0582  1 ! SIDE EFFECTS:
;  133          0583  1 !       none
;  134          0584  1 !
;  135          0585  1 !--
;  136          0586  1
;  137          0587  2 BEGIN
;  138          0588  2
;  139          0589  2 LOCAL
;  140          0590  2         LINES_REMOVED,                          ! Flag indicating output state
;  141          0591  2         OUTPUT_DESC     : $BBLOCK [DSC$C_S_BLN],        ! Output line descr
;  142          0592  2         CURRENT_LINE    : REF $BBLOCK,          ! Address of current segment
;  143          0593  2         NEXT_TEXT_LINE  : REF $BBLOCK,          ! Address of next line segment
;  144          0594  2         PREV_TEXT_LINE  : REF $BBLOCK,          ! Address of previous line segment
;  145          0595  2         REMOVED_LINE    : REF $BBLOCK,          ! Address of line removed
;  146          0596  2         TEMP_LINE;                              ! Current line in the display
;  147          0597  2
;  148          0598  2 ! Set the starting point.
;  149          0599  2
;  150          0600  2 TEMP_LINE = 1;
;  151          0601  2 LINES_REMOVED = 0;
;  152          0602  2 CURRENT_LINE = .AED_L_BEGINLINE;
;  153          0603  2
;  154          0604  2 DO
;  155          0605  3     BEGIN
;  156          0606  3     IF .CURRENT_LINE[LINE_V_DUMMY]
;  157          0607  3     THEN
;  158          0608  4         BEGIN
;  159          0609  4         NEXT_TEXT_LINE = .CURRENT_LINE[LINE_L_FLINK];
```

```
;  160          0610  4          PREV_TEXT_LINE = .CURRENT_LINE[LINE_L_BLINK];
;  161          0611  4          IF .AED_L_BEGINLINE EQL .CURRENT_LINE
;  162          0612  4          THEN AED_L_BEGINLINE = .NEXT_TEXT_LINE;
;  163          0613  4          IF .AED_L_FIRSTLINE EQL .CURRENT_LINE
;  164          0614  4          THEN AED_L_FIRSTLINE = .NEXT_TEXT_LINE;
;  165          0615  4          IF .AED_L_LASTLINE EQL .CURRENT_LINE
;  166          0616  4          THEN AED_L_LASTLINE = .CURRENT_LINE[LINE_L_BLINK];
;  167          0617  4          REMQUE (CURRENT_LINE[LINE_L_FLINK], REMOVED_LINE);
;  168          0618  4          IF .REMOVED_LINE[LINE_V_BEGINACE]
;  169          0619  4          THEN IF .NEXT_TEXT_LINE NEQA AED_Q_LINETABLE[LINE_L_FLINK]
;  170          0620  4               THEN NEXT_TEXT_LINE[LINE_V_BEGINACE] = 1;
;  171          0621  4          IF .REMOVED_LINE[LINE_V_ENDACE]
;  172          0622  4          THEN IF .PREV_TEXT_LINE NEQA AED_Q_LINETABLE[LINE_L_FLINK]
;  173          0623  4               THEN PREV_TEXT_LINE[LINE_V_ENDACE] = 1;
;  174        P 0624  4          DEALLOCATE (.REMOVED_LINE[LINE_W_SIZE] + $BYTEOFFSET (LINE_T_TEXT),
;  175          0625  4                      REMOVED_LINE);
;  176          0626  4          IF .NEXT_TEXT_LINE EQLA AED_Q_LINETABLE[LINE_L_FLINK]
;  177          0627  4          THEN
;  178          0628  5              BEGIN
;  179          0629  5              SCR$ERASE_PAGE (.TEMP_LINE, 1);
;  180          0630  5              RETURN;
;  181          0631  4              END;
;  182          0632  4          UNTIL .AED_L_LASTLINE[LINE_V_ENDACE]
;  183          0633  4          DO AED_L_LASTLINE = .AED_L_LASTLINE[LINE_L_FLINK];
;  184          0634  4          CURRENT_LINE = .NEXT_TEXT_LINE;
;  185          0635  4          IF NOT .LINES_REMOVED THEN SCR$ERASE_PAGE (.TEMP_LINE, 1);
;  186          0636  4          LINES_REMOVED = 1;
;  187          0637  4          IF .TEMP_LINE LEQ .AED_B_LINE THEN AED_B_LINE = .AED_B_LINE - 1;
;  188          0638  4          END
;  189          0639  3      ELSE
;  190          0640  4          BEGIN
;  191          0641  4          OUTPUT_DESC[DSC$W_LENGTH] = .CURRENT_LINE[LINE_W_SIZE];
;  192          0642  4          OUTPUT_DESC[DSC$A_POINTER] = CURRENT_LINE[LINE_T_TEXT];
;  193          0643  4          IF .LINES_REMOVED
;  194          0644  4          THEN
;  195          0645  5              BEGIN
;  196          0646  5              AED_SET_CURSOR (.TEMP_LINE, 1);
;  197          0647  5              SCR$ERASE_LINE (.TEMP_LINE, 1);
;  198          0648  5              AED_PUTOUTPUT (OUTPUT_DESC);
;  199          0649  4              END;
;  200          0650  4          TEMP_LINE = .TEMP_LINE + 1;
;  201          0651  4          CURRENT_LINE = .CURRENT_LINE[LINE_L_FLINK];
;  202          0652  3          END;
;  203          0653  3      END
;  204          0654  3  UNTIL (.TEMP_LINE GTR 20)
;  205          0655  2      OR (.CURRENT_LINE EQLA AED_Q_LINETABLE[LINE_L_FLINK]);
;  206          0656  2
;  207          0657  2  RETURN;
;  208          0658  2
;  209          0659  1  END;                                   ! End of routine AED_COMPRESS


                                                                .TITLE  AED$SUBR
                                                                .IDENT  \V04-000\

                                                                .PSECT  AED_COMMON,NOEXE,  OVR,0
```

```
00000 AED_L_FLAGS:
                .BLKB   4
00004 AED_B_OPTIONS:
                .BLKB   1
00005           .BLKB   3
00008 AED_L_OBJTYP:
                .BLKB   4
0000C AED_Q_OBJNAM:
                .BLKB   8
00014 AED_L_WORSTERR:
                .BLKB   4
00018 AED_L_PAGEWIDTH:
                .BLKB   4
0001C AED_L_PAGESIZE:
                .BLKB   4
00020 AED_B_COLUMN:
                .BLKB   1
00021           .BLKB   3
00024 AED_B_LINE:
                .BLKB   1
00025           .BLKB   3
00028 AED_B_SAVE_COL:
                .BLKB   1
00029           .BLKB   3
0002C AED_B_SAVE_LIN:
                .BLKB   1
0002D           .BLKB   3
00030 AED_Q_LINETABLE:
                .BLKB   12
0003C AED_L_CURACE:
                .BLKB   4
00040 AED_L_FIRSTLINE:
                .BLKB   4
00044 AED_L_LASTLINE:
                .BLKB   4
00048 AED_L_BEGINLINE:
                .BLKB   4
0004C AED_W_INPUTLEN:
                .BLKB   2
0004E           .BLKB   2
00050 AED_Q_DEL_ACE:
                .BLKB   8
00058 AED_Q_DEL_LINE:
                .BLKB   8
00060 AED_Q_DEL_WORD:
                .BLKB   8
00068 AED_B_DEL_CHAR:
                .BLKB   1
00069           .BLKB   3
0006C AED_A_ACLBUFFER:
                .BLKB   4
00070 AED_Q_OUTLINE:
                .BLKB   8
00078 AED_W_OBJCHAN:
                .BLKB   2
0007A           .BLKB   2
0007C AED_W_TERMIN:
```

```
                        .BLKB   2
0007E                   .BLKB   2
00080 AED_W_TERMOUT:
                        .BLKB   2
00082                   .BLKB   2
00084 AED_W_IOSB:
                        .BLKB   8
0008C AED_L_STATUS:
                        .BLKB   4
00090 AED_B_FIELD:
                        .BLKB   1
00091                   .BLKB   3
00094 AED_W_FIELDBEG:
                        .BLKB   2
00096                   .BLKB   2
00098 AED_W_FIELDEND:
                        .BLKB   2
0009A                   .BLKB   2
0009C AED_B_ITEM:
                        .BLKB   1
0009D                   .BLKB   3
000A0 AED_W_ITEMBEG:
                        .BLKB   2
000A2                   .BLKB   2
000A4 AED_W_ITEMEND:
                        .BLKB   2
000A6                   .BLKB   2
000A8 AED_B_ACETYPE:
                        .BLKB   1
000A9                   .BLKB   3
000AC AED_W_JOURNAL:
                        .BLKB   2
000AE                   .BLKB   2
000B0 AED_T_CURLINE:
                        .BLKB   532
002C4 AED_W_TOTALSIZE:
                        .BLKB   2
002C6                   .BLKB   2
002C8 JOURNAL_FAB:
                        .BLKB   80
00318 JOURNAL_NAM:
                        .BLKB   96
00378 JOURNAL_RAB:
                        .BLKB   68
003BC JOURNAL_XABPRO:
                        .BLKB   88
00414 JOURNAL_BUFFER:
                        .BLKB   10
0041E                   .BLKB   2
00420 JOURNAL_INDEX:
                        .BLKB   4
00424 RECOVER_FAB:
                        .BLKB   80
00474 RECOVER_NAM:
                        .BLKB   96
004D4 RECOVER_RAB:
                        .BLKB   68
```

```
00518 RECOVER_BUFFER:
                .BLKB   10
00522           .BLKB   2
00524 RECOVER_INDEX:
                .BLKB   4

                .EXTRN  CLI$GET_VALUE, CLI$PRESENT
                .EXTRN  LIB$FREE_VM, LIB$GET_VM
                .EXTRN  LIB$TPARSE, SCR$DOWN_SCROLL
                .EXTRN  SCR$ERASE_LINE, SCR$ERASE_PAGE
                .EXTRN  SCR$SET_CURSOR, SCR$SET_SCROLL
                .EXTRN  SCR$UP_SCROLL, AED$_OBJLOCKED
                .EXTRN  AED$_BADKEEP, AED$_LOCATERR
                .EXTRN  AED$_INIREADERR
                .EXTRN  AED$_JOUWRITERR
                .EXTRN  AED$_JOUOPENOUT
                .EXTRN  AED$_JOUCLOSOUT
                .EXTRN  AED$_RECREADERR
                .EXTRN  AED$_RECOPENIN, AED$_RECLOSEIN
                .EXTRN  AED$_BADUIC, AED$_BADGRPMEM
                .EXTRN  AED$_SYNTAX, AED$_BADTYPE
                .EXTRN  AED$_NOITEMSEL, AED$_MUSTENTER
                .EXTRN  AED$_INIOPENIN, AED$_INICLOSIN
                .EXTRN  AED$_DEFSYNTAX, AED$_NODELETE
                .EXTRN  AED$_NOMODIFY, AED$_NOHIDDEN
                .EXTRN  AED$_DUPLICATE, AED$_NOCOMBINE
                .EXTRN  AED$_NODEFAULT, AED$_NOCTRLCHAR
                .EXTRN  AED$_NOTFOUND, AED$_CONTROL_C
                .EXTRN  AED$_ACLUPDATED
                .EXTRN  AED$_NOCHANGE, AED_PUTOUTPUT

                .PSECT  $CODE$,NOWRT,2

                        01FC 00000      .ENTRY  AED_COMPRESS, Save R2,R3,R4,R5,R6,R7,R8 ; 0553
    58 00000000G   00   9E 00002       MOVAB   SCR$ERASE_PAGE, R8                      ;
    57     0000'   CF   9E 00009       MOVAB   AED_L_LASTLINE, R7                      ;
    5E             10   C2 0000E       SUBL2   #16, SP                                 ;
    54             01   D0 00011       MOVL    #1, TEMP_LINE                           ; 0600
                   56   D4 00014       CLRL    LINES_REMOVED                           ; 0601
    52       04    A7   D0 00016       MOVL    AED_L_BEGINLINE, CURRENT_LINE           ; 0602
03  0A   A2              02   E0 0001A 1$:     BBS     #2, 10(CURRENT_LINE), 2$        ; 0606
                   00A0  31   0001F       BRW     11$                                     ;
    53             62   D0 00022 2$:     MOVL    (CURRENT_LINE), NEXT_TEXT_LINE          ; 0609
    55       04    A2   D0 00025       MOVL    4(CURRENT_LINE), PREV_TEXT_LINE         ; 0610
    52       04    A7   D1 00029       CMPL    AED_L_BEGINLINE, CURRENT_LINE           ; 0611
                   04   12 0002D       BNEQ    3$                                      ;
04  A7             53   D0 0002F       MOVL    NEXT_TEXT_LINE, AED_L_BEGINLINE         ; 0612
    52       FC    A7   D1 00033 3$:     CMPL    AED_L_FIRSTLINE, CURRENT_LINE           ; 0613
                   04   12 00037       BNEQ    4$                                      ;
FC  A7             53   D0 00039       MOVL    NEXT_TEXT_LINE, AED_L_FIRSTLINE         ; 0614
    52             67   D1 0003D 4$:     CMPL    AED_L_LASTLINE, CURRENT_LINE            ; 0615
                   04   12 00040       BNEQ    5$                                      ;
    67       04    A2   D0 00042       MOVL    4(CURRENT_LINE), AED_L_LASTLINE         ; 0616
04  AE             62   0F 00046 5$:     REMQUE  (CURRENT_LINE), REMOVED_LINE            ; 0617
    50       04    AE   D0 0004A       MOVL    REMOVED_LINE, R0                        ; 0618
    0D       0A    A0   E9 0004E       BLBC    10(R0), 6$                              ;
    51       EC    A7   9E 00052       MOVAB   AED_Q_LINETABLE, R1                     ; 0619
```

```
                          51        53 D1 00056        CMPL    NEXT_TEXT_LINE, R1                      ;
                                    04 13 00059        BEQL    6$                                      ;
                  0A      A3        01 88 0005B        BISB2   #1, 10(NEXT_TEXT_LINE)                  ; 0620
          0D      0A      A0        01 E1 0005F 6$:    BBC     #1, 10(R0), 7$                          ; 0621
                          51  EC    A7 9E 00064        MOVAB   AED_Q_LINETABLE, R1                     ; 0622
                          51        55 D1 00068        CMPL    PREV_TEXT_LINE, R1                      ;
                                    04 13 0006B        BEQL    7$                                      ;
                  0A      A5        02 88 0006D        BISB2   #2, 10(PREV_TEXT_LINE)                  ; 0623
                              04    AE 9F 00071 7$:    PUSHAB  REMOVED_LINE                            ; 0625
                  04      AE  08    A0 3C 00074        MOVZWL  8(R0), 4(SP)                            ;
                  04      AE        14 C0 00079        ADDL2   #20, 4(SP)                              ;
                              04    AE 9F 0007D        PUSHAB  4(SP)                                   ;
           00000000G      00        02 FB 00080        CALLS   #2, LIB$FREE_VM                         ;
                          50  EC    A7 9E 00087        MOVAB   AED_Q_LINETABLE, R0                     ; 0626
                          50        53 D1 0008B        CMPL    NEXT_TEXT_LINE, R0                      ;
                                    08 12 0008E        BNEQ    8$                                      ;
                                    01 DD 00090        PUSHL   #1                                      ; 0629
                                    54 DD 00092        PUSHL   TEMP_LINE                               ;
                          68        02 FB 00094        CALLS   #2, SCR$ERASE_PAGE                      ;
                                       04 00097        RET                                             ; 0628
                          50        67 D0 00098 8$:    MOVL    AED_L_LASTLINE, R0                      ; 0632
          05      0A      A0        01 E0 0009B        BBS     #1, 10(R0), 9$                          ;
                          67        60 D0 000A0        MOVL    (R0), AED_L_LASTLINE                    ; 0633
                                    F3 11 000A3        BRB     8$                                      ;
                          52        53 D0 000A5 9$:    MOVL    NEXT_TEXT_LINE, CURRENT_LINE            ; 0634
                          07        56 E8 000A8        BLBS    LINES_REMOVED, 10$                      ; 0635
                                    01 DD 000AB        PUSHL   #1                                      ;
                                    54 DD 000AD        PUSHL   TEMP_LINE                               ;
                          68        02 FB 000AF        CALLS   #2, SCR$ERASE_PAGE                      ;
                          56        01 D0 000B2 10$:   MOVL    #1, LINES_REMOVED                       ; 0636
  54      E0      A7      08        00 ED 000B5        CMPZV   #0, #8, AED_B_LINE, TEMP_LINE           ; 0637
                                    33 19 000BB        BLSS    13$                                     ;
                              E0    A7 97 000BD        DECB    AED_B_LINE                              ;
                                    2E 11 000C0        BRB     13$                                     ; 0606
                  08      AE  08    A2 B0 000C2 11$:   MOVW    8(CURRENT_LINE), OUTPUT_DESC            ; 0641
                  0C      AE  14    A2 9E 000C7        MOVAB   20(R2), OUTPUT_DESC+4                   ; 0642
                          1C        56 E9 000CC        BLBC    LINES_REMOVED, 12$                      ; 0643
                                    01 DD 000CF        PUSHL   #1                                      ; 0646
                                    54 DD 000D1        PUSHL   TEMP_LINE                               ;
               0000V      CF        02 FB 000D3        CALLS   #2, AED_SET_CURSOR                      ;
                                    01 DD 000D8        PUSHL   #1                                      ; 0647
                                    54 DD 000DA        PUSHL   TEMP_LINE                               ;
           00000000G      00        02 FB 000DC        CALLS   #2, SCR$ERASE_LINE                      ;
                              08    AE 9F 000E3        PUSHAB  OUTPUT_DESC                             ; 0648
               0000G      CF        01 FB 000E6        CALLS   #1, AED_PUTOUTPUT                       ;
                                    54 D6 000EB 12$:   INCL    TEMP_LINE                               ; 0650
                          52        62 D0 000ED        MOVL    (CURRENT_LINE), CURRENT_LINE            ; 0651
                          14        54 D1 000F0 13$:   CMPL    TEMP_LINE, #20                          ; 0654
                                    0C 14 000F3        BGTR    14$                                     ;
                          50  EC    A7 9E 000F5        MOVAB   AED_Q_LINETABLE, R0                     ; 0655
                          50        52 D1 000F9        CMPL    CURRENT_LINE, R0                        ;
                                    03 13 000FC        BEQL    14$                                     ;
                            FF19    31 000FE           BRW     1$                                      ;
                                    04 00101 14$:      RET                                             ; 0659

; Routine Size:  258 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  211          0660  1 GLOBAL ROUTINE AED_SEGSPLIT (POSITION, EXACT, FIRST, NO_REPAINT) =
;  212          0661  1
;  213          0662  1 !++
;  214          0663  1 !
;  215          0664  1 ! FUNCTIONAL DESCRIPTION:
;  216          0665  1 !
;  217          0666  1 !       This routine takes the current line segment and splits it up into
;  218          0667  1 !       two pieces.  The second piece becomming the new current line.  The
;  219          0668  1 !       split will occur at the current position or (usually) after the
;  220          0669  1 !       most recent delimiter.
;  221          0670  1 !
;  222          0671  1 ! CALLING SEQUENCE:
;  223          0672  1 !       AED_SEGSPLIT (ARG1, ARG2, ARG3, ARG4)
;  224          0673  1 !
;  225          0674  1 ! INPUT PARAMETERS:
;  226          0675  1 !       ARG1: address of the cell containing the current buffer position
;  227          0676  1 !       ARG2: 1 = do the split at the current position
;  228          0677  1 !             0 = find the previous delimiter, and split after it
;  229          0678  1 !       ARG3: 1 = position to the first line segment
;  230          0679  1 !             0 = position to the second (split) segment
;  231          0680  1 !       ARG4: 1 = don't repaint the display after splitting line
;  232          0681  1 !             0 = repaint the display after splitting the line
;  233          0682  1 !
;  234          0683  1 ! IMPLICIT INPUTS:
;  235          0684  1 !       AED_T_CURLINE: the current line segment
;  236          0685  1 !
;  237          0686  1 ! OUTPUT PARAMETERS:
;  238          0687  1 !       ARG1: address of the cell containing the current buffer position
;  239          0688  1 !
;  240          0689  1 ! IMPLICIT OUTPUTS:
;  241          0690  1 !       none
;  242          0691  1 !
;  243          0692  1 ! ROUTINE VALUE:
;  244          0693  1 !       none
;  245          0694  1 !
;  246          0695  1 ! SIDE EFFECTS:
;  247          0696  1 !       none
;  248          0697  1 !
;  249          0698  1 !--
;  250          0699  1
;  251          0700  2 BEGIN
;  252          0701  2
;  253          0702  2 BIND
;  254          0703  2         SEGMENT_SIZE    = AED_T_CURLINE[LINE_W_SIZE] : WORD,
;  255          0704  2         BUFFER          = AED_T_CURLINE[LINE_T_TEXT] : VECTOR [,BYTE];
;  256          0705  2
;  257          0706  2 LOCAL
;  258          0707  2         OUTPUT_DESC     : $BBLOCK [DSC$C_S_BLN],        ! Output line descr
;  259          0708  2         NEW_TEXT_LINE   : REF $BBLOCK,          ! Addr of new line segment
;  260          0709  2         SPLIT_SEGMENT   : REF $BBLOCK,          ! Addr of split portion
;  261          0710  2         SPLIT_SIZE,                             ! Size of split off segment
;  262          0711  2         SKIP_CHAR;                              ! Skip characters in field count
;  263          0712  2
;  264          0713  2 ! Initialize necessary items.
;  265          0714  2
;  266          0715  2 CH$FILL (0, DSC$C_S_BLN, OUTPUT_DESC);
;  267          0716  2
```

```
;  268          0717  2 ! If this is not an exact split, find the previous delimiter.
;  269          0718  2
;  270          0719  2 IF NOT .EXACT
;  271          0720  2 THEN
;  272          0721  3     BEGIN
;  273          0722  3     DECR J FROM .SEGMENT_SIZE - 1 TO 0
;  274          0723  3     DO
;  275          0724  4         BEGIN
;  276          0725  5         IF (.BUFFER[.J] LSS 'A' OR .BUFFER[.J] GTR 'Z')
;  277          0726  5         AND (.BUFFER[.J] LSS '0' OR .BUFFER[.J] GTR '9')
;  278          0727  4         AND .J LSS ..POSITION
;  279          0728  4         THEN
;  280          0729  5             BEGIN
;  281          0730  5             .POSITION = .J + 1;
;  282          0731  5             EXITLOOP;
;  283          0732  4             END;
;  284          0733  3         END;
;  285          0734  2     END;
;  286          0735  2
;  287          0736  2 ! Split the line up into two segments.  This may cause the second segment to
;  288          0737  2 ! be null if the index was at the end of the segment.  This is OK, as it will
;  289          0738  2 ! be cleaned up when the segment is replaced.
;  290          0739  2
;  291          0740  2 SPLIT_SIZE = .SEGMENT_SIZE - ..POSITION;
;  292        P 0741  2 AED_L_STATUS = ALLOCATE (.SPLIT_SIZE + $BYTEOFFSET (LINE_T_TEXT),
;  293          0742  2                          SPLIT_SEGMENT);
;  294          0743  2 IF NOT .AED_L_STATUS
;  295          0744  2 THEN
;  296          0745  3     BEGIN
;  297          0746  3     SIGNAL (.AED_L_STATUS);
;  298          0747  3     RETURN 0;
;  299          0748  2     END;
;  300          0749  2
;  301          0750  2 ! Copy the text from the current line as AED_REPSEGMENT clears out the
;  302          0751  2 ! current line buffer.  Then, replace the modified first part of the original
;  303          0752  2 ! line.
;  304          0753  2
;  305          0754  2 CH$MOVE (.SPLIT_SIZE, BUFFER[..POSITION], SPLIT_SEGMENT[LINE_T_TEXT]);
;  306          0755  2 SEGMENT_SIZE = ..POSITION;
;  307          0756  2 SCR$ERASE_LINE (.AED_B_LINE, .SEGMENT_SIZE + 1);
;  308          0757  2 NEW_TEXT_LINE = AED_REPSEGMENT ();
;  309          0758  2
;  310          0759  2 ! Fill in the necessary information about the split portion of the original
;  311          0760  2 ! line segment.
;  312          0761  2
;  313          0762  2 SPLIT_SEGMENT[LINE_W_SIZE] = .SPLIT_SIZE;
;  314          0763  2 IF .NEW_TEXT_LINE[LINE_V_ENDACE]
;  315          0764  2 THEN SPLIT_SEGMENT[LINE_W_FLAGS] = LINE_M_ENDACE
;  316          0765  2 ELSE SPLIT_SEGMENT[LINE_W_FLAGS] = 0;
;  317          0766  2 NEW_TEXT_LINE[LINE_V_ENDACE] = 0;
;  318          0767  2 SPLIT_SEGMENT[LINE_L_BINACE] = .NEW_TEXT_LINE[LINE_L_BINACE];
;  319          0768  2 INSQUE (SPLIT_SEGMENT[LINE_L_FLINK], NEW_TEXT_LINE[LINE_L_FLINK]);
;  320          0769  2 AED_W_TOTALSIZE = .AED_W_TOTALSIZE + .SPLIT_SIZE;
;  321          0770  2
;  322          0771  2 ! Determine the field index for the split portion of the line.  This is done
;  323          0772  2 ! by counting the number of fields in the first part of the line.
;  324          0773  2
```

```
;  325          0774  2 SKIP_CHAR = 0;
;  326          0775  2 AED_B_FIELD = .NEW_TEXT_LINE[LINE_B_FIELDST];
;  327          0776  2 INCR J FROM 0 TO .NEW_TEXT_LINE[LINE_W_SIZE] - 1
;  328          0777  2 DO
;  329          0778  3     BEGIN
;  330          0779  3     IF .VECTOR [NEW_TEXT_LINE[LINE_T_TEXT], .J; ,BYTE] EQL '['
;  331          0780  3     THEN SKIP_CHAR = 1;
;  332          0781  3     IF .VECTOR [NEW_TEXT_LINE[LINE_T_TEXT], .J; ,BYTE] EQL ']'
;  333          0782  3     THEN SKIP_CHAR = 0;
;  334          0783  3     IF NOT .SKIP_CHAR
;  335          0784  3     THEN
;  336          0785  4         BEGIN
;  337          0786  4         IF .VECTOR [NEW_TEXT_LINE[LINE_T_TEXT], .J; ,BYTE] EQL ','
;  338          0787  4         THEN
;  339          0788  5             BEGIN
;  340          0789  5             IF .AED_B_FIELD GEQ 1 AND .AED_B_ACETYPE NEQ ACE$C_DIRDEF
;  341          0790  5             THEN AED_B_FIELD = 6
;  342          0791  5             ELSE AED_B_FIELD = .AED_B_FIELD + 1;
;  343          0792  4             END;
;  344          0793  4         IF .AED_B_FIELD GEQ 1
;  345          0794  4         THEN
;  346          0795  5             BEGIN
;  347          0796  5             IF .VECTOR [NEW_TEXT_LINE[LINE_T_TEXT], .J; ,BYTE] EQL '='
;  348          0797  5             OR .VECTOR [NEW_TEXT_LINE[LINE_T_TEXT], .J; ,BYTE] EQL '+'
;  349          0798  5             THEN AED_B_FIELD = .AED_B_FIELD + 1;
;  350          0799  4             END;
;  351          0800  3         END;
;  352          0801  2     END;
;  353          0802  2 SPLIT_SEGMENT[LINE_B_FIELDST] = .AED_B_FIELD;
;  354          0803  2
;  355          0804  2 ! Position to the correct segment.
;  356          0805  2
;  357          0806  2 IF .FIRST
;  358          0807  2 THEN
;  359          0808  3     BEGIN
;  360          0809  3     AED_POSITION (.NEW_TEXT_LINE);
;  361          0810  3     AED_COPSEGMENT (.NEW_TEXT_LINE);
;  362          0811  3     INSQUE (AED_T_CURLINE[LINE_L_FLINK], .NEW_TEXT_LINE[LINE_L_BLINK]);
;  363          0812  3     IF .AED_L_FIRSTLINE EQL .NEW_TEXT_LINE
;  364          0813  3     THEN AED_L_FIRSTLINE = AED_T_CURLINE;
;  365          0814  3     IF .AED_L_LASTLINE EQL .NEW_TEXT_LINE
;  366          0815  3     THEN AED_L_LASTLINE = .SPLIT_SEGMENT;
;  367          0816  3     IF .AED_L_BEGINLINE EQL .NEW_TEXT_LINE
;  368          0817  3     THEN AED_L_BEGINLINE = AED_T_CURLINE;
;  369          0818  3     END
;  370          0819  2 ELSE
;  371          0820  3     BEGIN
;  372          0821  3     AED_POSITION (.SPLIT_SEGMENT);
;  373          0822  3     AED_COPSEGMENT (.SPLIT_SEGMENT);
;  374          0823  3     INSQUE (AED_T_CURLINE[LINE_L_FLINK], .SPLIT_SEGMENT[LINE_L_BLINK]);
;  375          0824  3     IF .AED_L_LASTLINE EQL .NEW_TEXT_LINE
;  376          0825  3     THEN AED_L_LASTLINE = AED_T_CURLINE;
;  377          0826  2     END;
;  378          0827  2
;  379          0828  2 ! Now repaint the display.  This is done by either scrolling down and repainting
;  380          0829  2 ! the first part of the display or repainting from the current position to the
;  381          0830  2 ! end of the display (or the end of the ACL).  This is necessary to echo the
```

```
;  382          0831  2 ! text from the split portion of the line.
;  383          0832  2
;  384          0833  2 IF NOT .NO_REPAINT
;  385          0834  2 THEN
;  386          0835  3     BEGIN
;  387          0836  3     IF .AED_B_LINE LEQ 10
;  388          0837  3     THEN
;  389          0838  4         BEGIN
;  390          0839  4         AED_SET_CURSOR (1,1);           ! **** TEMP ****
;  391          0840  4         SCR$DOWN_SCROLL ();
;  392          0841  4         NEW_TEXT_LINE = .AED_L_BEGINLINE;
;  393          0842  4         INCR J FROM 1 TO .AED_B_LINE
;  394          0843  4         DO
;  395          0844  5             BEGIN
;  396          0845  5             OUTPUT_DESC[DSC$W_LENGTH] = .NEW_TEXT_LINE[LINE_W_SIZE];
;  397          0846  5             OUTPUT_DESC[DSC$A_POINTER] = NEW_TEXT_LINE[LINE_T_TEXT];
;  398          0847  5             AED_SET_CURSOR (.J, 1);
;  399          0848  5             AED_PUTOUTPUT (OUTPUT_DESC);
;  400          0849  5             SCR$ERASE_LINE (.J, .OUTPUT_DESC[DSC$W_LENGTH] + 1);
;  401          0850  5             NEW_TEXT_LINE = .NEW_TEXT_LINE[LINE_L_FLINK];
;  402          0851  4             END;
;  403          0852  4         END
;  404          0853  3     ELSE
;  405          0854  4         BEGIN
;  406          0855  4         NEW_TEXT_LINE = .AED_T_CURLINE[LINE_L_FLINK];
;  407          0856  4         INCR J FROM .AED_B_LINE TO 20
;  408          0857  4         DO
;  409          0858  5             BEGIN
;  410          0859  5             OUTPUT_DESC[DSC$W_LENGTH] = .NEW_TEXT_LINE[LINE_W_SIZE];
;  411          0860  5             OUTPUT_DESC[DSC$A_POINTER] = NEW_TEXT_LINE[LINE_T_TEXT];
;  412          0861  5             AED_SET_CURSOR (.J, 1);
;  413          0862  5             AED_PUTOUTPUT (OUTPUT_DESC);
;  414          0863  5             SCR$ERASE_LINE (.J, .OUTPUT_DESC[DSC$W_LENGTH] + 1);
;  415          0864  5             NEW_TEXT_LINE = .NEW_TEXT_LINE[LINE_L_FLINK];
;  416          0865  5             IF .NEW_TEXT_LINE EQ[A AED_Q_LINETABLE[LINE_L_FLINK] THEN EXITLOOP;
;  417          0866  4             END;
;  418          0867  3         END;
;  419          0868  2     END;
;  420          0869  2
;  421          0870  2 ! Set the cursor position correctly.
;  422          0871  2
;  423          0872  2 .POSITION = 0;
;  424          0873  2 IF .FIRST OR NOT .EXACT
;  425          0874  2 THEN .POSITION = .SEGMENT_SIZE;
;  426          0875  2
;  427          0876  2 AED_B_COLUMN = ..POSITION + 1;
;  428          0877  2 AED_SET_CURSOR (.AED_B_LINE, .AED_B_COLUMN);
;  429          0878  2
;  430          0879  2 RETURN 1;
;  431          0880  1 END;                                    ! End of routine AED_SEGSPLIT


SEGMENT_SIZE=       AED_T_CURLINE+8
BUFFER=             AED_T_CURLINE+20
                .EXTRN  LIB$SIGNAL
```

```
                                    0FFC 00000          .ENTRY  AED_SEGSPLIT, Save R2,R3,R4,R5,R6,R7,R8,R9,-; 0660
                                                                R10,R11
                                5B 00000000G   00    9E 00002          MOVAB   SCR$SET_CURSOR, R11
                                5A 00000000G   00    9E 00009          MOVAB   SCR$ERASE_LINE, R10
                                59     0000'   CF    9E 00010          MOVAB   AED_B_FIELD, R9
                                5E             10    C2 00015          SUBL2   #16, SP
                08      00      6E             00    2C 00018          MOVC5   #0, (SP), #0, #8, OUTPUT_DESC                   ; 0715
                                           08   AE       0001D
                                31         08   AC    E8 0001F          BLBS    EXACT, 5$                                       ; 0719
                                50         28   A9    3C 00023          MOVZWL  SEGMENT_SIZE, J                                 ; 0722
                                                 28    11 00027          BRB     4$
                                51         34 A940    9A 00029 1$:      MOVZBL  BUFFER[J], R1                                   ; 0725
                            41  8F                 51    91 0002E          CMPB    R1, #65
                                                    06    1F 00032          BLSSU   2$
                            5A  8F                 51    91 00034          CMPB    R1, #90
                                                    17    1B 00038          BLEQU   4$
                                30                 51    91 0003A 2$:      CMPB    R1, #48                                 ; 0726
                                                    05    1F 0003D          BLSSU   3$
                                39                 51    91 0003F          CMPB    R1, #57
                                                    0D    1B 00042          BLEQU   4$
                            04  BC                 50    D1 00044 3$:      CMPL    J, @POSITION                            ; 0727
                                                    07    18 00048          BGEQ    4$
                            04  BC             01  A0    9E 0004A          MOVAB   1(R0), @POSITION                        ; 0730
                                                    03    11 0004F          BRB     5$                                      ; 0729
                                D5                 50    F4 00051 4$:      SOBGEQ  J, 1$                                   ; 0722
                                58             04  BC    D0 00054 5$:      MOVL    @POSITION, R8                           ; 0740
                                56             28  A9    3C 00058          MOVZWL  SEGMENT_SIZE, SPLIT_SIZE
                                56                 58    C2 0005C          SUBL2   R8, SPLIT_SIZE
                                               04  AE    9F 0005F          PUSHAB  SPLIT_SEGMENT                           ; 0742
                                52             14  A6    9E 00062          MOVAB   20(R6), R2
                            04  AE                 52    D0 00066          MOVL    R2, 4(SP)
                                               04  AE    9F 0006A          PUSHAB  4(SP)
                        00000000G   00             02    FB 0006D          CALLS   #2, LIB$GET_VM
                                                   50    D0 00074          MOVL    R0, VM_STATUS
                                                   07    E9 00077          BLBC    VM_STATUS, 6$
                52      00          6E             00    2C 0007A          MOVC5   #0, (SP), #0, R2, @SPLIT_SEGMENT
                                               04  BE       0007F
                                FC  A9             57    D0 00081 6$:      MOVL    VM_STATUS, AED_L_STATUS
                                50     FC  A9      E8 00085          BLBS    AED_L_STATUS, 7$                                ; 0743
                        12      FF70   C9          03    E1 00089          BBC     #3, AED_L_FLAGS, 7$                     ; 0746
                                                   01    DD 0008F          PUSHL   #1
                                                   15    DD 00091          PUSHL   #21
                        00000000G   00             02    FB 00093          CALLS   #2, SCR$ERASE_PAGE
                                                   01    DD 0009A          PUSHL   #1
                                                   15    DD 0009C          PUSHL   #21
                                6B                 02    FB 0009E          CALLS   #2, SCR$SET_CURSOR
                                FC  A9             DD    000A1 7$:         PUSHL   AED_L_STATUS
                        00000000G   00             01    FB 000A4          CALLS   #1, LIB$SIGNAL
                        0B      FF70   C9          03    E1 000AB          BBC     #3, AED_L_FLAGS, 8$
                                7E     90  A9      9A 000B1          MOVZBL  AED_B_COLOMN, -(SP)
                                7E     94  A9      9A 000B5          MOVZBL  AED_B_LINE, -(SP)
                                6B                 02    FB 000B9          CALLS   #2, SCR$SET_CURSOR
                                50     FC  A9      D0 000BC 8$:      MOVL    AED_L_STATUS, R0
                                07                 50    93 000C0          BITB    R0, #7
                                                   11    13 000C3          BEQL    9$
                52      50          03             00    EF 000C5          EXTZV   #0, #3, R0, R1
                51  84  A9          03             00    ED 000CA          CMPZV   #0, #3, AED_L_WORSTERR, R1
```

```
                                     04  18 000D0       BGEQ    9$                                          :
                   84   A9           50  D0 000D2       MOVL    R0, AED_L_WORSTERR                          :
                                   01BA  31 000D6 9$:   BRW     33$                                         : 0747
                        57     04    AE  D0 000D9 10$:  MOVL    SPLIT_SEGMENT, R7                           : 0754
   14     A7         34 A948         56  28 000DD       MOVC3   SPLIT_SIZE, BUFFER[R8], 20(R7)              :
                   28   A9           58  B0 000E4       MOVW    R8, SEGMENT_SIZE                            : 0755
                        7E     28    A9  3C 000E8       MOVZWL  SEGMENT_SIZE, -(SP)                         : 0756
                                     6E  D6 000EC       INCL    (SP)                                        :
                        7E     94    A9  9A 000EE       MOVZBL  AED_B_LINE, -(SP)                           :
                        6A           02  FB 000F2       CALLS   #2, SCR$ERASE_LINE                          :
                0000V   CF           00  FB 000F5       CALLS   #0, AED_REPSEGMENT                          : 0757
                        53           50  D0 000FA       MOVL    R0, NEW_TEXT_LINE                           :
                   08   A7           56  B0 000FD       MOVW    SPLIT_SIZE, 8(R7)                           : 0762
          06       0A   A3           01  E1 00101       BBC     #1, 10(NEW_TEXT_LINE), 11$                  : 0763
                   0A   A7           02  B0 00106       MOVW    #2, 10(R7)                                  : 0764
                                     03  11 0010A       BRB     12$                                         :
                               0A    A7  B4 0010C 11$:  CLRW    10(R7)                                      : 0765
                   0A   A3           02  8A 0010F 12$:  BICB2   #2, 10(NEW_TEXT_LINE)                       : 0766
                   0C   A7     0C    A3  D0 00113       MOVL    12(NEW_TEXT_LINE), 12(R7)                   : 0767
                        63           67  0E 00118       INSQUE  (R7), (NEW_TEXT_LINE)                       : 0768
                 0234   C9           56  A0 0011B       ADDW2   SPLIT_SIZE, AED_W_TOTALSIZE                 : 0769
                                     54  D4 00120       CLRL    SKIP_CHAR                                   : 0774
                        69     10    A3  90 00122       MOVB    16(NEW_TEXT_LINE), AED_B_FIELD              : 0775
                        55     08    A3  3C 00126       MOVZWL  8(NEW_TEXT_LINE), R5                        : 0776
                        50     14    A3  9E 0012A       MOVAB   20(NEW_TEXT_LINE), R0                       : 0779
                        52           01  CE 0012E       MNEGL   #1, J                                       :
                                     3E  11 00131       BRB     19$                                         :
                        51         6240  9A 00133 13$:  MOVZBL  (J)[R0], R1                                 :
                   5B   8F           51  91 00137       CMPB    R1, #91                                     :
                                     03  12 0013B       BNEQ    14$                                         :
                        54           01  D0 0013D       MOVL    #1, SKIP_CHAR                               : 0780
                   5D   8F           51  91 00140 14$:  CMPB    R1, #93                                     : 0781
                                     02  12 00144       BNEQ    15$                                         :
                                     54  D4 00146       CLRL    SKIP_CHAR                                   : 0782
                        26           54  E8 00148 15$:  BLBS    SKIP_CHAR, 19$                              : 0783
                        2C           51  91 0014B       CMPB    R1, #44                                     : 0786
                                     11  12 0014E       BNEQ    17$                                         :
                                     69  95 00150       TSTB    AED_B_FIELD                                 : 0789
                                     0B  13 00152       BEQL    16$                                         :
                        09     18    A9  91 00154       CMPB    AED_B_ACETYPE, #9                           :
                                     05  13 00158       BEQL    16$                                         :
                        69           06  90 0015A       MOVB    #6, AED_B_FIELD                             : 0790
                                     02  11 0015D       BRB     17$                                         :
                                     69  96 0015F 16$:  INCB    AED_B_FIELD                                 : 0791
                                     69  95 00161 17$:  TSTB    AED_B_FIELD                                 : 0793
                                     0C  13 00163       BEQL    19$                                         :
                        3D           51  91 00165       CMPB    R1, #61                                     : 0796
                                     05  13 00168       BEQL    18$                                         :
                        2B           51  91 0016A       CMPB    R1, #43                                     : 0797
                                     02  12 0016D       BNEQ    19$                                         :
                                     69  96 0016F 18$:  INCB    AED_B_FIELD                                 : 0798
          BE            52           55  F2 00171 19$:  AOBLSS  R5, J, 13$                                  : 0776
                        52     04    AE  D0 00175       MOVL    SPLIT_SEGMENT, R2                           : 0802
                   10   A2           69  90 00179       MOVB    AED_B_FIELD, 16(R2)                         :
                        36     0C    AC  E9 0017D       BLBC    FIRST, 22$                                  : 0806
                                     53  DD 00181       PUSHL   NEW_TEXT_LINE                               : 0809
                0000V   CF           01  FB 00183       CALLS   #1, AED_POSITION                            :
```

```
                               53  DD 00188        PUSHL   NEW_TEXT_LINE                          ; 0810
         0000V  CF             01  FB 0018A        CALLS   #1, AED_COPSEGMENT                     ;
            04  B3        20   A9  0E 0018F        INSQUE  AED_T_CURLINE, @4(NEW_TEXT_LINE)       ; 0811
                53        B0   A9  D1 00194        CMPL    AED_L_FIRSTLINE, NEW_TEXT_LINE         ; 0812
                               05  12 00198        BNEQ    20$                                    ;
            B0  A9        20   A9  9E 0019A        MOVAB   AED_T_CURLINE, AED_L_FIRSTLINE         ; 0813
                53        B4   A9  D1 0019F 20$:   CMPL    AED_L_LASTLINE, NEW_TEXT_LINE          ; 0814
                               05  12 001A3        BNEQ    21$                                    ;
            B4  A9        04   AE  D0 001A5        MOVL    SPLIT_SEGMENT, AED_L_LASTLINE          ; 0815
                53        B8   A9  D1 001AA 21$:   CMPL    AED_L_BEGINLINE, NEW_TEXT_LINE         ; 0816
                               25  12 001AE        BNEQ    23$                                    ;
            B8  A9        20   A9  9E 001B0        MOVAB   AED_T_CURLINE, AED_L_BEGINLINE         ; 0817
                               1E  11 001B5        BRB     23$                                    ; 0806
                               52  DD 001B7 22$:   PUSHL   R2                                     ; 0821
         0000V  CF             01  FB 001B9        CALLS   #1, AED_POSITION                       ;
                               52  DD 001BE        PUSHL   R2                                     ; 0822
         0000V  CF             01  FB 001C0        CALLS   #1, AED_COPSEGMENT                     ;
            04  B2        20   A9  0E 001C5        INSQUE  AED_T_CURLINE, @4(R2)                  ; 0823
                53        B4   A9  D1 001CA        CMPL    AED_L_LASTLINE, NEW_TEXT_LINE          ; 0824
                               05  12 001CE        BNEQ    23$                                    ;
            B4  A9        20   A9  9E 001D0        MOVAB   AED_T_CURLINE, AED_L_LASTLINE          ; 0825
                4F        10   AC  E8 001D5 23$:   BLBS    NO_REPAINT, 26$                        ; 0833
                0A        94   A9  91 001D9        CMPB    AED_B_LINE, #10                        ; 0836
                               4B  1A 001DD        BGTRU   27$                                    ;
                               01  DD 001DF        PUSHL   #1                                     ; 0839
                               01  DD 001E1        PUSHL   #1                                     ;
         0000V  CF             02  FB 001E3        CALLS   #2, AED_SET_CURSOR                     ;
     00000000G  00             00  FB 001E8        CALLS   #0, SCR$DOWN_SCROLL                    ; 0840
                53        B8   A9  D0 001EF        MOVL    AED_L_BEGINLINE, NEW_TEXT_LINE         ; 0841
                54        94   A9  9A 001F3        MOVZBL  AED_B_LINE, R4                         ; 0842
                               52  D4 001F7        CLRL    J                                      ;
                               29  11 001F9        BRB     25$                                    ;
            08  AE        08   A3  B0 001FB 24$:   MOVW    8(NEW_TEXT_LINE), OUTPUT_DESC          ; 0845
            0C  AE        14   A3  9E 00200        MOVAB   20(R3), OUTPUT_DESC+4                  ; 0846
                               01  DD 00205        PUSHL   #1                                     ; 0847
                               52  DD 00207        PUSHL   J                                      ;
         0000V  CF             02  FB 00209        CALLS   #2, AED_SET_CURSOR                     ;
                          08   AE  9F 0020E        PUSHAB  OUTPUT_DESC                            ; 0848
         0000G  CF             01  FB 00211        CALLS   #1, AED_PUTOUTPUT                      ;
                7E        08   AE  3C 00216        MOVZWL  OUTPUT_DESC, -(SP)                     ; 0849
                               6E  D6 0021A        INCL    (SP)                                   ;
                               52  DD 0021C        PUSHL   J                                      ;
                6A             02  FB 0021E        CALLS   #2, SCR$ERASE_LINE                     ;
                53             63  D0 00221        MOVL    (NEW_TEXT_LINE), NEW_TEXT_LINE         ; 0850
    D3          52             54  F3 00224 25$:   AOBLEQ  R4, J, 24$                             ; 0842
                               42  11 00228 26$:   BRB     30$                                    ; 0836
                53        20   A9  D0 0022A 27$:   MOVL    AED_T_CURLINE, NEW_TEXT_LINE           ; 0855
                52        94   A9  9A 0022E        MOVZBL  AED_B_LINE, J                          ; 0856
                               52  D7 00232        DECL    J                                      ;
                               32  11 00234        BRB     29$                                    ;
            08  AE        08   A3  B0 00236 28$:   MOVW    8(NEW_TEXT_LINE), OUTPUT_DESC          ; 0859
            0C  AE        14   A3  9E 0023B        MOVAB   20(R3), OUTPUT_DESC+4                  ; 0860
                               01  DD 00240        PUSHL   #1                                     ; 0861
                               52  DD 00242        PUSHL   J                                      ;
         0000V  CF             02  FB 00244        CALLS   #2, AED_SET_CURSOR                     ;
                          08   AE  9F 00249        PUSHAB  OUTPUT_DESC                            ; 0862
         0000G  CF             01  FB 0024C        CALLS   #1, AED_PUTOUTPUT                      ;
```

```
                         7E        08    AE  3C 00251          MOVZWL  OUTPUT_DESC, -(SP)                          ; 0863
                                         6E  D6 00255          INCL    (SP)                                       ;
                                         52  DD 00257          PUSHL   J                                          ;
                         6A              02  FB 00259          CALLS   #2, SCR$ERASE_LINE                         ;
                         53              63  D0 0025C          MOVL    (NEW_TEXT_LINE), NEW_TEXT_LINE             ; 0864
                         50        A0    A9  9E 0025F          MOVAB   AED_B_LINETABLE, R0                        ; 0865
                         50              53  D1 00263          CMPL    NEW_TEXT_LINE, R0                          ;
                                         04  13 00266          BEQL    30$                                        ;
                   CA    52              14  F3 00268 29$:     AOBLEQ  #20, J, 28$                                ; 0856
                                   04    BC  D4 0026C 30$:     CLRL    @POSITION                                  ; 0872
                         04        0C    AC  E8 0026F          BLBS    FIRST, 31$                                 ; 0873
                         05        08    AC  E8 00273          BLBS    EXACT, 32$                                 ;
                      04 BC        28    A9  3C 00277 31$:     MOVZWL  SEGMENT_SIZE, @POSITION                    ; 0874
                90 A9 04 BC              01  81 0027C 32$:     ADDB3   #1, @POSITION, AED_B_COLUMN                ; 0876
                         7E        90    A9  9A 00282          MOVZBL  AED_B_COLUMN, -(SP)                        ; 0877
                         7E        94    A9  9A 00286          MOVZBL  AED_B_LINE, -(SP)                          ;
                   0000V CF              02  FB 0028A          CALLS   #2, AED_SET_CURSOR                         ;
                         50              01  D0 0028F          MOVL    #1, R0                                     ; 0879
                                         04  00292             RET                                                ;
                                         50  D4 00293 33$:     CLRL    R0                                         ; 0880
                                         04  00295             RET                                                ;

; Routine Size:  662 bytes,    Routine Base:  $CODE$ + 0102
```

```
;  433          0881  1 GLOBAL ROUTINE AED_SEGCOMBINE (POSITION, DIRECTION) =
;  434          0882  1
;  435          0883  1 !++
;  436          0884  1 !
;  437          0885  1 ! FUNCTIONAL DESCRIPTION:
;  438          0886  1 !
;  439          0887  1 !       This routine takes two line segments and combines them into one
;  440          0888  1 !       large segment.  If the resulting combined segment is larger than
;  441          0889  1 !       the page width, it is split up into two segments.
;  442          0890  1 !
;  443          0891  1 ! CALLING SEQUENCE:
;  444          0892  1 !       AED_SEGCOMBINE (ARG1, ARG2)
;  445          0893  1 !
;  446          0894  1 ! INPUT PARAMETERS:
;  447          0895  1 !       ARG1: address of the cell containing the desired buffer position
;  448          0896  1 !       ARG2: 1 = combine current line with next line
;  449          0897  1 !             0 = combine current line with previous line
;  450          0898  1 !
;  451          0899  1 ! IMPLICIT INPUTS:
;  452          0900  1 !
;  453          0901  1 ! OUTPUT PARAMETERS:
;  454          0902  1 !       ARG1: address of the cell to contain the buffer position
;  455          0903  1 !
;  456          0904  1 ! IMPLICIT OUTPUTS:
;  457          0905  1 !       none
;  458          0906  1 !
;  459          0907  1 ! ROUTINE VALUE:
;  460          0908  1 !       none
;  461          0909  1 !
;  462          0910  1 ! SIDE EFFECTS:
;  463          0911  1 !       none
;  464          0912  1 !
;  465          0913  1 !--
;  466          0914  1
;  467          0915  2 BEGIN
;  468          0916  2
;  469          0917  2 BIND
;  470          0918  2         SEGMENT_SIZE    = AED_T_CURLINE[LINE_W_SIZE] : WORD;
;  471          0919  2
;  472          0920  2 LOCAL
;  473          0921  2         OUTPUT_DESC     : $BBLOCK [DSC$C_S_BLN],        ! Output line descr
;  474          0922  2         NEW_TEXT_LINE   : REF $BBLOCK,          ! Addr of new segment
;  475          0923  2         PREV_LINE       : REF $BBLOCK,          ! Addr of previous segment
;  476          0924  2         COMBINED_LINE   : REF $BBLOCK,          ! Addr of combined segment
;  477          0925  2         REMOVED_LINE    : REF $BBLOCK;          ! Addr of line removed
;  478          0926  2
;  479          0927  2 ! Initialize any necessary items.
;  480          0928  2
;  481          0929  2 CH$FILL (0, DSC$C_S_BLN, OUTPUT_DESC);
;  482          0930  2
;  483          0931  2 ! Determine whether anything can be combined based upon the direction
;  484          0932  2 ! of the combination attempt.
;  485          0933  2
;  486          0934  2 IF .DIRECTION
;  487          0935  2 THEN
;  488          0936  3     BEGIN
;  489          0937  3     IF .AED_T_CURLINE[LINE_L_FLINK] EQLA AED_Q_LINETABLE[LINE_L_FLINK]
```

```
;  490          0938  3      THEN
;  491          0939  4          BEGIN
;  492          0940  4          SIGNAL (AED$_NOCOMBINE);
;  493          0941  4          RETURN 1;
;  494          0942  3          END;
;  495          0943  3      IF .AED_T_CURLINE[LINE_V_ENDACE]
;  496          0944  3      OR
;  497          0945  4          BEGIN
;  498          0946  4          NEW_TEXT_LINE = .AED_T_CURLINE[LINE_L_FLINK];
;  499          0947  4          IF .AED_T_CURLINE[LINE_V_REPLACE]
;  500          0948  4          THEN NEW_TEXT_LINE = .NEW_TEXT_LINE[LINE_L_FLINK];
;  501          0949  4          .NEW_TEXT_LINE[LINE_V_BEGINACE]
;  502          0950  4          END
;  503          0951  3      THEN
;  504          0952  4          BEGIN
;  505          0953  4          SIGNAL (AED$_NOCOMBINE);
;  506          0954  4          RETURN 1;
;  507          0955  3          END;
;  508          0956  3      PREV_LINE = AED_REPSEGMENT ();
;  509          0957  3      NEW_TEXT_LINE = .PREV_LINE[LINE_L_FLINK];
;  510          0958  3      END
;  511          0959  2  ELSE
;  512          0960  3      BEGIN
;  513          0961  3      IF .AED_T_CURLINE[LINE_L_BLINK] EQLA AED_Q_LINETABLE[LINE_L_FLINK]
;  514          0962  3      OR .AED_T_CURLINE[LINE_V_BEGINACE]
;  515          0963  3      THEN
;  516          0964  4          BEGIN
;  517          0965  4          SIGNAL (AED$_NOCOMBINE);
;  518          0966  4          RETURN 1;
;  519          0967  3          END;
;  520          0968  3      NEW_TEXT_LINE = AED_REPSEGMENT ();
;  521          0969  3      PREV_LINE = .NEW_TEXT_LINE[LINE_L_BLINK];
;  522          0970  2      END;
;  523          0971  2
;  524          0972  2  ! Combine the two segments.
;  525          0973  2
;  526        P 0974  2  AED_L_STATUS = ALLOCATE (.PREV_LINE[LINE_W_SIZE] +
;  527        P 0975  2                           .NEW_TEXT_LINE[LINE_W_SIZE] +
;  528          0976  2                           $BYTEOFFSET (LINE_T_TEXT), COMBINED_LINE);
;  529          0977  2  IF NOT .AED_L_STATUS
;  530          0978  2  THEN
;  531          0979  3      BEGIN
;  532          0980  3      SIGNAL (.AED_L_STATUS);
;  533          0981  3      RETURN 0;
;  534          0982  2      END;
;  535          0983  2
;  536          0984  2  .POSITION = .PREV_LINE[LINE_W_SIZE];
;  537          0985  2  COMBINED_LINE[LINE_W_SIZE] = .PREV_LINE[LINE_W_SIZE] + .NEW_TEXT_LINE[LINE_W_SIZE];
;  538          0986  2  CH$COPY (.PREV_LINE[LINE_W_SIZE], PREV_LINE[LINE_T_TEXT],
;  539          0987  2            .NEW_TEXT_LINE[LINE_W_SIZE], NEW_TEXT_LINE[LINE_T_TEXT],
;  540          0988  2            0,
;  541          0989  2            .COMBINED_LINE[LINE_W_SIZE], COMBINED_LINE[LINE_T_TEXT]);
;  542          0990  2  IF .PREV_LINE[LINE_V_BEGINACE] THEN COMBINED_LINE[LINE_V_BEGINACE] = 1;
;  543          0991  2  IF .NEW_TEXT_LINE[LINE_V_ENDACE] THEN COMBINED_LINE[LINE_V_ENDACE] = 1;
;  544          0992  2  COMBINED_LINE[LINE_L_BINACE] = .PREV_LINE[LINE_L_BINACE];
;  545          0993  2  COMBINED_LINE[LINE_B_FIELDST] = .PREV_LINE[LINE_B_FIELDST];
;  546          0994  2  INSQUE (COMBINED_LINE[LINE_L_FLINK], .PREV_LINE[LINE_L_BLINK]);
```

```
;  547          0995  2 AED_COPSEGMENT (.COMBINED_LINE);
;  548          0996  2 INSQUE (AED_T_CURLINE[LINE_L_FLINK], .COMBINED_LINE[LINE_L_BLINK]);
;  549          0997  2 IF .AED_L_FIRSTLINE EQL .PREV_LINE THEN AED_L_FIRSTLINE = AED_T_CURLINE;
;  550          0998  2 IF .AED_L_LASTLINE EQL .NEW_TEXT_LINE THEN AED_L_LASTLINE = AED_T_CURLINE;
;  551          0999  2 IF .AED_L_BEGINLINE EQL .PREV_LINE OR .AED_L_BEGINLINE EQL .NEW_TEXT_LINE
;  552          1000  2 THEN AED_L_BEGINLINE = AED_T_CURLINE;
;  553          1001  2 REMQUE (PREV_LINE[LINE_L_FLINK], REMOVED_LINE);
;  554        P 1002  2 DEALLOCATE (.REMOVED_LINE[LINE_W_SIZE] + $BYTEOFFSET (LINE_T_TEXT),
;  555          1003  2                 REMOVED_LINE);
;  556          1004  2 REMQUE (NEW_TEXT_LINE[LINE_L_FLINK], REMOVED_LINE);
;  557        P 1005  2 DEALLOCATE (.REMOVED_LINE[LINE_W_SIZE] + $BYTEOFFSET (LINE_T_TEXT),
;  558          1006  2                 REMOVED_LINE);
;  559          1007  2 IF .COMBINED_LINE[LINE_W_SIZE] GTR .AED_L_PAGEWIDTH
;  560          1008  2 THEN
;  561          1009  3     BEGIN
;  562          1010  3     AED_SEGSPLIT (%REF (.AED_L_PAGEWIDTH - 1), 0, 1, 1);
;  563          1011  3     AED_POSITION (AED_T_CURLINE);
;  564          1012  3     OUTPUT_DESC[DSC$W_LENGTH] = .AED_T_CURLINE[LINE_W_SIZE];
;  565          1013  3     OUTPUT_DESC[DSC$A_POINTER] = AED_T_CURLINE[LINE_T_TEXT];
;  566          1014  3     AED_SET_CURSOR (.AED_B_LINE, 1);
;  567          1015  3     AED_PUTOUTPUT (OUTPUT_DESC);
;  568          1016  3     SCR$ERASE_LINE (.AED_B_LINE, .AED_T_CURLINE[LINE_W_SIZE] + 1);
;  569          1017  3     NEW_TEXT_LINE = .$BBLOCK [.AED_T_CURLINE[LINE_L_FLINK], LINE_L_FLINK];
;  570          1018  3     OUTPUT_DESC[DSC$W_LENGTH] = .NEW_TEXT_LINE[LINE_W_SIZE];
;  571          1019  3     OUTPUT_DESC[DSC$A_POINTER] = NEW_TEXT_LINE[LINE_T_TEXT];
;  572          1020  3     AED_SET_CURSOR (.AED_B_LINE + 1, 1);
;  573          1021  3     AED_PUTOUTPUT (OUTPUT_DESC);
;  574          1022  3     SCR$ERASE_LINE (.AED_B_LINE + 1, .NEW_TEXT_LINE[LINE_W_SIZE] + 1);
;  575          1023  3     END
;  576          1024  2 ELSE
;  577          1025  3     BEGIN
;  578          1026  3     AED_POSITION (AED_T_CURLINE);
;  579          1027  3
;  580          1028  3 ! Since the combined lines fit on one line, it will be necessary to shift
;  581          1029  3 ! all of the lines after the combined line up one.  This is done by either
;  582          1030  3 ! scrolling down and repainting the first part of the display or repainting
;  583          1031  3 ! from the current position to the end of the display (or the end of the ACL).
;  584          1032  3
;  585          1033  3     IF .AED_B_LINE LEQ 10
;  586          1034  3     THEN
;  587          1035  4         BEGIN
;  588          1036  4         AED_SET_CURSOR (20,1);          ! **** TEMP ****
;  589          1037  4         SCR$UP_SCROLL ();
;  590          1038  4         NEW_TEXT_LINE = .AED_L_BEGINLINE;
;  591          1039  4         INCR J FROM 1 TO .AED_B_LINE
;  592          1040  4         DO
;  593          1041  5             BEGIN
;  594          1042  5             OUTPUT_DESC[DSC$W_LENGTH] = .NEW_TEXT_LINE[LINE_W_SIZE];
;  595          1043  5             OUTPUT_DESC[DSC$A_POINTER] = NEW_TEXT_LINE[LINE_T_TEXT];
;  596          1044  5             AED_SET_CURSOR (.J, 1);
;  597          1045  5             AED_PUTOUTPUT (OUTPUT_DESC);
;  598          1046  5             SCR$ERASE_LINE (.J, .OUTPUT_DESC[DSC$W_LENGTH] + 1);
;  599          1047  5             NEW_TEXT_LINE = .NEW_TEXT_LINE[LINE_L_FLINK];
;  600          1048  4             END;
;  601          1049  4         END
;  602          1050  3     ELSE
;  603          1051  4         BEGIN
```

```
;  604     1052  4          IF .AED_L_FLAGS[AED_V_ENDACL]
;  605     1053  4          THEN NEW_TEXT_LINE = AED_T_CURLINE
;  606     1054  4          ELSE NEW_TEXT_LINE = .AED_T_CURLINE[LINE_L_FLINK];
;  607     1055  4          INCR J FROM .AED_B_LINE TO 20
;  608     1056  4          DO
;  609     1057  5              BEGIN
;  610     1058  5              IF .NEW_TEXT_LINE EQLA AED_Q_LINETABLE[LINE_L_FLINK]
;  611     1059  5              THEN
;  612     1060  6                  BEGIN
;  613     1061  6                  IF .J LSS 20 THEN SCR$ERASE_PAGE (.J, 1);
;  614     1062  6                  EXITLOOP;
;  615     1063  5                  END;
;  616     1064  5              OUTPUT_DESC[DSC$W_LENGTH] = .NEW_TEXT_LINE[LINE_W_SIZE];
;  617     1065  5              OUTPUT_DESC[DSC$A_POINTER] = NEW_TEXT_LINE[LINE_T_TEXT];
;  618     1066  5              AED_SET_CURSOR (.J, 1);
;  619     1067  5              AED_PUTOUTPUT (OUTPUT_DESC);
;  620     1068  5              SCR$ERASE_LINE (.J, .OUTPUT_DESC[DSC$W_LENGTH] + 1);
;  621     1069  5              NEW_TEXT_LINE = .NEW_TEXT_LINE[LINE_L_FLINK];
;  622     1070  4              END;
;  623     1071  3          END;
;  624     1072  2      END;
;  625     1073  2 AED_B_COLUMN = ..POSITION + 1;
;  626     1074  2 AED_SET_CURSOR (.AED_B_LINE, .AED_B_COLUMN);
;  627     1075  2
;  628     1076  2 RETURN 1;
;  629     1077  2
;  630     1078  1 END;                                    ! End of routine AED_SEGCOMBINE


                                        SEGMENT_SIZE=       AED_T_CURLINE+8

                                    0FFC 00000          .ENTRY  AED_SEGCOMBINE, Save R2,R3,R4,R5,R6,R7,R8,- ; 0881
                                                                R9,R10,R11
                                5E      14  C2 00002            SUBL2   #20, SP                             ;
08              00              6E      00  2C 00005            MOVC5   #0, (SP), #0, #8, OUTPUT_DESC       ; 0929
                                    0C  AE      0000A
                                6B      08  AC  E9 0000C        BLBC    DIRECTION, 6$                       ; 0934
                                50  0000'   CF  9E 00010        MOVAB   AED_Q_LINETABLE, R0                 ; 0937
                                50  0000'   CF  D1 00015        CMPL    AED_T_CURLINE, R0                   ;
                                        09  12 0001A            BNEQ    1$                                  ;
                70      0000'   CF          03  E0 0001C        BBS     #3, AED_L_FLAGS, 8$                 ; 0940
                                        0083 31 00022           BRW     9$                                  ;
                12      0000'   CF          01  E0 00025 1$:    BBS     #1, AED_T_CURLINE+10, 3$            ; 0943
                                58  0000'   CF  D0 0002B        MOVL    AED_T_CURLINE, NEW_TEXT_LINE        ; 0946
                03      0000'   CF          03  E1 00030        BBC     #3, AED_T_CURLINE+10, 2$            ; 0947
                                58          68  D0 00036        MOVL    (NEW_TEXT_LINE), NEW_TEXT_LINE      ; 0948
                                31      0A  A8  E9 00039 2$:    BLBC    10(NEW_TEXT_LINE), 5$               ; 0949
                16      0000'   CF          03  E1 0003D 3$:    BBC     #3, AED_L_FLAGS, 4$                 ; 0953
                                            01  DD 00043        PUSHL   #1                                  ;
                                            15  DD 00045        PUSHL   #21                                 ;
                    00000000G   00          02  FB 00047        CALLS   #2, SCR$ERASE_PAGE                  ;
                                            01  DD 0004E        PUSHL   #1                                  ;
                                            15  DD 00050        PUSHL   #21                                 ;
                    00000000G   00          02  FB 00052        CALLS   #2, SCR$SET_CURSOR                  ;
                            00000000G   8F  DD 00059 4$:        PUSHL   #AED$_NOCOMBINE                     ;
```

```
              00000000G  00              01  FB 0005F        CALLS   #1, LIB$SIGNAL                              :
          4F      0000'  CF              03  E0 00066        BBS     #3, AED_L_FLAGS, 10$                        :
                                         5E  11 0006C        BRB     11$                                         :
                  0000V  CF              00  FB 0006E 5$:    CALLS   #0, AED_REPSEGMENT                          : 0956
                         57              50  D0 00073        MOVL    R0, PREV_LINE                               :
                         58              67  D0 00076        MOVL    (PREV_LINE), NEW_TEXT_LINE                  : 0957
                                         7E  11 00079        BRB     14$                                         : 0934
                         50       0000'  CF  9E 0007B 6$:    MOVAB   AED_Q_LINETABLE, R0                         : 0961
                         50       0000'  CF  D1 00080        CMPL    AED_T_CURLINE+4, R0                         :
                                         05  13 00085        BEQL    7$                                          :
                         61       0000'  CF  E9 00087        BLBC    AED_T_CURLINE+10, 13$                       : 0962
          16      0000'  CF              03  E1 0008C 7$:    BBC     #3, AED_L_FLAGS, 9$                         : 0965
                                         01  DD 00092 8$:    PUSHL   #1                                          :
                                         15  DD 00094        PUSHL   #21                                         :
              00000000G  00              02  FB 00096        CALLS   #2, SCR$ERASE_PAGE                          :
                                         01  DD 0009D        PUSHL   #1                                          :
                                         15  DD 0009F        PUSHL   #21                                         :
              00000000G  00              02  FB 000A1        CALLS   #2, SCR$SET_CURSOR                          :
                            00000000G    8F  DD 000A8 9$:    PUSHL   #AED$_NOCOMBINE                             :
              00000000G  00              01  FB 000AE        CALLS   #1, LIB$SIGNAL                              :
          11      0000'  CF              03  E1 000B5        BBC     #3, AED_L_FLAGS, 11$                        :
                         7E       0000'  CF  9A 000BB 10$:   MOVZBL  AED_B_COLUMN, -(SP)                         :
                         7E       0000'  CF  9A 000C0        MOVZBL  AED_B_LINE, -(SP)                           :
              00000000G  00              02  FB 000C5        CALLS   #2, SCR$SET_CURSOR                          :
                            00000000*    8F  D5 000CC 11$:   TSTL    #<AED$_NOCOMBINE&7>                         :
                                         16  13 000D2        BEQL    12$                                         :
00000000*  8F     0000'  CF              03  00  ED 000D4    CMPZV   #0, #3, AED_L_WORSTERR, #<AED$_NOCOMBINE&7> :
                                         09  18 000DF        BGEQ    12$                                         :
                  0000'  CF 00000000G    8F  D0 000E1        MOVL    #AED$_NOCOMBINE, AED_L_WORSTERR             :
                                       02ED  31 000EA 12$:   BRW     39$                                         : 0966
                  0000V  CF              00  FB 000ED 13$:   CALLS   #0, AED_REPSEGMENT                          : 0968
                         58              50  D0 000F2        MOVL    R0, NEW_TEXT_LINE                           :
                         57         04   A8  D0 000F5        MOVL    4(NEW_TEXT_LINE), PREV_LINE                 : 0969
                                    04   AE  9F 000F9 14$:   PUSHAB  COMBINED_LINE                               : 0976
                         59         08   A7  3C 000FC        MOVZWL  8(PREV_LINE), R9                            :
                         50         08   A8  3C 00100        MOVZWL  8(NEW_TEXT_LINE), R0                        :
                         59              50  C0 00104        ADDL2   R0, R9                                      :
                         52         14   A9  9E 00107        MOVAB   20(R9), R2                                  :
                     04  AE              52  D0 0010B        MOVL    R2, 4(SP)                                   :
                                    04   AE  9F 0010F        PUSHAB  4(SP)                                       :
              00000000G  00              02  FB 00112        CALLS   #2, LIB$GET_VM                              :
                         56              50  D0 00119        MOVL    R0, VM_STATUS                               :
                         07              56  E9 0011C        BLBC    VM_STATUS, 15$                              :
      52          00     6E              00  2C 0011F        MOVC5   #0, (SP), #0, R2, @COMBINED_LINE            :
                                    04   BE     00124                                                        :
                  0000'  CF              56  D0 00126 15$:   MOVL    VM_STATUS, AED_L_STATUS                     :
                         5E       0000'  CF  E8 0012B        BLBS    AED_L_STATUS, 19$                           : 0977
          16      0000'  CF              03  E1 00130        BBC     #3, AED_L_FLAGS, 16$                        : 0980
                                         01  DD 00136        PUSHL   #1                                          :
                                         15  DD 00138        PUSHL   #21                                         :
              00000000G  00              02  FB 0013A        CALLS   #2, SCR$ERASE_PAGE                          :
                                         01  DD 00141        PUSHL   #1                                          :
                                         15  DD 00143        PUSHL   #21                                         :
              00000000G  00              02  FB 00145        CALLS   #2, SCR$SET_CURSOR                          :
                                  0000'  CF  DD 0014C 16$:   PUSHL   AED_L_STATUS                                :
              00000000G  00              01  FB 00150        CALLS   #1, LIB$SIGNAL                              :
          11      0000'  CF              03  E1 00157        BBC     #3, AED_L_FLAGS, 17$                        :
```

```
                                   7E     0000'   CF  9A 0015D           MOVZBL  AED_B_COLUMN, -(SP)                          :
                                   7E     0000'   CF  9A 00162           MOVZBL  AED_B_LINE, -(SP)                            :
                        00000000G  00             02  FB 00167           CALLS   #2, SCR$SET_CURSOR                           :
                                   50     0000'   CF  D0 0016E  17$:     MOVL    AED_L_STATUS, R0                             :
                                   07             50  93 00173           BITB    R0, #7                                       :
                                                  13  13 00176           BEQL    18$                                          :
  51             50                03             00  EF 00178           EXTZV   #0, #3, R0, R1                               :
  51    0000'    CF                03             00  ED 0017D           CMPZV   #0, #3, AED_L_WORSTERR, R1                   :
                                                  05  18 00184           BGEQ    18$                                          :
                            0000'  CF             50  D0 00186           MOVL    R0, AED_L_WORSTERR                           :
                                                0250  31 0018B  18$:     BRW     40$                                          : 0981
                               04  BC     08      A7  3C 0018E  19$:     MOVZWL  8(PREV_LINE), @POSITION                      : 0984
                                   56     04      AE  D0 00193           MOVL    COMBINED_LINE, R6                            : 0985
                               08  A6             59  B0 00197           MOVW    R9, 8(R6)                                    :
                                   6E     08      A7  3C 0019B           MOVZWL  8(PREV_LINE), (SP)                           : 0986
                                   5B     08      A8  3C 0019F           MOVZWL  8(NEW_TEXT_LINE), R11                        : 0987
                                   5A     08      A6  3C 001A3           MOVZWL  8(R6), R10                                   : 0989
                                   59     14      A6  9E 001A7           MOVAB   20(R6), R9                                   :
  5A             00            14  A7             6E  2C 001AB           MOVC5   (SP), 20(PREV_LINE), #0, R10, (R9)           :
                                                  69     001B1                                                                :
                                                  0D  18 001B2           BGEQ    20$                                          :
                                   59             6E  C0 001B4           ADDL2   (SP), R9                                     :
                                   5A             6E  C2 001B7           SUBL2   (SP), R10                                    :
  5A             00            14  A8             5B  2C 001BA           MOVC5   R11, 20(NEW_TEXT_LINE), #0, R10, (R9)        :
                                                  69     001C0                                                                :
                                   04     0A      A7  E9 001C1  20$:     BLBC    10(PREV_LINE), 21$                           : 0990
                               0A  A6             01  88 001C5           BISB2   #1, 10(R6)                                   :
                 04            0A  A8             01  E1 001C9  21$:     BBC     #1, 10(NEW_TEXT_LINE), 22$                   : 0991
                               0A  A6             02  88 001CE           BISB2   #2, 10(R6)                                   :
                               0C  A6     0C      A7  D0 001D2  22$:     MOVL    12(PREV_LINE), 12(R6)                        : 0992
                               10  A6     10      A7  90 001D7           MOVB    16(PREV_LINE), 16(R6)                        : 0993
                               04  B7             66  0E 001DC           INSQUE  (R6), @4(PREV_LINE)                          : 0994
                                   52     04      AE  D0 001E0           MOVL    COMBINED_LINE, R2                            : 0995
                                                  52  DD 001E4           PUSHL   R2                                           :
                            0000V  CF             01  FB 001E6           CALLS   #1, AED_COPSEGMENT                           :
                               04  B2     0000'   CF  0E 001EB           INSQUE  AED_T_CORLINE, @4(R2)                        : 0996
                                   57     0000'   CF  D1 001F1           CMPL    AED_L_FIRSTLINE, PREV_LINE                   : 0997
                                                  07  12 001F6           BNEQ    23$                                          :
                            0000'  CF     0000'   CF  9E 001F8           MOVAB   AED_T_CURLINE, AED_L_FIRSTLINE               :
                                   58     0000'   CF  D1 001FF  23$:     CMPL    AED_L_LASTLINE, NEW_TEXT_LINE                : 0998
                                                  07  12 00204           BNEQ    24$                                          :
                            0000'  CF     0000'   CF  9E 00206           MOVAB   AED_T_CURLINE, AED_L_LASTLINE                :
                                   57     0000'   CF  D1 0020D  24$:     CMPL    AED_L_BEGINLINE, PREV_LINE                   : 0999
                                                  07  13 00212           BEQL    25$                                          :
                                   58     0000'   CF  D1 00214           CMPL    AED_L_BEGINLINE, NEW_TEXT_LINE               :
                                                  07  12 00219           BNEQ    26$                                          :
                            0000'  CF     0000'   CF  9E 0021B  25$:     MOVAB   AED_T_CURLINE, AED_L_BEGINLINE               : 1000
                               08  AE             67  0F 00222  26$:     REMQUE  (PREV_LINE), REMOVED_LINE                    : 1001
                                          08      AE  9F 00226           PUSHAB  REMOVED_LINE                                 : 1003
                                   50     0C      AE  D0 00229           MOVL    REMOVED_LINE, R0                             :
                               04  AE     08      A0  3C 0022D           MOVZWL  8(R0), 4(SP)                                 :
                               04  AE             14  C0 00232           ADDL2   #20, 4(SP)                                   :
                                          04      AE  9F 00236           PUSHAB  4(SP)                                        :
                        00000000G  00             02  FB 00239           CALLS   #2, LIB$FREE_VM                              :
                               08  AE             68  0F 00240           REMQUE  (NEW_TEXT_LINE), REMOVED_LINE                : 1004
                                          08      AE  9F 00244           PUSHAB  REMOVED_LINE                                 : 1006
                                   50     0C      AE  D0 00247           MOVL    REMOVED_LINE, R0                             :
```

```
                                04  AE      08  A0  3C 0024B        MOVZWL  8(R0), 4(SP)                             :
                                04  AE          14  C0 00250        ADDL2   #20, 4(SP)                               :
                                            04  AE  9F 00254        PUSHAB  4(SP)                                    :
                         00000000G  00          02  FB 00257        CALLS   #2, LIB$FREE_VM                          :
                                    50      04  AE  D0 0025E        MOVL    COMBINED_LINE, R0                        : 1007
    0000'  CF        08  A0                 10  00  ED 00262        CMPZV   #0, #16, 8(R0), AED_L_PAGEWIDTH          :
                                                03  14 0026A        BGTR    27$                                      :
                                              008C  31 0026C        BRW     28$                                      :
                                                01  DD 0026F 27$:   PUSHL   #1                                       : 1010
                                                01  DD 00271        PUSHL   #1                                       :
                                                7E  D4 00273        CLRL    -(SP)                                    :
                     0C  AE      0000'  CF      01  C3 00275        SUBL3   #1, AED_L_PAGEWIDTH, 12(SP)              :
                                            0C  AE  9F 0027C        PUSHAB  12(SP)                                   :
                              FAE6  CF          04  FB 0027F        CALLS   #4, AED_SEGSPLIT                         :
                                         0000'  CF  9F 00284        PUSHAB  AED_T_CURLINE                            : 1011
                             0000V  CF          01  FB 00288        CALLS   #1, AED_POSITION                         :
                                0C  AE   0000'  CF  B0 0028D        MOVW    AED_T_CURLINE+8, OUTPUT_DESC             : 1012
                                10  AE   0000'  CF  9E 00293        MOVAB   AED_T_CURLINE+20, OUTPUT_DESC+4          : 1013
                                                01  DD 00299        PUSHL   #1                                       : 1014
                                    7E   0000'  CF  9A 0029B        MOVZBL  AED_B_LINE, -(SP)                        :
                             0000V  CF          02  FB 002A0        CALLS   #2, AED_SET_CURSOR                       :
                                            0C  AE  9F 002A5        PUSHAB  OUTPUT_DESC                              : 1015
                             0000G  CF          01  FB 002A8        CALLS   #1, AED_PUTOUTPUT                        :
                                    7E   0000'  CF  3C 002AD        MOVZWL  AED_T_CURLINE+8, -(SP)                   : 1016
                                                6E  D6 002B2        INCL    (SP)                                     :
                                    7E   0000'  CF  9A 002B4        MOVZBL  AED_B_LINE, -(SP)                        :
                         00000000G  00          02  FB 002B9        CALLS   #2, SCR$ERASE_LINE                       :
                                    58   0000'  DF  D0 002C0        MOVL    @AED_T_CURLINE, NEW_TEXT_LINE            : 1017
                                0C  AE      08  A8  B0 002C5        MOVW    8(NEW_TEXT_LINE), OUTPUT_DESC            : 1018
                                10  AE      14  A8  9E 002CA        MOVAB   20(R8), OUTPUT_DESC+4                    : 1019
                                                01  DD 002CF        PUSHL   #1                                       : 1020
                                    7E   0000'  CF  9A 002D1        MOVZBL  AED_B_LINE, -(SP)                        :
                                                6E  D6 002D6        INCL    (SP)                                     :
                             0000V  CF          02  FB 002D8        CALLS   #2, AED_SET_CURSOR                       :
                                            0C  AE  9F 002DD        PUSHAB  OUTPUT_DESC                              : 1021
                             0000G  CF          01  FB 002E0        CALLS   #1, AED_PUTOUTPUT                        :
                                    7E      08  A8  3C 002E5        MOVZWL  8(NEW_TEXT_LINE), -(SP)                  : 1022
                                                6E  D6 002E9        INCL    (SP)                                     :
                                    7E   0000'  CF  9A 002EB        MOVZBL  AED_B_LINE, -(SP)                        :
                                                6E  D6 002F0        INCL    (SP)                                     :
                         00000000G  00          02  FB 002F2        CALLS   #2, SCR$ERASE_LINE                       :
                                                5F  11 002F9        BRB     31$                                      : 1007
                                         0000'  CF  9F 002FB 28$:   PUSHAB  AED_T_CURLINE                            : 1026
                             0000V  CF          01  FB 002FF        CALLS   #1, AED_POSITION                         :
                                    0A   0000'  CF  91 00304        CMPB    AED_B_LINE, #10                          : 1033
                                                51  1A 00309        BGTRU   32$                                      :
                                                01  DD 0030B        PUSHL   #1                                       : 1036
                                                14  DD 0030D        PUSHL   #20                                      :
                             0000V  CF          02  FB 0030F        CALLS   #2, AED_SET_CURSOR                       :
                         00000000G  00          00  FB 00314        CALLS   #0, SCR$UP_SCROLL                        : 1037
                                    58   0000'  CF  D0 0031B        MOVL    AED_L_BEGINLINE, NEW_TEXT_LINE           : 1038
                                    53   0000'  CF  9A 00320        MOVZBL  AED_B_LINE, R3                           : 1039
                                                52  D4 00325        CLRL    J                                        :
                                                2D  11 00327        BRB     30$                                      :
                                0C  AE      08  A8  B0 00329 29$:   MOVW    8(NEW_TEXT_LINE), OUTPUT_DESC            : 1042
                                10  AE      14  A8  9E 0032E        MOVAB   20(R8), OUTPUT_DESC+4                    : 1043
                                                01  DD 00333        PUSHL   #1                                       : 1044
```

```
                                52 DD 00335            PUSHL   J                                          ;
               0000V  CF        02 FB 00337            CALLS   #2, AED_SET_CURSOR                         ;
                           0C   AE 9F 0033C            PUSHAB  OUTPUT_DESC                                ; 1045
               0000G  CF        01 FB 0033F            CALLS   #1, AED_PUTOUTPUT                          ;
                      7E   0C   AE 3C 00344            MOVZWL  OUTPUT_DESC, -(SP)                         ; 1046
                                6E D6 00348            INCL    (SP)                                       ;
                                52 DD 0034A            PUSHL   J                                          ;
           00000000G  00        02 FB 0034C            CALLS   #2, SCR$ERASE_LINE                         ;
                      58        68 D0 00353            MOVL    (NEW_TEXT_LINE), NEW_TEXT_LINE             ; 1047
        CF            52        53 F3 00356 30$:       AOBLEQ  R3, J, 29$                                 ; 1039
                                68 11 0035A 31$:       BRB     38$                                        ; 1033
        07     0000'  CF        05 E1 0035C 32$:       BBC     #5, AED_L_FLAGS, 33$                       ; 1052
                      58  0000' CF 9E 00362            MOVAB   AED_T_CURLINE, NEW_TEXT_LINE               ; 1053
                                05 11 00367            BRB     34$                                        ;
                      58  0000' CF D0 00369 33$:       MOVL    AED_T_CURLINE, NEW_TEXT_LINE               ; 1054
                      52  0000' CF 9A 0036E 34$:       MOVZBL  AED_B_LINE, J                              ; 1055
                                52 D7 00373            DECL    J                                          ;
                                49 11 00375            BRB     37$                                        ;
                      50  0000' CF 9E 00377 35$:       MOVAB   AED_Q_LINETABLE, R0                        ; 1058
                      50        58 D1 0037C            CMPL    NEW_TEXT_LINE, R0                          ;
                                12 12 0037F            BNEQ    36$                                        ;
                      14        52 D1 00381            CMPL    J, #20                                     ; 1061
                                3E 18 00384            BGEQ    38$                                        ;
                                01 DD 00386            PUSHL   #1                                         ;
                                52 DD 00388            PUSHL   J                                          ;
           00000000G  00        02 FB 0038A            CALLS   #2, SCR$ERASE_PAGE                         ;
                                31 11 00391            BRB     38$                                        ; 1060
                  0C  AE   08   A8 B0 00393 36$:       MOVW    8(NEW_TEXT_LINE), OUTPUT_DESC              ; 1064
                  10  AE   14   A8 9E 00398            MOVAB   20(R8), OUTPUT_DESC+4                      ; 1065
                                01 DD 0039D            PUSHL   #1                                         ; 1066
                                52 DD 0039F            PUSHL   J                                          ;
               0000V  CF        02 FB 003A1            CALLS   #2, AED_SET_CURSOR                         ;
                           0C   AE 9F 003A6            PUSHAB  OUTPUT_DESC                                ; 1067
               0000G  CF        01 FB 003A9            CALLS   #1, AED_PUTOUTPUT                          ;
                      7E   0C   AE 3C 003AE            MOVZWL  OUTPUT_DESC, -(SP)                         ; 1068
                                6E D6 003B2            INCL    (SP)                                       ;
                                52 DD 003B4            PUSHL   J                                          ;
           00000000G  00        02 FB 003B6            CALLS   #2, SCR$ERASE_LINE                         ;
                      58        68 D0 003BD            MOVL    (NEW_TEXT_LINE), NEW_TEXT_LINE             ; 1069
        B3            52        14 F3 003C0 37$:       AOBLEQ  #20, J, 35$                                ; 1055
   0000' CF           04        BC 01 81 003C4 38$:    ADDB3   #1, @POSITION, AED_B_COLUMN                ; 1073
                      7E  0000' CF 9A 003CB            MOVZBL  AED_B_COLUMN, -(SP)                        ; 1074
                      7E  0000' CF 9A 003D0            MOVZBL  AED_B_LINE, -(SP)                          ;
               0000V  CF        02 FB 003D5            CALLS   #2, AED_SET_CURSOR                         ;
                      50        01 D0 003DA 39$:       MOVL    #1, R0                                     ; 1076
                                   04 003DD            RET                                                ;
                                50 D4 003DE 40$:       CLRL    R0                                         ; 1078
                                   04 003E0            RET                                                ;

; Routine Size:  993 bytes,    Routine Base:  $CODE$ + 0398
```

```
1 GLOBAL ROUTINE AED_COPSEGMENT (SEGMENT_ADDR) =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine copies the specified line segment to the current
1 !       line working storage area.
1 !
1 ! CALLING SEQUENCE:
1 !       AED_COPSEGMENT (ARG1)
1 !
1 ! INPUT PARAMETERS:
1 !       ARG1: address of the desired line segment
1 !
1 ! IMPLICIT IMPUTS:
1 !       AED_T_CURLINE: current line working storage
1 !       AED_Q_LINETABLE: line segment list head
1 !
1 ! OUTPUT PARAMETERS:
1 !       none
1 !
1 ! IMPLICIT OUTPUTS:
1 !       none
1 !
1 ! ROUTINE VALUE:
1 !       none
1 !
1 ! SIDE EFFECTS:
1 !       none
1 !
1 !--
1
2 BEGIN
2
2 MAP
2       SEGMENT_ADDR    : REF $BBLOCK;
2
2 IF .SEGMENT_ADDR NEQA AED_Q_LINETABLE
2 THEN CH$MOVE ($BYTEOFFSET(LINE_T_TEXT), .SEGMENT_ADDR, AED_T_CURLINE);
2 CH$MOVE (.SEGMENT_ADDR[LINE_W_SIZE], SEGMENT_ADDR[LINE_T_TEXT],
2         AED_T_CURLINE[LINE_T_TEXT]);
2 AED_T_CURLINE[LINE_V_REPLACE] = 1;
2
2 RETURN 1;
2
1 END;                                  ! End of routine AED_COPSEGMENT
```

```
                        007C 00000        .ENTRY  AED_COPSEGMENT, Save R2,R3,R4,R5,R6     ; 1079
     56       04   AC   D0 00002          MOVL    SEGMENT_ADDR, R6                        ; 1117
     50    0000'   CF   9E 00006          MOVAB   AED_Q_LINETABLE, R0                     ;
     50            56   D1 0000B          CMPL    R6, R0                                  ;
                   06   13 0000E          BEQL    1$                                      ;
```

```
                0000'  CF              66          14  28 00010          MOVC3   #20, (R6), AED_T_CURLINE                    ; 1118
                0000'  CF        14     A6      08  A6  28 00016 1$:      MOVC3   8(R6), 20(R6), AED_T_CURLINE+20           ; 1120
                             0000'  CF              08  88 0001E          BISB2   #8, AED_T_CURLINE+T0                      ; 1121
                                    50              01  D0 00023          MOVL    #1, R0                                    ; 1123
                                                        04 00026          RET                                               ; 1125

; Routine Size:  39 bytes,    Routine Base:  $CODE$ + 0779
```

```
;  680          1126  1 GLOBAL ROUTINE AED_REPSEGMENT =
;  681          1127  1
;  682          1128  1 !++
;  683          1129  1 !
;  684          1130  1 ! FUNCTIONAL DESCRIPTION:
;  685          1131  1 !
;  686          1132  1 !       This routine replaces the specified segment with the new one given.
;  687          1133  1 !
;  688          1134  1 ! CALLING SEQUENCE:
;  689          1135  1 !       AED_REPSEGMENT ()
;  690          1136  1 !
;  691          1137  1 ! INPUT PARAMETERS:
;  692          1138  1 !       none
;  693          1139  1 !
;  694          1140  1 ! IMPLICIT IMPUTS:
;  695          1141  1 !       AED_L_STATUS: global return status
;  696          1142  1 !       AED_T_CURLINE: segment working storage
;  697          1143  1 !       AED_L_FIRSTLINE: address of first segment of ACE
;  698          1144  1 !       AED_L_LASTLINE: address of last segment of ACE
;  699          1145  1 !       AED_L_BEGINLINE: address of first line of display
;  700          1146  1 !
;  701          1147  1 ! OUTPUT PARAMETERS:
;  702          1148  1 !       ARG1: total size of all segments
;  703          1149  1 !
;  704          1150  1 ! IMPLICIT OUTPUTS:
;  705          1151  1 !       none
;  706          1152  1 !
;  707          1153  1 ! ROUTINE VALUE:
;  708          1154  1 !       none
;  709          1155  1 !
;  710          1156  1 ! SIDE EFFECTS:
;  711          1157  1 !       none
;  712          1158  1 !
;  713          1159  1 !--
;  714          1160  1
;  715          1161  2 BEGIN
;  716          1162  2
;  717          1163  2 BIND
;  718          1164  2         SEGMENT_SIZE    = AED_T_CURLINE[LINE_W_SIZE] : WORD;
;  719          1165  2
;  720          1166  2 LOCAL
;  721          1167  2         NEW_TEXT_LINE   : REF $BBLOCK,          ! Address of new segment
;  722          1168  2         REMOVED_LINE    : REF $BBLOCK;          ! Address of segment removed
;  723          1169  2
;  724        P 1170  2 AED_L_STATUS = ALLOCATE (.SEGMENT_SIZE + $BYTEOFFSET (LINE_T_TEXT),
;  725          1171  2                          NEW_TEXT_LINE);
;  726          1172  2 IF NOT .AED_L_STATUS
;  727          1173  2 THEN
;  728          1174  3     BEGIN
;  729          1175  3     SIGNAL (.AED_L_STATUS);
;  730          1176  3     RETURN 0;
;  731          1177  2     END;
;  732          1178  2 CH$MOVE (.SEGMENT_SIZE + $BYTEOFFSET (LINE_T_TEXT),
;  733          1179  2           AED_T_CURLINE, .NEW_TEXT_LINE);
;  734          1180  2 IF .SEGMENT_SIZE EQL 0 THEN NEW_TEXT_LINE[LINE_V_DUMMY] = 1;
;  735          1181  2 INSQUE (NEW_TEXT_LINE[LINE_L_FLINK], AED_T_CURLINE[LINE_L_FLINK]);
;  736          1182  2 REMQUE (AED_T_CURLINE[LINE_L_FLINK], REMOVED_LINE);
```

```
;  737          1183  2 AED_W_TOTALSIZE = .AED_W_TOTALSIZE + .SEGMENT_SIZE;
;  738          1184  2 CH$FILL (0, 512 + $BYTEOFFSET (LINE_T_TEXT), AED_T_CURLINE);
;  739          1185  2 IF .AED_L_BEGINLINE EQLA AED_T_CURLINE
;  740          1186  2 THEN AED_L_BEGINLINE = .NEW_TEXT_LINE;
;  741          1187  2 IF .AED_L_FIRSTLINE EQLA AED_T_CURLINE
;  742          1188  2 THEN AED_L_FIRSTLINE = .NEW_TEXT_LINE;
;  743          1189  2 IF .AED_L_LASTLINE EQLA AED_T_CURLINE
;  744          1190  2 THEN AED_L_LASTLINE = .NEW_TEXT_LINE;
;  745          1191  2 IF .NEW_TEXT_LINE[LINE_V_REPLACE]
;  746          1192  2 THEN
;  747          1193  3     BEGIN
;  748          1194  3     NEW_TEXT_LINE[LINE_V_REPLACE] = 0;
;  749          1195  3     REMQUE (.NEW_TEXT_LINE[LINE_L_FLINK], REMOVED_LINE);
;  750          1196  3     AED_W_TOTALSIZE = .AED_W_TOTALSIZE - .REMOVED_LINE[LINE_W_SIZE];
;  751        P 1197  3     DEALLOCATE (.REMOVED_LINE[LINE_W_SIZE] +
;  752        P 1198  3                 $BYTEOFFSET (LINE_T_TEXT),
;  753          1199  3                 REMOVED_LINE);
;  754          1200  2     END;
;  755          1201  2
;  756          1202  2 RETURN .NEW_TEXT_LINE;
;  757          1203  2
;  758          1204  1 END;                                    ! End of routine AED_REPSEGMENT


                                                SEGMENT_SIZE=       AED_T_CURLINE+8

                                    01FC 00000          .ENTRY  AED_REPSEGMENT, Save R2,R3,R4,R5,R6,R7,R8    ; 1126
                          58 00000000G  00  9E 00002    MOVAB   SCR$SET_CURSOR, R8                           ;
                          57      0000' CF  9E 00009    MOVAB   AED_T_CURLINE, R7                            ;
                          5E            0C  C2 0000E    SUBL2   #12, SP                                      ;
                                    04  AE  9F 00011    PUSHAB  NEW_TEXT_LINE                                ; 1171
                                04  AE  08  A7  3C 00014    MOVZWL  SEGMENT_SIZE, 4(SP)                      ;
                                04  AE      14  C0 00019    ADDL2   #20, 4(SP)                               ;
                                    04  AE  9F 0001D    PUSHAB  4(SP)                                        ;
                             00000000G  00      02  FB 00020    CALLS   #2, LIB$GET_VM                       ;
                                        56      50  D0 00027    MOVL    R0, VM_STATUS                        ;
                                        0E      56  E9 0002A    BLBC    VM_STATUS, 1$                        ;
                                        50  08  A7  3C 0002D    MOVZWL  SEGMENT_SIZE, R0                     ;
                                        50      14  C0 00031    ADDL2   #20, R0                              ;
    50                  00              6E      00  2C 00034    MOVC5   #0, (SP), #0, R0, @NEW_TEXT_LINE     ;
                                            04  BE      00039                                                ;
                                    DC  A7          56  D0 0003B 1$:    MOVL    VM_STATUS, AED_L_STATUS     ;
                                        54      DC  A7  E8 0003F        BLBS    AED_L_STATUS, 5$            ;
                                12      FF50    C7      03  E1 00043    BBC     #3, AED_L_FLAGS, 2$         ; 1173
                                                        01  DD 00049    PUSHL   #1                          ; 1174
                                                        15  DD 0004B    PUSHL   #21                         ;
                             00000000G  00              02  FB 0004D    CALLS   #2, SCR$ERASE_PAGE          ;
                                                        01  DD 00054    PUSHL   #1                          ;
                                                        15  DD 00056    PUSHL   #21                         ;
                                        68              02  FB 00058    CALLS   #2, SCR$SET_CURSOR          ;
                                            DC          A7  DD 0005B 2$:    PUSHL   AED_L_STATUS            ;
                             00000000G  00              01  FB 0005E    CALLS   #1, LIB$SIGNAL              ;
                                0D      FF50    C7      03  E1 00065    BBC     #3, AED_L_FLAGS, 3$         ;
                                        7E  FF70    C7  9A  0006B        MOVZBL  AED_B_COLUMN, -(SP)         ;
                                        7E  FF74    C7  9A  00070        MOVZBL  AED_B_LINE, -(SP)           ;
```

```
                             68          02 FB 00075         CALLS   #2, SCR$SET_CURSOR                      ;
                             50     DC   A7 D0 00078 3$:     MOVL    AED_L_STATUS, R0                        ;
                             07          50 93 0007C         BITB    R0, #7                                  ;
                                         13 13 0007F         BEQL    4$                                      ;
      51           50        03          00 EF 00081         EXTZV   #0, #3, R0, R1                          ;
      51     FF64  C7        03          00 ED 00086         CMPZV   #0, #3, AED_L_WORSTERR, R1              ;
                                         05 18 0008D         BGEQ    4$                                      ;
                       FF64  C7          50 D0 0008F         MOVL    R0, AED_L_WORSTERR                      ;
                                       008E 31 00094 4$:     BRW     11$                                     ; 1176
                             50     08   A7 3C 00097 5$:     MOVZWL  SEGMENT_SIZE, R0                        ; 1178
                             50          14 C0 0009B         ADDL2   #20, R0                                 ;
                             56     04   AE D0 0009E         MOVL    NEW_TEXT_LINE, R6                       ; 1179
                   66        67          50 28 000A2         MOVC3   R0, AED_T_CURLINE, (R6)                 ;
                                    08   A7 B5 000A6         TSTW    SEGMENT_SIZE                            ; 1180
                                         04 12 000A9         BNEQ    6$                                      ;
                         0A  A6          04 88 000AB         BISB2   #4, 10(R6)                              ;
                             67          66 0E 000AF 6$:     INSQUE  (R6), AED_T_CURLINE                     ; 1181
                         08  AE          67 0F 000B2         REMQUE  AED_T_CURLINE, REMOVED_LINE             ; 1182
                       0214  C7     08   A7 A0 000B6         ADDW2   SEGMENT_SIZE, AED_W_TOTALSIZE           ; 1183
 0214  8F          00        6E          00 2C 000BC         MOVC5   #0, (SP), #0, #532, AED_T_CURLINE       ; 1184
                                         67    000C3                                                     ;
                             50          67 9E 000C4         MOVAB   AED_T_CURLINE, R0                       ; 1185
                             50     98   A7 D1 000C7         CMPL    AED_L_BEGINLINE, R0                     ;
                                         05 12 000CB         BNEQ    7$                                      ;
                         98  A7     04   AE D0 000CD         MOVL    NEW_TEXT_LINE, AED_L_BEGINLINE          ; 1186
                             50          67 9E 000D2 7$:     MOVAB   AED_T_CURLINE, R0                       ; 1187
                             50     90   A7 D1 000D5         CMPL    AED_L_FIRSTLINE, R0                     ;
                                         05 12 000D9         BNEQ    8$                                      ;
                         90  A7     04   AE D0 000DB         MOVL    NEW_TEXT_LINE, AED_L_FIRSTLINE          ; 1188
                             50          67 9E 000E0 8$:     MOVAB   AED_T_CURLINE, R0                       ; 1189
                             50     94   A7 D1 000E3         CMPL    AED_L_LASTLINE, R0                      ;
                                         05 12 000E7         BNEQ    9$                                      ;
                         94  A7     04   AE D0 000E9         MOVL    NEW_TEXT_LINE, AED_L_LASTLINE           ; 1190
                             50     04   AE D0 000EE 9$:     MOVL    NEW_TEXT_LINE, R0                       ; 1191
                   29    0A  A0          03 E1 000F2         BBC     #3, 10(R0), 10$                         ;
                         0A  A0          08 8A 000F7         BICB2   #8, 10(R0)                              ; 1194
                         08  AE     00   B0 0F 000FB         REMQUE  @0(R0), REMOVED_LINE                    ; 1195
                             50     08   AE D0 00100         MOVL    REMOVED_LINE, R0                        ; 1196
                       0214  C7     08   A0 A2 00104         SUBW2   8(R0), AED_W_TOTALSIZE                  ;
                                    08   AE 9F 0010A         PUSHAB  REMOVED_LINE                            ; 1199
                         04  AE     08   A0 3C 0010D         MOVZWL  8(R0), 4(SP)                            ;
                         04  AE          14 C0 00112         ADDL2   #20, 4(SP)                              ;
                                    04   AE 9F 00116         PUSHAB  4(SP)                                   ;
                  00000000G  00          02 FB 00119         CALLS   #2, LIB$FREE_VM                         ;
                             50     04   AE D0 00120 10$:    MOVL    NEW_TEXT_LINE, R0                       ; 1202
                                            04 00124         RET                                             ;
                                         50 D4 00125 11$:    CLRL    R0                                      ; 1204
                                            04 00127         RET                                             ;

; Routine Size:  296 bytes,    Routine Base:  $CODE$ + 07A0
```

```
;  760          1205  1 GLOBAL ROUTINE AED_POSITION (LINE_ADDRESS) : NOVALUE =
;  761          1206  1
;  762          1207  1 !++
;  763          1208  1 !
;  764          1209  1 ! FUNCTIONAL DESCRIPTION:
;  765          1210  1 !
;  766          1211  1 !       This routine positions the cursor to the selected line.  If necessary
;  767          1212  1 !       it will also scroll up or down the display so that the selected line
;  768          1213  1 !       may be viewed.
;  769          1214  1 !
;  770          1215  1 ! CALLING SEQUENCE:
;  771          1216  1 !       AED_POSITION (ARG1)
;  772          1217  1 !
;  773          1218  1 ! INPUT PARAMETERS:
;  774          1219  1 !       ARG1: address of the line segment to position to
;  775          1220  1 !
;  776          1221  1 ! IMPLICIT INPUTS:
;  777          1222  1 !       AED_L_BEGINLINE: address of the first line of the display
;  778          1223  1 !       AED_Q_LINETABLE: address of the line table list head
;  779          1224  1 !       AED_B_LINE: the current line position within the display
;  780          1225  1 !
;  781          1226  1 ! OUTPUT PARAMETERS:
;  782          1227  1 !       none
;  783          1228  1 !
;  784          1229  1 ! IMPLICIT OUTPUTS:
;  785          1230  1 !       AED_L_BEGINLINE: address of the first line of the display
;  786          1231  1 !       AED_B_LINE: the current line position within the display
;  787          1232  1 !
;  788          1233  1 ! ROUTINE VALUE:
;  789          1234  1 !       none
;  790          1235  1 !
;  791          1236  1 ! SIDE EFFECTS:
;  792          1237  1 !       The display is scrolled as necessary to view the selected line
;  793          1238  1 !       segment.
;  794          1239  1 !
;  795          1240  1 ! --
;  796          1241  1
;  797          1242  2 BEGIN
;  798          1243  2
;  799          1244  2 MAP
;  800          1245  2         LINE_ADDRESS    : REF $BBLOCK;          ! Address of the segment
;  801          1246  2
;  802          1247  2 MACRO
;  803          1248  2         POS_BEGIN_SEEN  = 0, 0, 1, 0 %;         ! First line of display seen
;  804          1249  2
;  805          1250  2 LOCAL
;  806          1251  2         OUTPUT_DESC     : $BBLOCK [DSC$C_S_BLN],        ! Output line descr
;  807          1252  2         NEXT_TEXT_LINE  : REF $BBLOCK,          ! Address of next line segment
;  808          1253  2         POS_FLAGS       : $BBLOCK [1];          ! Local positioning flags
;  809          1254  2
;  810          1255  2 ! Quick check to see if the cursor must move at all.
;  811          1256  2
;  812          1257  2 AED_B_LINE = 1;
;  813          1258  2 IF .LINE_ADDRESS EQL .AED_L_BEGINLINE THEN RETURN;
;  814          1259  2
;  815          1260  2 ! Traverse the line segment table looking for the selected line segment and
;  816          1261  2 ! the current first line of the display.  This will determine if any scrolling
```

```
;  817          1262  2 ! is needed and what the direction will be.  If the selected line occurs before
;  818          1263  2 ! the first line of the display, it will be necessary to scroll down.  If the
;  819          1264  2 ! selected line occurs after the first line, it will be necessary to scroll up.
;  820          1265  2
;  821          1266  2 NEXT_TEXT_LINE = .AED_Q_LINETABLE[LINE_L_FLINK];
;  822          1267  2 POS_FLAGS[POS_BEGIN_SEEN] = 0;
;  823          1268  2
;  824          1269  2 UNTIL .NEXT_TEXT_LINE EQL .LINE_ADDRESS
;  825          1270  2 DO
;  826          1271  3     BEGIN
;  827          1272  3     IF .NEXT_TEXT_LINE EQL .AED_L_BEGINLINE
;  828          1273  3     THEN
;  829          1274  4         BEGIN
;  830          1275  4         POS_FLAGS[POS_BEGIN_SEEN] = 1;
;  831          1276  4         EXITLOOP;
;  832          1277  3         END;
;  833          1278  3     NEXT_TEXT_LINE = .NEXT_TEXT_LINE[LINE_L_FLINK];
;  834          1279  2     END;
;  835          1280  2
;  836          1281  2 NEXT_TEXT_LINE = .AED_L_BEGINLINE;
;  837          1282  2
;  838          1283  2 IF .POS_FLAGS[POS_BEGIN_SEEN]
;  839          1284  2 THEN
;  840          1285  3     BEGIN                                       ! Move forward/scroll up
;  841          1286  3     UNTIL .NEXT_TEXT_LINE EQL .LINE_ADDRESS
;  842          1287  3     DO
;  843          1288  4         BEGIN
;  844          1289  4         NEXT_TEXT_LINE = .NEXT_TEXT_LINE[LINE_L_FLINK];
;  845          1290  4         IF .AED_B_LINE LSS 20
;  846          1291  4         THEN AED_B_LINE = .AED_B_LINE + 1
;  847          1292  4         ELSE
;  848          1293  5             BEGIN
;  849          1294  5             AED_SET_CURSOR (20, 1);             ! **** TEMP ****
;  850          1295  5             SCR$UP_SCROLL ();
;  851          1296  5             AED_L_BEGINLINE = .AED_L_BEGINLINE[LINE_L_FLINK];
;  852          1297  5             AED_SET_CURSOR (20, 1);
;  853          1298  5             OUTPUT_DESC[DSC$W_LENGTH] = .NEXT_TEXT_LINE[LINE_W_SIZE];
;  854          1299  5             OUTPUT_DESC[DSC$A_POINTER] = NEXT_TEXT_LINE[LINE_T_TEXT];
;  855          1300  5             AED_PUTOUTPUT (OUTPUT_DESC);
;  856          1301  4             END;
;  857          1302  3         END;
;  858          1303  3     END
;  859          1304  2 ELSE
;  860          1305  3     BEGIN                                       ! Move backward/scroll down
;  861          1306  3     UNTIL .NEXT_TEXT_LINE EQL .LINE_ADDRESS
;  862          1307  3     DO
;  863          1308  4         BEGIN
;  864          1309  4         NEXT_TEXT_LINE = .NEXT_TEXT_LINE[LINE_L_BLINK];
;  865          1310  4         AED_SET_CURSOR (1, 1);                  ! **** TEMP ****
;  866          1311  4         SCR$DOWN_SCROLL ();
;  867          1312  4         SCR$ERASE_PAGE (21, 1);
;  868          1313  4         AED_SET_CURSOR (1, 1);
;  869          1314  4         OUTPUT_DESC[DSC$W_LENGTH] = .NEXT_TEXT_LINE[LINE_W_SIZE];
;  870          1315  4         OUTPUT_DESC[DSC$A_POINTER] = NEXT_TEXT_LINE[LINE_T_TEXT];
;  871          1316  4         AED_PUTOUTPUT (OUTPUT_DESC);
;  872          1317  3         END;
;  873          1318  3     AED_L_BEGINLINE = .NEXT_TEXT_LINE;
```

```
;  874      1319  2      END;
;  875      1320  2
;  876      1321  2  RETURN;
;  877      1322  2
;  878      1323  1  END;                                        ! End of routine AED_POSITION


                                   001C 00000        .ENTRY  AED_POSITION, Save R2,R3,R4                    ; 1205
             54    0000V  CF    9E 00002        MOVAB   AED_SET_CURSOR, R4                             ;
             53    0000'  CF    9E 00007        MOVAB   AED_L_BEGINLINE, R3                            ;
             5E           08    C2 0000C        SUBL2   #8, SP                                         ;
       DC    A3           01    90 0000F        MOVB    #1, AED_B_LINE                                 ; 1257
             50           63    D0 00013        MOVL    AED_L_BEGINLINE, R0                            ; 1258
             50     04    AC    D1 00016        CMPL    LINE_ADDRESS, R0                               ;
                          26    13 0001A        BEQL    5$                                             ;
             52     E8    A3    D0 0001C        MOVL    AED_Q_LINETABLE, NEXT_TEXT_LINE                ; 1266
             51           01    8A 00020        BICB2   #1, POS_FLAGS                                  ; 1267
       04    AC           52    D1 00023 1$:    CMPL    NEXT_TEXT_LINE, LINE_ADDRESS                   ; 1269
                          0F    13 00027        BEQL    3$                                             ;
             50           52    D1 00029        CMPL    NEXT_TEXT_LINE, R0                             ; 1272
                          05    12 0002C        BNEQ    2$                                             ;
             51           01    88 0002E        BISB2   #1, POS_FLAGS                                  ; 1275
                          05    11 00031        BRB     3$                                             ; 1274
             52           62    D0 00033 2$:    MOVL    (NEXT_TEXT_LINE), NEXT_TEXT_LINE               ; 1278
                          EB    11 00036        BRB     1$                                             ; 1269
             52           50    D0 00038 3$:    MOVL    R0, NEXT_TEXT_LINE                             ; 1281
             3E           51    E9 0003B        BLBC    POS_FLAGS, 7$                                  ; 1283
       04    AC           52    D1 0003E 4$:    CMPL    NEXT_TEXT_LINE, LINE_ADDRESS                   ; 1286
                          77    13 00042 5$:    BEQL    9$                                             ;
             52           62    D0 00044        MOVL    (NEXT_TEXT_LINE), NEXT_TEXT_LINE               ; 1289
             14     DC    A3    91 00047        CMPB    AED_B_LINE, #20                                ; 1290
                          05    1E 0004B        BGEQU   6$                                             ;
                    DC    A3    96 0004D        INCB    AED_B_LINE                                     ; 1291
                          EC    11 00050        BRB     4$                                             ;
                          01    DD 00052 6$:    PUSHL   #1                                             ; 1294
                          14    DD 00054        PUSHL   #20                                            ;
             64           02    FB 00056        CALLS   #2, AED_SET_CURSOR                             ;
  00000000G  00           00    FB 00059        CALLS   #0, SCR$UP_SCROLL                              ; 1295
             73           93    D0 00060        MOVL    @AED_L_BEGINLINE, AED_L_BEGINLINE              ; 1296
                          01    DD 00063        PUSHL   #1                                             ; 1297
                          14    DD 00065        PUSHL   #20                                            ;
             64           02    FB 00067        CALLS   #2, AED_SET_CURSOR                             ;
             6E     08    A2    B0 0006A        MOVW    8(NEXT_TEXT_LINE), OUTPUT_DESC                 ; 1298
       04    AE     14    A2    9E 0006E        MOVAB   20(R2), OUTPUT_DESC+4                          ; 1299
                          5E    DD 00073        PUSHL   SP                                             ; 1300
      0000G  CF           01    FB 00075        CALLS   #1, AED_PUTOUTPUT                              ;
                          C2    11 0007A        BRB     4$                                             ; 1286
       04    AC           52    D1 0007C 7$:    CMPL    NEXT_TEXT_LINE, LINE_ADDRESS                   ; 1306
                          36    13 00080        BEQL    8$                                             ;
             52     04    A2    D0 00082        MOVL    4(NEXT_TEXT_LINE), NEXT_TEXT_LINE              ; 1309
                          01    DD 00086        PUSHL   #1                                             ; 1310
                          01    DD 00088        PUSHL   #1                                             ;
             64           02    FB 0008A        CALLS   #2, AED_SET_CURSOR                             ;
  00000000G  00           00    FB 0008D        CALLS   #0, SCR$DOWN_SCROLL                            ; 1311
```

```
                                        01  DD 00094          PUSHL   #1                                              ; 1312
                                        15  DD 00096          PUSHL   #21
                    00000000G   00      02  FB 00098          CALLS   #2, SCR$ERASE_PAGE
                                        01  DD 0009F          PUSHL   #1                                              ; 1313
                                        01  DD 000A1          PUSHL   #1
                          64            02  FB 000A3          CALLS   #2, AED_SET_CURSOR
                          6E      08    A2  B0 000A6          MOVW    8(NEXT_TEXT_LINE), OUTPUT_DESC                  ; 1314
                    04    AE      14    A2  9E 000AA          MOVAB   20(R2), OUTPUT_DESC+4                           ; 1315
                                        5E  DD 000AF          PUSHL   SP                                              ; 1316
                  0000G   CF            01  FB 000B1          CALLS   #1, AED_PUTOUTPUT
                                        C4  11 000B6          BRB     7$                                              ; 1306
                          63            52  D0 000B8 8$:      MOVL    NEXT_TEXT_LINE, AED_L_BEGINLINE                 ; 1318
                                            04 000BB 9$:      RET                                                     ; 1323

; Routine Size:  188 bytes,    Routine Base:  $CODE$ + 08C8
```

```
;  880          1324  1 GLOBAL ROUTINE AED_UPDATEACL (TOTAL_SIZE) =
;  881          1325  1
;  882          1326  1 !++
;  883          1327  1 !
;  884          1328  1 ! FUNCTIONAL DESCRIPTION:
;  885          1329  1 !
;  886          1330  1 !       This routine takes all the line segments from AED_L_FIRSTLINE
;  887          1331  1 !       to AED_L_LASTLINE, mashes them together, converts the resulting
;  888          1332  1 !       text ACE to a binary form, and then updates the in core copy
;  889          1333  1 !       of the object's ACL.
;  890          1334  1 !
;  891          1335  1 ! CALLING SEQUENCE:
;  892          1336  1 !       AED_UPDATEACL (ARG1)
;  893          1337  1 !
;  894          1338  1 ! INPUT PARAMETERS:
;  895          1339  1 !       ARG1: total size of the new ACE text
;  896          1340  1 !
;  897          1341  1 ! IMPLICIT INPUTS:
;  898          1342  1 !       AED_L_FIRSTLINE: address of the first list segment
;  899          1343  1 !       AED_L_LASTLINE: address of the last line segment
;  900          1344  1 !
;  901          1345  1 ! OUTPUT PARAMETERS:
;  902          1346  1 !       none
;  903          1347  1 !
;  904          1348  1 ! IMPLICIT OUTPUTS:
;  905          1349  1 !       none
;  906          1350  1 !
;  907          1351  1 ! ROUTINE VALUE:
;  908          1352  1 !       1 if success
;  909          1353  1 !       error status otherwise
;  910          1354  1 !
;  911          1355  1 ! SIDE EFFECTS:
;  912          1356  1 !       The in core copy of the object's ACL is updated.  The object's
;  913          1357  1 !       actual ACL is left untouched.  It gets updated at the end of the
;  914          1358  1 !       editing session.
;  915          1359  1 !
;  916          1360  1 !--
;  917          1361  1
;  918          1362  2 BEGIN
;  919          1363  2
;  920          1364  2 LOCAL
;  921          1365  2         LOCAL_STATUS,                          ! Local routine exit status
;  922          1366  2         APPEND_INDEX,                          ! Index for combining segments
;  923          1367  2         CURRENT_LINE    : REF $BBLOCK,         ! Address of current segment
;  924          1368  2         NEW_ACE         : $BBLOCK [ACL$S_READACL],     ! Storage for converted ACE
;  925          1369  2         NEW_ACE_SIZE    : BYTE,                ! Size of new binary ACE
;  926          1370  2         ACE_DESC        : $BBLOCK [DSC$C_S_BLN],       ! Binary ACE descriptor
;  927          1371  2         ACE_TEXT_DESC   : $BBLOCK [DSC$C_S_BLN],       ! Text ACE descriptor
;  928          1372  2         CHAR_PROCESSED  : WORD,                ! Chars processed by ACL parser
;  929          1373  2         ATR_ARGLIST     : BLOCKVECTOR [3, ITM$S_ITEM, BYTE],   ! ACL item list
;  930          1374  2         ACL_CONTEXT;                           ! ACL context
;  931          1375  2
;  932          1376  2 ! If the total size of the ACE text segments is zero, determine if it is
;  933          1377  2 ! necessary to delete the corresponding binary ACE.
;  934          1378  2
;  935          1379  2 IF .TOTAL_SIZE EQL 0 THEN RETURN 1;
;  936          1380  2
```

```
;   937          1381  2 ! Concatenate all of the text line segments together, and convert to a
;   938          1382  2 ! binary ACE.  Any errors are signaled as syntax errors.
;   939          1383  2
;   940          1384  2 AED_L_LASTLINE[LINE_V_ENDACE] = 1;
;   941          1385  2 LOCAL_STATUS = ALLOCATE (.TOTAL_SIZE, AED_A_ACLBUFFER);
;   942          1386  2 IF NOT .LOCAL_STATUS
;   943          1387  2 THEN
;   944          1388  3     BEGIN
;   945          1389  3     SIGNAL (.LOCAL_STATUS);
;   946          1390  3     RETURN .LOCAL_STATUS;
;   947          1391  2     END;
;   948          1392  2 CURRENT_LINE = .AED_L_FIRSTLINE[LINE_L_BLINK];
;   949          1393  2 APPEND_INDEX = 0;
;   950          1394  2 DO
;   951          1395  3     BEGIN
;   952          1396  3     CURRENT_LINE = .CURRENT_LINE[LINE_L_FLINK];
;   953          1397  3     CH$MOVE (.CURRENT_LINE[LINE_W_SIZE], CURRENT_LINE[LINE_T_TEXT],
;   954          1398  3              AED_A_ACLBUFFER[.APPEND_INDEX, 0, 8, 0]);
;   955          1399  3     APPEND_INDEX = .APPEND_INDEX + .CURRENT_LINE[LINE_W_SIZE];
;   956          1400  3     END
;   957          1401  2 UNTIL .CURRENT_LINE EQL .AED_L_LASTLINE;
;   958          1402  2 ACE_DESC[DSC$W_LENGTH] = ACL$S_READACL;
;   959          1403  2 ACE_DESC[DSC$A_POINTER] = NEW_ACE;
;   960          1404  2 ACE_TEXT_DESC[DSC$W_LENGTH] = .TOTAL_SIZE;
;   961          1405  2 ACE_TEXT_DESC[DSC$A_POINTER] = .AED_A_ACLBUFFER;
;   962        P 1406  2 LOCAL_STATUS = $PARSE_ACL (ACLSTR = ACE_TEXT_DESC,
;   963        P 1407  2                            ACLENT = ACE_DESC,
;   964          1408  2                            ERRPOS = CHAR_PROCESSED);
;   965          1409  2 IF NOT .LOCAL_STATUS
;   966          1410  2 THEN
;   967          1411  3     BEGIN
;   968          1412  3     AED_L_FLAGS[AED_V_ACERROR] = 1;
;   969        P 1413  3     SIGNAL (AED$_SYNTAX, 2, .TOTAL_SIZE - .CHAR_PROCESSED,
;   970        P 1414  3                             AED_A_ACLBUFFER[.CHAR_PROCESSED, 0, 8, 0],
;   971          1415  3                             .LOCAL_STATUS, 0);
;   972          1416  3     RETURN AED$_SYNTAX;
;   973          1417  2     END;
;   974          1418  2 NEW_ACE_SIZE = .NEW_ACE[ACE$B_SIZE];    ! In case of a duplicate
;   975          1419  2
;   976          1420  2 ! Check for a hidden ACE.  Since they are application specific, the ACL
;   977          1421  2 ! editor is not allowed to touch them.
;   978          1422  2
;   979          1423  2 IF .NEW_ACE[ACE$V_HIDDEN]
;   980          1424  2 THEN
;   981          1425  3     BEGIN
;   982          1426  3     AED_L_FLAGS[AED_V_ACERROR] = 1;
;   983          1427  3     SIGNAL (AED$_NOHIDDEN);
;   984          1428  3     RETURN AED$_NOHIDDEN;
;   985          1429  2     END;
;   986          1430  2
;   987          1431  2 ! Check for directory default ACEs.  If the object is not a directory file,
;   988          1432  2 ! note the error.
;   989          1433  2
;   990          1434  2 IF .NEW_ACE[ACE$V_DEFAULT] AND NOT .AED_L_FLAGS[AED_V_DIRECTORY]
;   991          1435  2 THEN
;   992          1436  3     BEGIN
;   993          1437  3     AED_L_FLAGS[AED_V_ACERROR] = 1;
```

```
;  994          1438  3     SIGNAL (AED$_NODEFAULT);
;  995          1439  3     RETURN AED$_NODEFAULT;
;  996          1440  2     END;
;  997          1441  2
;  998          1442  2 ! Check to see if the I am adding an already existing ACE.  If so, warn the
;  999          1443  2 ! user about the duplicate.  This means that the text display actually
; 1000          1444  2 ! reflects the true state of the ACL.
; 1001          1445  2
; 1002          1446  2 CURRENT_LINE = .AED_Q_LINETABLE[LINE_L_FLINK];
; 1003          1447  2 UNTIL .CURRENT_LINE EQLA AED_Q_LINETABLE[LINE_L_FLINK]
; 1004          1448  2 DO
; 1005          1449  3     BEGIN
; 1006          1450  3     IF .CURPENT_LINE[LINE_V_BEGINACE]
; 1007          1451  3     AND .CURRENT_LINE[LINE_L_BINACE] NEQ 0
; 1008          1452  3     THEN IF CH$EQL (.NEW_ACE_SIZE, NEW_ACE,
; 1009          1453  3                     .$BBLOCK[.CURRENT_LINE[LINE_L_BINACE], ACE$B_SIZE],
; 1010          1454  3                     .CURRENT_LINE[LINE_L_BINACE], 0)
; 1011          1455  3          AND .CURRENT_LINE NEQ .AED_L_FIRSTLINE
; 1012          1456  3          THEN
; 1013          1457  4              BEGIN
; 1014          1458  4              SIGNAL (AED$_DUPLICATE);
; 1015          1459  4              DEALLOCATE (.NEW_ACE_SIZE, AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1016          1460  4              RETURN AED$_DUPLICATE;
; 1017          1461  3              END;
; 1018          1462  3     CURRENT_LINE = .CURRENT_LINE[LINE_L_FLINK];
; 1019          1463  2     END;
; 1020          1464  2
; 1021          1465  2 ! If there is an ACE already, deallocate it.
; 1022          1466  2
; 1023          1467  2 IF .AED_L_FIRSTLINE[LINE_L_BINACE] NEQ 0
; 1024        P 1468  2 THEN DEALLOCATE (.$BBLOCK[.AED_L_FIRSTLINE[LINE_L_BINACE], ACE$B_SIZE],
; 1025          1469  2                  AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1026          1470  2
; 1027          1471  2 ! So far, so good.  Allocate storage for the binary ACE, and save it.
; 1028          1472  2
; 1029          1473  2 LOCAL_STATUS = ALLOCATE (.NEW_ACE_SIZE, AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1030          1474  2 IF NOT .LOCAL_STATUS
; 1031          1475  2 THEN
; 1032          1476  3     BEGIN
; 1033          1477  3     SIGNAL (.LOCAL_STATUS);
; 1034          1478  3     RETURN .LOCAL_STATUS;
; 1035          1479  2     END;
; 1036          1480  2 CH$MOVE (.NEW_ACE_SIZE, NEW_ACE, .AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1037          1481  2
; 1038          1482  2 RETURN 1;                                   ! End of routine AED_UPDATEACL
; 1039          1483  2
; 1040          1484  1 END;


                                                .EXTRN  SYS$PARSE_ACL

                                    0FFC 00000  .ENTRY  AED_UPDATEACL, Save R2,R3,R4,R5,R6,R7,R8,-  ; 1324
                                                        R9,R10,R11                                  ;
                5B 00000000G   00   9E 00002    MOVAB   SCR$SET_CURSOR, R11                         ;
                5A      0000'  CF   9E 00009    MOVAB   AED_L_FLAGS, R10                            ;
                5E      FDC4   CE   9E 0000E    MOVAB   -572(SP), SP                                ;
```

```
                                58      04   AC  D0 00013          MOVL    TOTAL_SIZE, R8                                  ; 1379
                                        03   12  00017          BNEQ    1$
                                  0335  31  00019          BRW     37$
                                50      44   AA  D0 0001C 1$:    MOVL    AED_L_LASTLINE, R0                              ; 1384
                             0A AO      02   88  00020          BISB2   #2, 10(R0)
                                        6C   AA  9F 00024          PUSHAB  AED_A_ACLBUFFER                                 ; 1385
                             04 AE      58   D0  00027          MOVL    R8, 4(SP)
                                        04   AE  9F 0002B          PUSHAB  4(SP)
                   00000000G    00      02   FB  0002E          CALLS   #2, LIB$GET_VM
                                56      50   D0  00035          MOVL    R0, VM_STATUS
                                07      56   E9  00038          BLBC    VM_STATUS, 2$
                58           00    6E      00   2C  0003B          MOVC5   #0, (SP), #0, R8, @AED_A_ACLBUFFER
                                        6C   BA  00040
                                59      56   D0  00042 2$:       MOVL    VM_STATUS, LOCAL_STATUS
                                46      59   E8  00045          BLBS    LOCAL_STATUS, 7$                                ; 1386
                             12 6A      03   E1  00048          BBC     #3, AED_L_FLAGS, 3$                             ; 1389
                                        01   DD  0004C          PUSHL   #1
                                        15   DD  0004E          PUSHL   #21
                   00000000G    00      02   FB  00050          CALLS   #2, SCR$ERASE_PAGE
                                        01   DD  00057          PUSHL   #1
                                        15   DD  00059          PUSHL   #21
                                6B      02   FB  0005B          CALLS   #2, SCR$SET_CURSOR
                                        59   DD  0005E 3$:       PUSHL   LOCAL_STATUS
                   00000000G    00      01   FB  00060          CALLS   #1, LIB$SIGNAL
                             0B 6A      03   E1  00067          BBC     #3, AED_L_FLAGS, 4$
                                7E      20   AA  9A 0006B          MOVZBL  AED_B_COLUMN, -(SP)
                                7E      24   AA  9A 0006F          MOVZBL  AED_B_LINE, -(SP)
                                6B      02   FB  00073          CALLS   #2, SCR$SET_CURSOR
                                07      59   93  00076 4$:       BITB    LOCAL_STATUS, #7
                                        03   12  00079          BNEQ    6$
                                  02C2  31  0007B 5$:       BRW     35$
                50           59    03      00   EF  0007E 6$:       EXTZV   #0, #3, LOCAL_STATUS, R0
                50      14   AA    03      00   ED  00083          CMPZV   #0, #3, AED_L_WORSTERR, R0
                                        F0   18  00089          BGEQ    5$
                                  02AE  31  0008B          BRW     34$
                                50      40   AA  D0 0008E 7$:    MOVL    AED_L_FIRSTLINE, R0                             ; 1392
                                56      04   A0  D0 00092          MOVL    4(R0), CURRENT_LINE
                                        57   D4  00096          CLRL    APPEND_INDEX                                    ; 1393
                                56      66   D0  00098 8$:       MOVL    (CURRENT_LINE), CURRENT_LINE                    ; 1396
                6C BA47      14 A6      08   A6  28 0009B          MOVC3   8(CURRENT_LINE), 20(CURRENT_LINE), -            ; 1398
                                                                        @AED_A_ACLBUFFER[APPEND_INDEX]
                                50      08   A6  3C 000A3          MOVZWL  8(CURRENT_LINE), R0                             ; 1399
                                57      50   C0  000A7          ADDL2   R0, APPEND_INDEX
                             44 AA      56   D1  000AA          CMPL    CURRENT_LINE, AED_L_LASTLINE                    ; 1401
                                        E8   12  000AE          BNEQ    8$
                             34 AE  0200    8F   B0  000B0          MOVW    #512, ACE_DESC                                  ; 1402
                             38 AE    3C    AE   9E  000B6          MOVAB   NEW_ACE, ACE_DESC+4                             ; 1403
                             2C AE          58   B0  000BB          MOVW    R8, ACE_TEXT_DESC                               ; 1404
                             30 AE    6C    AA   D0  000BF          MOVL    AED_A_ACLBUFFER, ACE_TEXT_DESC+4                ; 1405
                                        7E   D4  000C4          CLRL    -(SP)                                           ; 1408
                                        08   AE  9F 000C6          PUSHAB  CHAR_PROCESSED
                                        3C   AE  9F 000C9          PUSHAB  ACE_DESC
                                        38   AE  9F 000CC          PUSHAB  ACE_TEXT_DESC
                   00000000G    00      04   FB  000CF          CALLS   #4, SYS$PARSE_ACL
                                59      50   D0  000D6          MOVL    R0, LOCAL_STATUS
                                70      59   E8  000D9          BLBS    LOCAL_STATUS, 12$                               ; 1409
                                6A      40   8F  88 000DC          BISB2   #64, AED_L_FLAGS                                ; 1412
```

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                        12          6A        03  E1 000E0        BBC     #3, AED_L_FLAGS, 9$                        ; 1415
                                              01  DD 000E4        PUSHL   #1                                         ;
                                              15  DD 000E6        PUSHL   #21                                        ;
                          00000000G 00        02  FB 000E8        CALLS   #2, SCR$ERASE_PAGE                         ;
                                              01  DD 000EF        PUSHL   #1                                         ;
                                              15  DD 000F1        PUSHL   #21                                        ;
                                    6B        02  FB 000F3        CALLS   #2, SCR$SET_CURSOR                         ;
                                              7E  D4 000F6  9$:   CLRL    -(SP)                                      ;
                                              59  DD 000F8        PUSHL   LOCAL_STATUS                               ;
                                    50   0C   AE  3C 000FA        MOVZWL  CHAR_PROCESSED, R0                         ;
                                         6C BA40  9F 000FE        PUSHAB  @AED_A_ACLBUFFER[R0]                       ;
                                    50   10   AE  3C 00102        MOVZWL  CHAR_PROCESSED, R0                         ;
                        7E          58        50  C3 00106        SUBL3   R0, R8, -(SP)                              ;
                                              02  DD 0010A        PUSHL   #2                                         ;
                                    00000000G 8F  DD 0010C        PUSHL   #AED$_SYNTAX                               ;
                          00000000G 00        06  FB 00112        CALLS   #6, LIB$SIGNAL                             ;
                        0B          6A        03  E1 00119        BBC     #3, AED_L_FLAGS, 10$                       ;
                                    7E   20   AA  9A 0011D        MOVZBL  AED_B_COLUMN, -(SP)                        ;
                                    7E   24   AA  9A 00121        MOVZBL  AED_B_LINE, -(SP)                          ;
                                    6B        02  FB 00125        CALLS   #2, SCR$SET_CURSOR                         ;
                                    00000000* 8F  D5 00128 10$:   TSTL    #<AED$_SYNTAX&7>                           ;
                                              14  13 0012E        BEQL    11$                                        ;
00000000*  8F      14   AA          03        00  ED 00130        CMPZV   #0, #3, AED_L_WORSTERR, #<AED$_SYNTAX&7>   ;
                                              08  18 0013A        BGEQ    11$                                        ;
                              14    AA 00000000G 8F  D0 0013C     MOVL    #AED$_SYNTAX, AED_L_WORSTERR               ;
                                    50 00000000G 8F  D0 00144 11$: MOVL   #AED$_SYNTAX, R0                           ; 1416
                                              04     0014B        RET                                                ;
                                    57   3C   AE  90 0014C 12$:   MOVB    NEW_ACE, NEW_ACE_SIZE                      ; 1418
                        5A     3F   AE        02  E1 00150        BBC     #2, NEW_ACE+3, 16$                         ; 1423
                                    6A   40   8F  88 00155        BISB2   #64, AED_L_FLAGS                           ; 1426
                        12          6A        03  E1 00159        BBC     #3, AED_L_FLAGS, 13$                       ; 1427
                                              01  DD 0015D        PUSHL   #1                                         ;
                                              15  DD 0015F        PUSHL   #21                                        ;
                          00000000G 00        02  FB 00161        CALLS   #2, SCR$ERASE_PAGE                         ;
                                              01  DD 00168        PUSHL   #1                                         ;
                                              15  DD 0016A        PUSHL   #21                                        ;
                                    6B        02  FB 0016C        CALLS   #2, SCR$SET_CURSOR                         ;
                                    00000000G 8F  DD 0016F 13$:   PUSHL   #AED$_NOHIDDEN                             ;
                          00000000G 00        01  FB 00175        CALLS   #1, LIB$SIGNAL                             ;
                        0B          6A        03  E1 0017C        BBC     #3, AED_L_FLAGS, 14$                       ;
                                    7E   20   AA  9A 00180        MOVZBL  AED_B_COLUMN, -(SP)                        ;
                                    7E   24   AA  9A 00184        MOVZBL  AED_B_LINE, -(SP)                          ;
                                    6B        02  FB 00188        CALLS   #2, SCR$SET_CURSOR                         ;
                                    00000000* 8F  D5 0018B 14$:   TSTL    #<AED$_NOHIDDEN&7>                         ;
                                              14  13 00191        BEQL    15$                                        ;
00000000*  8F      14   AA          03        00  ED 00193        CMPZV   #0, #3, AED_L_WORSTERR, #<AED$_NOHIDDEN&7> ;
                                              08  18 0019D        BGEQ    15$                                        ;
                              14    AA 00000000G 8F  D0 0019F     MOVL    #AED$_NOHIDDEN, AED_L_WORSTERR             ;
                                    50 00000000G 8F  D0 001A7 15$: MOVL   #AED$_NOHIDDEN, R0                         ; 1428
                                              04     001AE        RET                                                ;
                                    5F   3F   AE  E9 001AF 16$:   BLBC    NEW_ACE+3, 20$                             ; 1434
                        5A     02   AA        02  E0 001B3        BBS     #2, AED_L_FLAGS+2, 20$                     ;
                                    6A   40   8F  88 001B8        BISB2   #64, AED_L_FLAGS                           ; 1437
                        12          6A        03  E1 001BC        BBC     #3, AED_L_FLAGS, 17$                       ; 1438
                                              01  DD 001C0        PUSHL   #1                                         ;
                                              15  DD 001C2        PUSHL   #21                                        ;
                          00000000G 00        02  FB 001C4        CALLS   #2, SCR$ERASE_PAGE                         ;
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                                              01  DD 001CB          PUSHL   #1                                            ;
                                              15  DD 001CD          PUSHL   #21                                           ;
                                  6B          02  FB 001CF          CALLS   #2, SCR$SET_CURSOR                            ;
                                    00000000G 8F  DD 001D2 17$:     PUSHL   #AED$_NODEFAULT                               ;
                        00000000G 00          01  FB 001D8          CALLS   #1, LIB$SIGNAL                                ;
                   0B             6A          03  E1 001DF          BBC     #3, AED_L_FLAGS, 18$                          ;
                                  7E      20  AA  9A 001E3          MOVZBL  AED_B_COLUMN, -(SP)                           ;
                                  7E      24  AA  9A 001E7          MOVZBL  AED_B_LINE, -(SP)                             ;
                                  6B          02  FB 001EB          CALLS   #2, SCR$SET_CURSOR                            ;
                                    00000000* 8F  D5 001EE 18$:     TSTL    #<AED$_NODEFAULT&7>                           ;
                                              14  13 001F4          BEQL    19$                                           ;
00000000*  8F        14    AA             03  00  ED 001F6          CMPZV   #0, #3, AED_L_WORSTERR, #<AED$_NODEFAULT&7>   ;
                                              08  18 00200          BGEQ    19$                                           ;
                             14  AA 00000000G 8F  D0 00202          MOVL    #AED$_NODEFAULT, AED_L_WORSTERR               ;
                                 50 00000000G 8F  D0 0020A 19$:     MOVL    #AED$_NODEFAULT, R0                           ; 1439
                                              04  00211             RET                                                   ;
                                  56      30  AA  D0 00212 20$:     MOVL    AED_Q_LINETABLE, CURRENT_LINE                 ; 1446
                                  50      30  AA  9E 00216 21$:     MOVAB   AED_Q_LINETABLE, R0                           ; 1447
                                  50          56  D1 0021A          CMPL    CURRENT_LINE, R0                              ;
                                              03  12 0021D          BNEQ    22$                                           ;
                                            0092  31 0021F          BRW     29$                                           ;
                                  03      0A  A6  E8 00222 22$:     BLBS    10(CURRENT_LINE), 24$                         ; 1450
                                            0085  31 00226 23$:     BRW     28$                                           ;
                                          0C  A6  D5 00229 24$:     TSTL    12(CURRENT_LINE)                              ; 1451
                                              F8  13 0022C          BEQL    23$                                           ;
                                  51          57  9A 0022E          MOVZBL  NEW_ACE_SIZE, R1                              ; 1452
                                  50      0C  B6  9A 00231          MOVZBL  @12(CURRENT_LINE), R0                         ; 1453
           50              00     3C          AE  51  2D 00235      CMPC5   R1, NEW_ACE, #0, R0, @12(CURRENT_LINE)        ; 1452
                                          0C  B6     0023B                                                                ;
                                              6F  12 0023D          BNEQ    28$                                           ;
                             40  AA           56  D1 0023F          CMPL    CURRENT_LINE, AED_L_FIRSTLINE                 ; 1455
                                              69  13 00243          BEQL    28$                                           ;
                   12             6A          03  E1 00245          BBC     #3, AED_L_FLAGS, 25$                          ; 1458
                                              01  DD 00249          PUSHL   #1                                            ;
                                              15  DD 0024B          PUSHL   #21                                           ;
                        00000000G 00          02  FB 0024D          CALLS   #2, SCR$ERASE_PAGE                            ;
                                              01  DD 00254          PUSHL   #1                                            ;
                                              15  DD 00256          PUSHL   #21                                           ;
                                  6B          02  FB 00258          CALLS   #2, SCR$SET_CURSOR                            ;
                                    00000000G 8F  DD 0025B 25$:     PUSHL   #AED$_DUPLICATE                               ;
                        00000000G 00          01  FB 00261          CALLS   #1, LIB$SIGNAL                                ;
                   0B             6A          03  E1 00268          BBC     #3, AED_L_FLAGS, 26$                          ;
                                  7E      20  AA  9A 0026C          MOVZBL  AED_B_COLUMN, -(SP)                           ;
                                  7E      24  AA  9A 00270          MOVZBL  AED_B_LINE, -(SP)                             ;
                                  6B          02  FB 00274          CALLS   #2, SCR$SET_CURSOR                            ;
                                    00000000* 8F  D5 00277 26$:     TSTL    #<AED$_DUPLICATE&7>                           ;
                                              14  13 0027D          BEQL    27$                                           ;
00000000*  8F        14    AA             03  00  ED 0027F          CMPZV   #0, #3, AED_L_WORSTERR, #<AED$_DUPLICATE&7>   ;
                                              08  18 00289          BGEQ    27$                                           ;
                             14  AA 00000000G 8F  D0 0028B          MOVL    #AED$_DUPLICATE, AED_L_WORSTERR               ;
                   7E        40  AA           0C  C1 00293 27$:     ADDL3   #12, AED_L_FIRSTLINE, -(SP)                   ; 1459
                             04  AE           57  9A 00298          MOVZBL  NEW_ACE_SIZE, 4(SP)                           ;
                                          04  AE  9F 0029C          PUSHAB  4(SP)                                         ;
                        00000000G 00          02  FB 0029F          CALLS   #2, LIB$FREE_VM                               ;
                                 50 00000000G 8F  D0 002A6          MOVL    #AED$_DUPLICATE, R0                           ; 1460
                                              04  002AD             RET                                                   ;
                                  56          66  D0 002AE 28$:     MOVL    (CURRENT_LINE), CURRENT_LINE                  ; 1462
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```
                                   FF62  31 002B1        BRW     21$                                  ; 1447
                      50      40     AA  D0 002B4 29$:   MOVL    AED_L_FIRSTLINE, R0                  ; 1467
                              0C     A0  D5 002B8        TSTL    12(R0)                               ;
                                     12  13 002BB        BEQL    30$                                  ;
                              0C     A0  9F 002BD        PUSHAB  12(R0)                               ; 1469
                 04   AE      0C     B0  9A 002C0        MOVZBL  @12(R0), 4(SP)                       ;
                              04     AE  9F 002C5        PUSHAB  4(SP)                                ;
           00000000G  00             02  FB 002C8        CALLS   #2, LIB$FREE_VM                      ;
        7E       40   AA             0C  C1 002CF 30$:   ADDL3   #12, AED_L_FIRSTLINE, -(SP)          ; 1473
                 04   AE             57  9A 002D4        MOVZBL  NEW_ACE_SIZE, 4(SP)                  ;
                              04     AE  9F 002D8        PUSHAB  4(SP)                                ;
           00000000G  00             02  FB 002DB        CALLS   #2, LIB$GET_VM                       ;
                      56             50  D0 002E2        MOVL    R0, VM_STATUS                        ;
                      0E             56  E9 002E5        BLBC    VM_STATUS, 31$                       ;
                      51             57  9A 002E8        MOVZBL  NEW_ACE_SIZE, R1                     ;
                      50      40     AA  D0 002EB        MOVL    AED_L_FIRSTLINE, R0                  ;
 51        00         6E             00  2C 002EF        MOVC5   #0, (SP), #0, R1, @12(R0)            ;
                              0C     B0     002F4                                                     ;
                      59             56  D0 002F6 31$:   MOVL    VM_STATUS, LOCAL_STATUS              ;
                      48             59  E8 002F9        BLBS    LOCAL_STATUS, 36$                    ; 1474
           12         6A             03  E1 002FC        BBC     #3, AED_L_FLAGS, 32$                 ; 1477
                                     01  DD 00300        PUSHL   #1                                   ;
                                     15  DD 00302        PUSHL   #21                                  ;
           00000000G  00             02  FB 00304        CALLS   #2, SCR$ERASE_PAGE                   ;
                                     01  DD 0030B        PUSHL   #1                                   ;
                                     15  DD 0030D        PUSHL   #21                                  ;
                      6B             02  FB 0030F        CALLS   #2, SCR$SET_CURSOR                   ;
                                     59  DD 00312 32$:   PUSHL   LOCAL_STATUS                         ;
           00000000G  00             01  FB 00314        CALLS   #1, LIB$SIGNAL                       ;
           0B         6A             03  E1 0031B        BBC     #3, AED_L_FLAGS, 33$                 ;
                      7E      20     AA  9A 0031F        MOVZBL  AED_B_COLUMN, -(SP)                  ;
                      7E      24     AA  9A 00323        MOVZBL  AED_B_LINE, -(SP)                    ;
                      6B             02  FB 00327        CALLS   #2, SCR$SET_CURSOR                   ;
                      07             59  93 0032A 33$:   BITB    LOCAL_STATUS, #7                     ;
                                     11  13 0032D        BEQL    35$                                  ;
 50        59         03             00  EF 0032F        EXTZV   #0, #3, LOCAL_STATUS, R0             ;
 50    14  AA         03             00  ED 00334        CMPZV   #0, #3, AED_L_WORSTERR, R0           ;
                                     04  18 0033A        BGEQ    35$                                  ;
                 14   AA             59  D0 0033C 34$:   MOVL    LOCAL_STATUS, AED_L_WORSTERR         ;
                      50             59  D0 00340 35$:   MOVL    LOCAL_STATUS, R0                     ; 1478
                                         04 00343        RET                                          ;
                      51             57  9A 00344 36$:   MOVZBL  NEW_ACE_SIZE, R1                     ; 1480
                      50      40     AA  D0 00347        MOVL    AED_L_FIRSTLINE, R0                  ;
     0C    B0    3C   AE             51  28 0034B        MOVC3   R1, NEW_ACE, @12(R0)                 ;
                      50             01  D0 00351 37$:   MOVL    #1, R0                               ; 1482
                                         04 00354        RET                                          ; 1484

; Routine Size:  853 bytes,    Routine Base:  $CODE$ + 0984
```

```
1 GLOBAL ROUTINE AED_SET_CURSOR (LINE, COLUMN) =
1
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine sets the desired cursor position.  As a side effect,
1 !       it remembers the last position set.  This is to allow screen refresh
1 !       to correctly set the cursor position after repainting the screen.
1 !
1 ! CALLING SEQUENCE:
1 !       AED_SET_CURSOR (ARG1, ARG2)
1 !
1 ! INPUT PARAMETERS:
1 !       ARG1: line to which the cursor is set
1 !       ARG2: column to which the cursor is set
1 !
1 ! IMPLICIT INPUTS:
1 !       none
1 !
1 ! OUTPUT PARAMETERS:
1 !       none
1 !
1 ! IMPLICIT OUTPUTS:
1 !       AED_B_SAVE_COL: saved column position
1 !       AED_B_SAVE_LIN: saves line position
1 !
1 ! ROUTINE VALUE:
1 !       1
1 !
1 ! SIDE EFFECTS:
1 !       none
1 !
1 !--
1
2 BEGIN
2
2 ! Remember the position being set.
2
2 AED_B_SAVE_LIN = .LINE;
2 AED_B_SAVE_COL = .COLUMN;
2
2 ! Now, set the cursor.
2
2 SCR$SET_CURSOR (.LINE, .COLUMN);
2
2 RETURN 1;
2
1 END;                                        ! End of routine AED_SET_CURSOR


                            0000 00000      .ENTRY  AED_SET_CURSOR, Save nothing          : 1485
 0000'  CF        04   AC   90 00002      MOVB    LINE, AED_B_SAVE_LIN                  : 1524
 0000'  CF        08   AC   90 00008      MOVB    COLUMN, AED_B_SAVE_COL                : 1525
```

```
                          7E      04    AC  7D 0000E         MOVQ    LINE, -(SP)                          ; 1529
                00000000G 00            02  FB 00012         CALLS   #2, SCR$SET_CURSOR                   ;
                          50            01  D0 00019         MOVL    #1, R0                               ; 1531
                                          04 0001C         RET                                          ; 1533

; Routine Size:  29 bytes,    Routine Base:  $CODE$ + 0CD9

; 1091          1534  1
; 1092          1535  1 END
; 1093          1536  0 ELUDOM



;                                   PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  AED_COMMON                     1320  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  OVR,NOPIC,ALIGN(0)
;  $CODE$                         3318  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)



;                               Library Statistics
;
;                                 -------- Symbols --------      Pages       Processing
;       File                      Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1   18619       32         0        1000        00:01.8
;  _$255$DUA28:[SYSLIB]TPAMAC.L32;1   42        0         0          14        00:00.2



;                                   COMMAND QUALIFIERS

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

; Size:         3318 code + 1320 data bytes
; Run Time:       00:50.5
; Elapsed Time:   02:27.8
; Lines/CPU Min:   1824
; Lexemes/CPU-Min: 19712
; Memory Used:  319 pages
; Compilation Complete
```

AEDMESSAG
LIS

AEDPROMPT
LIS

SETACL
LIS

AEDSUBR
LIS