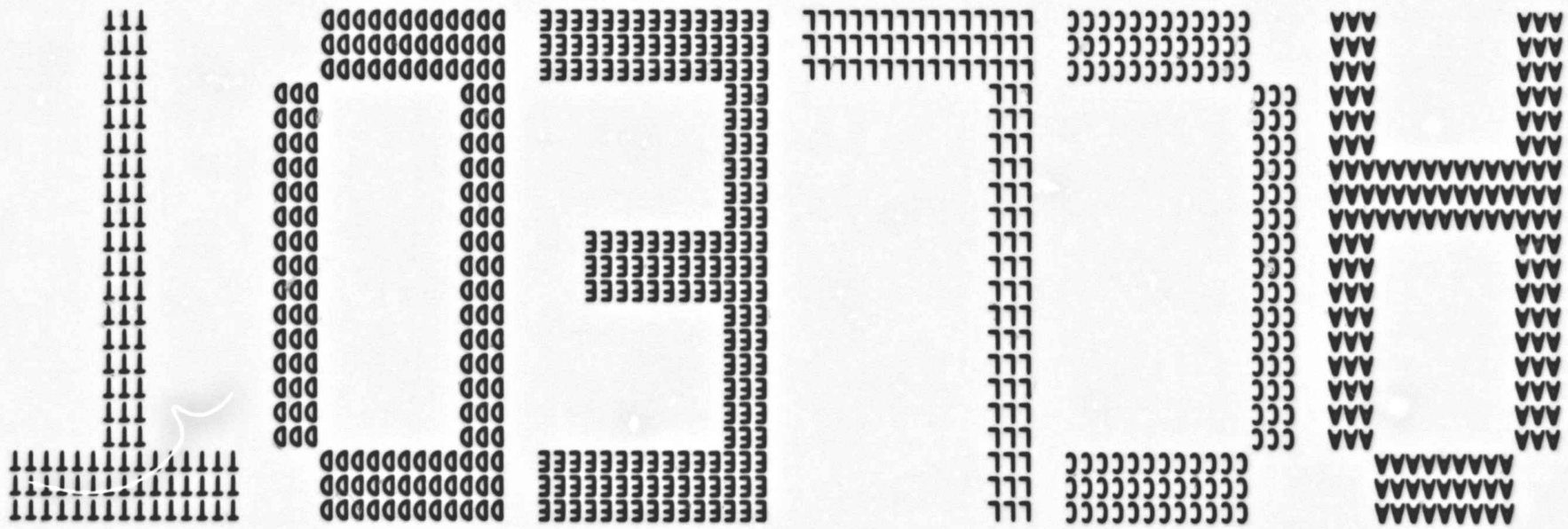

FILEID**AEDSUBR

```
  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

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

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
```

```
                                                ;
                                                ;
                                                ;                                0620
                                                ;                                0621
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                                                ;
                                                ;                                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_B_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  3     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 EQLA 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     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
                                       57       50  D0 00074       MOVL    R0, VM_STATUS
                                       07       57  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$
51                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$:       MOVL    SPLIT_SEGMENT, R7                               ; 0754
                14  A7              34  A948  56  28 000DD          MOVC3   SPLIT_SIZE, BUFFER[R8], 20(R7)                  ;
                                    28  A9    58  B0 000E4          MOVW    R8, SEGMENT_SIZE                                ; 0755
                                        7E    28  A9  3C 000E8          MOVZWL  SEGMENT_SIZE, -(SP)                             ; 0756
                                        7E        6E  D6 000EC          INCL    (SP)                                            ;
                                        7E    94  A9  9A 000EE          MOVZBL  AED_B_LINE, -(SP)                               ;
                                        6A        02  FB 000F2          CALLS   #2, SCR$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 00015D          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$:       MOVL    12(PREV_LINE), 12(R6)                                 ; 0992
                            10   A6       10    A7   90 001D7           MOVB    16(PREV_LINE), 16(R6)                                 ; 0993
                            04   B7             66   0E 001DC           INSQUE  (R6), @4(PREV_LINE)                                   ; 0994
                                 52       04  AE   D0 001E0           MOVL    COMBINED_LINE, R2                                     ; 0995
                                               52   DD 001E4           PUSHL   R2                                                    ;
                      0000V     CF             01   FB 001E6           CALLS   #1, AED_COPSEGMENT                                    ;
                        04      B2       0000' CF   0E 001EB           INSQUE  AED_T_CURLINE, @4(R2)                                 ; 0996
                                 57       0000' CF   D1 001F1           CMPL    AED_L_FIRSTLINE, PREV_LINE                            ; 0997
                                               07   12 001F6           BNEQ    23$                                                   ;
                      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$FREE_VM                                 ;
                             50             04  AE  D0 0025E      MOVL    COMBINED_LINE, R0                               ; 1007
    0000'  CF        08   A0                 00  ED 00262          CMPZV   #0, #16, 8(R0), AED_L_PAGEWIDTH                 ;
                                                03  14 0026A      BGTR    27$                                             ;
                                                    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
```

```
;  632          1079  1 GLOBAL ROUTINE AED_COPSEGMENT (SEGMENT_ADDR) =
;  633          1080  1
;  634          1081  1 !++
;  635          1082  1 !
;  636          1083  1 ! FUNCTIONAL DESCRIPTION:
;  637          1084  1 !
;  638          1085  1 !       This routine copies the specified line segment to the current
;  639          1086  1 !       line working storage area.
;  640          1087  1 !
;  641          1088  1 ! CALLING SEQUENCE:
;  642          1089  1 !       AED_COPSEGMENT (ARG1)
;  643          1090  1 !
;  644          1091  1 ! INPUT PARAMETERS:
;  645          1092  1 !       ARG1: address of the desired line segment
;  646          1093  1 !
;  647          1094  1 ! IMPLICIT IMPUTS:
;  648          1095  1 !       AED_T_CURLINE: current line working storage
;  649          1096  1 !       AED_Q_LINETABLE: line segment list head
;  650          1097  1 !
;  651          1098  1 ! OUTPUT PARAMETERS:
;  652          1099  1 !       none
;  653          1100  1 !
;  654          1101  1 ! IMPLICIT OUTPUTS:
;  655          1102  1 !       none
;  656          1103  1 !
;  657          1104  1 ! ROUTINE VALUE:
;  658          1105  1 !       none
;  659          1106  1 !
;  660          1107  1 ! SIDE EFFECTS:
;  661          1108  1 !       none
;  662          1109  1 !
;  663          1110  1 !--
;  664          1111  1
;  665          1112  2 BEGIN
;  666          1113  2
;  667          1114  2 MAP
;  668          1115  2         SEGMENT_ADDR    : REF $BBLOCK;
;  669          1116  2
;  670          1117  2 IF .SEGMENT_ADDR NEQA AED_Q_LINETABLE
;  671          1118  2 THEN CH$MOVE ($BYTEOFFSET(LINE_T_TEXT), .SEGMENT_ADDR, AED_T_CURLINE);
;  672          1119  2 CH$MOVE (.SEGMENT_ADDR[LINE_W_SIZE], SEGMENT_ADDR[LINE_T_TEXT],
;  673          1120  2           AED_T_CURLINE[LINE_T_TEXT]);
;  674          1121  2 AED_T_CURLINE[LINE_V_REPLACE] = 1;
;  675          1122  2
;  676          1123  2 RETURN 1;
;  677          1124  2
;  678          1125  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+TO                      ; 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  2     BEGIN
;  748          1194  2     NEW_TEXT_LINE[LINE_V_REPLACE] = 0;
;  749          1195  2     REMQUE (.NEW_TEXT_LINE[LINE_L_FLINK], REMOVED_LINE);
;  750          1196  2     AED_W_TOTALSIZE = .AED_W_TOTALSIZE - .REMOVED_LINE[LINE_W_SIZE];
;  751        P 1197  2     DEALLOCATE (.REMOVED_LINE[LINE_W_SIZE] +
;  752        P 1198  2                 $BYTEOFFSET (LINE_T_TEXT),
;  753          1199  2                 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$:    MOVL    VM_STATUS, AED_L_STATUS        ;
                                        54  DC  A7  E8 0003F    BLBS    AED_L_STATUS, 5$                    ; 1172
                                12  FF50   C7      03  E1 00043    BBC     #3, AED_L_FLAGS, 2$             ; 1175
                                            01  DD 00049    PUSHL   #1                                      ;
                                            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  00 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  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  2     BEGIN
;  945          1389  2     SIGNAL (.LOCAL_STATUS);
;  946          1390  2     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  2     BEGIN
;  952          1396  2     CURRENT_LINE = .CURRENT_LINE[LINE_L_FLINK];
;  953          1397  2     CH$MOVE (.CURRENT_LINE[LINE_W_SIZE], CURRENT_LINE[LINE_T_TEXT],
;  954          1398  2              AED_A_ACLBUFFER[.APPEND_INDEX, 0, 8, 0]);
;  955          1399  2     APPEND_INDEX = .APPEND_INDEX + .CURRENT_LINE[LINE_W_SIZE];
;  956          1400  2     END
;  957          1401  2 UNTIL .CURRENT_LINE EQL .AED_L_LASTLINE;
;  958          1402  2 ACE_DESC[DSC$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$_SYNTAX;
;  973          1417  3     END;
;  974          1418  2 NEW_ACE_SIZE = .NEW_ACE[ACE$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$_NOHIDDEN;
;  985          1429  3     END;
;  986          1430  2
;  987          1431  2 ! Check for directory default ACEs.  If the object is not a directory file,
;  988          1432  2 ! note the error.
;  989          1433  2
;  990          1434  2 IF .NEW_ACE[ACE$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
;  998          1442  ! Check to see if the I am adding an already existing ACE.  If so, warn the
;  999          1443  ! user about the duplicate.  This means that the text display actually
; 1000          1444  ! reflects the true state of the ACL.
; 1001          1445
; 1002          1446  CURRENT_LINE = .AED_Q_LINETABLE[LINE_L_FLINK];
; 1003          1447  UNTIL .CURRENT_LINE EQLA AED_Q_LINETABLE[LINE_L_FLINK]
; 1004          1448  DO
; 1005          1449      BEGIN
; 1006          1450      IF .CURRENT_LINE[LINE_V_BEGINACE]
; 1007          1451      AND .CURRENT_LINE[LINE_L_BINACE] NEQ 0
; 1008          1452      THEN IF CH$EQL (.NEW_ACE_SIZE, NEW_ACE,
; 1009          1453                      .$BBLOCK[.CURRENT_LINE[LINE_L_BINACE], ACE$B_SIZE],
; 1010          1454                      .CURRENT_LINE[LINE_L_BINACE], 0)
; 1011          1455           AND .CURRENT_LINE NEQ .AED_L_FIRSTLINE
; 1012          1456           THEN
; 1013          1457 4             BEGIN
; 1014          1458 4             SIGNAL (AED$_DUPLICATE);
; 1015          1459 4             DEALLOCATE (.NEW_ACE_SIZE, AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1016          1460 4             RETURN AED$_DUPLICATE;
; 1017          1461 3             END;
; 1018          1462      CURRENT_LINE = .CURRENT_LINE[LINE_L_FLINK];
; 1019          1463      END;
; 1020          1464
; 1021          1465  ! If there is an ACE already, deallocate it.
; 1022          1466
; 1023          1467  IF .AED_L_FIRSTLINE[LINE_L_BINACE] NEQ 0
;       P       1468  THEN DEALLOCATE (.$BBLOCK[.AED_L_FIRSTLINE[LINE_L_BINACE], ACE$B_SIZE],
; 1025          1469                  AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1026          1470
; 1027          1471  ! So far, so good.  Allocate storage for the binary ACE, and save it.
; 1028          1472
; 1029          1473  LOCAL_STATUS = ALLOCATE (.NEW_ACE_SIZE, AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1030          1474  IF NOT .LOCAL_STATUS
; 1031          1475  THEN
; 1032          1476      BEGIN
; 1033          1477      SIGNAL (.LOCAL_STATUS);
; 1034          1478      RETURN .LOCAL_STATUS;
; 1035          1479      END;
; 1036          1480  CH$MOVE (.NEW_ACE_SIZE, NEW_ACE, .AED_L_FIRSTLINE[LINE_L_BINACE]);
; 1037          1481
; 1038          1482  RETURN 1;                                        ! End of routine AED_UPDATEACL
; 1039          1483
; 1040          1484  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
```

```
                        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$_SYNTAX, R0                                ; 1416
                                                        04  00148            RET
                                    57          3C  AE  90 0014C 12$:      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
```

```
                                        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
```

```
                                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  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
```

```
;  1042     1485  1 GLOBAL ROUTINE AED_SET_CURSOR (LINE, COLUMN) =
;  1043     1486  1
;  1044     1487  1 !++
;  1045     1488  1 !
;  1046     1489  1 ! FUNCTIONAL DESCRIPTION:
;  1047     1490  1 !
;  1048     1491  1 !       This routine sets the desired cursor position.  As a side effect,
;  1049     1492  1 !       it remembers the last position set.  This is to allow screen refresh
;  1050     1493  1 !       to correctly set the cursor position after repainting the screen.
;  1051     1494  1 !
;  1052     1495  1 ! CALLING SEQUENCE:
;  1053     1496  1 !       AED_SET_CURSOR (ARG1, ARG2)
;  1054     1497  1 !
;  1055     1498  1 ! INPUT PARAMETERS:
;  1056     1499  1 !       ARG1: line to which the cursor is set
;  1057     1500  1 !       ARG2: column to which the cursor is set
;  1058     1501  1 !
;  1059     1502  1 ! IMPLICIT INPUTS:
;  1060     1503  1 !       none
;  1061     1504  1 !
;  1062     1505  1 ! OUTPUT PARAMETERS:
;  1063     1506  1 !       none
;  1064     1507  1 !
;  1065     1508  1 ! IMPLICIT OUTPUTS:
;  1066     1509  1 !       AED_B_SAVE_COL: saved column position
;  1067     1510  1 !       AED_B_SAVE_LIN: saves line position
;  1068     1511  1 !
;  1069     1512  1 ! ROUTINE VALUE:
;  1070     1513  1 !       1
;  1071     1514  1 !
;  1072     1515  1 ! SIDE EFFECTS:
;  1073     1516  1 !       none
;  1074     1517  1 !
;  1075     1518  1 !--
;  1076     1519  1
;  1077     1520  2 BEGIN
;  1078     1521  2
;  1079     1522  2 ! Remember the position being set.
;  1080     1523  2
;  1081     1524  2 AED_B_SAVE_LIN = .LINE;
;  1082     1525  2 AED_B_SAVE_COL = .COLUMN;
;  1083     1526  2
;  1084     1527  2 ! Now, set the cursor.
;  1085     1528  2
;  1086     1529  2 SCR$SET_CURSOR (.LINE, .COLUMN);
;  1087     1530  2
;  1088     1531  2 RETURN 1;
;  1089     1532  2
;  1090     1533  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