K 7

```
RRRRRRRRRRRR     UUU         UUU  NNN         NNN     OOOOOOOOO     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU         UUU  NNN         NNN     OOOOOOOOO     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU         UUU  NNN         NNN     OOOOOOOOO     FFFFFFFFFFFFFFF  FFFFFFFFFFFFFFF
RRR         RRR  UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUU         UUU  NNNNNN      NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUU         UUU  NNNNNN      NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUU         UUU  NNNNNN      NNN  OOO         OOO  FFF              FFF
RRRRRRRRRRRR     UUU         UUU  NNN   NNN   NNN  OOO         OOO  FFFFFFFFFFFF     FFFFFFFFFFFF
RRRRRRRRRRRR     UUU         UUU  NNN   NNN   NNN  OOO         OOO  FFFFFFFFFFFF     FFFFFFFFFFFF
RRRRRRRRRRRR     UUU         UUU  NNN   NNN   NNN  OOO         OOO  FFFFFFFFFFFF     FFFFFFFFFFFF
RRR   RRR        UUU         UUU  NNN      NNNNNN  OOO         OOO  FFF              FFF
RRR   RRR        UUU         UUU  NNN      NNNNNN  OOO         OOO  FFF              FFF
RRR   RRR        UUU         UUU  NNN      NNNNNN  OOO         OOO  FFF              FFF
RRR      RRR     UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR      RRR     UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR      RRR     UUU         UUU  NNN         NNN  OOO         OOO  FFF              FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN         NNN     OOOOOOOOO     FFF              FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN         NNN     OOOOOOOOO     FFF              FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN         NNN     OOOOOOOOO     FFF              FFF
```

```
                                                                G 9
**FILE**ID**CAPTION



            CCCCCCCC    AAAAAA    PPPPPPPP    TTTTTTTTTT    IIIIII      OOOOOO    NN      NN
            CCCCCCCC    AAAAAA    PPPPPPPP    TTTTTTTTTT    IIIIII      OOOOOO    NN      NN
          CC          AA      AA  PP      PP      TT          II      OO      OO  NN      NN
          CC          AA      AA  PP      PP      TT          II      OO      OO  NN      NN
          CC          AA      AA  PP      PP      TT          II      OO      OO  NNNN    NN
          CC          AA      AA  PP      PP      TT          II      OO      OO  NNNN    NN
          CC          AA      AA  PPPPPPPP        TT          II      OO      OO  NN  NN  NN
          CC          AA      AA  PPPPPPPP        TT          II      OO      OO  NN  NN  NN
          CC          AAAAAAAAAA  PP              TT          II      OO      OO  NN    NNNN
          CC          AAAAAAAAAA  PP              TT          II      OO      OO  NN    NNNN
          CC          AA      AA  PP              TT          II      OO      OO  NN      NN      ....
          CC          AA      AA  PP              TT          II      OO      OO  NN      NN      ....
            CCCCCCCC  AA      AA  PP              TT        IIIIII      OOOOOO    NN      NN      ....
            CCCCCCCC  AA      AA  PP              TT        IIIIII      OOOOOO    NN      NN      ....

          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
```

```
CAPT
V04-
```

```
0 %TITLE 'CAPTION - Generate figure, table and example captions'
0 !<BLF/NOFORMAT>
0
0 MODULE caption (IDENT = 'V04-000'
0                 %BLISS32[, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE, NONEXTERNAL = LONG_RELATIVE)]
0                 ) =
1 BEGIN
1
1 !<BLF/FORMAT>
1 !<BLF/LOWERCASE_USER>
1 !<BLF/UPPERCASE_KEY>
1 !<BLF/MACRO>
1 !
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! FACILITY:
1 !   DSR (Digital Standard RUNOFF) /DSRPLUS DSRTOC/CONTENTS Utility
1 !
1 ! ABSTRACT:
1 !   Format figure, table and example captions
1 !
1 ! ENVIRONMENT:   Transportable
1 !
1 ! AUTHOR:        JPK
1 !
1 ! CREATION DATE: March 1982
1 !
1 ! MODIFIED BY:
1 !
1 !       007     JPK00010        05-May-1983
1 !               Modified CONTENTS to change text for index record group to all
1 !               caps. Modified CAPTION to change the number of blank lines
1 !               after the entity title line.
```

```
!
!        006     JPK00008        09-Mar-1983
!                Modified CONTENTS and CAPTION to support new BRN formats,
!                support SEND CONTENTS, /DOUBLE_SPACE, page numbered chapters,
!                guarantee space after section number and to write new
!                prologue and epilog for RUNOFF output.
!                Modified FORMAT to quote only the RUNOFF flags used by CONTENTS.
!                Modified CNTVMS to fix default for /DOUBLE_SPACE and do more
!                value checking.
!
!        005     JPK00007        14-Feb-1983
!                Global edit of all sources for CONTENTS/DSRTOC:
!                - module names are now consistant with file names
!                - copyright dates have been updated
!                - facility names have been updated
!                - revision history was updated to be consistant with DSR/DSRPLUS
!
!        004     JPK00004        11-Feb-1983
!                Changed the global variable name INDENT to LINE_INDENT in
!                modules CONTENTS, CAPTION, FORMAT and GBLDCL.
!                Removed declarations of PDENTS in modules CNTVMS, CONTENTS,
!                and CAPTION and replaced with a module wide BIND using the
!                new name INDENTS.
!                Changed handling of INDENTS [1]. It no longer represents the
!                sum of the chapter and title indents.
!
!        003     KFA00002        14-Oct-1982
!                Modified CNTVMS, CONTENTS, CAPTION and CNTCLI.REQ to handle
!                new syntax for /INDENT qualifier. All indents are now
!                stored in the vector CMDBLK [CONTENTS$AG_HL_INDENT []],
!                where 0 = chapter indent, 1 = header level one indent, etc.
!
!        002     KFA00001        13-Oct-1982
!                Modified CONTENTS and CAPTION to allow null captions for
!                headers, examples, figures, & tables.
!
!--

!
! TABLE OF CONTENTS:
!

FORWARD ROUTINE
    hdr_x : NOVALUE,                            ! Process Figure, Table and Example captions
    stchdr : NOVALUE,                           ! Process SEND TOC temporary file
    strip : NOVALUE,                            ! Remove leading and trailing whitespace
    insrnt : NOVALUE;                           ! Insert text directly into output file

!
! INCLUDE FILES:
!

LIBRARY 'NXPORT:XPORT';

REQUIRE 'REQ:PAGEN';                            ! Page reference format

REQUIRE 'REQ:TOCRTY';                           ! Table of Contents file formats
```

```
   1
   1 REQUIRE 'REQ:CNTCLI';                                          ! Command line information block formats
   1
   1 !
   1 ! MACROS:
   1 !
   1
   1 MACRO
   1     !
   1     ! Write a character to output line
   1     !
M  1     write_char (ch) [] =
M  1         BEGIN
M  1         CH$WCHAR_A (ch, lp);
M  1         intlin = .intlin + 1;
M  1
M  1         %IF NOT %NULL (%REMAINING)
M  1         %THEN
M  1             extlin = .extlin + 1;
M  1         %FI
M  1
M  1         END
   1     %,
   1     !
   1     ! Write a text literal to the output line
   1     !
M  1     literal_text (str) =
M  1         BEGIN
M  1         CH$MOVE (%CHARCOUNT (str), CH$PTR (UPLIT (str)), .lp);
M  1         lp = CH$PLUS (.lp, %CHARCOUNT (str));
M  1         intlin = .intlin + %CHARCOUNT (str);
M  1         END
   1     %,
   1     !
   1     ! Pad the output line with blanks
   1     !
M  1     pad (n_blanks) =
M  1         BEGIN
M  1
M  1         IF n_blanks GTR 0
M  1         THEN
M  1             BEGIN
M  1             CH$FILL (%C' ', n_blanks, .lp);
M  1             lp = CH$PLUS (.lp, n_blanks);
M  1             intlin = .intlin + n_blanks;
M  1             extlin = .extlin + n_blanks;
M  1             END;
M  1
M  1         END
   1     %,
   1     !
   1     ! Clear the text lines being built up.
   1     !
M  1     clr_line (_) =
M  1         BEGIN
M  1         lp = CH$PTR (line);
M  1         intlin = 0;
```

```
;   172        M 0488   1            extlin = 0;
;   173        M 0489   1            END
;   174          0490   1        %,
;   175          0491   1        !
;   176          0492   1        ! Insert specified character sequence into file, as is.
;   177          0493   1        !
;   178        M 0494   1        put (str) =
;   179        M 0495   1            BEGIN
;   180        M 0496   1            $str_copy (string = str, target = tmpstr);
;   181        M 0497   1            chrout = .chrout + .tmpstr [str$h_length];
;   182        M 0498   1            $xpo_put (iob = tocoob, string = tmpstr);
;   183        M 0499   1            !
;   184        M 0500   1            ! For TMS output, split the output file if it gets too large
;   185        M 0501   1            !
;   186        M 0502   1
;   187        M 0503   1            IF .cmdblk [contents$v_tms11] THEN split ();
;   188        M 0504   1
;   189        M 0505   1            END
;   190          0506   1        %;
;   191          0507   1
;   192          0508   1    !
;   193          0509   1    ! EQUATED SYMBOLS:
;   194          0510   1    !
;   195          0511   1
;   196          0512   1    LITERAL
;   197          0513   1        true = 1,
;   198          0514   1        false = 0,
;   199          0515   1        tab = %O'11' : UNSIGNED (8),
;   200          0516   1        rintes = %O'34' : UNSIGNED (8),
;   201          0517   1        infinity = 1^(%BPVAL - 1) - 1;
;   202          0518   1
;   203          0519   1    !
;   204          0520   1    ! OWN STORAGE:
;   205          0521   1    !
;   206          0522   1    !
;   207          0523   1    ! EXTERNAL REFERENCES:
;   208          0524   1    !
;   209          0525   1
;   210          0526   1    EXTERNAL
;   211          0527   1        cmdblk : $contents_cmd,                         ! Command line information block
;   212          0528   1        tocoob : $xpo_iob (),                           ! IOB for the resulting .RNT file
;   213          0529   1        stciob : $xpo_iob (),                           ! IOB for send toc temp file
;   214          0530   1        chrout,                                         ! Number of characters written to output file
;   215          0531   1        tmpstr : $str_descriptor (),                    ! Temporary strings
;   216          0532   1        txtlen,                                         ! Length of input text.
;   217          0533   1        hl_n,                                           ! "n" from latest .HL n command
;   218          0534   1        hllist : VECTOR [100],                          ! Header level counters
;   219          0535   1        hldsp : VECTOR [100],                           ! Header level display characteristics
;   220          0536   1        major,                                          ! Major record type code
;   221          0537   1        minor,                                          ! Minor record type code
;   222          0538   1        pagen : page_definition,                        ! Current page number.
;   223          0539   1        nxtstc,                                         ! Next SEND TOC "n" value to process
;   224          0540   1        rno_ex : $str_descriptor (),                    ! String constant 'EXAMPLES'
;   225          0541   1        rno_fg : $str_descriptor (),                    ! String constant 'FIGURES'
;   226          0542   1        rno_tb : $str_descriptor (),                    ! String constant 'TABLES'
;   227          0543   1        tms_ex : $str_descriptor (),                    ! String constant 'Examples'
;   228          0544   1        tms_fg : $str_descriptor (),                    ! String constant 'Figures'
;  229           0545   1       tms_tb : $str_descriptor (),                    ! String constant 'Tables'
;  230           0546   1       prestr : $str_descriptor (),                    ! Caption prefix
;  231           0547   1       sfxstr : $str_descriptor (),                    ! Caption suffix
;  232           0548   1       lp,                                             ! CH$PTR along line being built up
;  233           0549   1       intlin,                                         ! Number of characters needed to represent text
;  234           0550   1       extlin,                                         ! Number of resulting print positions
;  235           0551   1       line : VECTOR [CH$ALLOCATION (10000)],          ! Buffer in which line is being built up.
;  236           0552   1       lenpag,                                         ! Number of characters in the converted page number.
;  237           0553   1       txtpag : VECTOR [CH$ALLOCATION (50)],           ! The text (lots of room)
;  238           0554   1       ptrpag,                                         ! A CH$PTR (working pointer)
;  239           0555   1       lensct,                                         ! Number of characters in the converted section number
;  240           0556   1       txtsct : VECTOR [CH$ALLOCATION (150)],          ! The text (lots of room)
;  241           0557   1       ptrsct,                                         ! A CH$PTR (working pointer)
;  242           0558   1       rmargin,                                        ! Used by ENDWRD for controlling filling lines.
;  243           0559   1       wrap,                                           ! Wrap long lines around to here.
;  244           0560   1       line_indent;                                    ! Assume this standard indentation before the text.
;  245           0561   1
;  246           0562   1   BIND
;  247           0563   1       indents = cmdblk[contents$ag_hl_indent] : VECTOR;
;  248           0564   1
;  249           0565   1   EXTERNAL ROUTINE
;  250           0566   1       split : NOVALUE,                                ! Start new output file for TMS
;  251           0567   1       fmttxt : NOVALUE,                               ! Generate formatted text
;  252           0568   1       insref : NOVALUE,                               ! Insert a page reference
;  253           0569   1       pacpag,                                         ! Format a page number
;  254           0570   1       pacbas,                                         ! Convert a number to ASCII
;  255           0571   1       pacsec,                                         ! Format a section number
;  256           0572   1       pacxxx;                                         ! Format a number using display code
;  257           0573   1
;  258         L 0574   1   %IF %BLISS (BLISS32)
;  259           0575   1   %THEN
;  260           0576   1
;  261           0577   1   EXTERNAL ROUTINE
;  262           0578   1       open_error;                                     ! File open error handling routine
;  263           0579   1
;  264           0580   1   %FI
;  266         0581  1 %SBTTL 'HDR_X - Process .HEADER x captions'
;  267         0582  1 GLOBAL ROUTINE hdr_x (
;  268         0583  1     iob : REF $xpo_iob (),
;  269         0584  1     title : REF $str_descriptor (),
;  270         0585  1     info,
;  271         0586  1     txt,
;  272         0587  1     txt_u
;  273         0588  1     ) : NOVALUE =
;  274         0589  1 !++
;  275         0590  1 !
;  276         0591  1 ! FUNCTIONAL DESCRIPTION:
;  277         0592  1 !
;  278         0593  1 !       This routine processes the .HEADER x Captions
;  279         0594  1 !
;  280         0595  1 ! FORMAL PARAMETERS:
;  281         0596  1 !
;  282         0597  1 !       iob     - address of temp file iob
;  283         0598  1 !       title   - address of string descriptor of title
;  284         0599  1 !       info    - information record type
;  285         0600  1 !       txt     - text record type
;  286         0601  1 !       txt_u   - unnumbered text record type
;  287         0602  1 !
;  288         0603  1 ! IMPLICIT INPUTS:
;  289         0604  1 !
;  290         0605  1 !       cmdblk  - command line information block
;  291         0606  1 !
;  292         0607  1 ! IMPLICIT OUTPUTS:
;  293         0608  1 !
;  294         0609  1 !       None
;  295         0610  1 !
;  296         0611  1 ! ROUTINE VALUE:
;  297         0612  1 ! COMPLETION CODES:
;  298         0613  1 !
;  299         0614  1 !       None
;  300         0615  1 !
;  301         0616  1 ! SIDE EFFECTS:
;  302         0617  1 !
;  303         0618  1 !       None
;  304         0619  1 !
;  305         0620  1 !--
;  306         0621  1
;  307         0622  2   BEGIN
;  308         0623  2
;  309         0624  2   LOCAL
;  310         0625  2       first_record;
;  311         0626  2
;  312         0627  2   IF .cmdblk [contents$g_headers] EQL 0 THEN RETURN;
;  313         0628  2
;  314         0629  2   first_record = true;
;  315       P 0630  2   $xpo_open (iob = .iob, options = input, attributes = BINARY
;  316       P 0631  2       %IF %BLISS (BLISS32) %THEN , failure = open_error %FI
;  317         0632  2   );
;  318         0633  2
;  319         0634  2   WHILE $xpo_get (iob = .iob, fullwords = 2) EQL xpo$_normal DO
;  320         0635  3       BEGIN
;  321         0636  3       !
;  322         0637  3       ! Process a record group
```

```
!
BIND
    record_header = .iob [iob$a_data] : VECTOR;

major = .record_header [0];
minor = .record_header [1];

SELECTONE true OF
    SET

    [(.major EQL maj_runoff) AND (.minor EQL min_page)] :
        BEGIN
        !
        ! Process a page reference
        !
        $xpo_get (iob = .iob, fullwords = page_sct_size);
        BEGIN
        BIND
            page_ref = .iob [iob$a_data] : VECTOR;

        MAP
            pagen : VECTOR;

        INCR i FROM 0 TO page_sct_size - 1 DO
            pagen [.i] = .page_ref [.i];

        END;
        END;

    [.major EQL maj_send_contents] :
        BEGIN
        !
        ! Process a SEND CONTENTS record
        !
        LOCAL
            type;

        type = .minor<0, %BPVAL/2>;
        $xpo_get (iob = .iob, fullwords = 1);   ! Get length
        txtlen = ..iob [iob$a_data];

        IF .txtlen GTR 0
        THEN
            $xpo_get (iob = .iob, fullwords = CH$ALLOCATION (.txtlen));

        IF .type EQL scon_comm
        THEN
            !
            ! A command. Insert directly into table of contents
            !
            put ((.txtlen, CH$PTR (.iob [iob$a_data])))
        ELSE
            BEGIN
            !
            ! Text. Format it.
            !
            IF .first_record
```

```
5   THEN
6       BEGIN
6       !
6       ! First one seen - generate title
6       !
6       IF .cmdblk [contents$v_tms11]
6       THEN
7           BEGIN
7           put ('');
7
7           IF .hl_n NEQ 0 THEN put ('[va15]');
7
7           put ($str_concat ('*c0n*', .title, '@@'));
7           END
6       ELSE
7           BEGIN
7           put ('.TEST PAGE 7');
7           IF .hl_n NEQ 0 THEN put ('.SK2') ELSE put ('.SK1');
7
7           IF .indents [0] NEQ 0
7           THEN
7               put ($str_concat ('.I-', $str_ascii (.indents [0])));
7
7           put (.title);
7           put ('.BLANK');
6           END;
6
6       hl_n = 1;
6       first_record = false;
5       END;
5
5   !
5   ! Initialize formatting parameters
5   !
5   clr_line ();
5   line_indent = .indents [0];
5   extlin = .line_indent;
5   wrap = .indents [0] + .indents [1];
5   rmargin = .cmdblk [contents$g_page_width];
5
5   IF .cmdblk [contents$v_tms11]
5   THEN
6       literal_text ('*c1n*@')
5   ELSE
5       pad ((.indents [0] + .indents [1] - .extlin));
5
5   IF .type EQL scon_txt
5   THEN
6       BEGIN
6       !
6       ! Generate the page number so as to get its length.
6       ! This is needed so that the proper number of dots can be supplied.
6       !
6       ptrpag = CH$PTR (txtpag);
6
6       IF NOT .cmdblk [contents$v_standard_page]
6       THEN
```

```
6                   lenpag = pacbas (.pagen [sct_run_page], ptrpag, 10)
6               ELSE
6                   lenpag = pacpag (pagen, ptrpag);
6
6               END
5           ELSE
5               lenpag = 0;
5
5           !
5           ! Set limit beyond which words must be wrapped
5           !
5           rmargin = .cmdblk [contents$g_page_width] - .lenpag - 1;
5           wrap = .extlin;
5           !
5           ! Scan text(if any) and put it(may be null caption) onto the line.
5           !
5           fmttxt (.txtlen, CH$PTR (.iob [iob$a_data]));
5
5           IF .type EQL scon_txt
5           THEN
5               insref ()                           ! Insert page reference
5           ELSE
6               BEGIN
6
6               IF .cmdblk [contents$v_tms11] THEN write_char (%C'@');
5               END;
5
5           !
5           ! Now actually put this line of text into the file
5           !
5           put ((.intlin, CH$PTR (line)));
5           clr_line ();
4           END;
4
3       END;
3
3   [(.major EQL maj_runoff) AND (.minor EQL .info)] :
4       BEGIN
4       !
4       ! A caption information record
4       !
4       LOCAL
4           prefix_len,
4           suffix_len;
4
4       !
4       ! Get caption counter, display descriptor and prefix text length
4       !
4       $xpo_get (iob = .iob, fullwords = 3);
5       BEGIN
5
5       BIND
5           info_vector = .iob [iob$a_data] : VECTOR [3];
5
5       hllist [0] = .info_vector [0];  ! Save the counter
5       hldsp [0] = .info_vector [1];   ! the display descriptor
5       prefix_len = .info_vector [2];  ! and prefix string length
```

```
;   494         0809  4                     END;
;   495         0810  4                     !
;   496         0811  4                     ! Get prefix text if any
;   497         0812  4                     !
;   498         0813  4                     IF .prefix_len NEQ 0 THEN $xpo_get (iob = .iob, fullwords = CH$ALLOCATION (.prefix_len));
;   499         0814  4
;   500         0815  4                     $str_copy (string = (.prefix_len, CH$PTR (.iob [iob$a_data])), target = prestr);
;   501         0816  4
;   502         0817  4                     ! Get length of suffix text
;   503         0818  4                     !
;   504         0819  4                     $xpo_get (iob = .iob, fullwords = 1);
;   505         0820  4                     suffix_len = .(.iob [iob$a_data]);
;   506         0821  4                     !
;   507         0822  4                     ! Get suffix text if any
;   508         0823  4                     !
;   509         0824  4                     IF .suffix_len NEQ 0 THEN $xpo_get (iob = .iob, fullwords = CH$ALLOCATION (.suffix_len));
;   510         0825  4
;   511         0826  4                     $str_copy (string = (.suffix_len, CH$PTR (.iob [iob$a_data])), target = sfxstr);
;   512         0827  3                     END;
;   513         0828  3
;   514         0829  3                 [(.major EQL maj_runoff) AND (.minor EQL .txt OR .minor EQL .txt_u)] :
;   515         0830  4                     BEGIN
;   516         0831  4                     !
;   517         0832  4                     ! Process the text part of a caption.
;   518         0833  4                     !
;   519         0834  4                     LOCAL
;   520         0835  4                         needed_fill;
;   521         0836  4
;   522         0837  4                     !
;   523         0838  4                     ! First read the number of characters needed to represent the caption
;   524         0839  4                     !
;   525         0840  4                     $xpo_get (iob = .iob, fullwords = 1);
;   526         0841  4                     txtlen = .(.iob [iob$a_data]);  ! Save text length.
;   527         0842  4                     !
;   528         0843  4                     ! Generate a table of contents entry even if the caption
;   529         0844  4                     ! has no text associated with it
;   530         0845  4                     !
;   531         0846  4                     If .txtlen NEQ 0
;   532         0847  4                     THEN
;   533         0848  4                         $xpo_get (iob = .iob, fullwords = CH$ALLOCATION (.txtlen));
;   534         0849  4
;   535         0850  4                     !
;   536         0851  4                     ! Initialize formatting parameters
;   537         0852  4                     !
;   538         0853  4                     clr_line ();
;   539         0854  4                     line_indent = .indents [0];
;   540         0855  4                     extlin = .line_indent;
;   541         0856  4                     wrap = .indents [0] + .indents [1];
;   542         0857  4                     rmargin = .cmdblk [contents$g_page_width];
;   543         0858  4
;   544         0859  4                     IF .first_record
;   545         0860  4                     THEN
;   546         0861  5                         BEGIN
;   547         0862  5                         !
;   548         0863  5                         ! First one seen - generate title
;   549         0864  5                         !
;   550         0865  5                         IF .cmdblk [contents$v_tms11]
;   551       0866  5                 THEN
;   552       0867  6                     BEGIN
;   553       0868  6                     put ('');
;   554       0869  6
;   555       0870  6                     IF .hl_n NEQ 0 THEN put ('[va15]');
;   556       0871  6
;   557       0872  6                     put ($str_concat ('*c0n*', .title, 'aa'));
;   558       0873  6                     END
;   559       0874  5                 ELSE
;   560       0875  6                     BEGIN
;   561       0876  6                     put ('.TEST PAGE 7');
;   562       0877  6                     IF .hl_n NEQ 0 THEN put ('.SK2') ELSE put ('.SK1');
;   563       0878  6
;   564       0879  6                     IF .indents [0] NEQ 0
;   565       0880  6                     THEN
;   566       0881  6                         put ($str_concat ('.I-', $str_ascii (.indents [0])));
;   567       0882  6
;   568       0883  6                     put (.title);
;   569       0884  6                     put ('.BLANK');
;   570       0885  5                     END;
;   571       0886  5
;   572       0887  5                 hl_n = 1;
;   573       0888  5                 first_record = false;
;   574       0889  4                 END;
;   575       0890  4
;   576       0891  4             IF .cmdblk [contents$v_tms11] THEN literal_text ('*c1n*');
;   577       0892  4
;   578       0893  4             IF .cmdblk [contents$v_include_sections]
;   579       0894  5                 AND (
;   580       0895  6                     (.cmdblk [contents$g_sections] GEQ .hl_n)
;   581       0896  6                     OR  (
;   582       0897  7                         (.cmdblk [contents$g_sections] EQL -1)
;   583       0898  7                         AND (.minor NEQ .txt_u)
;   584       0899  6                         )
;   585       0900  5                     )
;   586       0901  4             THEN
;   587       0902  5                 BEGIN
;   588       0903  5                 !
;   589       0904  5                 ! Generate number if either the user said include
;   590       0905  5                 ! all header numbers up to some level GEQ 1 or
;   591       0906  5                 ! header numbers should be displayed as input and
;   592       0907  5                 ! this was a numbered head.
;   593       0908  5                 !
;   594       0909  5                 ptrsct = CH$PTR (txtsct);
;   595       0910  5                 lensct = 0;
;   596       0911  5
;   597       0912  5                 IF .pagen [sct_typ] NEQ 0
;   598       0913  5                 THEN
;   599       0914  6                     BEGIN
;   600       0915  6                     !
;   601       0916  6                     ! Document is divided into sections
;   602       0917  6                     !
;   603       0918  6                     lensct = .lensct + pacsec (pagen, ptrsct) + 1;
;   604       0919  6                     CH$WCHAR_A (%C'-', ptrsct);
;   605       0920  5                     END;
;   606       0921  5
;   607       0922  5                 lensct = .lensct + pacxxx (.hllist [0], ptrsct, .hldsp [0]);
```

```
5           !
5           ! Write the prefix string if any
5           !
5           IF .prestr [str$h_length] NEQ 0
5           THEN
5               fmttxt (.prestr [str$h_length], .prestr [str$a_pointer]);
5
5           !
5           ! Write the entity number
5           !
5           fmttxt (.lensct, CH$PTR (txtsct));
5           !
5           ! Write the suffix string if any
5           !
5           IF .sfxstr [str$h_length] NEQ 0
5           THEN
6               BEGIN
6
6               IF CH$NEQ(1,CH$PTR (UPLIT(%C':')),
6                   .sfxstr [str$h_length], .sfxstr [str$a_pointer])
6               THEN
6                   fmttxt (.sfxstr [str$h_length], .sfxstr [str$a_pointer]);
6
5               END;
5
5           IF NOT .cmdblk [contents$v_tms11] THEN write_char (%C' ', counts_visually);
4           END;
4
4       IF .cmdblk [contents$v_tms11]
4       THEN
5           write_char (%C'@')
4       ELSE
4           pad ((.indents [0] + .indents [1] - .extlin));
4
4       !
4       ! Generate the page number so as to get its length.
4       ! This is needed so that the proper number of dots can be supplied.
4       !
4       ptrpag = CH$PTR (txtpag);
4
4       IF NOT .cmdblk [contents$v_standard_page]
4       THEN
5           BEGIN
5           !
5           ! Use the running page counter instead of a real page number.
5           !
5           lenpag = pacbas (.pagen [sct_run_page], ptrpag, 10);
5           END
4       ELSE
5           BEGIN
5           !
5           ! Supply the usual page number.
5           !
5           lenpag = pacpag (pagen, ptrpag);
4           END;
4
4       !
```

```
;   665         0980  4                        ! Set limit beyond which words must be wrapped
;   666         0981  4                        !
;   667         0982  4                        rmargin = .cmdblk [contents$g_page_width] - .lenpag - 1;
;   668         0983  4                        wrap = .extlin;
;   669         0984  4                        !
;   670         0985  4                        ! Scan text(if any) and put it(may be null caption) onto the line.
;   671         0986  4                        !
;   672         0987  4                        fmttxt (.txtlen, CH$PTR (.iob [iob$a_data]));
;   673         0988  4                        !
;   674         0989  4                        ! Insert page reference into line if desired.
;   675         0990  4                        !
;   676         0991  4                        insref ();
;   677         0992  4                        !
;   678         0993  4                        ! Now actually put this line of text into the file
;   679         0994  4                        !
;   680         0995  4                        put ((.intlin, CH$PTR (line)));
;   681         0996  4                        clr_line ();
;   682         0997  3                        END;
;   683         0998  3
;   684         0999  3                    TES;
;   685         1000  3
;   686         1001  2                END;
;   687         1002  2
;   688         1003  2            $xpo_close (iob = .iob, options = remember);
;   689         1004  1            END;


                                                                       .TITLE  CAPTION CAPTION - Generate figure, table and ex
;                                                                                           ample ca
                                                                       .IDENT  \V04-000\

                                                                       .PSECT  $PLIT$,NOWRT,NOEXE,2

                                                   00000 P.AAA:        .BLKB   0                                          ;
                             5D  35  31  61  76  5B  00000 P.AAB:      .ASCII  \[va15]\                                   ;
                                 2A  6E  30  63  2A  00006 P.AAE:      .ASCII  \*c0n*\                                    ;
                                             40  40  0000B P.AAF:      .ASCII  \@@\                                       ;
     37  20  45  47  41  50  20  54  53  45  54  2E  0000D P.AAI:      .ASCII  \.TEST PAGE 7\                             ;
                                     32  4B  53  2E  00019 P.AAJ:      .ASCII  \.SK2\                                     ;
                                     31  4B  53  2E  0001D P.AAK:      .ASCII  \.SK1\                                     ;
                                         2D  49  2E  00021 P.AAM:      .ASCII  \.I-\                                      ;
                         4B  4E  41  4C  42  2E  00024 P.AAO:          .ASCII  \.BLANK\                                   ;
                                                   0002A               .BLKB   2
                 00  00  40  2A  6E  31  63  2A  0002C P.AAP:          .ASCII  \*c1n*@\<0><0>                             ;
                                                   00034 P.AAQ:        .BLKB   0
                             5D  35  31  61  76  5B  00034 P.AAR:      .ASCII  \[va15]\                                   ;
                                 2A  6E  30  63  2A  0003A P.AAU:      .ASCII  \*c0n*\                                    ;
                                             40  40  0003F P.AAV:      .ASCII  \@@\                                       ;
     37  20  45  47  41  50  20  54  53  45  54  2E  00041 P.AAY:      .ASCII  \.TEST PAGE 7\                             ;
                                     32  4B  53  2E  0004D P.AAZ:      .ASCII  \.SK2\                                     ;
                                     31  4B  53  2E  00051 P.ABA:      .ASCII  \.SK1\                                     ;
                                         2D  49  2E  00055 P.ABC:      .ASCII  \.I-\                                      ;
                         4B  4E  41  4C  42  2E  00058 P.ABE:          .ASCII  \.BLANK\                                   ;
                                                   0005E               .BLKB   2
                 00  00  00  2A  6E  31  63  2A  00060 P.ABF:          .ASCII  \*c1n*\<0><0><0>                           ;
                                       0000003A  00068 P.ABG:          .LONG   58                                         ;
```

```
                                        .PSECT  $OWN$,NOEXE,2

                 0000  00000 $STR$STRING:
                                        .WORD   0                                   ;
              01  0E   00002            .BYTE   14, 1                               ;
           00000000'   00004            .ADDRESS P.AAA                              ;
                 0006  00008 $STR$STRING:                                           ;
                                        .WORD   6                                   ;
              01  0E   0000A            .BYTE   14, 1                               ;
           00000000'   0000C            .ADDRESS P.AAB                              ;
                 0005  00010 $STR$STRING0:                                          ;
                                        .WORD   5                                   ;
              01  0E   00012            .BYTE   14, 1                               ;
           00000000'   00014            .ADDRESS P.AAE                              ;
                 0002  00018 $STR$STRING2:                                          ;
                                        .WORD   2                                   ;
              01  0E   0001A            .BYTE   14, 1                               ;
           00000000'   0001C            .ADDRESS P.AAF                              ;
                 000C  00020 $STR$STRING:                                           ;
                                        .WORD   12                                  ;
              01  0E   00022            .BYTE   14, 1                               ;
           00000000'   00024            .ADDRESS P.AAI                              ;
                 0004  00028 $STR$STRING:                                           ;
                                        .WORD   4                                   ;
              01  0E   0002A            .BYTE   14, 1                               ;
           00000000'   0002C            .ADDRESS P.AAJ                              ;
                 0004  00030 $STR$STRING:                                           ;
                                        .WORD   4                                   ;
              01  0E   00032            .BYTE   14, 1                               ;
           00000000'   00034            .ADDRESS P.AAK                              ;
                 0003  00038 $STR$STRING0:                                          ;
                                        .WORD   3                                   ;
              01  0E   0003A            .BYTE   14, 1                               ;
           00000000'   0003C            .ADDRESS P.AAM                              ;
                 0006  00040 $STR$STRING:                                           ;
                                        .WORD   6                                   ;
              01  0E   00042            .BYTE   14, 1                               ;
           00000000'   00044            .ADDRESS P.AAO                              ;
                 0000  00048 $STR$STRING:                                           ;
                                        .WORD   0                                   ;
              01  0E   0004A            .BYTE   14, 1                               ;
           00000000'   0004C            .ADDRESS P.AAQ                              ;
                 0006  00050 $STR$STRING:                                           ;
                                        .WORD   6                                   ;
              01  0E   00052            .BYTE   14, 1                               ;
           00000000'   00054            .ADDRESS P.AAR                              ;
                 0005  00058 $STR$STRING0:                                          ;
                                        .WORD   5                                   ;
              01  0E   0005A            .BYTE   14, 1                               ;
           00000000'   0005C            .ADDRESS P.AAU                              ;
                 0002  00060 $STR$STRING2:                                          ;
                                        .WORD   2                                   ;
              01  0E   00062            .BYTE   14, 1                               ;
           00000000'   00064            .ADDRESS P.AAV                              ;
                 000C  00068 $STR$STRING:                                           ;
                                        .WORD   12                                  ;
              01  0E   0006A            .BYTE   14, 1                               ;
```

```
                                  00000000' 0006C          .ADDRESS P.AAY                                    ;
                                       0004 00070 $STR$STRING:
                                                           .WORD    4                                        ;
                                    01   0E 00072          .BYTE    14, 1                                    ;
                                  00000000' 00074          .ADDRESS P.AAZ                                    ;
                                       0004 00078 $STR$STRING:
                                                           .WORD    4                                        ;
                                    01   0E 0007A          .BYTE    14, 1                                    ;
                                  00000000' 0007C          .ADDRESS P.ABA                                    ;
                                       0003 00080 $STR$STRING0:
                                                           .WORD    3                                        ;
                                    01   0E 00082          .BYTE    14, 1                                    ;
                                  00000000' 00084          .ADDRESS P.ABC                                    ;
                                       0006 00088 $STR$STRING:
                                                           .WORD    6                                        ;
                                    01   0E 0008A          .BYTE    14, 1                                    ;
                                  00000000' 0008C          .ADDRESS P.ABE                                    ;

                                                           .EXTRN   CMDBLK, TOCOOB, STCIOB
                                                           .EXTRN   CHROUT, TMPSTR, TXTLEN
                                                           .EXTRN   HL_N, HLLIST, HLDSP
                                                           .EXTRN   MAJOR, MINOR, PAGEN
                                                           .EXTRN   NXTSTC, RNO_EX, RNO_FG
                                                           .EXTRN   RNO_TB, TMS_EX, TMS_FG
                                                           .EXTRN   TMS_TB, PRESTR, SFXSTR
                                                           .EXTRN   LP, INTLIN, EXTLIN
                                                           .EXTRN   LINE, LENPAG, TXTPAG
                                                           .EXTRN   PTRPAG, LENSCT, TXTSCT
                                                           .EXTRN   PTRSCT, RMARGIN
                                                           .EXTRN   WRAP, LINE_INDENT
                                                           .EXTRN   SPLIT, FMTTXT, INSREF
                                                           .EXTRN   PACPAG, PACBAS, PACSEC
                                                           .EXTRN   PACXXX, OPEN_ERROR
                                                           .EXTRN   XPO$OPEN, XPO$GET
                                                           .EXTRN   XPO$FAILURE, XST$COPY
                                                           .EXTRN   STR$FAILURE, XPO$PUT
                                                           .EXTRN   XST$JOIN, XST$ASCII
                                                           .EXTRN   XPO$CLOSE

                                                           .PSECT   $CODE$,NOWRT,2

                                        0FFC 00000         .ENTRY   HDR_X, Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11 ; 0582
                5B 00000000G     EF     9E 00002           MOVAB    $STR$TARGET, R11                            ;
                5E               08     C2 00009           SUBL2    #8, SP                                      ;
                   00000000G     EF     D5 0000C           TSTL     CMDBLK+4                                    ; 0627
                                 01     12 00012           BNEQ     1$                                          ;
                                        04 00014           RET                                                  ;
                5A               01     D0 00015 1$:       MOVL     #1, FIRST_RECORD                            ; 0629
                56          04   AC     D0 00018           MOVL     IOB, R6                                     ; 0632
         2E     A6 00010001      8F     C8 0001C           BISL2    #65537, 46(R6)                              ;
         2C     A6               01     90 00024           MOVB     #1, 44(R6)                                  ;
                   00000000G     EF     9F 00028           PUSHAB   OPEN_ERROR                                  ;
                                 7E     D4 0002E           CLRL     -(SP)                                       ;
                                 56     DD 00030           PUSHL    R6                                          ;
  00000000G     EF               03     FB 00032           CALLS    #3, XPO$OPEN                                ;
                58          38   A6     9E 00039           MOVAB    56(R6), R8                                  ; 0640
         34     A6               08     B0 0003D 2$:       MOVW     #8, 52(R6)                                  ; 0634
```

```
                 36   A6                02  90 00041          MOVB    #2, 54(R6)                    ;
                 2C   A6                06  90 00045          MOVB    #6, 44(R6)                    ;
                          00000000G     EF  9F 00049          PUSHAB  XPO$FAILURE                   ;
                                        7E  D4 0004F          CLRL    -(SP)                         ;
                                        56  DD 00051          PUSHL   R6                            ;
           00000000G  EF                03  FB 00053          CALLS   #3, XPO$GET                   ;
           00208001   8F                50  D1 0005A          CMPL    R0, #2129921                  ;
                                        03  13 00061          BEQL    3$                            ;
                                      0CF0  31 00063          BRW     74$                           ;
                 50                     68  D0 00066  3$:     MOVL    (R8), R0                      ; 0640
           00000000G  EF                60  D0 00069          MOVL    (R0), MAJOR                   ; 0642
           00000000G  EF          04    A0  D0 00070          MOVL    4(R0), MINOR                  ; 0643
                                        51  D4 00078          CLRL    R1                            ; 0648
                      02  00000000G     EF  D1 0007A          CMPL    MAJOR, #2                     ;
                                        02  12 00081          BNEQ    4$                            ;
                                        51  D6 00083          INCL    R1                            ;
                                        50  D4 00085  4$:     CLRL    R0                            ;
                      01  00000000G     EF  D1 00087          CMPL    MINOR, #1                     ;
                                        02  12 0008E          BNEQ    5$                            ;
                                        50  D6 00090          INCL    R0                            ;
                 52                     51  D2 00092  5$:     MCOML   R1, R2                        ;
                 50                     52  CA 00095          BICL2   R2, R0                        ;
                 01                     50  D1 00098          CMPL    R0, #1                        ;
                                        30  12 0009B          BNEQ    7$                            ;
                 34   A6                10  B0 0009D          MOVW    #16, 52(R6)                   ; 0653
                 36   A6                02  90 000A1          MOVB    #2, 54(R6)                    ;
                 2C   A6                06  90 000A5          MOVB    #6, 44(R6)                    ;
                          00000000G     EF  9F 000A9          PUSHAB  XPO$FAILURE                   ;
                                        7E  D4 000AF          CLRL    -(SP)                         ;
                                        56  DD 000B1          PUSHL   R6                            ;
           00000000G  EF                03  FB 000B3          CALLS   #3, XPO$GET                   ;
                                        50  D4 000BA          CLRL    I                             ; 0661
           00000000GEF40          00  B840  D0 000BC  6$:     MOVL    @0(R8)[I], PAGEN[I]           ; 0662
      F2              50                03  F3 000C6          AOBLEQ  #3, I, 6$                     ;
                                      FF70  31 000CA          BRW     2$                            ; 0645
                      04  00000000G     EF  D1 000CD  7$:     CMPL    MAJOR, #4                     ; 0667
                                        03  13 000D4          BEQL    8$                            ;
                                      054D  31 000D6          BRW     35$                           ;
                      59  00000000G     EF  3C 000D9  8$:     MOVZWL  MINOR, TYPE                   ; 0675
                 34   A6                04  B0 000E0          MOVW    #4, 52(R6)                    ; 0676
                 36   A6                02  90 000E4          MOVB    #2, 54(R6)                    ;
                 2C   A6                06  90 000E8          MOVB    #6, 44(R6)                    ;
                          00000000G     EF  9F 000EC          PUSHAB  XPO$FAILURE                   ;
                                        7E  D4 000F2          CLRL    -(SP)                         ;
                                        56  DD 000F4          PUSHL   R6                            ;
           00000000G  EF                03  FB 000F6          CALLS   #3, XPO$GET                   ;
           00000000G  EF          00    B8  D0 000FD          MOVL    @0(R8), TXTLEN                ; 0677
                      50  00000000G     EF  D0 00105          MOVL    TXTLEN, R0                    ; 0679
                                        24  15 0010C          BLEQ    9$                            ;
                 50                     03  C0 0010E          ADDL2   #3, R0                        ; 0681
                 50                     04  C6 00111          DIVL2   #4, R0                        ;
      34    A6   50                     04  A5 00114          MULW3   #4, R0, 52(R6)                ;
                 36   A6                02  90 00119          MOVB    #2, 54(R6)                    ;
                 2C   A6                06  90 0011D          MOVB    #6, 44(R6)                    ;
                          00000000G     EF  9F 00121          PUSHAB  XPO$FAILURE                   ;
                                        7E  D4 00127          CLRL    -(SP)                         ;
                                        56  DD 00129          PUSHL   R6                            ;
```

```
   00000000G  EF            03 FB 0012B          CALLS    #3, XPO$GET                   ;
              01            59 D1 00132 9$:      CMPL     TYPE, #1                      ; 0683
                            68 12 00135          BNEQ     11$                           ;
              6E 00000000G  EF B0 00137          MOVW     TXTLEN, $STR$STRING           ; 0688
          02  AE            0E 90 0013E          MOVB     #14, $STR$STRING+2            ;
          03  AE            01 90 00142          MOVB     #1, $STR$STRING+3             ;
          04  AE            68 D0 00146          MOVL     (R8), $STR$STRING+4           ;
                 00000000G  EF 9F 0014A          PUSHAB   STR$FAILURE                   ;
                            7E D4 00150          CLRL     -(SP)                         ;
                            5B DD 00152          PUSHL    R11                           ;
                        0C  AE 9F 00154          PUSHAB   $STR$STRING                   ;
                            7E D4 00157          CLRL     -(SP)                         ;
   00000000G  EF            05 FB 00159          CALLS    #5, XST$COPY                  ;
              50            6B 3C 00160          MOVZWL   TMPSTR, R0                    ;
   00000000G  EF            50 C0 00163          ADDL2    R0, CHROUT                    ;
   00000000G  EF            6B 9E 0016A          MOVAB    $IOB$OUTPUT, IOB$+68          ;
   00000000G  EF            07 90 00171          MOVB     #7, IOB$+44                   ;
                 00000000G  EF 9F 00178          PUSHAB   XPO$FAILURE                   ;
                            7E D4 0017E          CLRL     -(SP)                         ;
                 00000000G  EF 9F 00180          PUSHAB   IOB$                          ;
   00000000G  EF            03 FB 00186          CALLS    #3, XPO$PUT                   ;
07 00000000G  EF            01 E1 0018D          BBC      #1, CMDBLK, 10$               ;
   00000000G  EF            00 FB 00195          CALLS    #0, SPLIT                     ;
                          FE9E 31 0019C 10$:     BRW      2$                            ; 0683
              03            5A E8 0019F 11$:     BLBS     FIRST_RECORD, 12$             ; 0694
                          02CF 31 001A2          BRW      25$                           ;
03 00000000G  EF            01 E0 001A5 12$:     BBS      #1, CMDBLK, 13$               ; 0700
                          00D7 31 001AD          BRW      16$                           ;
                 00000000G  EF 9F 001B0 13$:     PUSHAB   STR$FAILURE                   ; 0703
                            7E D4 001B6          CLRL     -(SP)                         ;
                            5B DD 001B8          PUSHL    R11                           ;
                 00000000'  EF 9F 001BA          PUSHAB   $STR$STRING                   ;
                            7E D4 001C0          CLRL     -(SP)                         ;
   00000000G  EF            05 FB 001C2          CALLS    #5, XST$COPY                  ;
              50            6B 3C 001C9          MOVZWL   TMPSTR, R0                    ;
   00000000G  EF            50 C0 001CC          ADDL2    R0, CHROUT                    ;
   00000000G  EF            6B 9E 001D3          MOVAB    $IOB$OUTPUT, IOB$+68          ;
   00000000G  EF            07 90 001DA          MOVB     #7, IOB$+44                   ;
                 00000000G  EF 9F 001E1          PUSHAB   XPO$FAILURE                   ;
                            7E D4 001E7          CLRL     -(SP)                         ;
                 00000000G  EF 9F 001E9          PUSHAB   IOB$                          ;
   00000000G  EF            03 FB 001EF          CALLS    #3, XPO$PUT                   ;
07 00000000G  EF            01 E1 001F6          BBC      #1, CMDBLK, 14$               ;
   00000000G  EF            00 FB 001FE          CALLS    #0, SPLIT                     ;
                 00000000G  EF D5 00205 14$:     TSTL     HL_N                          ; 0705
                            55 13 0020B          BEQL     15$                           ;
                 00000000G  EF 9F 0020D          PUSHAB   STR$FAILURE                   ;
                            7E D4 00213          CLRL     -(SP)                         ;
                            5B DD 00215          PUSHL    R11                           ;
                 00000000'  EF 9F 00217          PUSHAB   $STR$STRING                   ;
                            7E D4 0021D          CLRL     -(SP)                         ;
   00000000G  EF            05 FB 0021F          CALLS    #5, XST$COPY                  ;
              50            6B 3C 00226          MOVZWL   TMPSTR, R0                    ;
   00000000G  EF            50 C0 00229          ADDL2    R0, CHROUT                    ;
   00000000G  EF            6B 9E 00230          MOVAB    $IOB$OUTPUT, IOB$+68          ;
   00000000G  EF            07 90 00237          MOVB     #7, IOB$+44                   ;
                 00000000G  EF 9F 0023E          PUSHAB   XPO$FAILURE                   ;
```

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                                     7E  D4 00244          CLRL    -(SP)                                          ;
                          00000000G  EF  9F 00246          PUSHAB  IOB$                                           ;
        00000000G   EF               03  FB 0024C          CALLS   #3, XPO$PUT                                    ;
     07 00000000G   EF               01  E1 00253          BBC     #1, CMDBLK, 15$                                ;
        00000000G   EF               00  FB 0025B          CALLS   #0, SPLIT                                      ;
                          00000000'  EF  9F 00262   15$:   PUSHAB  $STR$STRING2                                   ; 0707
                                 08  AC  DD 00268          PUSHL   TITLE                                          ;
                          00000000'  EF  9F 0026B          PUSHAB  $STR$STRING0                                   ;
        00000000G   EF               03  FB 00271          CALLS   #3, XST$JOIN                                   ;
                          00000000G  EF  9F 00278          PUSHAB  STR$FAILURE                                    ;
                                     7E  D4 0027E          CLRL    -(SP)                                          ;
                               0801  8F  BB 00280          PUSHR   #^M<R0,R11>                                    ;
                                  019F   31 00284          BRW     23$                                            ;
                          00000000G  EF  9F 00287   16$:   PUSHAB  STR$FAILURE                                    ; 0711
                                     7E  D4 0028D          CLRL    -(SP)                                          ;
                                     5B  DD 0028F          PUSHL   R11                                            ;
                          00000000'  EF  9F 00291          PUSHAB  $STR$STRING                                    ;
                                     7E  D4 00297          CLRL    -(SP)                                          ;
        00000000G   EF               05  FB 00299          CALLS   #5, XST$COPY                                   ;
                    50               6B  3C 002A0          MOVZWL  TMPSTR, R0                                     ;
        00000000G   EF               50  C0 002A3          ADDL2   R0, CHROUT                                     ;
        00000000G   EF               6B  9E 002AA          MOVAB   $IOB$OUTPUT, IOB$+68                           ;
        00000000G   EF               07  90 002B1          MOVB    #7, IOB$+44                                    ;
                          00000000G  EF  9F 002B8          PUSHAB  XPO$FAILURE                                    ;
                                     7E  D4 002BE          CLRL    -(SP)                                          ;
                          00000000G  EF  9F 002C0          PUSHAB  IOB$                                           ;
        00000000G   EF               03  FB 002C6          CALLS   #3, XPO$PUT                                    ;
     07 00000000G   EF               01  E1 002CD          BBC     #1, CMDBLK, 17$                                ;
        00000000G   EF               00  FB 002D5          CALLS   #0, SPLIT                                      ;
                          00000000G  EF  D5 002DC   17$:   TSTL    HL_N                                           ; 0712
                                     12  13 002E2          BEQL    18$                                            ;
                          00000000G  EF  9F 002E4          PUSHAB  STR$FAILURE                                    ;
                                     7E  D4 002EA          CLRL    -(SP)                                          ;
                                     5B  DD 002EC          PUSHL   R11                                            ;
                          00000000'  EF  9F 002EE          PUSHAB  $STR$STRING                                    ;
                                     10  11 002F4          BRB     19$                                            ;
                          00000000G  EF  9F 002F6   18$:   PUSHAB  STR$FAILURE                                    ;
                                     7E  D4 002FC          CLRL    -(SP)                                          ;
                                     5B  DD 002FE          PUSHL   R11                                            ;
                          00000000'  EF  9F 00300          PUSHAB  $STR$STRING                                    ;
                                     7E  D4 00306   19$:   CLRL    -(SP)                                          ;
        00000000G   EF               05  FB 00308          CALLS   #5, XST$COPY                                   ;
                    50               6B  3C 0030F          MOVZWL  TMPSTR, R0                                     ;
        00000000G   EF               50  C0 00312          ADDL2   R0, CHROUT                                     ;
        00000000G   EF               6B  9E 00319          MOVAB   $IOB$OUTPUT, IOB$+68                           ;
        00000000G   EF               07  90 00320          MOVB    #7, IOB$+44                                    ;
                          00000000G  EF  9F 00327          PUSHAB  XPO$FAILURE                                    ;
                                     7E  D4 0032D          CLRL    -(SP)                                          ;
                          00000000G  EF  9F 0032F          PUSHAB  IOB$                                           ;
        00000000G   EF               03  FB 00335          CALLS   #3, XPO$PUT                                    ;
     07 00000000G   EF               01  E1 0033C          BBC     #1, CMDBLK, 20$                                ;
        00000000G   EF               00  FB 00344          CALLS   #0, SPLIT                                      ;
                    50    00000000G  EF  D0 0034B   20$:   MOVL    INDENTS, R0                                    ; 0714
                                     70  13 00352          BEQL    21$                                            ;
                                     7E  D4 00354          CLRL    -(SP)                                          ; 0716
                                     50  DD 00356          PUSHL   R0                                             ;
                    7E         0903  8F  3C 00358          MOVZWL  #2307, -(SP)                                   ;
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          00000000G  EF                03  FB 0035D          CALLS   #3, XST$ASCII                    ;
                                       50  DD 00364          PUSHL   R0                               ;
                             00000000'  EF  9F 00366          PUSHAB  $STR$STRING0                     ;
          00000000G  EF                02  FB 0036C          CALLS   #2, XST$JOIN                     ;
                             00000000G  EF  9F 00373          PUSHAB  STR$FAILURE                      ;
                                       7E  D4 00379          CLRL    -(SP)                            ;
                                  0801  8F  BB 0037B          PUSHR   #^M<R0,R11>                      ;
                                       7E  D4 0037F          CLRL    -(SP)                            ;
          00000000G  EF                05  FB 00381          CALLS   #5, XST$COPY                     ;
                     50                6B  3C 00388          MOVZWL  TMPSTR, R0                       ;
          00000000G  EF                50  C0 0038B          ADDL2   R0, CHROUT                       ;
          00000000G  EF                6B  9E 00392          MOVAB   $IOB$OUTPUT, IOB$+68             ;
          00000000G  EF                07  90 00399          MOVB    #7, IOB$+44                      ;
                             00000000G  EF  9F 003A0          PUSHAB  XPO$FAILURE                      ;
                                       7E  D4 003A6          CLRL    -(SP)                            ;
                             00000000G  EF  9F 003A8          PUSHAB  IOB$                             ;
          00000000G  EF                03  FB 003AE          CALLS   #3, XPO$PUT                      ;
       07 00000000G  EF                01  E1 003B5          BBC     #1, CMDBLK, 21$                  ;
          00000000G  EF                00  FB 003BD          CALLS   #0, SPLIT                        ;
                             00000000G  EF  9F 003C4  21$:    PUSHAB  STR$FAILURE                      ; 0718
                                       7E  D4 003CA          CLRL    -(SP)                            ;
                                       5B  DD 003CC          PUSHL   R11                              ;
                                    08  AC  DD 003CE          PUSHL   TITLE                            ;
                                       7E  D4 003D1          CLRL    -(SP)                            ;
          00000000G  EF                05  FB 003D3          CALLS   #5, XST$COPY                     ;
                     50                6B  3C 003DA          MOVZWL  TMPSTR, R0                       ;
          00000000G  EF                50  C0 003DD          ADDL2   R0, CHROUT                       ;
          00000000G  EF                6B  9E 003E4          MOVAB   $IOB$OUTPUT, IOB$+68             ;
          00000000G  EF                07  90 003EB          MOVB    #7, IOB$+44                      ;
                             00000000G  EF  9F 003F2          PUSHAB  XPO$FAILURE                      ;
                                       7E  D4 003F8          CLRL    -(SP)                            ;
                             00000000G  EF  9F 003FA          PUSHAB  IOB$                             ;
          00000000G  EF                03  FB 00400          CALLS   #3, XPO$PUT                      ;
       07 00000000G  EF                01  E1 00407          BBC     #1, CMDBLK, 22$                  ;
          00000000G  EF                00  FB 0040F          CALLS   #0, SPLIT                        ;
                             00000000G  EF  9F 00416  22$:    PUSHAB  STR$FAILURE                      ; 0719
                                       7E  D4 0041C          CLRL    -(SP)                            ;
                                       5B  DD 0041E          PUSHL   R11                              ;
                             00000000'  EF  9F 00420          PUSHAB  $STR$STRING                      ;
                                       7E  D4 00426  23$:    CLRL    -(SP)                            ;
          00000000G  EF                05  FB 00428          CALLS   #5, XST$COPY                     ;
                     50                6B  3C 0042F          MOVZWL  TMPSTR, R0                       ;
          00000000G  EF                50  C0 00432          ADDL2   R0, CHROUT                       ;
          00000000G  EF                6B  9E 00439          MOVAB   $IOB$OUTPUT, IOB$+68             ;
          00000000G  EF                07  90 00440          MOVB    #7, IOB$+44                      ;
                             00000000G  EF  9F 00447          PUSHAB  XPO$FAILURE                      ;
                                       7E  D4 0044D          CLRL    -(SP)                            ;
                             00000000G  EF  9F 0044F          PUSHAB  IOB$                             ;
          00000000G  EF                03  FB 00455          CALLS   #3, XPO$PUT                      ;
       07 00000000G  EF                01  E1 0045C          BBC     #1, CMDBLK, 24$                  ;
          00000000G  EF                00  FB 00464          CALLS   #0, SPLIT                        ;
          00000000G  EF                01  D0 0046B  24$:    MOVL    #1, HL_N                         ; 0722
                                       5A  D4 00472          CLRL    FIRST_RECORD                     ; 0723
          00000000G  EF  00000000G  EF  9E 00474  25$:    MOVAB   LINE, LP                         ; 0729
                             00000000G  EF  D4 0047F          CLRL    INTLIN                           ;
                             00000000G  EF  D4 00485          CLRL    EXTLIN                           ;
          00000000G  EF  00000000G  EF  D0 0048B          MOVL    INDENTS, LINE_INDENT             ; 0730
```

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               00000000G EF    00000000G EF  D0 00496         MOVL    LINE_INDENT, EXTLIN                   ; 0731
           57 00000000G EF    00000000G EF  C1 004A1         ADDL3   INDENTS+4, INDENTS, R7                ; 0732
               00000000G EF              57  D0 004AD         MOVL    R7, WRAP                              :
               00000000G EF    00000000G EF  D0 004B4         MOVL    CMDBLK+24, RMARGIN                    ; 0733
           1C 00000000G EF              01  E1 004BF         BBC     #1, CMDBLK, 26$                       ; 0735
  00000000G FF 00000000' EF              06  28 004C7         MOVC3   #6, P.AAP, @LP                        ; 0737
               00000000G EF              06  C0 004D3         ADDL2   #6, LP                                :
               00000000G EF              06  C0 004DA         ADDL2   #6, INTLIN                            :
                                         2F  11 004E1         BRB     27$                                   ; 0735
               00000000G EF              57  D1 004E3 26$:    CMPL    R7, EXTLIN                            ; 0739
                                         26  15 004EA         BLEQ    27$                                   :
                            57 00000000G EF  C2 004EC         SUBL2   EXTLIN, R7                            :
57          20           6E              00  2C 004F3         MOVC5   #0, (SP), #32, R7, @LP                :
                               00000000G FF     004F8                                                       :
               00000000G EF              57  C0 004FD         ADDL2   R7, LP                                :
               00000000G EF              57  C0 00504         ADDL2   R7, INTLIN                            :
               00000000G EF              57  C0 0050B         ADDL2   R7, EXTLIN                            :
                                         52  D4 00512 27$:    CLRL    R2                                    ; 0741
                         02              59  D1 00514         CMPL    TYPE, #2                              :
                                         49  12 00517         BNEQ    30$                                   :
                                         52  D6 00519         INCL    R2                                    :
               00000000G EF    00000000G EF  9E 0051B         MOVAB   TXTPAG, PTRPAG                        ; 0748
           18 00000000G EF              03  E0 00526         BBS     #3, CMDBLK, 28$                       ; 0750
                                         0A  DD 0052E         PUSHL   #10                                   ; 0752
                               00000000G EF  9F 00530         PUSHAB  PTRPAG                                :
                            7E 00000000G EF  3C 00536         MOVZWL  PAGEN+14, -(SP)                       :
               00000000G EF              03  FB 0053D         CALLS   #3, PACBAS                            :
                                         13  11 00544         BRB     29$                                   :
                               00000000G EF  9F 00546 28$:    PUSHAB  PTRPAG                                ; 0754
                               00000000G EF  9F 0054C         PUSHAB  PAGEN                                 :
               00000000G EF              02  FB 00552         CALLS   #2, PACPAG                            :
               00000000G EF              50  D0 00559 29$:    MOVL    R0, LENPAG                            :
                                         06  11 00560         BRB     31$                                   ; 0741
                               00000000G EF  D4 00562 30$:    CLRL    LENPAG                                ; 0758
           50 00000000G EF    00000000G EF  C3 00568 31$:    SUBL3   LENPAG, CMDBLK+24, R0                 ; 0763
               00000000G EF           FF A0  9E 00574         MOVAB   -1(R0), RMARGIN                       :
               00000000G EF    00000000G EF  D0 0057C         MOVL    EXTLIN, WRAP                          ; 0764
                                         68  DD 00587         PUSHL   (R8)                                  ; 0768
                               00000000G EF  DD 00589         PUSHL   TXTLEN                                :
               00000000G EF              02  FB 0058F         CALLS   #2, FMTTXT                            :
                         09              52  E9 00596         BLBC    R2, 32$                               ; 0770
               00000000G EF              00  FB 00599         CALLS   #0, INSREF                            ; 0772
                                         1C  11 005A0         BRB     33$                                   :
           14 00000000G EF              01  E1 005A2 32$:    BBC     #1, CMDBLK, 33$                       ; 0776
               00000000G FF           40 8F  90 005AA         MOVB    #64, @LP                              :
                               00000000G EF  D6 005B2         INCL    LP                                    :
                               00000000G EF  D6 005B8         INCL    INTLIN                                :
                         6E    00000000G EF  B0 005BE 33$:    MOVW    INTLIN, $STR$STRING                   ; 0782
                     02  AE              0E  90 005C5         MOVB    #14, $STR$STRING+2                    :
                     03  AE              01  90 005C9         MOVB    #1, $STR$STRING+3                     :
                     04  AE    00000000G EF  9E 005CD         MOVAB   LINE, $STR$STRING+4                   :
                               00000000G EF  9F 005D5         PUSHAB  STR$FAILURE                           :
                                         7E  D4 005DB         CLRL    -(SP)                                 :
                                         5B  DD 005DD         PUSHL   R11                                   :
                                      0C AE  9F 005DF         PUSHAB  $STR$STRING                           :
                                         7E  D4 005E2         CLRL    -(SP)                                 :
               00000000G EF              05  FB 005E4         CALLS   #5, XST$COPY                          :
```

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                          50              6B  3C 005EB          MOVZWL  TMPSTR, R0                                    :
              00000000G   EF              50  C0 005EE          ADDL2   R0, CHROUT                                    :
              00000000G   EF              6B  9E 005F5          MOVAB   $IOB$OUTPUT, IOB$+68                          :
              00000000G   EF              07  90 005FC          MOVB    #7, IOB$+44                                   :
                                00000000G EF  9F 00603          PUSHAB  XPO$FAILURE                                   :
                                          7E  D4 00609          CLRL    -(SP)                                         :
                                00000000G EF  9F 0060B          PUSHAB  IOB$                                          :
              00000000G   EF              03  FB 00611          CALLS   #3, XPO$PUT                                   :
           03 00000000G   EF              01  E0 00618          BBS     #1, CMDBLK, 34$                               :
                                        0719  31 00620          BRW     73$                                           :
                                        070F  31 00623 34$:     BRW     72$                                           :
                                          50  D4 00626 35$:     CLRL    R0                                            : 0788
                  0C      AC    00000000G EF  D1 00628          CMPL    MINOR, INFO                                   :
                                          02  12 00630          BNEQ    36$                                           :
                                          50  D6 00632          INCL    R0                                            :
                          52              51  D2 00634 36$:     MCOML   R1, R2                                        :
                          50              52  CA 00637          BICL2   R2, R0                                        :
                          01              50  D1 0063A          CMPL    R0, #1                                        :
                                          03  13 0063D          BEQL    37$                                           :
                                        00F7  31 0063F          BRW     41$                                           :
                  34      A6              0C  B0 00642 37$:     MOVW    #12, 52(R6)                                   : 0800
                  36      A6              02  90 00646          MOVB    #2, 54(R6)                                    :
                  2C      A6              06  90 0064A          MOVB    #6, 44(R6)                                    :
                                00000000G EF  9F 0064E          PUSHAB  XPO$FAILURE                                   :
                                          7E  D4 00654          CLRL    -(SP)                                         :
                                          56  DD 00656          PUSHL   R6                                            :
              00000000G   EF              03  FB 00658          CALLS   #3, XPO$GET                                   :
                          50              68  D0 0065F          MOVL    (R8), R0                                      : 0804
              00000000G   EF              60  D0 00662          MOVL    (R0), HLLIST                                  : 0806
              00000000G   EF         04   A0  D0 00669          MOVL    4(R0), HLDSP                                  : 0807
                          52         08   A0  D0 00671          MOVL    8(R0), PREFIX_LEN                             : 0808
                                          25  13 00675          BEQL    38$                                           : 0813
                          50         03   A2  9E 00677          MOVAB   3(R2), R0                                     :
                          50              04  C6 0067B          DIVL2   #4, R0                                        :
    34    A6              50              04  A5 0067E          MULW3   #4, R0, 52(R6)                                :
                  36      A6              02  90 00683          MOVB    #2, 54(R6)                                    :
                  2C      A6              06  90 00687          MOVB    #6, 44(R6)                                    :
                                00000000G EF  9F 0068B          PUSHAB  XPO$FAILURE                                   :
                                          7E  D4 00691          CLRL    -(SP)                                         :
                                          56  DD 00693          PUSHL   R6                                            :
              00000000G   EF              03  FB 00695          CALLS   #3, XPO$GET                                   :
                          6E              52  B0 0069C 38$:     MOVW    PREFIX_LEN, $STR$STRING                       : 0815
                  02      AE              0E  90 0069F          MOVB    #14, $STR$STRING+2                            :
                  03      AE              01  90 006A3          MOVB    #1, $STR$STRING+3                             :
                  04      AE              68  D0 006A7          MOVL    (R8), $STR$STRING+4                           :
                                00000000G EF  9F 006AB          PUSHAB  STR$FAILURE                                   :
                                          7E  D4 006B1          CLRL    -(SP)                                         :
                                00000000G EF  9F 006B3          PUSHAB  $STR$TARGET                                   :
                                       0C AE  9F 006B9          PUSHAB  $STR$STRING                                   :
                                          7E  D4 006BC          CLRL    -(SP)                                         :
              00000000G   EF              05  FB 006BE          CALLS   #5, XST$COPY                                  :
                  34      A6              04  B0 006C5          MOVW    #4, 52(R6)                                    : 0819
                  36      A6              02  90 006C9          MOVB    #2, 54(R6)                                    :
                  2C      A6              06  90 006CD          MOVB    #6, 44(R6)                                    :
                                00000000G EF  9F 006D1          PUSHAB  XPO$FAILURE                                   :
                                          7E  D4 006D7          CLRL    -(SP)                                         :
                                          56  DD 006D9          PUSHL   R6                                            :
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                    00000000G  EF              03  FB 006DB          CALLS   #3, XPO$GET                          ;
                               52          00  B8  D0 006E2          MOVL    @0(R8), SUFFIX_LEN                   ; 0820
                                               25  13 006E6          BEQL    39$                                  ; 0824
                               50          03  A2  9E 006E8          MOVAB   3(R2), R0                            ;
                               50              04  C6 006EC          DIVL2   #4, R0                               ;
             34    A6          50              04  A5 006EF          MULW3   #4, R0, 52(R6)                       ;
                         36    A6              02  90 006F4          MOVB    #2, 54(R6)                           ;
                         2C    A6              06  90 006F8          MOVB    #6, 44(R6)                           ;
                                   00000000G   EF  9F 006FC          PUSHAB  XPO$FAILURE                          ;
                                               7E  D4 00702          CLRL    -(SP)                                ;
                                               56  DD 00704          PUSHL   R6                                   ;
                    00000000G  EF              03  FB 00706          CALLS   #3, XPO$GET                          ;
                               6E              52  B0 0070D 39$:     MOVW    SUFFIX_LEN, $STR$STRING              ; 0826
                         02    AE              0E  90 00710          MOVB    #14, $STR$STRING+2                   ;
                         03    AE              01  90 00714          MOVB    #1, $STR$STRING+3                    ;
                         04    AE              68  D0 00718          MOVL    (R8), $STR$STRING+4                  ;
                                   00000000G   EF  9F 0071C          PUSHAB  STR$FAILURE                          ;
                                               7E  D4 00722          CLRL    -(SP)                                ;
                                   00000000G   EF  9F 00724          PUSHAB  $STR$TARGET                          ;
                                          0C   AE  9F 0072A          PUSHAB  $STR$STRING                          ;
                                               7E  D4 0072D          CLRL    -(SP)                                ;
                    00000000G  EF              05  FB 0072F          CALLS   #5, XST$COPY                         ;
                                          F904  31 00736 40$:        BRW     2$                                   ; 0645
                                               52  D4 00739 41$:     CLRL    R2                                   ; 0829
                         10    AC 00000000G    EF  D1 0073B          CMPL    MINOR, TXT                           ;
                                               02  12 00743          BNEQ    42$                                  ;
                                               52  D6 00745          INCL    R2                                   ;
                                               50  D4 00747 42$:     CLRL    R0                                   ;
                         14    AC 00000000G    EF  D1 00749          CMPL    MINOR, TXT_U                         ;
                                               02  12 00751          BNEQ    43$                                  ;
                                               50  D6 00753          INCL    R0                                   ;
                               50              52  C8 00755 43$:     BISL2   R2, R0                               ;
                               53              51  D2 00758          MCOML   R1, R3                               ;
                               50              53  CA 0075B          BICL2   R3, R0                               ;
                               01              50  D1 0075E          CMPL    R0, #1                               ;
                                               D3  12 00761          BNEQ    40$                                  ;
                         34    A6              04  B0 00763          MOVW    #4, 52(R6)                           ; 0840
                         36    A6              02  90 00767          MOVB    #2, 54(R6)                           ;
                         2C    A6              06  90 0076B          MOVB    #6, 44(R6)                           ;
                                   00000000G   EF  9F 0076F          PUSHAB  XPO$FAILURE                          ;
                                               7E  D4 00775          CLRL    -(SP)                                ;
                                               56  DD 00777          PUSHL   R6                                   ;
                    00000000G  EF              03  FB 00779          CALLS   #3, XPO$GET                          ;
                    00000000G  EF          00  B8  D0 00780          MOVL    @0(R8), TXTLEN                       ; 0841
                               50 00000000G    EF  D0 00788          MOVL    TXTLEN, R0                           ; 0846
                                               24  13 0078F          BEQL    44$                                  ;
                               50              03  C0 00791          ADDL2   #3, R0                               ; 0848
                               50              04  C6 00794          DIVL2   #4, R0                               ;
             34    A6          50              04  A5 00797          MULW3   #4, R0, 52(R6)                       ;
                         36    A6              02  90 0079C          MOVB    #2, 54(R6)                           ;
                         2C    A6              06  90 007A0          MOVB    #6, 44(R6)                           ;
                                   00000000G   EF  9F 007A4          PUSHAB  XPO$FAILURE                          ;
                                               7E  D4 007AA          CLRL    -(SP)                                ;
                                               56  DD 007AC          PUSHL   R6                                   ;
                    00000000G  EF              03  FB 007AE          CALLS   #3, XPO$GET                          ;
                    00000000G  EF 00000000G    EF  9E 007B5 44$:     MOVAB   LINE, LP                             ; 0853
                                  00000000G    EF  D4 007C0          CLRL    INTLIN                               ;
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                                00000000G  EF  D4 007C6         CLRL    EXTLIN                          ;
                   00000000G EF 00000000G  EF  D0 007CC         MOVL    INDENTS, LINE_INDENT            ; 0854
                   00000000G EF 00000000G  EF  D0 007D7         MOVL    LINE_INDENT, EXTLIN             ; 0855
      00000000G EF 00000000G EF 00000000G  EF  C1 007E2         ADDL3   INDENTS+4, INDENTS, WRAP        ; 0856
                   00000000G EF 00000000G  EF  D0 007F2         MOVL    CMDBLK+24, RMARGIN              ; 0857
                             03            5A  E8 007FD         BLBS    FIRST_RECORD, 45$               ; 0859
                                         02CF  31 00800         BRW     58$                             ;
                03 00000000G EF            01  E0 00803  45$:   BBS     #1, CMDBLK, 46$                 ; 0865
                                         00D7  31 0080B         BRW     49$                             ;
                                00000000G  EF  9F 0080E  46$:   PUSHAB  STR$FAILURE                     ; 0868
                                           7E  D4 00814         CLRL    -(SP)                           ;
                                           5B  DD 00816         PUSHL   R11                             ;
                                00000000'  EF  9F 00818         PUSHAB  $STR$STRING                     ;
                                           7E  D4 0081E         CLRL    -(SP)                           ;
                   00000000G EF            05  FB 00820         CALLS   #5, XST$COPY                    ;
                             50            6B  3C 00827         MOVZWL  TMPSTR, R0                      ;
                   00000000G EF            50  C0 0082A         ADDL2   R0, CHROUT                      ;
                   00000000G EF            6B  9E 00831         MOVAB   $IOB$OUTPUT, IOB$+68            ;
                   00000000G EF            07  90 00838         MOVB    #7, IOB$+44                     ;
                                00000000G  EF  9F 0083F         PUSHAB  XPO$FAILURE                     ;
                                           7E  D4 00845         CLRL    -(SP)                           ;
                                00000000G  EF  9F 00847         PUSHAB  IOB$                            ;
                   00000000G EF            03  FB 0084D         CALLS   #3, XPO$PUT                     ;
                07 00000000G EF            01  E1 00854         BBC     #1, CMDBLK, 47$                 ;
                   00000000G EF            00  FB 0085C         CALLS   #0, SPLIT                       ;
                                00000000G  EF  D5 00863  47$:   TSTL    HL_N                            ; 0870
                                           55  13 00869         BEQL    48$                             ;
                                00000000G  EF  9F 0086B         PUSHAB  STR$FAILURE                     ;
                                           7E  D4 00871         CLRL    -(SP)                           ;
                                           5B  DD 00873         PUSHL   R11                             ;
                                00000000'  EF  9F 00875         PUSHAB  $STR$STRING                     ;
                                           7E  D4 0087B         CLRL    -(SP)                           ;
                   00000000G EF            05  FB 0087D         CALLS   #5, XST$COPY                    ;
                             50            6B  3C 00884         MOVZWL  TMPSTR, R0                      ;
                   00000000G EF            50  C0 00887         ADDL2   R0, CHROUT                      ;
                   00000000G EF            6B  9E 0088E         MOVAB   $IOB$OUTPUT, IOB$+68            ;
                   00000000G EF            07  90 00895         MOVB    #7, IOB$+44                     ;
                                00000000G  EF  9F 0089C         PUSHAB  XPO$FAILURE                     ;
                                           7E  D4 008A2         CLRL    -(SP)                           ;
                                00000000G  EF  9F 008A4         PUSHAB  IOB$                            ;
                   00000000G EF            03  FB 008AA         CALLS   #3, XPO$PUT                     ;
                07 00000000G EF            01  E1 008B1         BBC     #1, CMDBLK, 48$                 ;
                   00000000G EF            00  FB 008B9         CALLS   #0, SPLIT                       ;
                                00000000'  EF  9F 008C0  48$:   PUSHAB  $STR$STRING2                    ; 0872
                                       08  AC  DD 008C6         PUSHL   TITLE                           ;
                                00000000'  EF  9F 008C9         PUSHAB  $STR$STRING0                    ;
                   00000000G EF            03  FB 008CF         CALLS   #3, XST$JOIN                    ;
                                00000000G  EF  9F 008D6         PUSHAB  STR$FAILURE                     ;
                                           7E  D4 008DC         CLRL    -(SP)                           ;
                                     0801  8F  BB 008DE         PUSHR   #^M<R0,R11>                     ;
                                         019F  31 008E2         BRW     56$                             ;
                                00000000G  EF  9F 008E5  49$:   PUSHAB  STR$FAILURE                     ; 0876
                                           7E  D4 008EB         CLRL    -(SP)                           ;
                                           5B  DD 008ED         PUSHL   R11                             ;
                                00000000'  EF  9F 008EF         PUSHAB  $STR$STRING                     ;
                                           7E  D4 008F5         CLRL    -(SP)                           ;
                   00000000G EF            05  FB 008F7         CALLS   #5, XST$COPY                    ;
```

CA
V04

```
                 50                6B  3C 008FE          MOVZWL  TMPSTR, R0
     00000000G   EF                50  C0 00901          ADDL2   R0, CHROUT
     00000000G   EF                6B  9E 00908          MOVAB   $IOB$OUTPUT, IOB$+68
     00000000G   EF                07  90 0090F          MOVB    #7, IOB$+44
                        00000000G  EF  9F 00916          PUSHAB  XPO$FAILURE
                                   7E  D4 0091C          CLRL    -(SP)
                        00000000G  EF  9F 0091E          PUSHAB  IOB$
     00000000G   EF                03  FB 00924          CALLS   #3, XPO$PUT
  07 00000000G   EF                01  E1 0092B          BBC     #1, CMDBLK, 50$
     00000000G   EF                00  FB 00933          CALLS   #0, SPLIT
                        00000000G  EF  D5 0093A 50$:     TSTL    HL_N                            ; 0877
                                   12  13 00940          BEQL    51$
                        00000000G  EF  9F 00942          PUSHAB  STR$FAILURE
                                   7E  D4 00948          CLRL    -(SP)
                                   5B  DD 0094A          PUSHL   R11
                        00000000'  EF  9F 0094C          PUSHAB  $STR$STRING
                                   10  11 00952          BRB     52$
                        00000000G  EF  9F 00954 51$:     PUSHAB  STR$FAILURE
                                   7E  D4 0095A          CLRL    -(SP)
                                   5B  DD 0095C          PUSHL   R11
                        00000000'  EF  9F 0095E          PUSHAB  $STR$STRING
                                   7E  D4 00964 52$:     CLRL    -(SP)
     00000000G   EF                05  FB 00966          CALLS   #5, XST$COPY
                 50                6B  3C 0096D          MOVZWL  TMPSTR, R0
     00000000G   EF                50  C0 00970          ADDL2   R0, CHROUT
     00000000G   EF                6B  9E 00977          MOVAB   $IOB$OUTPUT, IOB$+68
     00000000G   EF                07  90 0097E          MOVB    #7, IOB$+44
                        00000000G  EF  9F 00985          PUSHAB  XPO$FAILURE
                                   7E  D4 0098B          CLRL    -(SP)
                        00000000G  EF  9F 0098D          PUSHAB  IOB$
     00000000G   EF                03  FB 00993          CALLS   #3, XPO$PUT
  07 00000000G   EF                01  E1 0099A          BBC     #1, CMDBLK, 53$
     00000000G   EF                00  FB 009A2          CALLS   #0, SPLIT
                 50 00000000G      EF  D0 009A9 53$:     MOVL    INDENTS, R0                     ; 0879
                                   70  13 009B0          BEQL    54$
                                   7E  D4 009B2          CLRL    -(SP)                           ; 0881
                                   50  DD 009B4          PUSHL   R0
                 7E       0903     8F  3C 009B6          MOVZWL  #2307, -(SP)
     00000000G   EF                03  FB 009BB          CALLS   #3, XST$ASCII
                                   50  DD 009C2          PUSHL   R0
                        00000000'  EF  9F 009C4          PUSHAB  $STR$STRING0
     00000000G   EF                02  FB 009CA          CALLS   #2, XST$JOIN
                        00000000G  EF  9F 009D1          PUSHAB  STR$FAILURE
                                   7E  D4 009D7          CLRL    -(SP)
                          0801     8F  BB 009D9          PUSHR   #^M<R0,R11>
                                   7E  D4 009DD          CLRL    -(SP)
     00000000G   EF                05  FB 009DF          CALLS   #5, XST$COPY
                 50                6B  3C 009E6          MOVZWL  TMPSTR, R0
     00000000G   EF                50  C0 009E9          ADDL2   R0, CHROUT
     00000000G   EF                6B  9E 009F0          MOVAB   $IOB$OUTPUT, IOB$+68
     00000000G   EF                07  90 009F7          MOVB    #7, IOB$+44
                        00000000G  EF  9F 009FE          PUSHAB  XPO$FAILURE
                                   7E  D4 00A04          CLRL    -(SP)
                        00000000G  EF  9F 00A06          PUSHAB  IOB$
     00000000G   EF                03  FB 00A0C          CALLS   #3, XPO$PUT
  07 00000000G   EF                01  E1 00A13          BBC     #1, CMDBLK, 54$
     00000000G   EF                00  FB 00A1B          CALLS   #0, SPLIT
```

```
                          00000000G EF 9F 00A22 54$:  PUSHAB  STR$FAILURE                       ; 0883
                                    7E D4 00A28       CLRL    -(SP)                             ;
                                    5B DD 00A2A       PUSHL   R11                               ;
                                 08 AC DD 00A2C       PUSHL   TITLE                             ;
                                    7E D4 00A2F       CLRL    -(SP)                             ;
             00000000G EF           05 FB 00A31       CALLS   #5, XST$COPY                      ;
                       50           6B 3C 00A38       MOVZWL  TMPSTR, R0                        ;
             00000000G EF           50 C0 00A3B       ADDL2   R0, CHROUT                        ;
             00000000G EF           6B 9E 00A42       MOVAB   $IOB$OUTPUT, IOB$+68              ;
             00000000G EF           07 90 00A49       MOVB    #7, IOB$+44                       ;
                          00000000G EF 9F 00A50       PUSHAB  XPO$FAILURE                       ;
                                    7E D4 00A56       CLRL    -(SP)                             ;
                          00000000G EF 9F 00A58       PUSHAB  IOB$                              ;
             00000000G EF           03 FB 00A5E       CALLS   #3, XPO$PUT                       ;
          07 00000000G EF           01 E1 00A65       BBC     #1, CMDBLK, 55$                   ;
             00000000G EF           00 FB 00A6D       CALLS   #0, SPLIT                         ;
                          00000000G EF 9F 00A74 55$:  PUSHAB  STR$FAILURE                       ; 0884
                                    7E D4 00A7A       CLRL    -(SP)                             ;
                                    5B DD 00A7C       PUSHL   R11                               ;
                          00000000' EF 9F 00A7E       PUSHAB  $STR$STRING                       ;
                                    7E D4 00A84 56$:  CLRL    -(SP)                             ;
             00000000G EF           05 FB 00A86       CALLS   #5, XST$COPY                      ;
                       50           6B 3C 00A8D       MOVZWL  TMPSTR, R0                        ;
             00000000G EF           50 C0 00A90       ADDL2   R0, CHROUT                        ;
             00000000G EF           6B 9E 00A97       MOVAB   $IOB$OUTPUT, IOB$+68              ;
             00000000G EF           07 90 00A9E       MOVB    #7, IOB$+44                       ;
                          00000000G EF 9F 00AA5       PUSHAB  XPO$FAILURE                       ;
                                    7E D4 00AAB       CLRL    -(SP)                             ;
                          00000000G EF 9F 00AAD       PUSHAB  IOB$                              ;
             00000000G EF           03 FB 00AB3       CALLS   #3, XPO$PUT                       ;
          07 00000000G EF           01 E1 00ABA       BBC     #1, CMDBLK, 57$                   ;
             00000000G EF           00 FB 00AC2       CALLS   #0, SPLIT                         ;
             00000000G EF           01 D0 00AC9 57$:  MOVL    #1, HL_N                          ; 0887
                                    5A D4 00AD0       CLRL    FIRST_RECORD                      ; 0888
          1A 00000000G EF           01 E1 00AD2 58$:  BBC     #1, CMDBLK, 59$                   ; 0891
00000000G FF 00000000' EF           05 28 00ADA       MOVC3   #5, P.ABF, @LP                    ;
             00000000G EF           05 C0 00AE6       ADDL2   #5, LP                            ;
             00000000G EF           05 C0 00AED       ADDL2   #5, INTLIN                        ;
          03 00000000G EF           04 E0 00AF4 59$:  BBS     #4, CMDBLK, 61$                   ; 0893
                                  0101 31 00AFC 60$:  BRW     66$                               ;
             00000000G EF 00000000G EF D1 00AFF 61$:  CMPL    CMDBLK+20, HL_N                   ; 0895
                                    17 18 00B0A       BGEQ    62$                               ;
             FFFFFFFF  8F 00000000G EF D1 00B0C       CMPL    CMDBLK+20, #-1                    ; 0897
                                    E3 12 00B17       BNEQ    60$                               ;
                    14 AC 00000000G EF D1 00B19       CMPL    MINOR, TXT_U                      ; 0898
                                    D9 13 00B21       BEQL    60$                               ;
             00000000G EF 00000000G EF 9E 00B23 62$:  MOVAB   TXTSCT, PTRSCT                    ; 0909
                          00000000G EF D4 00B2E       CLRL    LENSCT                            ; 0910
                       0F 00000000G EF 93 00B34       BITB    PAGEN, #15                        ; 0912
                                    2F 13 00B3B       BEQL    63$                               ;
                          00000000G EF 9F 00B3D       PUSHAB  PTRSCT                            ; 0918
                          00000000G EF 9F 00B43       PUSHAB  PAGEN                             ;
             00000000G EF           02 FB 00B49       CALLS   #2, PACSEC                        ;
                       50 00000000G EF C0 00B50       ADDL2   LENSCT, R0                        ;
             00000000G EF        01 A0 9E 00B57       MOVAB   1(R0), LENSCT                     ;
             00000000G FF           2D 90 00B5F       MOVB    #45, @PTRSCT                      ; 0919
                          00000000G EF D6 00B66       INCL    PTRSCT                            ;
```

```
                                        00000000G  EF  DD  00B6C 63$:   PUSHL   HLDSP                                   ; 0922
                                        00000000G  EF  9F  00B72        PUSHAB  PTRSCT                                  ;
                                        00000000G  EF  DD  00B78        PUSHL   HLLIST                                  ;
                       00000000G  EF               03  FB  00B7E        CALLS   #3, PACXXX                              ;
                       00000000G  EF               50  C0  00B85        ADDL2   R0, LENSCT                              ;
                                     50 00000000G  EF  3C  00B8C        MOVZWL  PRESTR, R0                              ; 0926
                                                   0F  13  00B93        BEQL    64$                                     ;
                                        00000000G  EF  DD  00B95        PUSHL   PRESTR+4                                ; 0928
                                                   50  DD  00B9B        PUSHL   R0                                      ;
                       00000000G  EF               02  FB  00B9D        CALLS   #2, FMTTXT                              ;
                                        00000000G  EF  9F  00BA4 64$:   PUSHAB  TXTSCT                                  ; 0933
                                        00000000G  EF  DD  00BAA        PUSHL   LENSCT                                  ;
                       00000000G  EF               02  FB  00BB0        CALLS   #2, FMTTXT                              ;
                                     54 00000000G  EF  3C  00BB7        MOVZWL  SFXSTR, R4                              ; 0937
                                                   1F  13  00BBE        BEQL    65$                                     ;
        54          00 00000000'  EF               01  2D  00BC0        CMPC5   #1, P.ABG, #0, R4, @SFXSTR+4            ; 0941
                                        00000000G  FF      00BC9                                                        ;
                                                   0F  13  00BCE        BEQL    65$                                     ;
                                        00000000G  EF  DD  00BD0        PUSHL   SFXSTR+4                                ; 0944
                                                   54  DD  00BD6        PUSHL   R4                                      ;
                       00000000G  EF               02  FB  00BD8        CALLS   #2, FMTTXT                              ;
                    21 00000000G  EF               01  E0  00BDF 65$:   BBS     #1, CMDBLK, 67$                         ; 0948
                       00000000G  FF               20  90  00BE7        MOVB    #32, @LP                                ;
                                        00000000G  EF  D6  00BEE        INCL    LP                                      ;
                                        00000000G  EF  D6  00BF4        INCL    INTLIN                                  ;
                                        00000000G  EF  D6  00BFA        INCL    EXTLIN                                  ;
                    16 00000000G  EF               01  E1  00C00 66$:   BBC     #1, CMDBLK, 68$                         ; 0951
                       00000000G  FF           40  8F  90  00C08 67$:   MOVB    #64, @LP                                ; 0953
                                        00000000G  EF  D6  00C10        INCL    LP                                      ;
                                        00000000G  EF  D6  00C16        INCL    INTLIN                                  ;
                                                   3B  11  00C1C        BRB     69$                                     ; 0951
                    57 00000000G  EF    00000000G  EF  C1  00C1E 68$:   ADDL3   INDENTS+4, INDENTS, R7                  ; 0955
                       00000000G  EF               57  D1  00C2A        CMPL    R7, EXTLIN                              ;
                                                   26  15  00C31        BLEQ    69$                                     ;
                                     57 00000000G  EF  C2  00C33        SUBL2   EXTLIN, R7                              ;
        57          20                         6E  00  2C  00C3A        MOVC5   #0, (SP), #32, R7, @LP                  ;
                                        00000000G  FF      00C3F                                                        ;
                       00000000G  EF               57  C0  00C44        ADDL2   R7, LP                                  ;
                       00000000G  EF               57  C0  00C4B        ADDL2   R7, INTLIN                              ;
                       00000000G  EF               57  C0  00C52        ADDL2   R7, EXTLIN                              ;
                       00000000G  EF    00000000G  EF  9E  00C59 69$:   MOVAB   TXTPAG, PTRPAG                          ; 0961
                    18 00000000G  EF               03  E0  00C64        BBS     #3, CMDBLK, 70$                         ; 0963
                                                   0A  DD  00C6C        PUSHL   #10                                     ; 0969
                                        00000000G  EF  9F  00C6E        PUSHAB  PTRPAG                                  ;
                                     7E 00000000G  EF  3C  00C74        MOVZWL  PAGEN+14, -(SP)                         ;
                       00000000G  EF               03  FB  00C7B        CALLS   #3, PACBAS                              ;
                                                   13  11  00C82        BRB     71$                                     ;
                                        00000000G  EF  9F  00C84 70$:   PUSHAB  PTRPAG                                  ; 0976
                                        00000000G  EF  9F  00C8A        PUSHAB  PAGEN                                   ;
                       00000000G  EF               02  FB  00C90        CALLS   #2, PACPAG                              ;
                       00000000G  EF               50  D0  00C97 71$:   MOVL    R0, LENPAG                              ;
                    50 00000000G  EF    00000000G  EF  C3  00C9E        SUBL3   LENPAG, CMDBLK+24, R0                   ; 0982
                       00000000G  EF           FF  A0  9E  00CAA        MOVAB   -1(R0), RMARGIN                         ;
                       00000000G  EF    00000000G  EF  D0  00CB2        MOVL    EXTLIN, WRAP                            ; 0983
                                                   68  DD  00CBD        PUSHL   (R8)                                    ; 0987
                                        00000000G  EF  DD  00CBF        PUSHL   TXTLEN                                  ;
                       00000000G  EF               02  FB  00CC5        CALLS   #2, FMTTXT                              ;
```

```
              00000000G  EF              00  FB 00CCC          CALLS   #0, INSREF                              ; 0991
                     6E  00000000G  EF   B0  00CD3             MOVW    INTLIN, $STR$STRING                     ; 0995
                02   AE              0E  90  00CDA             MOVB    #14, $STR$STRING+2                      ;
                03   AE              01  90  00CDE             MOVB    #1, $STR$STRING+3                       ;
                04   AE  00000000G  EF   9E  00CE2             MOVAB   LINE, $STR$STRING+4                     ;
                         00000000G  EF   9F  00CEA             PUSHAB  STR$FAILURE                             ;
                                    7E   D4  00CF0             CLRL    -(SP)                                   ;
                                    5B   DD  00CF2             PUSHL   R11                                     ;
                              0C    AE   9F  00CF4             PUSHAB  $STR$STRING                             ;
                                    7E   D4  00CF7             CLRL    -(SP)                                   ;
              00000000G  EF              05  FB 00CF9          CALLS   #5, XST$COPY                            ;
                         50          6B  3C  00D00             MOVZWL  TMPSTR, R0                              ;
              00000000G  EF          50  C0  00D03             ADDL2   R0, CHROUT                              ;
              00000000G  EF          6B  9E  00D0A             MOVAB   $IOB$OUTPUT, IOB$+68                    ;
              00000000G  EF          07  90  00D11             MOVB    #7, IOB$+44                             ;
                         00000000G  EF   9F  00D18             PUSHAB  XPO$FAILURE                             ;
                                    7E   D4  00D1E             CLRL    -(SP)                                   ;
                         00000000G  EF   9F  00D20             PUSHAB  IOB$                                    ;
              00000000G  EF              03  FB 00D26          CALLS   #3, XPO$PUT                             ;
           07 00000000G  EF              01  E1 00D2D          BBC     #1, CMDBLK, 73$                         ;
              00000000G  EF              00  FB 00D35  72$:    CALLS   #0, SPLIT                               ;
              00000000G  EF  00000000G  EF   9E  00D3C  73$:   MOVAB   LINE, LP                                ; 0996
                         00000000G  EF   D4  00D47             CLRL    INTLIN                                  ;
                         00000000G  EF   D4  00D4D             CLRL    EXTLIN                                  ;
                                  F2E7   31  00D53             BRW     2$                                      ; 0634
                2E   A6              10  88  00D56  74$:       BISB2   #16, 46(R6)                             ; 1003
                2C   A6              02  90  00D5A             MOVB    #2, 44(R6)                              ;
                         00000000G  EF   9F  00D5E             PUSHAB  XPO$FAILURE                             ;
                                    7E   D4  00D64             CLRL    -(SP)                                   ;
                                    56   DD  00D66             PUSHL   R6                                      ;
              00000000G  EF              03  FB 00D68          CALLS   #3, XPO$CLOSE                           ;
                                         04  00D6F             RET                                             ; 1004

; Routine Size:  3440 bytes,    Routine Base:  $CODE$ + 0000
```

```
  1 %SBTTL 'STCHDR - Process the .SEND TOC n captions temp file'
  1 GLOBAL ROUTINE stchdr : NOVALUE =
  1 !++
  1 !
  1 ! FUNCTIONAL DESCRIPTION:
  1 !
  1 !         This routine reads the temp file, which contains page references
  1 !         and .SEND TOC records.
  1 !
  1 !         The .SEND TOC records are formatted into captions.
  1 !
  1 ! FORMAL PARAMETERS:
  1 !
  1 !         None
  1 !
  1 ! IMPLICIT INPUTS:
  1 !
  1 !         nxtstc  - next .SEND TOC "n" value to process
  1 !         cmdblk  - command line information block
  1 !
  1 ! IMPLICIT OUTPUTS:
  1 !
  1 !         None
  1 !
  1 ! ROUTINE VALUE:
  1 ! COMPLETION CODES:
  1 !
  1 !         None
  1 !
  1 ! SIDE EFFECTS:
  1 !
  1 !         None
  1 !
  1 !--
  1
  2     BEGIN
  2     !
  2     ! Walk through the file until there are no more .SEND TOC "n"
  2     ! groups left to process only if we are processing HL 1's
  2     !
  2     WHILE (.nxtstc NEQ infinity) AND (.cmdblk [contents$g_headers] NEQ 0) DO
  3         BEGIN
  3
  3         LOCAL
  3             stcn,
  3             first_record;
  3
  3         first_record = true;
  3         stcn = .nxtstc;                         ! Value we're processing this time
  3         nxtstc = infinity;                      ! Value to process next time
P 3         $xpo_open (iob = stciob, options = input, attributes = BINARY
P 3             %IF %BLISS (BLISS32) %THEN , failure = open_error %FI
  3         );
  3
  3         WHILE $xpo_get (iob = stciob, fullwords = 2) EQL xpo$_normal DO
  4             BEGIN
  4             !
```

```
 ! Process a record group
 !
BIND
    record_header = .stciob [iob$a_data] : VECTOR;

major = .record_header [0];
minor = .record_header [1];

SELECTONE true OF
    SET

    [(.major EQL maj_runoff) AND (.minor EQL min_page)] :
        BEGIN
        !
        ! Process a page reference
        !
        $xpo_get (iob = stciob, fullwords = page_sct_size);
        BEGIN

        BIND
            page_ref = .stciob [iob$a_data] : VECTOR;

        MAP
            pagen : VECTOR;

        INCR i FROM 0 TO page_sct_size - 1 DO
            pagen [.i] = .page_ref [.i];

        END;
        END;

    [(.major EQL maj_send) AND (ABS (.minor) NEQ .stcn)] :
        BEGIN
        !
        ! A .SEND TOC with a value of n which does not match the
        ! value we're processing. Remember it if it is the smallest
        ! one which is larger than the value we're processing.

        IF ABS (.minor) GTR .stcn THEN nxtstc = MIN (ABS (.minor), .nxtstc);

        !
        ! Now skip over the text if any
        !
        $xpo_get (iob = stciob, fullwords = 1);

        IF .(.stciob [iob$a_data]) NEQ 0
        THEN
            $xpo_get (iob = stciob,
                fullwords = CH$ALLOCATION (.(.stciob [iob$a_data])));

        END;

    [(.major EQL maj_send) AND (.minor EQL .stcn)] :
        BEGIN
        !
        ! A caption title
        !
```

```
;  805      1119  5             LOCAL
;  806      1120  5                 ptr,
;  807      1121  5                 len;
;  808      1122  5
;  809      1123  5             clr_line ();
;  810      1124  5             line_indent = .indents [0];
;  811      1125  5             extlin = .line_indent;
;  812      1126  5             wrap = .indents [0] + .indents [1];
;  813      1127  5             rmargin = .cmdblk [contents$g_page_width];
;  814      1128  5             major = maj_runoff;             ! Make .SEND TOC +n look like a caption.
;  815      1129  5
;  816      1130  5             IF .first_record AND .stcn LEQ 3
;  817      1131  5             THEN
;  818      1132  6                 BEGIN
;  819      1133  6                 !
;  820      1134  6                 ! First one seen - generate title
;  821      1135  6                 !
;  822      1136  6                 IF .cmdblk [contents$v_tms11]
;  823      1137  6                 THEN
;  824      1138  7                     BEGIN
;  825      1139  7
;  826      1140  7                     BIND
;  827      1141  7                         tms_titles = UPLIT (0, tms_ex, tms_fg, tms_tb) : VECTOR;
;  828      1142  7
;  829      1143  7                     put ('');
;  830      1144  7
;  831      1145  7                     IF .hl_n NEQ 0 THEN put ('[va15]');
;  832      1146  7
;  833      1147  7                     put ($str_concat ('*c0n*', .tms_titles [.stcn], '@@'));
;  834      1148  7                     END
;  835      1149  6                 ELSE
;  836      1150  7                     BEGIN
;  837      1151  7
;  838      1152  7                     BIND
;  839      1153  7                         rno_titles = UPLIT (0, rno_ex, rno_fg, rno_tb) : VECTOR,
;  840      1154  7                         title = .rno_titles [.stcn] : $str_descriptor ();
;  841      1155  7
;  842      1156  7                     put ('.TEST PAGE 7');
;  843      1157  7                     IF .hl_n NEQ 0 THEN put ('.SK2') ELSE put ('.SK1');
;  844      1158  7
;  845      1159  7                     IF .indents [0] NEQ 0
;  846      1160  7                     THEN
;  847      1161  7                         put ($str_concat ('.I-', $str_ascii (.indents [0])));
;  848      1162  7
;  849      1163  7                     put (title);
;  850      1164  7                     put ('.BLANK');
;  851      1165  6                     END;
;  852      1166  6
;  853      1167  6                 first_record = false;
;  854      1168  5                 END;
;  855      1169  5
;  856      1170  5             hl_n = 1;
;  857      1171  5
;  858      1172  5             IF .cmdblk [contents$v_tms11] THEN literal_text ('*c1n*');
;  859      1173  5
;  860      1174  5             !
;  861      1175  5             ! Process the record
```

```
!
$xpo_get (iob = stciob, fullwords = 1);
len = .(.stciob [iob$a_data]);
$xpo_get (iob = stciob, fullwords = CH$ALLOCATION (.len));
ptr = CH$FIND_CH (.len, CH$PTR (.stciob [iob$a_data]), %C',');

IF .cmdblk [contents$v_include_sections]
THEN
    BEGIN
    !
    ! Generate a section number if the user requested one.
    !
    IF NOT CH$FAIL (.ptr)
    THEN
        BEGIN
        !
        ! User supplied a section number
        !
        LOCAL
            sec_l,
            sec_p;

        sec_p = CH$PTR (.stciob [iob$a_data]);
        sec_l = CH$DIFF (.ptr, .sec_p);
        strip (sec_l, sec_p);

        IF .sec_l NEQ 0
        THEN
            BEGIN
            !
            ! User specified a non-null section number
            !
            IF .pagen [sct_typ] NEQ 0
            THEN
                BEGIN
                !
                ! Document is divided into sections
                !
                ptrsct = CH$PTR (txtsct);
                lensct = pacsec (pagen, ptrsct);
                fmttxt (.lensct, CH$PTR (txtsct));
                fmttxt (1, CH$PTR (UPLIT ('-')));
                END;

            fmttxt (.sec_l, .sec_p);

            IF NOT .cmdblk [contents$v_tms11]
            THEN
                write_char (%C' ', counts_visually);

            END;

        END;

    END;

IF .cmdblk [contents$v_tms11]
```

```
5    THEN
6        write_char (%C'@')
5    ELSE
5        pad ((.indents [0] + .indents [1] - .extlin));
5
5    !
5    ! Generate page number to get its length.
5    !
5    ptrpag = CH$PTR (txtpag);
5
5    IF NOT .cmdblk [contents$v_standard_page]
5    THEN
6        BEGIN
6        !
6        ! Use running page number
6        !
6        lenpag = pacbas (.pagen [sct_run_page], ptrpag, 10);
6        END
5    ELSE
6        BEGIN
6        !
6        ! Supply the usual page number
6        !
6        lenpag = pacpag (pagen, ptrpag);
5        END;
5
5    rmargin = .cmdblk [contents$g_page_width] - .lenpag - 1;
5    wrap = .extlin;
5    !
5    ! Process the text
5    !
5    IF CH$FAIL (.ptr)
5    THEN
5        ptr = CH$PTR (.stciob [iob$a_data])
5    ELSE
6        BEGIN
6        !
6        ! There was a section number in the line. Point past
6        ! the comma and update the length.
6        !
6        ptr = CH$PLUS (.ptr, 1);
6        len = .len - CH$DIFF (.ptr, CH$PTR (.stciob [iob$a_data]));
5        END;
5
5    strip (len, ptr);
5    fmttxt (.len, .ptr);
5    !
5    ! Insert page reference into page if desired.
5    !
5    insref ();
5    !
5    ! Write line to output file
5    !
5    put ((.intlin, CH$PTR (line)));
5    clr_line ();
4    END;
4
```

```
;  976        1290  4                       [(.major EQL maj_send) AND (.minor EQL -.stcn)] :
;  977        1291  5                           BEGIN
;  978        1292  5                           !
;  979        1293  5                           ! Insert directly into .RNT file
;  980        1294  5                           !
;  981        1295  5                           LOCAL
;  982        1296  5                               len;
;  983        1297  5
;  984        1298  5                           $xpo_get (iob = stciob, fullwords = 1);
;  985        1299  5                           len = .(.stciob [iob$a_data]);
;  986        1300  5                           $xpo_get (iob = stciob, fullwords = CH$ALLOCATION (.len));
;  987        1301  5                           insrnt (.len, CH$PTR (.stciob [iob$a_data]));
;  988        1302  4                           END;
;  989        1303  4
;  990        1304  4                       TES;
;  991        1305  4
;  992        1306  3                   END;
;  993        1307  3
;  994        1308  3               $xpo_close (iob = stciob, options = remember);
;  995        1309  2               END;
;  996        1310  2
;  997        1311  1           END;



                                                                      .PSECT  $PLIT$,NOWRT,NOEXE,2

                                            00000000  0006C P.ABH:   .LONG   0                                  ;
                      00000000G 00000000G 00000000G  00070           .ADDRESS TMS_EX, TMS_FG, TMS_TB           ;
                                                     0007C P.ABI:    .BLKB   0                                  ;
                      5D  35  31  61  76  5B        0007C P.ABJ:    .ASCII  \[va15]\                           ;
                          2A  6E  30  63  2A        00082 P.ABM:    .ASCII  \*c0n*\                            ;
                                      40  40        00087 P.ABN:    .ASCII  \@@\                               ;
                                                     00089           .BLKB   3
                                            00000000  0008C P.ABQ:   .LONG   0                                  ;
                      00000000G 00000000G 00000000G  00090           .ADDRESS RNO_EX, RNO_FG, RNO_TB           ;
37  20  45  47  41  50  20  54  53  45  54  2E      0009C P.ABR:    .ASCII  \.TEST PAGE 7\                     ;
                              32  4B  53  2E        000A8 P.ABS:    .ASCII  \.SK2\                             ;
                              31  4B  53  2E        000AC P.ABT:    .ASCII  \.SK1\                             ;
                                  2D  49  2E        000B0 P.ABV:    .ASCII  \.I-\                              ;
                      4B  4E  41  4C  42  2E        000B3 P.ABX:    .ASCII  \.BLANK\                           ;
                                                     000B9           .BLKB   3
                  00  00  00  2A  6E  31  63  2A    000BC P.ABY:    .ASCII  \*c1n*\<0><0><0>                   ;
                              00  00  00  2D        000C4 P.ABZ:    .ASCII  \-\<0><0><0>                       ;

                                                                      .PSECT  $OWN$,NOEXE,2

                                                0000  00090 $STR$STRING:
                                                                      .WORD   0                                  ;
                                              01  0E  00092           .BYTE   14, 1                              ;
                                           00000000'  00094           .ADDRESS P.ABI                             ;
                                                0006  00098 $STR$STRING:
                                                                      .WORD   6                                  ;
                                              01  0E  0009A           .BYTE   14, 1                              ;
                                           00000000'  0009C           .ADDRESS P.ABJ                             ;
                                                0005  000A0 $STR$STRING0:
                                                                      .WORD   5                                  ;
                                      01  0E  000A2           .BYTE    14, 1                                          ;
                                   00000000'  000A4           .ADDRESS P.ABM                                          :
                                        0002  000A8 $STR$STRING2:                                                     :
                                                              .WORD    2                                              ;
                                      01  0E  000AA           .BYTE    14, 1                                          :
                                   00000000'  000AC           .ADDRESS P.ABN                                          :
                                        000C  000B0 $STR$STRING:                                                      :
                                                              .WORD    12                                             ;
                                      01  0E  000B2           .BYTE    14, 1                                          :
                                   00000000'  000B4           .ADDRESS P.ABR                                          :
                                        0004  000B8 $STR$STRING:                                                      :
                                                              .WORD    4                                              ;
                                      01  0E  000BA           .BYTE    14, 1                                          :
                                   00000000'  000BC           .ADDRESS P.ABS                                          :
                                        0004  000C0 $STR$STRING:                                                      :
                                                              .WORD    4                                              ;
                                      01  0E  000C2           .BYTE    14, 1                                          :
                                   00000000'  000C4           .ADDRESS P.ABT                                          :
                                        0003  000C8 $STR$STRING0:                                                     :
                                                              .WORD    3                                              ;
                                      01  0E  000CA           .BYTE    14, 1                                          :
                                   00000000'  000CC           .ADDRESS P.ABV                                          :
                                        0006  000D0 $STR$STRING:                                                      :
                                                              .WORD    6                                              ;
                                      01  0E  000D2           .BYTE    14, 1                                          :
                                   00000000'  000D4           .ADDRESS P.ABX                                          :

                                                    TMS_TITLES=         P.ABH
                                                    RNO_TITLES=         P.ABQ


                                                              .PSECT   $CODE$,NOWRT,2

                                          0FFC 00000          .ENTRY   STCHDR, Save R2,R3,R4,R5,R6,R7,R8,R9,R10,-    ; 1006
                                                                       R11                                            :
                  5B 00000000G  EF    9E 00002                MOVAB    IOB$+68, R11                                   :
                  5A 00000000G  EF    9E 00009                MOVAB    $STR$TARGET, R10                               :
                  59 00000000G  EF    9E 00010                MOVAB    IOB$+52, R9                                    :
                  5E            18    C2 00017                SUBL2    #24, SP                                        :
        7FFFFFFF  8F 00000000G  EF    D1 0001A 1$:            CMPL     NXTSTC, #2147483647                            ; 1045
                                06    13 00025                BEQL     2$                                             :
                     00000000G  EF    D5 00027                TSTL     CMDBLK+4                                       :
                                01    12 0002D 2$:            BNEQ     3$                                             :
                                      04 0002F                RET                                                     :
                  58            01    D0 00030 3$:            MOVL     #1, FIRST_RECORD                               ; 1052
                  56 00000000G  EF    D0 00033                MOVL     NXTSTC, STCN                                   ; 1053
        00000000G EF 7FFFFFFF   8F    D0 0003A                MOVL     #2147483647, NXTSTC                            ; 1054
               FA A9 00010001   8F    C8 00045                BISL2    #65537, IOB$+46                                ; 1057
               F8 A9            01    90 0004D                MOVB     #1, IOB$+44                                    :
                     00000000G  EF    9F 00051                PUSHAB   OPEN_ERROR                                     :
                                7E    D4 00057                CLRL     -(SP)                                          :
                        CC      A9    9F 00059                PUSHAB   IOB$                                           :
        00000000G EF            03    FB 0005C                CALLS    #3, XPO$OPEN                                   :
                  69            08    B0 00063 4$:            MOVW     #8, IOB$+52                                    ; 1059
               02 A9            02    90 00066                MOVB     #2, IOB$+54                                    :
               F8 A9            06    90 0006A                MOVB     #6, IOB$+44                                    :
                     00000000G  EF    9F 0006E                PUSHAB   XPO$FAILURE                                    :
```

```
                                      7E  D4 00074         CLRL     -(SP)                         ;
                                 CC   A9  9F 00076         PUSHAB   IOB$                          ;
             00000000G  EF            03  FB 00079         CALLS    #3, XPO$GET                   ;
             00208001   8F            50  D1 00080         CMPL     R0, #2129921                  ;
                                      03  13 00087         BEQL     5$                            ;
                                    0715  31 00089         BRW      52$                           ;
                        50       04   A9  D0 0008C 5$:     MOVL     STCIOB+56, R0                 ; 1065
             00000000G  EF            60  D0 00090         MOVL     (R0), MAJOR                   ; 1067
             00000000G  EF       04   A0  D0 00097         MOVL     4(R0), MINOR                  ; 1068
                                      51  D4 0009F         CLRL     R1                            ; 1073
                        02 00000000G  EF  D1 000A1         CMPL     MAJOR, #2                     ;
                                      02  12 000A8         BNEQ     6$                            ;
                                      51  D6 000AA         INCL     R1                            ;
                                      50  D4 000AC 6$:     CLRL     R0                            ;
                        01 00000000G  EF  D1 000AE         CMPL     MINOR, #1                     ;
                                      02  12 000B5         BNEQ     7$                            ;
                                      50  D6 000B7         INCL     R0                            ;
                        52            51  D2 000B9 7$:     MCOML    R1, R2                        ;
                        50            52  CA 000BC         BICL2    R2, R0                        ;
                        01            50  D1 000BF         CMPL     R0, #1                        ;
                                      30  12 000C2         BNEQ     10$                           ;
                        69            10  B0 000C4         MOVW     #16, IOB$+52                  ; 1078
                    02  A9            02  90 000C7         MOVB     #2, IOB$+54                   ;
                    F8  A9            06  90 000CB         MOVB     #6, IOB$+44                   ;
                           00000000G  EF  9F 000CF         PUSHAB   XPO$FAILURE                   ;
                                      7E  D4 000D5         CLRL     -(SP)                         ;
                                 CC   A9  9F 000D7         PUSHAB   IOB$                          ;
             00000000G  EF            03  FB 000DA         CALLS    #3, XPO$GET                   ;
                                      50  D4 000E1         CLRL     I                             ; 1087
             00000000GEF40       04 B940  D0 000E3 8$:     MOVL     @STCIOB+56[I], PAGEN[I]       ; 1088
          F2            50            03  F3 000ED         AOBLEQ   #3, I, 8$                     ;
                                    FF6F  31 000F1 9$:     BRW      4$                            ; 1070
                                      52  D4 000F4 10$:    CLRL     R2                            ; 1093
                        03 00000000G  EF  D1 000F6         CMPL     MAJOR, #3                     ;
                                      02  12 000FD         BNEQ     11$                           ;
                                      52  D6 000FF         INCL     R2                            ;
                        50 00000000G  EF  D0 00101 11$:    MOVL     MINOR, R0                     ;
                                      03  18 00108         BGEQ     12$                           ;
                        50            50  CE 0010A         MNEGL    R0, R0                        ;
                                      51  D4 0010D 12$:    CLRL     R1                            ;
                        56            50  D1 0010F         CMPL     R0, STCN                      ;
                                      02  13 00112         BEQL     13$                           ;
                                      51  D6 00114         INCL     R1                            ;
                        53            52  D2 00116 13$:    MCOML    R2, R3                        ;
                        51            53  CA 00119         BICL2    R3, R1                        ;
                        01            51  D1 0011C         CMPL     R1, #1                        ;
                                      72  12 0011F         BNEQ     17$                           ;
                        50 00000000G  EF  D0 00121         MOVL     MINOR, R0                     ; 1100
                                      03  18 00128         BGEQ     14$                           ;
                        50            50  CE 0012A         MNEGL    R0, R0                        ;
                        56            50  D1 0012D 14$:    CMPL     R0, STCN                      ;
                                      17  15 00130         BLEQ     16$                           ;
             00000000G  EF            50  D1 00132         CMPL     R0, NXTSTC                    ;
                                      07  15 00139         BLEQ     15$                           ;
                        50 00000000G  EF  D0 0013B         MOVL     NXTSTC, R0                    ;
             00000000G  EF            50  D0 00142 15$:    MOVL     R0, NXTSTC                    ;
                        69            04  B0 00149 16$:    MOVW     #4, IOB$+52                   ; 1105
```

```
                     02  A9            02 90 0014C         MOVB    #2, IOB$+54                      ;
                     F8  A9            06 90 00150         MOVB    #6, IOB$+44                      ;
                            00000000G  EF 9F 00154         PUSHAB  XPO$FAILURE                      ;
                                       7E D4 0015A         CLRL    -(SP)                            ;
                                   CC  A9 9F 0015C         PUSHAB  IOB$                             ;
              00000000G  EF            03 FB 0015F         CALLS   #3, XPO$GET                      ;
                         50        04  B9 D0 00166         MOVL    @STCIOB+56, R0                   ; 1107
                                       85 13 0016A         BEQL    9$                               ;
                         50            03 C0 0016C         ADDL2   #3, R0                           ; 1110
                         50            04 C6 0016F         DIVL2   #4, R0                           ;
           69            50            04 A5 00172         MULW3   #4, R0, IOB$+52                  ;
                     02  A9            02 90 00176         MOVB    #2, IOB$+54                      ;
                     F8  A9            06 90 0017A         MOVB    #6, IOB$+44                      ;
                            00000000G  EF 9F 0017E         PUSHAB  XPO$FAILURE                      ;
                                       7E D4 00184         CLRL    -(SP)                            ;
                                   CC  A9 9F 00186         PUSHAB  IOB$                             ;
              00000000G  EF            03 FB 00189         CALLS   #3, XPO$GET                      ;
                                     FED0 31 00190         BRW     4$                               ; 1070
                                       50 D4 00193 17$:    CLRL    R0                               ; 1114
                         56 00000000G  EF D1 00195         CMPL    MINOR, STCN                      ;
                                       02 12 0019C         BNEQ    18$                              ;
                                       50 D6 0019E         INCL    R0                               ;
                     51                52 D2 001A0 18$:    MCOML   R2, R1                           ;
                     50                51 CA 001A3         BICL2   R1, R0                           ;
                     01                50 D1 001A6         CMPL    R0, #1                           ;
                                       03 13 001A9         BEQL    19$                              ;
                                     0583 31 001AB         BRW     49$                              ;
              00000000G  EF 00000000G  EF 9E 001AE 19$:    MOVAB   LINE, LP                         ; 1123
                            00000000G  EF D4 001B9         CLRL    INTLIN                           ;
                            00000000G  EF D4 001BF         CLRL    EXTLIN                           ;
              00000000G  EF 00000000G  EF D0 001C5         MOVL    INDENTS, LINE_INDENT             ; 1124
              00000000G  EF 00000000G  EF D0 001D0         MOVL    LINE_INDENT, EXTLIN              ; 1125
00000000G  EF 00000000G  EF 00000000G  EF C1 001DB         ADDL3   INDENTS+4, INDENTS, WRAP         ; 1126
              00000000G  EF 00000000G  EF D0 001EB         MOVL    CMDBLK+24, RMARGIN               ; 1127
              00000000G  EF            02 D0 001F6         MOVL    #2, MAJOR                        ; 1128
                     03                58 E8 001FD         BLBS    FIRST_RECORD, 21$                ; 1130
                                     029A 31 00200 20$:    BRW     34$                              ;
                     03                56 D1 00203 21$:    CMPL    STCN, #3                         ;
                                       F8 14 00206         BGTR    20$                              ;
           52            56            02 78 00208         ASHL    #2, STCN, R2                     ; 1147
           03 00000000G  EF            01 E0 0020C         BBS     #1, CMDBLK, 22$                  ; 1136
                                     00C9 31 00214         BRW     25$                              ;
                            00000000G  EF 9F 00217 22$:    PUSHAB  STR$FAILURE                      ; 1143
                                       7E D4 0021D         CLRL    -(SP)                            ;
                                       5A DD 0021F         PUSHL   R10                              ;
                            00000000'  EF 9F 00221         PUSHAB  $STR$STRING                      ;
                                       7E D4 00227         CLRL    -(SP)                            ;
              00000000G  EF            05 FB 00229         CALLS   #5, XST$COPY                     ;
                         50            6A 3C 00230         MOVZWL  TMPSTR, R0                       ;
              00000000G  EF            50 C0 00233         ADDL2   R0, CHROUT                       ;
                         6B            6A 9E 0023A         MOVAB   $IOB$OUTPUT, IOB$+68             ;
                     E8  AB            07 90 0023D         MOVB    #7, IOB$+44                      ;
                            00000000G  EF 9F 00241         PUSHAB  XPO$FAILURE                      ;
                                       7E D4 00247         CLRL    -(SP)                            ;
                                   BC  AB 9F 00249         PUSHAB  IOB$                             ;
              00000000G  EF            03 FB 0024C         CALLS   #3, XPO$PUT                      ;
           07 00000000G  EF            01 E1 00253         BBC     #1, CMDBLK, 23$                  ;
```

```
                              00000000G   EF            00  FB 0025B          CALLS   #0, SPLIT                 ;
                                             00000000G  EF  D5 00262 23$:     TSTL    HL_N                      ; 1145
                                                        4B  13 00268          BEQL    24$                       ;
                                             00000000G  EF  9F 0026A          PUSHAB  STR$FAILURE               ;
                                                        7E  D4 00270          CLRL    -(SP)                     ;
                                                        5A  DD 00272          PUSHL   R10                       ;
                                             00000000'  EF  9F 00274          PUSHAB  $STR$STRING               ;
                                                        7E  D4 0027A          CLRL    -(SP)                     ;
                              00000000G   EF            05  FB 0027C          CALLS   #5, XST$COPY              ;
                                          50            6A  3C 00283          MOVZWL  TMPSTR, R0                ;
                              00000000G   EF            50  C0 00286          ADDL2   R0, CHROUT                ;
                                          6B            6A  9E 0028D          MOVAB   $IOB$OUTPUT, IOB$+68      ;
                                    E8    AB            07  90 00290          MOVB    #7, IOB$+44               ;
                                             00000000G  EF  9F 00294          PUSHAB  XPO$FAILURE               ;
                                                        7E  D4 0029A          CLRL    -(SP)                     ;
                                                   BC   AB  9F 0029C          PUSHAB  IOB$                      ;
                              00000000G   EF            03  FB 0029F          CALLS   #3, XPO$PUT               ;
                           07 00000000G   EF            01  E1 002A6          BBC     #1, CMDBLK, 24$           ;
                              00000000G   EF            00  FB 002AE          CALLS   #0, SPLIT                 ;
                                             00000000'  EF  9F 002B5 24$:     PUSHAB  $STR$STRING2              ; 1147
                                             00000000'EF42  9F 002BB          PUSHAB  TMS_TITLES[R2]            ;
                                                        9E  DD 002C2          PUSHL   @(SP)+                    ;
                                             00000000'  EF  9F 002C4          PUSHAB  $STR$STRING0              ;
                              00000000G   EF            03  FB 002CA          CALLS   #3, XST$JOIN              ;
                                             00000000G  EF  9F 002D1          PUSHAB  STR$FAILURE               ;
                                                        7E  D4 002D7          CLRL    -(SP)                     ;
                                                 0401   8F  BB 002D9          PUSHR   #^M<R0,R10>               ;
                                                      0180  31 002DD          BRW     32$                       ;
                                             00000000'EF42  9F 002E0 25$:     PUSHAB  RNO_TITLES[R2]            ; 1154
                                          52            9E  D0 002E7          MOVL    @(SP)+, R2                ;
                                             00000000G  EF  9F 002EA          PUSHAB  STR$FAILURE               ; 1156
                                                        7E  D4 002F0          CLRL    -(SP)                     ;
                                                        5A  DD 002F2          PUSHL   R10                       ;
                                             00000000'  EF  9F 002F4          PUSHAB  $STR$STRING               ;
                                                        7E  D4 002FA          CLRL    -(SP)                     ;
                              00000000G   EF            05  FB 002FC          CALLS   #5, XST$COPY              ;
                                          50            6A  3C 00303          MOVZWL  TMPSTR, R0                ;
                              00000000G   EF            50  C0 00306          ADDL2   R0, CHROUT                ;
                                          6B            6A  9E 0030D          MOVAB   $IOB$OUTPUT, IOB$+68      ;
                                    E8    AB            07  90 00310          MOVB    #7, IOB$+44               ;
                                             00000000G  EF  9F 00314          PUSHAB  XPO$FAILURE               ;
                                                        7E  D4 0031A          CLRL    -(SP)                     ;
                                                   BC   AB  9F 0031C          PUSHAB  IOB$                      ;
                              00000000G   EF            03  FB 0031F          CALLS   #3, XPO$PUT               ;
                           07 00000000G   EF            01  E1 00326          BBC     #1, CMDBLK, 26$           ;
                              00000000G   EF            00  FB 0032E          CALLS   #0, SPLIT                 ;
                                             00000000G  EF  D5 00335 26$:     TSTL    HL_N                      ; 1157
                                                        12  13 0033B          BEQL    27$                       ;
                                             00000000G  EF  9F 0033D          PUSHAB  STR$FAILURE               ;
                                                        7E  D4 00343          CLRL    -(SP)                     ;
                                                        5A  DD 00345          PUSHL   R10                       ;
                                             00000000'  EF  9F 00347          PUSHAB  $STR$STRING               ;
                                                        10  11 0034D          BRB     28$                       ;
                                             00000000G  EF  9F 0034F 27$:     PUSHAB  STR$FAILURE               ;
                                                        7E  D4 00355          CLRL    -(SP)                     ;
                                                        5A  DD 00357          PUSHL   R10                       ;
                                             00000000'  EF  9F 00359          PUSHAB  $STR$STRING               ;
```

```
                             7E  D4 0035F 28$:   CLRL    -(SP)
   00000000G  EF             05  FB 00361        CALLS   #5, XST$COPY
              50             6A  3C 00368        MOVZWL  TMPSTR, R0
   00000000G  EF             50  C0 0036B        ADDL2   R0, CHROUT
              6B             6A  9E 00372        MOVAB   $IOB$OUTPUT, IOB$+68
          E8  AB             07  90 00375        MOVB    #7, IOB$+44
                  00000000G  EF  9F 00379        PUSHAB  XPO$FAILURE
                             7E  D4 0037F        CLRL    -(SP)
                         BC  AB  9F 00381        PUSHAB  IOB$
   00000000G  EF             03  FB 00384        CALLS   #3, XPO$PUT
07 00000000G  EF             01  E1 0038B        BBC     #1, CMDBLK, 29$
   00000000G  EF             00  FB 00393        CALLS   #0, SPLIT
              50  00000000G  EF  D0 0039A 29$:   MOVL    INDENTS, R0                     1159
                             66  13 003A1        BEQL    30$
                             7E  D4 003A3        CLRL    -(SP)                           1161
                             50  DD 003A5        PUSHL   R0
              7E       0903  8F  3C 003A7        MOVZWL  #2307, -(SP)
   00000000G  EF             03  FB 003AC        CALLS   #3, XST$ASCII
                             50  DD 003B3        PUSHL   R0
                  00000000'  EF  9F 003B5        PUSHAB  $STR$STRING0
   00000000G  EF             02  FB 003BB        CALLS   #2, XST$JOIN
                  00000000G  EF  9F 003C2        PUSHAB  STR$FAILURE
                             7E  D4 003C8        CLRL    -(SP)
                       0401  8F  BB 003CA        PUSHR   #^M<R0,R10>
                             7E  D4 003CE        CLRL    -(SP)
   00000000G  EF             05  FB 003D0        CALLS   #5, XST$COPY
              50             6A  3C 003D7        MOVZWL  TMPSTR, R0
   00000000G  EF             50  C0 003DA        ADDL2   R0, CHROUT
              6B             6A  9E 003E1        MOVAB   $IOB$OUTPUT, IOB$+68
          E8  AB             07  90 003E4        MOVB    #7, IOB$+44
                  00000000G  EF  9F 003E8        PUSHAB  XPO$FAILURE
                             7E  D4 003EE        CLRL    -(SP)
                         BC  AB  9F 003F0        PUSHAB  IOB$
   00000000G  EF             03  FB 003F3        CALLS   #3, XPO$PUT
07 00000000G  EF             01  E1 003FA        BBC     #1, CMDBLK, 30$
   00000000G  EF             00  FB 00402        CALLS   #0, SPLIT
                  00000000G  EF  9F 00409 30$:   PUSHAB  STR$FAILURE                     1163
                             7E  D4 0040F        CLRL    -(SP)
                       0404  8F  BB 00411        PUSHR   #^M<R2,R10>
                             7E  D4 00415        CLRL    -(SP)
   00000000G  EF             05  FB 00417        CALLS   #5, XST$COPY
              50             6A  3C 0041E        MOVZWL  TMPSTR, R0
   00000000G  EF             50  C0 00421        ADDL2   R0, CHROUT
              6B             6A  9E 00428        MOVAB   $IOB$OUTPUT, IOB$+68
          E8  AB             07  90 0042B        MOVB    #7, IOB$+44
                  00G00000G  EF  9F 0042F        PUSHAB  XPO$FAILURE
                             7E  D4 00435        CLRL    -(SP)
                         BC  AB  9F 00437        PUSHAB  IOB$
   00000000G  EF             03  FB 0043A        CALLS   #3, XPO$PUT
07 00000000G  EF             01  E1 00441        BBC     #1, CMDBLK, 31$
   00000000G  EF             00  FB 00449        CALLS   #0, SPLIT
                  00000000G  EF  9F 00450 31$:   PUSHAB  STR$FAILURE                     1164
                             7E  D4 00456        CLRL    -(SP)
                             5A  DD 00458        PUSHL   R10
                  00000000'  EF  9F 0045A        PUSHAB  $STR$STRING
                             7E  D4 00460 32$:   CLRL    -(SP)
   00000000G  EF             05  FB 00462        CALLS   #5, XST$COPY
```

```
                        50                  6A 3C 00469           MOVZWL   TMPSTR, R0                              ;
             00000000G  EF                  50 C0 0046C           ADDL2    R0, CHROUT                              ;
                        6B                  6A 9E 00473           MOVAB    $IOB$OUTPUT, IOB$+68                    ;
                    E8  AB                  07 90 00476           MOVB     #7, IOB$+44                             ;
                           00000000G        EF 9F 0047A           PUSHAB   XPO$FAILURE                             ;
                                            7E D4 00480           CLRL     -(SP)                                   ;
                                  BC        AB 9F 00482           PUSHAB   IOB$                                    ;
             00000000G  EF                  03 FB 00485           CALLS    #3, XPO$PUT                             ;
          07 00000000G  EF                  01 E1 0048C           BBC      #1, CMDBLK, 33$                         ;
             00000000G  EF                  00 FB 00494           CALLS    #0, SPLIT                               ;
                                            58 D4 0049B 33$:      CLRL     FIRST_RECORD                            ; 1167
             00000000G  EF                  01 D0 0049D 34$:      MOVL     #1, HL_N                                ; 1170
          1A 00000000G  EF                  01 E1 004A4           BBC      #1, CMDBLK, 35$                         ; 1172
00000000G FF 00000000'  EF                  05 28 004AC           MOVC3    #5, P.ABY, @LP                          ;
             00000000G  EF                  05 C0 004B8           ADDL2    #5, LP                                  ;
             00000000G  EF                  05 C0 004BF           ADDL2    #5, INTLIN                              ;
                        69                  04 B0 004C6 35$:      MOVW     #4, IOB$+52                             ; 1177
                    02  A9                  02 90 004C9           MOVB     #2, IOB$+54                             ;
                    F8  A9                  06 90 004CD           MOVB     #6, IOB$+44                             ;
                           00000000G        EF 9F 004D1           PUSHAB   XPO$FAILURE                             ;
                                            7E D4 004D7           CLRL     -(SP)                                   ;
                                  CC        A9 9F 004D9           PUSHAB   IOB$                                    ;
             00000000G  EF                  03 FB 004DC           CALLS    #3, XPO$GET                             ;
                    0C  AE        04        B9 D0 004E3           MOVL     @STCIOB+56, LEN                         ; 1178
          50        0C  AE                  03 C1 004E8           ADDL3    #3, LEN, R0                             ; 1179
                        50                  04 C6 004ED           DIVL2    #4, R0                                  ;
          69            50                  04 A5 004F0           MULW3    #4, R0, IOB$+52                         ;
                    02  A9                  02 90 004F4           MOVB     #2, IOB$+54                             ;
                    F8  A9                  06 90 004F8           MOVB     #6, IOB$+44                             ;
                           00000000G        EF 9F 004FC           PUSHAB   XPO$FAILURE                             ;
                                            7E D4 00502           CLRL     -(SP)                                   ;
                                  CC        A9 9F 00504           PUSHAB   IOB$                                    ;
             00000000G  EF                  03 FB 00507           CALLS    #3, XPO$GET                             ;
       04 B9        0C  AE                  2C 3A 0050E           LOCC     #44, LEN, @STCIOB+56                    ; 1180
                                            02 12 00514           BNEQ     36$                                     ;
                                            51 D4 00516           CLRL     R1                                      ;
                    08  AE                  51 D0 00518 36$:      MOVL     R1, PTR                                 ;
          03 00000000G  EF                  04 E0 0051C           BBS      #4, CMDBLK, 38$                         ; 1182
                                          009A 31 00524 37$:      BRW      40$                                     ;
                                            FB 13 00527 38$:      BEQL     37$                                     ; 1188
                        6E        04        A9 D0 00529           MOVL     STCIOB+56, SEC_P                        ; 1198
       04 AE        08  AE                  6E C3 0052D           SUBL3    SEC_P, PTR, SEC_L                       ; 1199
                                            5E DD 00533           PUSHL    SP                                      ; 1200
                                  08        AE 9F 00535           PUSHAB   SEC_L                                   ;
             00000000V  EF                  02 FB 00538           CALLS    #2, STRIP                               ;
                                  04        AE D5 0053F           TSTL     SEC_L                                   ; 1202
                                            7D 13 00542           BEQL     40$                                     ;
                        0F 00000000G        EF 93 00544           BITB     PAGEN, #15                              ; 1208
                                            47 13 0054B           BEQL     39$                                     ;
             00000000G  EF 00000000G        EF 9E 0054D           MOVAB    TXTSCT, PTRSCT                          ; 1214
                           00000000G        EF 9F 00558           PUSHAB   PTRSCT                                  ; 1215
                           00000000G        EF 9F 0055E           PUSHAB   PAGEN                                   ;
             00000000G  EF                  02 FB 00564           CALLS    #2, PACSEC                              ;
             00000000G  EF                  50 D0 0056B           MOVL     R0, LENSCT                              ;
                           00000000G        EF 9F 00572           PUSHAB   TXTSCT                                  ; 1216
                           00000000G        EF DD 00578           PUSHL    LENSCT                                  ;
             00000000G  EF                  02 FB 0057E           CALLS    #2, FMTTXT                              ;
```

```
                         00000000'  EF   9F 00585          PUSHAB  P.ABZ                               ; 1217
                                    01   DD 0058B          PUSHL   #1                                  ;
           00000000G  EF            02   FB 0058D          CALLS   #2, FMTTXT                          ;
                                    6E   DD 00594 39$:     PUSHL   SEC_P                               ; 1220
                                08  AE   DD 00596          PUSHL   SEC_L                               ;
           00000000G  EF            02   FB 00599          CALLS   #2, FMTTXT                          ;
        21 00000000G  EF            01   E0 005A0          BBS     #1, CMDBLK, 41$                     ; 1222
           00000000G  FF            20   90 005A8          MOVB    #32, @LP                            ; 1224
                         00000000G  EF   D6 005AF          INCL    LP                                  ;
                         00000000G  EF   D6 005B5          INCL    INTLIN                              ;
                         00000000G  EF   D6 005BB          INCL    EXTLIN                              ;
        16 00000000G  EF            01   E1 005C1 40$:     BBC     #1, CMDBLK, 42$                     ; 1232
           00000000G  FF        40  8F   90 005C9 41$:     MOVB    #64, @LP                            ; 1234
                         00000000G  EF   D6 005D1          INCL    LP                                  ;
                         00000000G  EF   D6 005D7          INCL    INTLIN                              ;
                                    3B   11 005DD          BRB     43$                                 ; 1232
        57 00000000G  EF 00000000G  EF   C1 005DF 42$:     ADDL3   INDENTS+4, INDENTS, R7              ; 1236
           00000000G  EF            57   D1 005EB          CMPL    R7, EXTLIN                          ;
                                    26   15 005F2          BLEQ    43$                                 ;
                      57 00000000G  EF   C2 005F4          SUBL2   EXTLIN, R7                          ;
    57  20            6E            00   2C 005FB          MOVC5   #0, (SP), #32, R7, @LP              ;
                         00000000G  FF      00600                                                      ;
           00000000G  EF            57   C0 00605          ADDL2   R7, LP                              ;
           00000000G  EF            57   C0 0060C          ADDL2   R7, INTLIN                          ;
           00000000G  EF            57   C0 00613          ADDL2   R7, EXTLIN                          ;
           00000000G  EF 00000000G  EF   9E 0061A 43$:     MOVAB   TXTPAG, PTRPAG                      ; 1241
        18 00000000G  EF            03   E0 00625          BBS     #3, CMDBLK, 44$                     ; 1243
                                    0A   DD 0062D          PUSHL   #10                                 ; 1249
                         00000000G  EF   9F 0062F          PUSHAB  PTRPAG                              ;
                      7E 00000000G  EF   3C 00635          MOVZWL  PAGEN+14, -(SP)                     ;
           00000000G  EF            03   FB 0063C          CALLS   #3, PACBAS                          ;
                                    13   11 00643          BRB     45$                                 ;
                         00000000G  EF   9F 00645 44$:     PUSHAB  PTRPAG                              ; 1256
                         00000000G  EF   9F 0064B          PUSHAB  PAGEN                               ;
           00000000G  EF            02   FB 00651          CALLS   #2, PACPAG                          ;
           00000000G  EF            50   D0 00658 45$:     MOVL    R0, LENPAG                          ;
        50 00000000G  EF 00000000G  EF   C3 0065F          SUBL3   LENPAG, CMDBLK+24, R0               ; 1259
           00000000G  EF        FF  A0   9E 0066B          MOVAB   -1(R0), RMARGIN                     ;
           00000000G  EF 00000000G  EF   D0 00673          MOVL    EXTLIN, WRAP                        ; 1260
                                08  AE   D5 0067E          TSTL    PTR                                 ; 1264
                                    07   12 00681          BNEQ    46$                                 ;
                  08  AE        04  A9   D0 00683          MOVL    STCIOB+56, PTR                      ; 1266
                                    0D   11 00688          BRB     47$                                 ;
                                08  AE   D6 0068A 46$:     INCL    PTR                                 ; 1273
        50        04  A9        08  AE   C3 0068D          SUBL3   PTR, STCIOB+56, R0                  ; 1274
                  0C  AE            50   C0 00693          ADDL2   R0, LEN                             ;
                                08  AE   9F 00697 47$:     PUSHAB  PTR                                 ; 1277
                                10  AE   9F 0069A          PUSHAB  LEN                                 ;
           00000000V  EF            02   FB 0069D          CALLS   #2, STRIP                           ;
                                08  AE   DD 006A4          PUSHL   PTR                                 ; 1278
                                10  AE   DD 006A7          PUSHL   LEN                                 ;
           00000000G  EF            02   FB 006AA          CALLS   #2, FMTTXT                          ;
           00000000G  EF            00   FB 006B1          CALLS   #0, INSREF                          ; 1282
                  10  AE 00000000G  EF   B0 006B8          MOVW    INTLIN, $STR$STRING                 ; 1286
                  12  AE            0E   90 006C0          MOVB    #14, $STR$STRING+2                  ;
                  13  AE            01   90 006C4          MOVB    #1, $STR$STRING+3                   ;
                  14  AE 00000000G  EF   9E 006C8          MOVAB   LINE, $STR$STRING+4                 ;
                  00000000G  EF  9F 006D0         PUSHAB   STR$FAILURE                         :
                             7E  D4 006D6         CLRL     -(SP)                               :
                             5A  DD 006D8         PUSHL    R10                                 :
                         1C  AE  9F 006DA         PUSHAB   $STR$STRING                         :
                             7E  D4 006DD         CLRL     -(SP)                               :
   00000000G  EF             05  FB 006DF         CALLS    #5, XST$COPY                        :
              50             6A  3C 006E6         MOVZWL   TMPSTR, R0                          :
   00000000G  EF             50  C0 006E9         ADDL2    R0, CHROUT                          :
              6B             6A  9E 006F0         MOVAB    $IOB$OUTPUT, IOB$+68                :
         E8   AB             07  90 006F3         MOVB     #7, IOB$+44                         :
                  00000000G  EF  9F 006F7         PUSHAB   XPO$FAILURE                         :
                             7E  D4 006FD         CLRL     -(SP)                               :
                         BC  AB  9F 006FF         PUSHAB   IOB$                                :
   00000000G  EF             03  FB 00702         CALLS    #3, XPO$PUT                         :
07 00000000G  EF             01  E1 00709         BBC      #1, CMDBLK, 48$                     :
   00000000G  EF             00  FB 00711         CALLS    #0, SPLIT                           :
   00000000G  EF  00000000G  EF  9E 00718 48$:    MOVAB    LINE, LP                            : 1287
                  00000000G  EF  D4 00723         CLRL     INTLIN                              :
                  00000000G  EF  D4 00729         CLRL     EXTLIN                              :
                             6D  11 0072F         BRB      51$                                 : 1070
              51             56  CE 00731 49$:    MNEGL    STCN, R1                            : 1290
                             50  D4 00734         CLRL     R0                                  :
              51  00000000G  EF  D1 00736         CMPL     MINOR, R1                           :
                             02  12 0073D         BNEQ     50$                                 :
                             50  D6 0073F         INCL     R0                                  :
              53             52  D2 00741 50$:    MCOML    R2, R3                              :
              50             53  CA 00744         BICL2    R3, R0                              :
              01             50  D1 00747         CMPL     R0, #1                              :
                             52  12 0074A         BNEQ     51$                                 :
              69             04  B0 0074C         MOVW     #4, IOB$+52                         : 1298
         02   A9             02  90 0074F         MOVB     #2, IOB$+54                         :
         F8   A9             06  90 00753         MOVB     #6, IOB$+44                         :
                  00000000G  EF  9F 00757         PUSHAB   XPO$FAILURE                         :
                             7E  D4 0075D         CLRL     -(SP)                               :
                         CC  A9  9F 0075F         PUSHAB   IOB$                                :
   00000000G  EF             03  FB 00762         CALLS    #3, XPO$GET                         :
              52         04  B9  D0 00769         MOVL     @STCIOB+56, LEN                     : 1299
              50         03  A2  9E 0076D         MOVAB    3(R2), R0                           : 1300
              50             04  C6 00771         DIVL2    #4, R0                              :
69            50             04  A5 00774         MULW3    #4, R0, IOB$+52                     :
         02   A9             02  90 00778         MOVB     #2, IOB$+54                         :
         F8   A9             06  90 0077C         MOVB     #6, IOB$+44                         :
                  00000000G  EF  9F 00780         PUSHAB   XPO$FAILURE                         :
                             7E  D4 00786         CLRL     -(SP)                               :
                         CC  A9  9F 00788         PUSHAB   IOB$                                :
   00000000G  EF             03  FB 0078B         CALLS    #3, XPO$GET                         :
                         04  A9  DD 00792         PUSHL    STCIOB+56                           : 1301
                             52  DD 00795         PUSHL    LEN                                 :
   00000000V  EF             02  FB 00797         CALLS    #2, INSRNT                          :
                           F8C2  31 0079E 51$:    BRW      4$                                  : 1059
         FA   A9             10  88 007A1 52$:    BISB2    #16, IOB$+46                        : 1308
         F8   A9             02  90 007A5         MOVB     #2, IOB$+44                         :
                  00000000G  EF  9F 007A9         PUSHAB   XPO$FAILURE                         :
                             7E  D4 007AF         CLRL     -(SP)                               :
                         CC  A9  9F 007B1         PUSHAB   IOB$                                :
   00000000G  EF             03  FB 007B4         CALLS    #3, XPO$CLOSE                       :
                           F85C  31 007BB         BRW      1$                                  : 1045
```

```
                                                       04 007BE          RET                                              ; 1311

; Routine Size:  1983 bytes,     Routine Base:  $CODE$ + 0D70
```

```
1 %SBTTL 'STRIP - Strip leading and trailing whitespace from text'
1 ROUTINE strip (l_addr, p_addr) : NOVALUE =
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine strips leading and trailing whitespace from the input string
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       l_addr  - address of length of string
1 !       p_addr  - address of CH$PTR to string
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       None
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       The length and string pointer are modified to reflect stripped whitespace
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       None
1 !
1 ! SIDE EFFECTS:
1 !
1 !       None
1 !
1 !--
1
2     BEGIN
2
2     LOCAL
2         len,
2         ptr;
2
2     len = ..l_addr;
2     ptr = ..p_addr;
2
2     DECR i FROM .len TO 1 DO
3         BEGIN
3         !
3         ! Remove leading whitespace from section number
3         !
3         LOCAL
3             ch;
3
3         ch = CH$RCHAR (.ptr);
3
4         IF (.ch EQL %C' ') OR (.ch EQL tab)
3         THEN
4             BEGIN
4             len = .len - 1;
4             ptr = CH$PLUS (.ptr, 1);
4             END
```

```
; 1056         1369  3               ELSE
; 1057         1370  3                   EXITLOOP;
; 1058         1371  3
; 1059         1372  2               END;
; 1060         1373  2
; 1061         1374  2           .p_addr = .ptr;                                  ! Set pointer to beginning of text
; 1062         1375  2           ptr = CH$PLUS (.ptr, .len - 1);                  ! Point to last character
; 1063         1376  2
; 1064         1377  2           DECR i FROM .len TO 1 DO
; 1065         1378  3               BEGIN
; 1066         1379  3               !
; 1067         1380  3               ! Remove trailing blanks and tabs
; 1068         1381  3               !
; 1069         1382  3               LOCAL
; 1070         1383  3                   ch;
; 1071         1384  3
; 1072         1385  3               ch = CH$RCHAR (.ptr);
; 1073         1386  3
; 1074         1387  4               IF (.ch EQL %C' ') OR (.ch EQL tab)
; 1075         1388  3               THEN
; 1076         1389  4                   BEGIN
; 1077         1390  4                   len = .len - 1;
; 1078         1391  4                   ptr = CH$PLUS (.ptr, -1);
; 1079         1392  4                   END
; 1080         1393  3               ELSE
; 1081         1394  3                   EXITLOOP;
; 1082         1395  3
; 1083         1396  2               END;
; 1084         1397  2
; 1085         1398  2           WHILE .len GEQ 3 DO
; 1086         1399  3               BEGIN
; 1087         1400  3               !
; 1088         1401  3               ! Strip trailing emphasis
; 1089         1402  3               !
; 1090         1403  3               IF CH$RCHAR (CH$PLUS (.ptr, -2)) EQL rintes
; 1091         1404  3               THEN
; 1092         1405  4                   BEGIN
; 1093         1406  4                   len = .len - 3;
; 1094         1407  4                   ptr = CH$PLUS (.ptr, -3);
; 1095         1408  4                   END
; 1096         1409  3               ELSE
; 1097         1410  3                   EXITLOOP;
; 1098         1411  3
; 1099         1412  2               END;
; 1100         1413  2
; 1101         1414  2           .l_addr = .len;                                  ! Return length of string
; 1102         1415  1           END;



                                          000C 00000 STRIP:   .WORD    Save R2,R3                              ; 1313
                          50       04  BC  D0 00002           MOVL     @L_ADDR, LEN                            ; 1350
                          52       08  BC  D0 00006           MOVL     @P_ADDR, PTR                            ; 1351
                          51       01  A0  9E 0000A           MOVAB    1(R0), I                                ; 1353
                                       11  11 0000E           BRB      3$                                      ;
```

```
                  53          62   9A 00010 1$:   MOVZBL  (PTR), CH                              ; 1361
                  20          53   D1 00013       CMPL    CH, #32                                ; 1363
                              05   13 00016       BEQL    2$                                     ;
                  09          53   D1 00018       CMPL    CH, #9                                 ;
                              07   12 0001B       BNEQ    4$                                     ;
                              50   D7 0001D 2$:   DECL    LEN                                    ; 1366
                              52   D6 0001F       INCL    PTR                                    ; 1367
                  EC          51   F5 00021 3$:   SOBGTR  I, 1$                                  ; 1353
              08  BC          52   D0 00024 4$:   MOVL    PTR, @P_ADDR                           ; 1374
                  52     FF A042   9E 00028       MOVAB   -1(LEN)[PTR], PTR                      ; 1375
                  51     01   A0   9E 0002D       MOVAB   1(R0), I                               ; 1377
                              11   11 00031       BRB     7$                                     ;
                  53          62   9A 00033 5$:   MOVZBL  (PTR), CH                              ; 1385
                  20          53   D1 00036       CMPL    CH, #32                                ; 1387
                              05   13 00039       BEQL    6$                                     ;
                  09          53   D1 0003B       CMPL    CH, #9                                 ;
                              07   12 0003E       BNEQ    8$                                     ;
                              50   D7 00040 6$:   DECL    LEN                                    ; 1390
                              52   D7 00042       DECL    PTR                                    ; 1391
                  EC          51   F5 00044 7$:   SOBGTR  I, 5$                                  ; 1377
                  03          50   D1 00047 8$:   CMPL    LEN, #3                                ; 1398
                              0E   19 0004A       BLSS    9$                                     ;
                  1C     FE   A2   91 0004C       CMPB    -2(PTR), #28                           ; 1403
                              08   12 00050       BNEQ    9$                                     ;
                  50          03   C2 00052       SUBL2   #3, LEN                                ; 1406
                  52          03   C2 00055       SUBL2   #3, PTR                                ; 1407
                              ED   11 00058       BRB     8$                                     ; 1403
              04  BC          50   D0 0005A 9$:   MOVL    LEN, @L_ADDR                           ; 1414
                                   04 0005E       RET                                            ; 1415

; Routine Size:  95 bytes,    Routine Base:  $CODE$ + 152F
```

```
1 %SBTTL 'INSRNT - Insert text directly into .RNT file'
1 GLOBAL ROUTINE insrnt (len, ptr) : NOVALUE =
1 !++
1 !
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine inserts the given text directly into the .RNT file
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       len - length of text
1 !       ptr - CH$PTR to text
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       cmdblk - command line information block
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       None
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       None
1 !
1 ! SIDE EFFECTS:
1 !
1 !       None
1 !
1 !--
1
2     BEGIN
2
2     IF .len GTR 0
2     THEN
3         BEGIN
3         !
3         ! There is something to process
3         !
3         hl_n = -1;
3         clr_line ();
3         line_indent = .indents [0];
3         wrap = .line_indent;
3         extlin = .line_indent;
3         rmargin = .cmdblk [contents$g_page_width];
3
3         IF .cmdblk [contents$v_tms11] THEN write_char (%C'<');
3
3         fmttxt (.len, .ptr);
3
3         IF .cmdblk [contents$v_tms11] THEN write_char (%C'>');
3
3         put ((.intlin, CH$PTR (line)));
3         clr_line ();
2         END;
2
```

```
; 1161          1473 1      END;


                           03FC 00000        .ENTRY   INSRNT, Save R2,R3,R4,R5,R6,R7,R8,R9    ; 1417
             59 00000000G EF 9E 00002        MOVAB    IOB$+68, R9                             ;
             58 00000000G EF 9E 00009        MOVAB    $STR$TARGET, R8                         ;
             57 00000000G EF 9E 00010        MOVAB    LINE_INDENT, R7                         ;
             56 00000000G EF 9E 00017        MOVAB    EXTLIN, R6                              ;
             55 00000000G EF 9E 0001E        MOVAB    LINE, R5                                ;
             54 00000000G EF 9E 00025        MOVAB    CMDBLK, R4                              ;
             53 00000000G EF 9E 0002C        MOVAB    INTLIN, R3                              ;
             52 00000000G EF 9E 00033        MOVAB    LP, R2                                  ;
             5E            08 C2 0003A        SUBL2    #8, SP                                  ;
                       04 AC D5 0003D        TSTL     LEN                                     ; 1450
                          01 14 00040        BGTR     1$                                      ;
                             04 00042        RET                                              ;
   00000000G EF           01 CE 00043 1$:    MNEGL    #1, HL_N                                ; 1456
             62           65 9E 0004A        MOVAB    LINE, [P                                ; 1457
                          63 D4 0004D        CLRL     INTLIN                                  ;
                          66 D4 0004F        CLRL     EXTLIN                                  ;
             67        20 A4 D0 00051        MOVL     INDENTS, LINE_INDENT                    ; 1458
   00000000G EF           67 D0 00055        MOVL     LINE_INDENT, QRAP                       ; 1459
             66           67 D0 0005C        MOVL     LINE_INDENT, EXTLIN                     ; 1460
   00000000G EF        18 A4 D0 0005F        MOVL     CMDB[K+24, RMARGIN                      ; 1461
08           64           01 E1 00067        BBC      #1, CMDBLK, 2$                          ; 1463
          00 B2           3C 90 0006B        MOVB     #60, @LP                                ;
                          62 D6 0006F        INCL     LP                                      ;
                          63 D6 00071        INCL     INTLIN                                  ;
             7E        04 AC 7D 00073 2$:    MOVQ     LEN, -(SP)                              ; 1465
   00000000G EF           02 FB 00077        CALLS    #2, FMTTXT                              ;
08           64           01 E1 0007E        BBC      #1, CMDBLK, 3$                          ; 1467
          00 B2           3E 90 00082        MOVB     #62, @LP                                ;
                          62 D6 00086        INCL     LP                                      ;
                          63 D6 00088        INCL     INTLIN                                  ;
             6E           63 B0 0008A 3$:    MOVW     INTLIN, $STR$STRING                     ; 1469
          02 AE           0E 90 0008D        MOVB     #14, $STR$STRING+2                      ;
          03 AE           01 90 00091        MOVB     #1, $STR$STRING+3                       ;
          04 AE           65 9E 00095        MOVAB    LINE, $STR$STRING+4                     ;
                00000000G EF 9F 00099        PUSHAB   STR$FAILURE                             ;
                          7E D4 0009F        CLRL     -(SP)                                   ;
                          58 DD 000A1        PUSHL    R8                                      ;
                       0C AE 9F 000A3        PUSHAB   $STR$STRING                             ;
                          7E D4 000A6        CLRL     -(SP)                                   ;
   00000000G EF           05 FB 000A8        CALLS    #5, XST$COPY                            ;
             50           68 3C 000AF        MOVZWL   TMPSTR, R0                              ;
   00000000G EF           50 C0 000B2        ADDL2    R0, CHROUT                              ;
             69           68 9E 000B9        MOVAB    $IOB$OUTPUT, IOB$+68                    ;
          E8 A9           07 90 000BC        MOVB     #7, IOB$+44                             ;
                00000000G EF 9F 000C0        PUSHAB   XPO$FAILURE                             ;
                          7E D4 000C6        CLRL     -(SP)                                   ;
                       BC A9 9F 000C8        PUSHAB   IOB$                                    ;
   00000000G EF           03 FB 000CB        CALLS    #3, XPO$PUT                             ;
07           64           01 E1 000D2        BBC      #1, CMDBLK, 4$                          ;
   00000000G EF           00 FB 000D6        CALLS    #0, SPLIT                               ;
```

```
                               62              65  9E 000DD 4$:       MOVAB   LINE, LP                                        ; 1470
                                               63  D4 000E0           CLRL    INTLIN                                          ;
                                               66  D4 000E2           CLRL    EXTLIN                                          ;
                                                   04 000E4           RET                                                     ; 1473

; Routine Size:  229 bytes,    Routine Base:  $CODE$ + 158E


; 1162          1474  1
; 1163          1475  1 END                                                   ! End of module
; 1164          1476  0 ELUDOM





;                                    PSECT SUMMARY
;
;       Name                        Bytes                       Attributes
;
;   $PLIT$                                 200  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $OWN$                                  216  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;   $CODE$                                5747  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]XPORT.L32;1                 590       156        26       252          00:00.1





;                                     COMMAND QUALIFIERS

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

; Size:          5747 code + 416 data bytes
; Run Time:         02:43.9
; Elapsed Time:     04:53.0
; Lines/CPU Min:       540
; Lexemes/CPU-Min: 96060
; Memory Used:  901 pages
; Compilation Complete
```

0337 AH-BT13A-SE
VAX/VMS V4.0

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LIS

SETCAS
REQ

VR
REQ

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XTNTAB
REQ

CAPTION
LIS

CLH
LIS

SCA
REQ

BOTPAG
LIS

TPROB
REQ

CNTVMSREQ
R32

TSF
REQ

NDXVMSREQ
R32

SAVE
REQ

CENTXT
LIS