```
RRRRRRRRRRR      UUU          UUU  NNN         NNN     000000000     FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN         NNN     000000000     FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN         NNN     000000000     FFFFFFFFFFFFFFF   FFFFFFFFFFFFFFF
RRR          RRR UUU          UUU  NNN         NNN  000          000 FFF               FFF
RRR          RRR UUU          UUU  NNN         NNN  000          000 FFF               FFF
RRR          RRR UUU          UUU  NNN         NNN  000          000 FFF               FFF
RRR          RRR UUU          UUU  NNNNNN      NNN  000          000 FFF               FFF
RRR          RRR UUU          UUU  NNNNNN      NNN  000          000 FFF               FFF
RRR          RRR UUU          UUU  NNNNNN      NNN  000          000 FFF               FFF
RRRRRRRRRRR      UUU          UUU  NNN   NNN   NNN  000          000 FFFFFFFFFFF       FFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN   NNN   NNN  000          000 FFFFFFFFFFF       FFFFFFFFFFF
RRRRRRRRRRRR     UUU          UUU  NNN   NNN   NNN  000          000 FFFFFFFFFFF       FFFFFFFFFFF
RRR   RRR        UUU          UUU  NNN       NNNNNN 000          000 FFF               FFF
RRR   RRR        UUU          UUU  NNN       NNNNNN 000          000 FFF               FFF
RRR   RRR        UUU          UUU  NNN       NNNNNN 000          000 FFF               FFF
RRR      RRR     UUU          UUU  NNN          NNN 000          000 FFF               FFF
RRR      RRR     UUU          UUU  NNN          NNN 000          000 FFF               FFF
RRR      RRR     UUU          UUU  NNN          NNN 000          000 FFF               FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN          NNN    000000000     FFF               FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN          NNN    000000000     FFF               FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN          NNN    000000000     FFF               FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN          NNN    000000000     FFF               FFF
RRR         RRR  UUUUUUUUUUUUUUU  NNN          NNN    000000000     FFF               FFF
```

```
_$2

Sym
---
NDX
NDX
NUM
NUM
OPE
OUT
PAC
PAC
PAC
PAC
PAC
PAC
PAC
PAD
PAG
PAG
PAG
PAG
PAG
PAG
PAG
PER
PUT
RCO
RIN

RLI
RNO
RNO
RTY
SAV
STR
STR
STR
STR
STR
STR

STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
STR
```

```
DDDDDDDD      OOOOOO    FFFFFFFFFF  LL            GGGGGGGG
DDDDDDDD      OOOOOO    FFFFFFFFFF  LL            GGGGGGGG
DD      DD  OO      OO  FF          LL          GG
DD      DD  OO      OO  FF          LL          GG
DD      DD  OO      OO  FF          LL          GG
DD      DD  OO      OO  FF          LL          GG
DD      DD  OO      OO  FFFFFFFF    LL          GG
DD      DD  OO      OO  FFFFFFFF    LL          GG
DD      DD  OO      OO  FF          LL          GG  GGGGGG
DD      DD  OO      OO  FF          LL          GG  GGGGGG
DD      DD  OO      OO  FF          LL          GG      GG      ....
DD      DD  OO      OO  FF          LL          GG      GG      ....
DDDDDDDD      OOOOOO    FF          LLLLLLLLLL    GGGGGG        ....
DDDDDDDD      OOOOOO    FF          LLLLLLLLLL    GGGGGG        ....

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
```

```
;     1          0001  0 %TITLE 'Process flags'
;     2          0002  0 MODULE DOFLG ( IDENT = 'V04-000'
;     3        P 0003  0                %BLISS32 [ , ADDRESSING_MODE ( EXTERNAL =    LONG_RELATIVE,
;     4          0004  0                                               NONEXTERNAL = LONG_RELATIVE)]
;     5          0005  0                 ) =
;     6          0006  1 BEGIN
;     7          0007  1 !
;     8          0008  1 !*****************************************************************************
;     9          0009  1 !*                                                                           *
;    10          0010  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
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;    20          0020  1 !*                                                                           *
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;    26          0026  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                   *
;    27          0027  1 !*                                                                           *
;    28          0028  1 !*                                                                           *
;    29          0029  1 !*****************************************************************************
;    30          0030  1 !
;    31          0031  1 !++
;    32          0032  1 ! FACILITY:      DSR (Digital Standard RUNOFF) / DSRPLUS
;    33          0033  1 !
;    34          0034  1 ! ABSTRACT: Flag processing
;    35          0035  1 !
;    36          0036  1 !
;    37          0037  1 ! ENVIRONMENT: Transportable
;    38          0038  1 !
;    39          0039  1 ! AUTHOR: R.W.Friday
;    40          0040  1 !
;    41          0041  1 ! CREATION DATE: April 1978
;    42          0042  1 !
```

```
;    44          0047  1 %SBTTL 'Revision History'
;    45          0044  1
;    46          0045  1 ! MODIFIED BY:
;    47          0046  1 !
;    48          0047  1 !       020     REM00020        Ray Marshall    17-November-1983
;    49          0048  1 !               Added supporting logic for the case rules for the DEC multi-
;    50          0049  1 !                 national character set.
;    51          0050  1 !
;    52          0051  1 !       019     KFA00019        Ken Alden       06-Oct-1983
;    53          0052  1 !               For DSRPLUS: Removed call to endwrd during pass-through
;    54          0053  1 !
;    55          0054  1 !       018     KFA00018        Ken Alden       13-Sep-1983
;    56          0055  1 !               For DSRPLUS: Added sca_wrd_pass for ENDWRD cooperation.
;    57          0056  1 !
;    58          0057  1 !       017     KFA00017        Ken Alden       11-Jun-1983
;    59          0058  1 !               Fixed the bolded, underline TAB bug.
;    60          0059  1 !
;    61          0060  1 !       016     KFA00016        Ken Alden       21-Mar-1983
;    62          0061  1 !               Removed error message RNFIPF.
;    63          0062  1 !
;    64          0063  1 !       015     KFA00015        Ken Alden       21-Mar-1983
;    65          0064  1 !               Eliminate the Passthrough flag, functionality now works
;    66          0065  1 !               with accept flag
;    67          0066  1 !
;    68          0067  1 !       014     KAD00014        Keith Dawson    20-Mar-1983
;    69          0068  1 !               Fixed bug: passthrough was visible to DSR.
;    70          0069  1 !
;    71          0070  1 !       013     KFA00013        Ken Alden       15-Mar-1983
;    72          0071  1 !               For DSRPLUS: added recognition of passthrough flag
;    73          0072  1 !
;    74          0073  1 !       012     KAD00012        Keith Dawson    07-Mar-1983
;    75          0074  1 !               Global edit of all modules. Updated module names, idents,
;    76          0075  1 !               copyright dates. Changed require files to BLISS library.
;    77          0076  1 !
;    78          0077  1 !--
```

```
;    80          0078  1 %SBTTL 'Module Level Declarations'
;    81          0079  1
;    82          0080  1 !
;    83          0081  1 ! TABLE OF CONTENTS:
;    84          0082  1 !
;    85          0083  1
;    86          0084  1 FORWARD ROUTINE
;    87          0085  1     SUBXR : NOVALUE,                    !Used by .SUBINDEX and .ENTRY commands
;    88          0086  1     XR : NOVALUE;                       !Used for processing Index flag
;    89          0087  1
;    90          0088  1 !
;    91          0089  1 ! INCLUDE FILES:
;    92          0090  1 !
;    93          0091  1
;    94          0092  1 LIBRARY 'NXPORT:XPORT';                 ! XPORT Library
;    95          0093  1 REQUIRE 'REQ:RNODEF';                   ! RUNOFF variant definitions
;    96          0224  1
;    97        U 0225  1 %IF DSRPLUS %THEN
;    98        U 0226  1 LIBRARY 'REQ:DPLLIB';                 ! DSRPLUS BLISS Library
;    99          0227  1 %ELSE
;   100          0228  1 LIBRARY 'REQ:DSRLIB';                 ! DSR BLISS Library
;   101          0229  1 %FI
;   102          0230  1
;   103          0231  1 !
;   104          0232  1 ! MACROS:
;   105          0233  1 !
;   106          0234  1 !
;   107          0235  1 ! EQUATED SYMBOLS:
;   108          0236  1 !
;   109          0237  1 !
;   110          0238  1 ! OWN STORAGE:
;   111          0239  1 !
;   112          0240  1 !
;   113          0241  1 ! EXTERNAL REFERENCES:
;   114          0242  1 !
;   115          0243  1
;   116          0244  1 EXTERNAL LITERAL
;   117          0245  1     RINTES : UNSIGNED (8);
;   118          0246  1
;   119          0247  1 EXTERNAL
;   120          0248  1     FLGT : FLAG_TABLE [FLAG_COUNT],
;   121          0249  1     IRA : FIXED_STRING,
;   122          0250  1     KHAR,
;   123          0251  1     MRA : REF FIXED_STRING,
;   124          0252  1     SCA : SCA_DEFINITION,
;   125          0253  1     TSF : TSF_DEFINITION,
;   126          0254  1     XMRA : FIXED_STRING,
;   127          0255  1     XTSF : VECTOR;
;   128          0256  1 !
;   129          0257  1 EXTERNAL LITERAL                        ! Error messages
;   130          0258  1     RNFFEL,
;   131          0259  1     RNFFNA,
;   132          0260  1     RNFLOC,
;   133          0261  1     RNFLTC,
;   134          0262  1     RNFSTR;
;   135          0263  1
;   136          0264  1 EXTERNAL ROUTINE
```

```
;  137          0265  1      endchr,
;  138          0266  1      endwrd,
;  139          0267  1      erm,
;  140          0268  1      erms,
;  141          0269  1      fndflg,
;  142          0270  1      outlin,
;  143          0271  1      outxph,
;  144        U 0272  1 %IF dsrplus %THEN
;  145        U 0273  1      newsub,
;  146          0274  1 %ELSE
;  147          0275  1      subst,
;  148          0276  1 %FI
;  149          0277  1      rskips,
;  150          0278  1      setcas;
```

```
;  152          0279  1 GLOBAL ROUTINE DOFLG : NOVALUE =
;  153          0280  1
;  154          0281  1 !++
;  155          0282  1 ! FUNCTIONAL DESCRIPTION:
;  156          0283  1 !
;  157          0284  1 !
;  158          0285  1 ! FORMAL PARAMETERS: None
;  159          0286  1 !
;  160          0287  1 ! IMPLICIT INPUTS:
;  161          0288  1 !
;  162          0289  1 !       KHAR contains the character (flag) to be processed.
;  163          0290  1 !
;  164          0291  1 ! IMPLICIT OUTPUTS: None
;  165          0292  1 !
;  166          0293  1 ! ROUTINE VALUE:
;  167          0294  1 ! COMPLETION CODES: None
;  168          0295  1 !
;  169          0296  1 ! SIDE EFFECTS: None
;  170          0297  1 !
;  171          0298  1 !--
;  172          0299  1
;  173          0300  2     BEGIN
;  174          0301  2
;  175          0302  2     OWN
;  176          0303  2         SCA_DO_HOLD,
;  177          0304  2         SCA_WRD_CHOLD;
;  178          0305  2
;  179          0306  2     LOCAL
;  180          0307  2         WHICH_FLAG;
;  181          0308  2
;  182          0309  2     WHICH_FLAG = FNDFLG (.KHAR);                !Identify the flag to be processed.
;  183          0310  2
;  184          0311  2     CASE .WHICH_FLAG FROM 0 TO FLAG_COUNT - 1 OF
;  185          0312  2         SET
;  186          0313  2
;  187          0314  2         [SUB_FLAG] :
;  188          0315  3             BEGIN
;  189          0316  3             !Substitute flag
;  190        U 0317  3 %IF dsrplus %THEN
;  191        U 0318  3             newsub ();
;  192          0319  3 %ELSE
;  193          0320  3             SUBST ();
;  194          0321  3 %FI
;  195          0322  3             RETURN;
;  196          0323  2             END;
;  197          0324  2
;  198          0325  2         [QUO_FLAG] :
;  199          0326  3             BEGIN
;  200          0327  3             !Quote flag
;  201          0328  3             KCNS ();                            !Get next character.
;  202          0329  3
;  203          0330  3             IF .KHAR EQL RINTES
;  204          0331  3             THEN
;  205          0332  4                 BEGIN
;  206          0333  4                 ERM (RNFFEL, CH$PTR (UPLIT ('ACCEPT')), 6);
;  207          0334  4                 ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  208          0335  4                 RETURN;                         ! Ignore a Quote flag at the end of the line.
```

```
;  209     0336  4                    END
;  210     0337  3                ELSE                                    !
;  211     0338  4                    BEGIN
;  212     0339  4                    SCA_FRC_CHR = TRUE;                 !Don't translate this character.
;  213     0340  4                    ENDCHR (.KHAR);                     !Output character as is.
;  214     0341  4                    KCNS ();                            !Get next character.
;  215     0342  4                    RETURN;
;  216     0343  3                    END;
;  217     0344  3
;  218     0345  2                END;
;  219     0346  2
;  220     0347  2            [UPP_FLAG] :
;  221     0348  3                BEGIN
;  222     0349  3                !Uppercase flag
;  223     0350  3                KCNS ();                                !Get next character.
;  224     0351  3
;  225     0352  3                IF .KHAR EQL .FLGT [UPP_FLAG, FLAG_CHARACTER]
;  226     0353  3                THEN
;  227     0354  4                    BEGIN                               !Doubled Uppercase flags
;  228     0355  4                    SETCAS (LEAVE_CASE);
;  229     0356  4                    SCA_FRC_CASE = TRUE;
;  230     0357  4                    KCNS ();
;  231     0358  4                    RETURN;
;  232     0359  3                    END;
;  233     0360  3
;  234     0361  4                IF (.KHAR EQL .FLGT [CAP_FLAG, FLAG_CHARACTER]
;  235     0362  3                    AND .FLGT [CAP_FLAG, FLAG_ENABLED]
;  236     0363  3                THEN
;  237     0364  3                !Uppercase flag followed by Capitalize flag (i.e., ^<)
;  238     0365  4                    BEGIN
;  239     0366  4                    SETCAS (FORCE_UPPER);
;  240     0367  4                    SCA_FRC_CASE = TRUE;
;  241     0368  4                    KCNS ();
;  242     0369  4                    RETURN
;  243     0370  3                    END;
;  244     0371  3
;  245     0372  4                IF (.KHAR EQL .FLGT [UND_FLAG, FLAG_CHARACTER])
;  246     0373  3                    AND .FLGT [UND_FLAG, FLAG_ENABLED]
;  247     0374  3                THEN
;  248     0375  3                !Uppercase flag followed by Underline flag (i.e., ^&)
;  249     0376  4                    BEGIN                               !Turn on global underlining
;  250     0377  4                    SCA_UND = TRUE;
;  251     0378  4                    SCA_WRD_C_UND = .SCA_DO_UND;
;  252     0379  4                    KCNS ();
;  253     0380  4                    RETURN;
;  254     0381  3                    END;
;  255     0382  3
;  256     0383  4                IF (.KHAR EQL .FLGT [BLD_FLAG, FLAG_CHARACTER])
;  257     0384  3                    AND .FLGT [BLD_FLAG, FLAG_ENABLED]
;  258     0385  3                THEN
;  259     0386  3                !Uppercase flag followed by Bold flag (i.e., ^*)
;  260     0387  4                    BEGIN                               !Turn on global bolding
;  261     0388  4                    SCA_BLD = TRUE;
;  262     0389  4                    SCA_WRD_C_BLD = .SCA_DO_BLD;
;  263     0390  4                    KCNS ();
;  264     0391  4                    RETURN;
;  265     0392  3                    END;
```

```
;  266          0393  3
;  267        U 0394  3 %IF DSRPLUS %THEN
;  268        U 0395  3                 IF (.KHAR EQL .FLGT [QUO_FLAG, FLAG_CHARACTER])
;  269        U 0396  3                     AND .FLGT [QUO_FLAG, FLAG_ENABLED]
;  270        U 0397  3                 THEN
;  271        U 0398  3                 !Uppercase flag followed by Accept flag (i.e., ^ )
;  272        U 0399  3                     BEGIN                               !Turn on global accept
;  273        U 0400  3                     sca_pass = true;                    !Now passing through (ENDCHR)
;  274        U 0401  3                     sca_wrd_pass = true;                !This 'word' is a passthr. (ENDWRD)
;  275        U 0402  3                     sca_do_hold = .sca_do_nbits;        !Save status of bold/under
;  276        U 0403  3                     sca_wrd_chold = .sca_wrd_cnbits;    !
;  277        U 0404  3                     sca_do_nbits = false;               !and turn it temp. off.
;  278        U 0405  3                     sca_wrd_cnbits = false;             !
;  279        U 0406  3                     KCNS ();
;  280        U 0407  3                     RETURN;
;  281        U 0408  3                     END;
;  282        U 0409  3
;  283          0410  3 %FI
;  284          0411  3                 !This gets done for an Uppercase flag standing alone.
;  285          0412  3                 SCA_FRC_CHR = TRUE;
;  286          0413  3                 SCA_WRD_FC_LT = %C'A' - %C'a';
;  287          0414  3                 SCA_WRD_OC_LT = %C'A' - %C'a';
;  288          0415  3                 SCA_WRD_FC_UT = 0;
;  289          0416  3                 SCA_WRD_OC_UT = 0;
;  290          0417  3
;  291          0418  3                 SCA_MNWRD_FC_LT = %DECIMAL'192' - %DECIMAL'224';
;  292          0419  3                 SCA_MNWRD_OC_LT = %DECIMAL'192' - %DECIMAL'224';
;  293          0420  3                 SCA_MNWRD_FC_UT = 0;
;  294          0421  3                 SCA_MNWRD_OC_UT = 0;
;  295          0422  3                 RETURN
;  296          0423  2                 END;                                                                    ; Rc
;  297          0424  2
;  298          0425  2             [LOW_FLAG] :
;  299          0426  3                 BEGIN
;  300          0427  3                 !Lowercase flag
;  301          0428  3                 KCNS ();                                !Get next character.
;  302          0429  3
;  303          0430  3                 IF .KHAR EQL .FLGT [LOW_FLAG, FLAG_CHARACTER]
;  304          0431  3                 THEN
;  305          0432  4                     BEGIN                               ! Doubled Lowercase flags
;  306          0433  4                     SETCAS (FORCE_LOWER);
;  307          0434  4                     SCA_FRC_CASE = TRUE;
;  308          0435  4                     KCNS ();
;  309          0436  4                     RETURN;
;  310          0437  3                     END;
;  311          0438  3
;  312          0439  4                 IF (.KHAR EQL .FLGT [UND_FLAG, FLAG_CHARACTER])
;  313          0440  3                     AND .FLGT [UND_FLAG, FLAG_ENABLED]
;  314          0441  3                 THEN
;  315          0442  3                 !Lowercase flag followed by Underline flag (i.e., \&)
;  316          0443  4                     BEGIN                               !Turn off global underlining
;  317          0444  4                     SCA_UND = FALSE;
;  318          0445  4                     SCA_WRD_C_UND = FALSE;
;  319          0446  4                     KCNS ();
;  320          0447  4                     RETURN;
;  321          0448  3                     END;
;  322          0449  3
```

```
;  323          0450  4              IF (.KHAR EQL .FLGT [BLD_FLAG, FLAG_CHARACTER])
;  324          0451  3                  AND .FLGT [BLD_FLAG, FLAG_ENABLED]
;  325          0452  3              THEN
;  326          0453  3              !Lowercase flag followed by Bold flag (i.e., \*)
;  327          0454  4                  BEGIN                                   !Turn off global bolding
;  328          0455  4                  SCA_BLD = FALSE;
;  329          0456  4                  SCA_WRD_C_BLD = FALSE;
;  330          0457  4                  KCNS ();
;  331          0458  4                  RETURN;
;  332          0459  3                  END;
;  333          0460  3
;  334        U 0461  3 %IF DSRPLUS %THEN
;  335        U 0462  3              IF (.KHAR EQL .FLGT [QUO_FLAG, FLAG_CHARACTER])
;  336        U 0463  3                  AND .FLGT [QUO_FLAG, FLAG_ENABLED]
;  337        U 0464  3              THEN
;  338        U 0465  3              !Lowercase flag followed by Accept flag (i.e., \_)
;  339        U 0466  3                  BEGIN                                   !Turn off global Accept
;  340        U 0467  3                  IF .SCA_PASS EQL TRUE
;  341        U 0468  3                  THEN
;  342        U 0469  3                      BEGIN
;  343        U 0470  3                      SCA_DO_NBITS = .SCA_DO_HOLD;        !Restore status of bold/under
;  344        U 0471  3                      SCA_WRD_CNBITS = .SCA_WRD_CHOLD;    !
;  345        U 0472  3                      END;
;  346        U 0473  3                  SCA_PASS = FALSE;
;  347        U 0474  3                  KCNS ();
;  348        U 0475  3                  RETURN;
;  349        U 0476  3                  END;
;  350          0477  3 %FI
;  351          0478  3              !Lowercase flag standing alone
;  352          0479  3              SCA_FRC_CHR = TRUE;
;  353          0480  3              SCA_WRD_FC_UT = %C'a' - %C'A';
;  354          0481  3              SCA_WRD_OC_UT = %C'a' - %C'A';
;  355          0482  3              SCA_WRD_FC_LT = 0;
;  356          0483  3              SCA_WRD_OC_LT = 0;
;  357          0484  3
;  358          0485  3              SCA_MNWRD_FC_UT = %DECIMAL'224' - %DECIMAL'192';
;  359          0486  3              SCA_MNWRD_OC_UT = %DECIMAL'224' - %DECIMAL'192';
;  360          0487  3              SCA_MNWRD_FC_LT = 0;
;  361          0488  3              SCA_MNWRD_OC_LT = 0;
;  362          0489  3              RETURN
;  363          0490  2              END;
;  364          0491  2
;  365          0492  2          [PER_FLAG] :
;  366          0493  3              BEGIN
;  367          0494  3              !Capitalize flag
;  368          0495  3              SCA_WRD_LC_PNCT = .SCA_FILL;            !Double space only if .FILL.
;  369          0496  3              KCNS ();                                !Discard the flag.
;  370          0497  2              END;
;  371          0498  2
;  372          0499  2          [BRK_FLAG] :
;  373          0500  3              BEGIN
;  374          0501  3              !Break flag
;  375          0502  3
;  376          0503  3              KCNS ();                                !Skip over flag.
;  377          0504  3
;  378          0505  4              IF (.SCA_WRD_CPEND EQL RINTES)          !
;  379          0506  4                  OR (.KHAR EQL %C' ')                !Space?
```

```
;  380          0507  4                OR (.KHAR EQL %O'011')          !TAB??
;  381          0508  3            THEN
;  382          0509  3                !'!' Before/after a space/tab or starting a line
;  383          0510  3                ERMS  (RNFFNA, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)))
;  384          0511  3            ELSE
;  385          0512  3
;  386          0513  3                IF .KHAR EQL RINTES
;  387          0514  3                THEN
;  388          0515  4                    BEGIN
;  389          0516  4                    ERM (RNFFEL, CH$PTR (UPLIT ('BREAK')), 5);
;  390          0517  4                    ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  391          0518  4                    END
;  392          0519  3                ELSE
;  393          0520  3                    !'!' after some text is ok.
;  394          0521  4                    BEGIN
;  395          0522  4                    ENDWRD (FALSE,FALSE, FALSE);        !End word with no spacing or justification.
;  396          0523  4                    SCA_FC_CASE = FALSE;                !Do not cap next character.
;  397          0524  3                    END;
;  398          0525  2            END;
;  399          0526  2
;  400          0527  2        [CAP_FLAG] :
;  401          0528  3            BEGIN
;  402          0529  3            !Capitalize flag
;  403          0530  3
;  404          0531  3            IF .SCA_WORD_SET
;  405          0532  3            THEN
;  406          0533  3            !A Capitalize flag is already in effect.
;  407          0534  3            !Turn it off.  I.e. "<" is a flip-flop.
;  408          0535  4                BEGIN                               !Restore global case rules
;  409          0536  4                SCA_WORD_SET = FALSE;
;  410          0537  4                SCA_FC_UT = .SCA_FCBE_UT;
;  411          0538  4                SCA_OC_UT = .SCA_OCBE_UT;
;  412          0539  4                SCA_FC_LT = .SCA_FCBE_LT;
;  413          0540  4                SCA_OC_LT = .SCA_OCBE_LT;
;  414          0541  4                SCA_WRD_FC_UT = .SCA_FCBE_UT;
;  415          0542  4                SCA_WRD_OC_UT = .SCA_OCBE_UT;
;  416          0543  4                SCA_WRD_FC_LT = .SCA_FCBE_LT;
;  417          0544  4                SCA_WRD_OC_LT = .SCA_OCBE_LT;
;  418          0545  4
;  419          0546  4                SCA_MNFC_UT = .SCA_MNFCBE_UT;
;  420          0547  4                SCA_MNOC_UT = .SCA_MNOCBE_UT;
;  421          0548  4                SCA_MNFC_LT = .SCA_MNFCBE_LT;
;  422          0549  4                SCA_MNOC_LT = .SCA_MNOCBE_LT;
;  423          0550  4                SCA_MNWRD_FC_UT = .SCA_MNFCBE_UT;
;  424          0551  4                SCA_MNWRD_OC_UT = .SCA_MNOCBE_UT;
;  425          0552  4                SCA_MNWRD_FC_LT = .SCA_MNFCBE_LT;
;  426          0553  4                SCA_MNWRD_OC_LT = .SCA_MNOCBE_LT
;  427          0554  4                END
;  428          0555  3            ELSE                                    !
;  429          0556  4                BEGIN
;  430          0557  4                SCA_WORD_SET = TRUE;
;  431          0558  4                SCA_FCBE_UT = .SCA_FC_UT;
;  432          0559  4                SCA_FCBE_LT = .SCA_FC_LT;
;  433          0560  4                SCA_OCBE_UT = .SCA_OC_UT;
;  434          0561  4                SCA_OCBE_LT = .SCA_OC_LT;
;  435          0562  4
;  436          0563  4                SCA_MNFCBE_UT = .SCA_MNFC_UT;
```

```
;  437     0564  4                 SCA_MNFCBE_LT = .SCA_MNFC_LT;
;  438     0565  4                 SCA_MNOCBE_UT = .SCA_MNOC_UT;
;  439     0566  4                 SCA_MNOCBE_LT = .SCA_MNOC_LT;
;  440     0567  4
;  441     0568  4                 ! Establish new case rules for this word.
;  442     0569  4                 SCA_WRD_FC_LT = %C'A' - %C'a';
;  443     0570  4                 SCA_WRD_OC_LT = %C'A' - %C'a';
;  444     0571  4                 SCA_WRD_FC_UT = 0;
;  445     0572  4                 SCA_WRD_OC_UT = 0;
;  446     0573  4                 SCA_FC_LT = %C'A' - %C'a';
;  447     0574  4                 SCA_OC_LT = %C'A' - %C'a';
;  448     0575  4                 SCA_FC_UT = 0;
;  449     0576  4                 SCA_OC_UT = 0;
;  450     0577  4
;  451     0578  4                 SCA_MNWRD_FC_LT = %DECIMAL'192' - %DECIMAL'224';
;  452     0579  4                 SCA_MNWRD_OC_LT = %DECIMAL'192' - %DECIMAL'224';
;  453     0580  4                 SCA_MNWRD_FC_UT = 0;
;  454     0581  4                 SCA_MNWRD_OC_UT = 0;
;  455     0582  4                 SCA_MNFC_LT = %DECIMAL'192' - %DECIMAL'224';
;  456     0583  4                 SCA_MNFC_UT = 0;
;  457     0584  4                 SCA_MNOC_LT = %DECIMAL'192' - %DECIMAL'224';
;  458     0585  4                 SCA_MNOC_UT = 0
;  459     0586  3                 END;
;  460     0587  3
;  461     0588  3             KCNS ();
;  462     0589  3             RETURN;
;  463     0590  2             END;
;  464     0591  2
;  465     0592  2         [UND_FLAG] :
;  466     0593  3             BEGIN
;  467     0594  3             !Underline flag alone.
;  468     0595  3             KCNS ();
;  469     0596  3             IF .KHAR NEQ %O'011'                !Next character a TAB?
;  470     0597  3             THEN
;  471     0598  4                 BEGIN
;  472     0599  4                 SCA_WRD_AC_UND = .SCA_DO_UND;   ! Underline a single character
;  473     0600  3                 END;
;  474     0601  3
;  475     0602  3             RETURN;
;  476     0603  2             END;
;  477     0604  2
;  478     0605  2         [BLD_FLAG] :
;  479     0606  3             BEGIN
;  480     0607  3             !Bold flag alone.
;  481     0608  3             KCNS ();
;  482     0609  3             IF .KHAR NEQ %O'011'                !Next character a TAB?
;  483     0610  3             THEN
;  484     0611  4                 BEGIN
;  485     0612  4                 SCA_WRD_AC_BLD = .SCA_DO_BLD;   ! Bold a single character
;  486     0613  3                 END;
;  487     0614  3
;  488     0615  3             RETURN;
;  489     0616  2             END;
;  490     0617  2
;  491     0618  2         [SPA_FLAG] :
;  492     0619  3             BEGIN
;  493     0620  3             !Space flag
```

```
;  494     0621  3
;  495     0622  3              IF .SCA_X_FLAG
;  496     0623  3              THEN
;  497     0624  3              !A Space flag completes a sequence started by the Index flag.
;  498     0625  3                  XR ();
;  499     0626  3
;  500     0627  3              IF .SCA_WORD_SET
;  501     0628  3              THEN
;  502     0629  3              !A Space flag terminates a sequence started by
;  503     0630  3              !the Capitalize flag.
;  504     0631  4                  BEGIN                                   !Restore global case rules
;  505     0632  4                  SCA_WORD_SET = FALSE;
;  506     0633  4                  SCA_FC_UT = .SCA_FCBE_UT;
;  507     0634  4                  SCA_OC_UT = .SCA_OCBE_UT;
;  508     0635  4                  SCA_FC_LT = .SCA_FCBE_LT;
;  509     0636  4                  SCA_OC_LT = .SCA_OCBE_LT;
;  510     0637  4                  SCA_WRD_FC_UT = .SCA_FCBE_UT;
;  511     0638  4                  SCA_WRD_OC_UT = .SCA_OCBE_UT;
;  512     0639  4                  SCA_WRD_FC_LT = .SCA_FCBE_LT;
;  513     0640  4                  SCA_WRD_OC_LT = .SCA_OCBE_LT;
;  514     0641  4
;  515     0642  4                  SCA_MNFC_UT = .SCA_MNFCBE_UT;
;  516     0643  4                  SCA_MNOC_UT = .SCA_MNOCBE_UT;
;  517     0644  4                  SCA_MNFC_LT = .SCA_MNFCBE_LT;
;  518     0645  4                  SCA_MNOC_LT = .SCA_MNOCBE_LT;
;  519     0646  4                  SCA_MNWRD_FC_UT = .SCA_MNFCBE_UT;
;  520     0647  4                  SCA_MNWRD_OC_UT = .SCA_MNOCBE_UT;
;  521     0648  4                  SCA_MNWRD_FC_LT = .SCA_MNFCBE_LT;
;  522     0649  4                  SCA_MNWRD_OC_LT = .SCA_MNOCBE_LT
;  523     0650  4
;  524     0651  3                  END;
;  525     0652  3
;  526     0653  3              SCA_WRD_C_UND = FALSE;                      !Do not underline this type of space unless forced.   ; R
;  527     0654  3              ENDCHR (%C' ');                             !Output a space
;  528     0655  3              SCA_FRC_CASE = FALSE;
;  529     0656  3              SCA_FC_CASE = TRUE;                         !Handle case as if a new word.
;  530     0657  3              KCNS ();
;  531     0658  3              RETURN;
;  532     0659  2              END;
;  533     0660  2
;  534     0661  2          [IND_FLAG] :
;  535     0662  3              BEGIN
;  536     0663  3              !Index flag
;  537     0664  3              IF .SCA_XROUTINE
;  538     0665  3              THEN
;  539     0666  3                  SUBXR ()
;  540     0667  3              ELSE
;  541     0668  3                  XR ();
;  542     0669  3              RETURN;
;  543     0670  2              END;
;  544     0671  2
;  545     0672  2          [HYP_FLAG] :
;  546     0673  3              BEGIN
;  547     0674  3              !Hyphenation flag
;  548     0675  3              KCNS ();                                    !Skip flag.
;  549     0676  4              IF (.SCA_WRD_CPEND EQL RINTFS)              !
;  550     0677  4                  OR (.KHAR EQL %C' ')                    .Space?
```

```
;  551     0678  4                OR (.KHAR EQL %O'011')          !TAB??
;  552     0679  3            THEN
;  553     0680  3                !Hyphenate before/after a space/tab or starting a line
;  554     0681  3                ERMS  (RNFFNA, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)))
;  555     0682  3            ELSE
;  556     0683  3
;  557     0684  3                IF .KHAR EQL RINTES
;  558     0685  3                THEN
;  559     0686  4                    BEGIN
;  560     0687  4                    ERM (RNFFEL, CH$PTR (UPLIT ('HYPHENATE')), 9);
;  561     0688  4                    ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  562     0689  4                    END
;  563     0690  3                ELSE
;  564     0691  3                    !Hyphenation between some text is ok.
;  565     0692  3                    IF .SCA_DO_HYP
;  566     0693  3                    THEN
;  567     0694  3                        !Hyphenation is only done if user said
;  568     0695  3                        !to do it (.HYPHENATION).  Otherwise it's ignored.
;  569     0696  4                        BEGIN
;  570     0697  4                        ENDWRD (FALSE,FALSE, TRUE);      !End word with hyphenation.
;  571     0698  4                        SCA_FC_CASE = FALSE;             !Do not cap next character.
;  572     0699  3                        END;
;  573     0700  3            RETURN;
;  574     0701  2            END;
;  575     0702  2
;  576     0703  2        [OVR_FLAG] :
;  577     0704  3            BEGIN
;  578     0705  3            !Overstrike flag
;  579     0706  3            KCNS ();
;  580     0707  3
;  581     0708  3            IF .KHAR EQL RINTES
;  582     0709  3            THEN
;  583     0710  4                BEGIN
;  584     0711  4                ERM (RNFFEL, CH$PTR (UPLIT ('OVERSTRIKE')), 10);
;  585     0712  4                ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  586     0713  4                RETURN;          ! Ignore Overstrike flag at the end of a line.
;  587     0714  3                END;
;  588     0715  3
;  589     0716  3            IF .SCA_WRD_CPEND EQL RINTES
;  590     0717  3            THEN
;  591     0718  4                BEGIN
;  592     0719  4                !OVERSTRIKE flag standing alone
;  593     0720  4                ERMS  (RNFFNA, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  594     0721  4                END
;  595     0722  3            ELSE
;  596     0723  3                IF .SCA_DO_OVR
;  597     0724  3                THEN
;  598     0725  3                    !User did not say .NO OVERSTRIKING, so really overstrike.
;  599     0726  4                    BEGIN
;  600     0727  4                    IF (.FS_MAXSIZE (MRA) - .FS_LENGTH (MRA)) LSS 3
;  601     0728  4                    THEN        !No room for overstriking code
;  602     0729  4                        ERMS (RNFLTC, .FS_NEXT (IRA), .FS_LENGTH (IRA))
;  603     0730  4                    ELSE
;  604     0731  4                        !Generate overstriking code.
;  605     0732  5                        BEGIN
;  606     0733  5                        FS_WCHAR (MRA, RINTES);
;  607     0734  5                        FS_WCHAR (MRA, %C'O');
```

```
;  608          0735  5                          FS_WCHAR (MRA, .KHAR);
;  609          0736  5                          SCA_WRD_INT_L = .SCA_WRD_INT_L + 3;
;  610          0737  5                          SCA_WRD_OVR = TRUE
;  611          0738  4                          END;
;  612          0739  3                      END;
;  613          0740  3
;  614          0741  3              KCNS ();                            ! Get next character.
;  615          0742  3              RETURN;
;  616          0743  2              END;
;  617          0744  2
;  618        U 0745  2 %IF DSRPLUS %THEN
;  619        U 0746  2          [NPX_FLAG] :
;  620        U 0747  2              BEGIN
;  621        U 0748  2              !
;  622        U 0749  2              !If not an indexing command, then treat the Nopermute flag
;  623        U 0750  2              !as an ordinary character.
;  624        U 0751  2              IF NOT .TSF_INDEX
;  625        U 0752  2              THEN
;  626        U 0753  2                  BEGIN
;  627        U 0754  2                  ENDCHR (.KHAR);         !Output character as-is.
;  628        U 0755  2                  KCNS ();
;  629        U 0756  2                  RETURN;
;  630        U 0757  2                  END;
;  631        U 0758  2
;  632        U 0759  2              KCNS ();                        !Position past the flag.
;  633        U 0760  2
;  634        U 0761  2              IF .TSF_XYPLUS                  !Do no more unless this was an .XP/.YP command.
;  635        U 0762  2              THEN
;  636        U 0763  2                  BEGIN
;  637        U 0764  2                  IF (.SCA_WRD_CPEND NEQ RINTES)
;  638        U 0765  2                      OR (.KHAR EQL %C' ')                !Space?
;  639        U 0766  2                      OR (.KHAR EQL %O'011')              !Tab?
;  640        U 0767  2                  THEN
;  641        U 0768  2                      BEGIN
;  642        U 0769  2                      !Nopermute before a space/tab or in the middle of a word
;  643        U 0770  2                      ERMS (RNFFNA, .FS_START(IRA), CH$DIFF (.FS_NEXT(IRA), .FS_START(IRA)));
;  644        U 0771  2                      RETURN;
;  645        U 0772  2                      END;
;  646        U 0773  2
;  647        U 0774  2                  IF .KHAR EQL RINTES
;  648        U 0775  2                  THEN
;  649        U 0776  2                      BEGIN
;  650        U 0777  2                      ERM (RNFFEL, CH$PTR (UPLIT ('NOPERMUTE')), 9);
;  651        U 0778  2                      ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)));
;  652        U 0779  2                      RETURN;
;  653        U 0780  2                      END;
;  654        U 0781  2
;  655        U 0782  2                  IF (.FS_MAXSIZE (MRA) - .FS_LENGTH (MRA)) LSS 3
;  656        U 0783  2                  THEN
;  657        U 0784  2                      BEGIN                       !No room for nopermute code.
;  658        U 0785  2                      ERMS (RNFLTC, .FS_NEXT (IRA), .FS_LENGTH (IRA));
;  659        U 0786  2                      RETURN;
;  660        U 0787  2                      END;
;  661        U 0788  2
;  662        U 0789  2                  !Now generate the no-permute escape sequence.
;  663        U 0790  2                  FS_WCHAR (MRA, RINTES);
;  664        U 0791  2                  FS_WCHAR (MRA, %C'P');
```

```
;  665          U 0792  2                    FS_WCHAR (MRA, %C' ');
;  666          U 0793  2                    SCA_WRD_INT_L = .SCA_WRD_INT_L + 3;
;  667          U 0794  2                    END;
;  668          U 0795  2                END;
;  669            0796  2 %FI
;  670            0797  3             [INRANGE] :
;  671            0798  3                 BEGIN
;  672            0799  3                 KCNS ();
;  673            0800  3                 RETURN;
;  674            0801  2                 END;
;  675            0802  2
;  676            0803  2             [OUTRANGE] :
;  677            0804  3                 BEGIN
;  678            0805  3                 KCNS ();
;  679            0806  3                 RETURN;
;  680            0807  2                 END;
;  681            0808  2             TES;
;  682            0809  2
;  683            0810  2         RETURN;
;  684            0811  1         END;                                    !End of DOFLG

                                                        .TITLE  DOFLG Process flags
                                                        .IDENT  \V04-000\

                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                                    00  00  54  50  45  43  43  41  00000 P.AAA:  .ASCII  \ACCEPT\<0><0>                    ;
                                    00  00  00  4B  41  45  52  42  00008 P.AAB:  .ASCII  \BREAK\<0><0><0>                 ;
                        00  00  00  45  54  41  4E  45  48  50  59  48  00010 P.AAC:  .ASCII  \HYPHENATE\<0><0><0>          ;
                        00  00  45  4B  49  52  54  53  52  45  56  4F  0001C P.AAD:  .ASCII  \OVERSTRIKE\<0><0>            ;

                                                        .PSECT  $OWN$,NOEXE,2

                                                00000 SCA_DO_HOLD:
                                                        .BLKB   4
                                                00004 SCA_WRD_CHOLD:
                                                        .BLKB   4

                                                        .EXTRN  RINTES, FLGT, IRA
                                                        .EXTRN  KHAR, MRA, SCA, TSF
                                                        .EXTRN  XMRA, XTSF, RNFFEL
                                                        .EXTRN  RNFFNA, RNFLOC, RNFLTC
                                                        .EXTRN  RNFSTR, ENDCHR, ENDWRD
                                                        .EXTRN  ERM, ERMS, FNDFLG
                                                        .EXTRN  OUTLIN, OUTXPH, SUBST
                                                        .EXTRN  RSKIPS, SETCAS

                                                        .PSECT  $CODE$,NOWRT,2

                                              0FFC 00000        .ENTRY  DOFLG, Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11 ; 0279
                                5B 00000000V  EF   9E 00002     MOVAB   XR, R11                                     ;
                                5A 00000000G  EF   9E 00009     MOVAB   ENDCHR, R10                                 ;
                                59 00000000G  EF   9E 00010     MOVAB   SETCAS, R9                                  ;
                                58 00000000'  EF   9E 00017     MOVAB   P.AAA, R8                                   ;
                                57 00000000G  EF   9E 0001E     MOVAB   FLGT+100, R7                                ;
                                56       00G  8F   9A 00025     MOVZBL  #RINTES, R6                                 ;
```

```
                  55 00000000G  EF   9E 00029          MOVAB   KHAR, R5                    ;
                  54 00000000G  EF   9E 00030          MOVAB   IRA+12, R4                  ;
                  53 00000000G  EF   9E 00037          MOVAB   SCA+168, R3                 ;
                                65   DD 0003E          PUSHL   KHAR                        ; 0309
           00000000G  EF        01   FB 00040          CALLS   #1, FNDFLG                  ;
                  11  00        50   CF 00047          CASEL   WHICH_FLAG, #0, #17         ; 0311
002E      03E9      03E9      0026      0004B 1$:      .WORD   2$-1$,-                     ;
0229      0184      00DC      005A      00053                  67$-1$,-                    ;
02E7      02D7      0271      024F      0005B                  67$-1$,-                    ;
0141      03E9      03E9      033D      00063                  3$-1$,-                     ;
                    03E9      014A      0006B                  7$-1$,-                     ;
                                                               17$-1$,-                    ;
                                                               34$-1$,-                    ;
                                                               37$-1$,-                    ;
                                                               40$-1$,-                    ;
                                                               45$-1$,-                    ;
                                                               48$-1$,-                    ;
                                                               50$-1$,-                    ;
                                                               58$-1$,-                    ;
                                                               67$-1$,-                    ;
                                                               67$-1$,-                    ;
                                                               26$-1$,-                    ;
                                                               28$-1$,-                    ;
                                                               67$-1$                      ;
                                79   11 0006F          BRB     13$                         ; 0805
           00000000G  EF        00   FB 00071 2$:      CALLS   #0, SUBST                   ; 0320
                                     04 00078          RET                                 ; 0315
                                64   D5 00079 3$:      TSTL    IRA+12                      ; 0328
                                08   14 0007B          BGTR    4$                          ;
                      65        56   9A 0007D          MOVZBL  R6, KHAR                    ;
                      64        01   CE 00080          MNEGL   #1, IRA+12                  ;
                                09   11 00083          BRB     5$                          ;
                      65   F8   B4   9A 00085 4$:      MOVZBL  @IRA+4, KHAR                ;
                           F8   A4   D6 00089          INCL    IRA+4                       ;
                                64   D7 0008C          DECL    IRA+12                      ;
                      56        65   D1 0008E 5$:      CMPL    KHAR, R6                    ; 0330
                                07   12 00091          BNEQ    6$                          ;
                                06   DD 00093          PUSHL   #6                          ; 0333
                                58   DD 00095          PUSHL   R8                          ;
                              030D   31 00097          BRW     61$                         ;
                  30  A3            01   D0 0009A 6$:      MOVL    #1, SCA+216                 ; 0339
                                65   DD 0009E          PUSHL   KHAR                        ; 0340
                      6A        01   FB 000A0          CALLS   #1, ENDCHR                  ;
                                5B   11 000A3          BRB     15$                         ; 0341
                                64   D5 000A5 7$:      TSTL    IRA+12                      ; 0350
                                08   14 000A7          BGTR    8$                          ;
                      65        56   9A 000A9          MOVZBL  R6, KHAR                    ;
                      64        01   CE 000AC          MNEGL   #1, IRA+12                  ;
                                09   11 000AF          BRB     9$                          ;
                      65   F8   B4   9A 000B1 8$:      MOVZBL  @IRA+4, KHAR                ;
                           F8   A4   D6 000B5          INCL    IRA+4                       ;
                                64   D7 000B8          DECL    IRA+12                      ;
                  F4  A7        65   D1 000BA 9$:      CMPL    KHAR, FLGT+88               ; 0352
                                04   12 000BE          BNEQ    10$                         ;
                                7E   D4 000C0          CLRL    -(SP)                       ; 0355
                                0C   11 000C2          BRB     11$                         ;
                  FC  A7        65   D1 000C4 10$:     CMPL    KHAR, FLGT+96               ; 0361
```

```
                                  08 12 000C8        BNEQ    12$                          ;
                     04      B4   A7 E9 000CA        BLBC    FLGT+24, 12$                 ; 0362
                                  01 DD 000CE        PUSHL   #1                           ; 0366
                                  73 11 000D0  11$:  BRB     20$                          ;
                     67           65 D1 000D2  12$:  CMPL    KHAR, FLGT+100               ; 0372
                                  15 12 000D5        BNEQ    14$                          ;
                     11      B8   A7 E9 000D7        BLBC    FLGT+28, 14$                 ; 0373
                F0   A3           02 88 000DB        BISB2   #2, SCA+152                  ; 0377
     50      63      01           01 EF 000DF        EXTZV   #1, #1, SCA+168, R0          ; 0378
1C   A3      01      01           50 F0 000E4        INSV    R0, #1, #1, SCA+196          ;
                                  73 11 000EA  13$:  BRB     22$                          ; 0379
                04   A7           65 D1 000EC  14$:  CMPL    KHAR, FLGT+104               ; 0383
                                  10 12 000F0        BNEQ    16$                          ;
                     0C      BC   A7 E9 000F2        BLBC    FLGT+32, 16$                 ; 0384
                F0   A3           01 88 000F6        BISB2   #1, SCA+152                  ; 0388
1C   A3      01      00           63 F0 000FA        INSV    SCA+168, #0, #1, SCA+196     ; 0389
                                  71 11 00100  15$:  BRB     24$                          ; 0390
                30   A3           01 D0 00102  16$:  MOVL    #1, SCA+216                  ; 0412
              FF6C   C3           20 CE 00106        MNEGL   #32, SCA+20                  ; 0413
              FF74   C3           20 CE 0010B        MNEGL   #32, SCA+28                  ; 0414
                           FF68   C3 D4 00110        CLRL    SCA+16                       ; 0415
                           FF70   C3 D4 00114        CLRL    SCA+24                       ; 0416
                9C   A3           20 CE 00118        MNEGL   #32, SCA+68                  ; 0418
                A4   A3           20 CE 0011C        MNEGL   #32, SCA+76                  ; 0419
                             98   A3 D4 00120        CLRL    SCA+64                       ; 0420
                             A0   A3 D4 00123        CLRL    SCA+72                       ; 0421
                                     04 00126        RET                                  ; 0348
                                  64 D5 00127  17$:  TSTL    IRA+12                       ; 0428
                                  08 14 00129        BGTR    18$                          ;
                     65           56 9A 0012B        MOVZBL  R6, KHAR                     ;
                     64           01 CE 0012E        MNEGL   #1, IRA+12                   ;
                                  09 11 00131        BRB     19$                          ;
                     65      F8   B4 9A 00133  18$:  MOVZBL  @IRA+4, KHAR                 ;
                             F8   A4 D6 00137        INCL    IRA+4                        ;
                                  64 D7 0013A        DECL    IRA+12                       ;
                F8   A7           65 D1 0013C  19$:  CMPL    KHAR, FLGT+92                ; 0430
                                  0C 12 00140        BNEQ    21$                          ;
                     7E           01 CE 00142        MNEGL   #1, -(SP)                    ; 0433
                     69           01 FB 00145  20$:  CALLS   #1, SETCAS                   ;
                F8   A3           01 D0 00148        MOVL    #1, SCA+160                  ; 0434
                                  44 11 0014C        BRB     27$                          ; 0435
                     67           65 D1 0014E  21$:  CMPL    KHAR, FLGT+100               ; 0439
                                  0E 12 00151        BNEQ    23$                          ;
                     0A      B8   A7 E9 00153        BLBC    FLGT+28, 23$                 ; 0440
                F0   A3           02 8A 00157        BICB2   #2, SCA+152                  ; 0444
                1C   A3           02 8A 0015B        BICB2   #2, SCA+196                  ; 0445
                                  31 11 0015F  22$:  BRB     27$                          ; 0446
                04   A7           65 D1 00161  23$:  CMPL    KHAR, FLGT+104               ; 0450
                                  0E 12 00165        BNEQ    25$                          ;
                     0A      BC   A7 E9 00167        BLBC    FLGT+32, 25$                 ; 0451
                F0   A3           01 8A 0016B        BICB2   #1, SCA+152                  ; 0455
                1C   A3           01 8A 0016F        BICB2   #1, SCA+196                  ; 0456
                                  1D 11 00173  24$:  BRB     27$                          ; 0457
                30   A3           01 D0 00175  25$:  MOVL    #1, SCA+216                  ; 0479
              FF70   C3           20 7D 00179        MOVQ    #32, SCA+24                  ; 0481
              FF68   C3           20 7D 0017E        MOVQ    #32, SCA+16                  ; 0480
                A0   A3           20 7D 00183        MOVQ    #32, SCA+72                  ; 0486
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                98    A3          20  7D 00187          MOVQ    #32, SCA+64                          ; 0485
                                  04  00188            RET                                          ; 0426
              00A0    C3    C0    B3  D0 0018C 26$:     MOVL    @SCA+104, SCA+328                    ; 0495
                          029F      31  00192 27$:      BRW     67$                                  ; 0496
                            64      D5  00195 28$:      TSTL    IRA+12                               ; 0503
                            08      14  00197           BGTR    29$
                    65              56  9A 00199        MOVZBL  R6, KHAR
                    64              01  CE 0019C        MNEGL   #1, IRA+12
                            09      11  0019F           BRB     30$
                    65    F8    B4  9A 001A1 29$:      MOVZBL  @IRA+4, KHAR
                          F8    A4  D6 001A5           INCL    IRA+4
                            64      D7  001A8          DECL    IRA+12
                    56    70    A3  D1 001AA 30$:      CMPL    SCA+280, R6                          ; 0505
                            08      13  001AE          BEQL    31$
                    20              65  D1 001B0       CMPL    KHAR, #32                            ; 0506
                            03      13  001B3          BEQL    31$
                    09              65  D1 001B5       CMPL    KHAR, #9                             ; 0507
                            03      12  001B8 31$:      BNEQ    32$
                          019A      31  001BA          BRW     53$
                    56              65  D1 001BD 32$:  CMPL    KHAR, R6                             ; 0513
                            08      12  001C0          BNEQ    33$
                            05      DD  001C2          PUSHL   #5                                   ; 0516
                          08    A8  9F  001C4          PUSHAB  P.AAB
                          01DD      31  001C7          BRW     61$
                            7E      D4  001CA 33$:      CLRL    -(SP)                                ; 0522
                          01AC      31  001CC          BRW     57$
                    4A      B8    A3  E9  001CF 34$:   BLBC    SCA+96, 35$                          ; 0531
                            B8    A3  D4  001D3        CLRL    SCA+96                               ; 0536
            FF58    C3  FF78    C3  7D  001D6          MOVQ    SCA+32, SCA                          ; 0537
            FF60    C3    80    A3  7D  001DD          MOVQ    SCA+40, SCA+8                        ; 0539
            FF68    C3  FF78    C3  D0  001E3          MOVL    SCA+32, SCA+16                       ; 0541
            FF70    C3  FF7C    C3  D0  001EA          MOVL    SCA+36, SCA+24                       ; 0542
            FF6C    C3    80    A3  D0  001F1          MOVL    SCA+40, SCA+20                       ; 0543
            FF74    C3    84    A3  D0  001F7          MOVL    SCA+44, SCA+28                       ; 0544
              88    A3    A8    A3  7D  001FD          MOVQ    SCA+80, SCA+48                       ; 0546
              90    A3    B0    A3  7D  00202          MOVQ    SCA+88, SCA+56                       ; 0548
              98    A3    A8    A3  D0  00207          MOVL    SCA+80, SCA+64                       ; 0550
              A0    A3    AC    A3  D0  0020C          MOVL    SCA+84, SCA+72                       ; 0551
              9C    A3    B0    A3  D0  00211          MOVL    SCA+88, SCA+68                       ; 0552
              A4    A3    B4    A3  D0  00216          MOVL    SCA+92, SCA+76                       ; 0553
                                54  11  0021B          BRB     36$                                  ;
              B8    A3          01  D0  0021D 35$:     MOVL    #1, SCA+96                           ; 0557
              80    A3  FF60    C3  7D  00221          MOVQ    SCA+8, SCA+40                        ; 0559
            FF78    C3  FF58    C3  7D  00227          MOVQ    SCA, SCA+32                          ; 0558
              B0    A3    90    A3  7D  0022E          MOVQ    SCA+56, SCA+88                       ; 0564
              A8    A3    88    A3  7D  00233          MOVQ    SCA+48, SCA+80                       ; 0563
            FF6C    C3          20  CE  00238          MNEGL   #32, SCA+20                          ; 0569
            FF74    C3          20  CE  0023D          MNEGL   #32, SCA+28                          ; 0570
                      FF68      C3  D4  00242          CLRL    SCA+16                               ; 0571
                      FF70      C3  D4  00246          CLRL    SCA+24                               ; 0572
            FF60    C3          20  CE  0024A          MNEGL   #32, SCA+8                           ; 0573
            FF64    C3          20  CE  0024F          MNEGL   #32, SCA+12                          ; 0574
                      FF58      C3  7C  00254          CLRQ    SCA                                  ; 0575
              9C    A3          20  CE  00258          MNEGL   #32, SCA+68                          ; 0578
              A4    A3          20  CE  0025C          MNEGL   #32, SCA+76                          ; 0579
                        98      A3  D4  00260          CLRL    SCA+64                               ; 0580
                        A0      A3  D4  00263          CLRL    SCA+72                               ; 0581
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                              90    A3           20  CE 00266        MNEGL   #32, SCA+56                              ; 0582
                              94    A3           20  CE 0026A        MNEGL   #32, SCA+60                              ; 0584
                                         88      A3  7C 0026E        CLRQ    SCA+48                                   ; 0583
                                       01C0      31  00271 36$:      BRW     67$                                      ; 0588
                                                 64  D5 00274 37$:   TSTL    IRA+12                                   ; 0595
                                                 08  14 00276        BGTR    38$
                                    65           56  9A 00278        MOVZBL  R6, KHAR
                                    64           01  CE 0027B        MNEGL   #1, IRA+12
                                                 09  11 0027E        BRB     39$
                                    65    F8     B4  9A 00280 38$:   MOVZBL  @IRA+4, KHAR
                                          F8     A4  D6 00284        INCL    IRA+4
                                                 64  D7 00287        DECL    IRA+12
                                    09           65  D1 00289 39$:   CMPL    KHAR, #9                                 ; 0596
                                                 24  13 0028C        BEQL    43$
         50             63          01           01  EF 0028E        EXTZV   #1, #1, SCA+168, R0                      ; 0599
    20   A3             01          01           50  F0 00293        INSV    R0, #1, #1, SCA+200
                                                     04 00299        RET                                              ; 0593
                                                 64  D5 0029A 40$:   TSTL    IRA+12                                   ; 0608
                                                 08  14 0029C        BGTR    41$
                                    65           56  9A 0029E        MOVZBL  R6, KHAR
                                    64           01  CE 002A1        MNEGL   #1, IRA+12
                                                 09  11 002A4        BRB     42$
                                    65    F8     B4  9A 002A6 41$:   MOVZBL  @IRA+4, KHAR
                                          F8     A4  D6 002AA        INCL    IRA+4
                                                 64  D7 002AD        DECL    IRA+12
                                    09           65  D1 002AF 42$:   CMPL    KHAR, #9                                 ; 0609
                                                 01  12 002B2 43$:   BNEQ    44$
                                                     04 002B4        RET
    20   A3             01          00           63  F0 002B5 44$:   INSV    SCA+168, #0, #1, SCA+200                 ; 0612
                                                     04 002BB        RET                                              ; 0606
                                    03    F4     A3  E9 002BC 45$:   BLBC    SCA+156, 46$                             ; 0622
                                    6B           00  FB 002C0        CALLS   #0, XR                                   ; 0625
                                    48    B8     A3  E9 002C3 46$:   BLBC    SCA+96, 47$                              ; 0627
                                          B8     A3  D4 002C7        CLRL    SCA+96                                   ; 0632
                         FF58       C3  FF78     C3  7D 002CA        MOVQ    SCA+32, SCA                              ; 0633
                         FF60       C3    80     A3  7D 002D1        MOVQ    SCA+40, SCA+8                            ; 0635
                         FF68       C3  FF78     C3  D0 002D7        MOVL    SCA+32, SCA+16                           ; 0637
                         FF70       C3  FF7C     C3  D0 002DE        MOVL    SCA+36, SCA+24                           ; 0638
                         FF6C       C3    80     A3  D0 002E5        MOVL    SCA+40, SCA+20                           ; 0639
                         FF74       C3    84     A3  D0 002EB        MOVL    SCA+44, SCA+28                           ; 0640
                           88       A3    A8     A3  7D 002F1        MOVQ    SCA+80, SCA+48                           ; 0642
                           90       A3    B0     A3  7D 002F6        MOVQ    SCA+88, SCA+56                           ; 0644
                           98       A3    A8     A3  D0 002FB        MOVL    SCA+80, SCA+64                           ; 0646
                           A0       A3    AC     A3  D0 00300        MOVL    SCA+84, SCA+72                           ; 0647
                           9C       A3    B0     A   D0 00305        MOVL    SCA+88, SCA+68                           ; 0648
                           A4       A3    B4     A3  D0 0030A        MOVL    SCA+92, SCA+76                           ; 0649
                           1C       A3           02  8A 0030F 47$:   BICB2   #2, SCA+196                              ; 0653
                                                 20  DD 00313        PUSHL   #32                                      ; 0654
                                    6A           01  FB 00315        CALLS   #1, ENDCHR
                                          F8     A3  D4 00318        CLRL    SCA+160                                  ; 0655
                           28       A3           01  D0 0031B        MOVL    #1, SCA+208                              ; 0656
                                       0112      31  0031F           BRW     67$                                      ; 0657
                                    08    10     A3  E9 00322 48$:   BLBC    SCA+184, 49$                             ; 0664
                    00000000V       EF           00  FB 00326        CALLS   #0, SUBXR                                ; 0666
                                                     04 0032D        RET
                                    6B           00  FB 0032E 49$:   CALLS   #0, XR                                   ; 0668
                                                     04 00331        RET                                              ; 0662
```

```
                                                64  D5 00332 50$:   TSTL    IRA+12                                  ; 0675
                                                08  14 00334       BGTR    51$
                                            65      56  9A 00336       MOVZBL  R6, KHAR
                                            64      01  CE 00339       MNEGL   #1, IRA+12
                                                    09  11 0033C       BRB     52$
                                            65  F8  B4  9A 0033E 51$:   MOVZBL  @IRA+4, KHAR
                                                F8  A4  D6 00342       INCL    IRA+4
                                                64  D7 00345       DECL    IRA+12
                                            56  70  A3  D1 00347 52$:   CMPL    SCA+280, R6                             ; 0676
                                                0A  13 0034B       BEQL    53$
                                            20      65  D1 0034D       CMPL    KHAR, #32                               ; 0677
                                                05  13 00350       BEQL    53$
                                            09      65  D1 00352       CMPL    KHAR, #9                                ; 0678
                                                    11  12 00355       BNEQ    54$
                                7E      F8  A4  F4  A4  C3 00357 53$:   SUBL3   IRA, IRA+4, -(SP)                      ; 0681
                                                F4  A4  DD 0035D       PUSHL   IRA
                                    00000000G   8F  DD 00360       PUSHL   #RNFFNA
                                                5B  11 00366       BRB     62$
                                            56      65  D1 00368 54$:   CMPL    KHAR, R6                                ; 0684
                                                07  12 0036B       BNEQ    55$
                                                09  DD 0036D       PUSHL   #9                                       ; 0687
                                                10  A8  9F 0036F       PUSHAB  P.AAC
                                                33  11 00372       BRB     61$
                                01              63      04  E0 00374 55$:   BBS     #4, SCA+168, 56$                        ; 0692
                                                    04  00378       RET
                                                01  DD 00379 56$:   PUSHL   #1                                      ; 0697
                                                7E  7C 0037B 57$:   CLRQ    -(SP)
                                    00000000G   EF      03  FB 0037D       CALLS   #3, ENDWRD
                                                28  A3  D4 00384       CLRL    SCA+208                                 ; 0698
                                                    04  00387       RET                                             ; 0673
                                                64  D5 00388 58$:   TSTL    IRA+12                                  ; 0706
                                                08  14 0038A       BGTR    59$
                                            65      56  9A 0038C       MOVZBL  R6, KHAR
                                            64      01  CE 0038F       MNEGL   #1, IRA+12
                                                    09  11 00392       BRB     60$
                                            65  F8  B4  9A 00394 59$:   MOVZBL  @IRA+4, KHAR
                                                F8  A4  D6 00398       INCL    IRA+4
                                                64  D7 0039B       DECL    IRA+12
                                            56      65  D1 0039D 60$:   CMPL    KHAR, R6                                ; 0708
                                                    29  12 003A0       BNEQ    63$
                                                0A  DD 003A2       PUSHL   #10                                      ; 0711
                                                1C  A8  9F 003A4       PUSHAB  P.AAD
                                    00000000G   8F  DD 003A7 61$:   PUSHL   #RNFFEL
                                00000000G   EF      03  FB 003AD       CALLS   #3, ERM
                            7E      F8  A4  F4  A4  C3 003B4       SUBL3   IRA, IRA+4, -(SP)                       ; 0712
                                                F4  A4  DD 003BA       PUSHL   IRA
                                    00000000G   8F  DD 003BD       PUSHL   #RNFSTR
                                00000000G   EF      03  FB 003C3 62$:   CALLS   #3, ERMS
                                                    04  003CA       RET                                             ; 0710
                                            56      70  A3  D1 003CB 63$:   CMPL    SCA+280, R6                             ; 0716
                                                    11  12 003CF       BNEQ    64$
                            7E      F8  A4  F4  A4  C3 003D1       SUBL3   IRA, IRA+4, -(SP)                       ; 0720
                                                F4  A4  DD 003D7       PUSHL   IRA
                                    00000000G   8F  DD 003DA       PUSHL   #RNFFNA
                                                21  11 003E0       BRB     65$
                            4E              63      02  E1 003E2 64$:   BBC     #2, SCA+168, 67$                        ; 0723
                                        52  00000000G   EF  D0 003E6       MOVL    MRA, R2                                 ; 0727
```

```
                50      0C   A2              03  C1 003ED          ADDL3   #3, 12(R2), R0
                        50        08    A2  03  D1 003F2          CMPL    8(R2), R0
                                        14  18 003F6          BGEQ    66$
                                        64  DD 003F8          PUSHL   IRA+12                  ;0729
                                      F8    A4  DD 003FA          PUSHL   IRA+4
                                00000000G   8F  DD 003FD          PUSHL   #RNFLTC
            00000000G   EF                  03  FB 00403 65$:     CALLS   #3, ERMS
                                            28  11 0040A          BRB     67$
                        50        04    A2  9E 0040C 66$:     MOVAB   4(R2), R0               ;0733
                    00  B0                  56  90 00410          MOVB    R6, @0(R0)
                                            60  D6 00414          INCL    (R0)
                                      0C    A2  D6 00416          INCL    12(R2)
                    00  B0            4F    8F  90 00419          MOVB    #79, @0(R0)         ;0734
                                            60  D6 0041E          INCL    (R0)
                                      0C    A2  D6 00420          INCL    12(R2)
                    00  B0                  65  90 00423          MOVB    KHAR, @0(R0)        ;0735
                                            60  D6 00427          INCL    (R0)
                                      0C    A2  D6 00429          INCL    12(R2)
                    54  A3                  03  C0 0042C          ADDL2   #3, SCA+252         ;0736
                    18  A3                  04  88 00430          BISB2   #4, SCA+192         ;0737
                                            64  D5 00434 67$:     TSTL    IRA+12              ;0799
                                            07  14 00436          BGTR    68$
                        65                  56  9A 00438          MOVZBL  R6, KHAR
                        64                  01  CE 0043B          MNEGL   #1, IRA+12
                                            04  0043E          RET
                        65        F8    B4  9A 0043F 68$:     MOVZBL  @IRA+4, KHAR
                                  F8    A4  D6 00443          INCL    IRA+4
                                            64  D7 00446          DECL    IRA+12
                                            04  00448          RET                             ;0811

; Routine Size:  1097 bytes,    Routine Base:  $CODE$ + 0000
```

```
;  686     0812  1 GLOBAL ROUTINE SUBXR : NOVALUE =
;  687     0813  1
;  688     0814  1 !++
;  689     0815  1 ! FUNCTIONAL DESCRIPTION:
;  690     0816  1 !
;  691     0817  1 !       This routine is called when RUNOFF is processing a .SUBINDEX or
;  692     0818  1 !       .ENTRY command, and a Subindex flag is encountered. The character
;  693     0819  1 !       sequence that the previous Subindex flag started is terminated, and the
;  694     0820  1 !       next one is set up.
;  695     0821  1 !
;  696     0822  1 ! FORMAL PARAMETERS:  None
;  697     0823  1 !
;  698     0824  1 ! IMPLICIT INPUTS: None
;  699     0825  1 !
;  700     0826  1 ! IMPLICIT OUTPUTS: None
;  701     0827  1 !
;  702     0828  1 ! ROUTINE VALUE:
;  703     0829  1 ! COMPLETION CODES: None
;  704     0830  1 !
;  705     0831  1 ! SIDE EFFECTS: None
;  706     0832  1 !
;  707     0833  1 !--
;  708     0834  1
;  709     0835  2     BEGIN
;  710     0836  2     !Always position past the Subindex flag
;  711     0837  2     KCNS ();
;  712     0838  2     !Skip spaces/tabs preceeding the next item.
;  713     0839  2     RSKIPS (IRA);
;  714     0840  2
;  715     0841  2     !Make sure user didn't put the Subindex flag at the end of
;  716     0842  2     !the line.
;  717     0843  2     IF .KHAR EQL RINTES                 !End of line?
;  718     0844  2     THEN
;  719     0845  3         BEGIN
;  720     0846  3         ERM (RNFFEL, CH$PTR (UPLIT ('SUBINDEX')), 8);
;  721     0847  3         ERMS  (RNFSTR, .FS_START (IRA), CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)) - 1);
;  722     0848  3         RETURN
;  723     0849  2         END;
;  724     0850  2
;  725     0851  2     !Make sure user didn't put the Subindex flag at the start of the line.
;  726     0852  2     !The check for the start of the line is done by seeing if there
;  727     0853  2     !is anything in the index output buffer yet, as would be the case
;  728     0854  2     !if the two pointers are indeed equal.  On top of that, it's
;  729     0855  2     !important to take account of single-character entires.  Remember
;  730     0856  2     !that ENDCHR won't put a character into the MRA until the next
;  731     0857  2     !character forces it out.  So checking for it being the first character
;  732     0858  2     !detects the one-character-entry case.
;  733     0859  2     IF .SCA_FC                                  !First character?
;  734     0860  3         AND (.FS_START (MRA) EQL .FS_NEXT (MRA))!Start of line?
;  735     0861  2     THEN
;  736     0862  3         BEGIN
;  737     0863  3         ERMS (RNFFNA,
;  738     0864  3               .FS_START (IRA),
;  739     0865  3               CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)) - 1);
;  740     0866  3         RETURN
;  741     0867  2         END;
;  742     0868  2
```

```
;  743     0869  2     !Detect ">>" and complain.
;  744     0870  2     !The check is done by looking back at what's been generated to see if
;  745     0871  2     !all there is is a justification mark, to separate words.  Similarily,
;  746     0872  2     !the case of a one-character entry is taken into account.
;  747     0873  3     BEGIN
;  748     0874  3     LOCAL
;  749     0875  3         TEMP_PTR;
;  750     0876  3     TEMP_PTR = CH$PLUS(.FS_NEXT (MRA), -3);      !Point to start of a sequence.
;  751     0877  4     IF (CH$RCHAR_A (TEMP_PTR) EQL RINTES)        !
;  752     0878  4         AND (CH$RCHAR (.TEMP_PTR) EQL %C'J')     !
;  753     0879  3         AND .SCA_FC
;  754     0880  3     THEN
;  755     0881  4         BEGIN
;  756     0882  4         ERMS (RNFFNA,
;  757     0883  4               .FS_START (IRA),
;  758     0884  4               CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)) - 1);
;  759     0885  4         RETURN
;  760     0886  4         END
;  761     0887  2     END;
;  762     0888  2
;  763     0889  2     IF .SCA_WRD_CPEND NEQ RINTES
;  764     0890  2     THEN
;  765     0891  2         ENDWRD (FALSE, FALSE, FALSE)
;  766     0892  2     ELSE
;  767     0893  2     !Dump trailing spaces
;  768     0894  3         BEGIN
;  769     0895  3         LOCAL
;  770     0896  3             TEMP_PTR;
;  771     0897  3
;  772     0898  3         FS_NEXT (MRA) = CH$PLUS (.FS_NEXT (MRA), -.SCA_WRD_LST_SP);
;  773     0899  3         FS_LENGTH (MRA) = .FS_LENGTH (MRA) - .SCA_WRD_LST_SP;
;  774     0900  3         SCA_WRD_LST_SP = 0;
;  775     0901  3
;  776     0902  3         !Check for wierd things like .X ^^(spaces only), or .X a>^^(spaces)>etc
;  777     0903  3         TEMP_PTR = CH$PLUS(.FS_NEXT (MRA), -3); !Point to start of a sequence.
;  778     0904  5         IF (CH$RCHAR_A (TEMP_PTR) EQL RINTES)          !
;  779     0905  4             AND (CH$RCHAR (.TEMP_PTR) EQL %C'J'))      !Catches .X whatever>^^(spaces)>whatever
;  780     0906  4             OR (.FS_START(MRA) EQL .FS_NEXT(MRA))      !Catches .X^^(spaces)>whatever
;  781     0907  3         THEN
;  782     0908  4             BEGIN
;  783     0909  4             ERMS (RNFFNA,
;  784     0910  4                   .FS_START (IRA),
;  785     0911  4                   CH$DIFF (.FS_NEXT (IRA), .FS_START (IRA)) - 1);
;  786     0912  4             RETURN
;  787     0913  4             END
;  788     0914  2         END;
;  789     0915  2
;  790     0916  2     !An end of word marker separates character sequences.
;  791     0917  2     FS_WCHAR (MRA, RINTES);
;  792     0918  2     FS_WCHAR (MRA, %C'J');
;  793     0919  2     FS_WCHAR (MRA, %C' ');
;  794     0920  2     TSF_INT_HL = .TSF_INT_HL + 3;
;  795     0921  2     TSF_JUS_CNT = .TSF_JUS_CNT + 1;
;  796     0922  2     SCA_WRD_PNTR = .FS_NEXT (MRA)
;  797     0923  1     END;                                          !End of SUBXR
```

```
                                                        .PSECT  $PLIT$,NOWRT,NOEXE,2

                58  45  44  4E  49  42  55  53  00028 P.AAE:  .ASCII  \SUBINDEX\                                    ;

                                                        .PSECT  $CODE$,NOWRT,2

                                        00FC 00000      .ENTRY  SUBXR, Save R2,R3,R4,R5,R6,R7                    ; 0812
                    57 00000000G    EF  9E 00002        MOVAB   KHAR, R7
                    56 00000000G    EF  9E 00009        MOVAB   MRA, R6
                    55        00G   8F  9A 00010        MOVZBL  #RINTES, R5
                    54 00000000G    EF  9E 00014        MOVAB   SCA+332, R4
                    53 00000000G    EF  9E 0001B        MOVAB   IRA, R3
                               0C   A3  D5 00022        TSTL    IRA+12                                           ; 0837
                                    09  14 00025        BGTR    1$
                    67              55  9A 00027        MOVZBL  R5, KHAR
                 0C A3              01  CE 0002A        MNEGL   #1, IRA+12
                                    0A  11 0002E        BRB     2$
                    67         04   B3  9A 00030 1$:    MOVZBL  @IRA+4, KHAR
                               04   A3  D6 00034        INCL    IRA+4
                               0C   A3  D7 00037        DECL    IRA+12
                                    53  DD 0003A 2$:    PUSHL   R3                                               ; 0839
 00000000G      EF                  01  FB 0003C        CALLS   #1, RSKIPS
                55                  67  D1 00043        CMPL    KHAR, R5                                         ; 0843
                                    27  12 00046        BNEQ    3$
                                    08  DD 00048        PUSHL   #8                                               ; 0846
                    00000000'   EF  9F 0004A        PUSHAB  P.AAE
                    00000000G   8F  DD 00050        PUSHL   #RNFFEL
    00000000G   EF                  03  FB 00056        CALLS   #3, ERM
 50         04  A3                  63  C3 0005D        SUBL3   IRA, IRA+4, R0                                   ; 0847
                           FF   A0  9F 00062        PUSHAB  -1(R0)
                                    63  DD 00065        PUSHL   IRA
                    00000000G   8F  DD 00067        PUSHL   #RNFSTR
                                    72  11 0006D        BRB     9$
                    09      FF48    C4  E9 0006F 3$:    BLBC    SCA+148, 4$                                      ; 0859
                    50              66  D0 00074        MOVL    MRA, R0                                          ; 0860
              04    A0              60  D1 00077        CMPL    (R0), 4(R0)
                                    54  13 0007B        BEQL    8$
                    50              66  D0 0007D 4$:    MOVL    MRA, R0                                          ; 0876
 50         04  A0                  03  C3 00080        SUBL3   #3, 4(R0), TEMP_PTR
                    51              80  9A 00085        MOVZBL  (TEMP_PTR)+, R1                                  ; 0877
                    55              51  D1 00088        CMPL    R1, R5
                                    0B  12 0008B        BNEQ    5$
              4A    81              60  91 0008D        CMPB    (TEMP_PTR), #74                                  ; 0878
                                    05  12 00091        BNEQ    5$
                    39      FF48    C4  E8 00093        BLBS    SCA+148, 8$                                      ; 0879
                    55        CC    A4  D1 00098 5$:    CMPL    SCA+280, R5                                      ; 0889
                                    0D  13 0009C        BEQL    6$
                                    7E  7C 0009E        CLRQ    -(SP)                                            ; 0891
                                    7E  D4 000A0        CLRL    -(SP)
    00000000G   EF                  03  FB 000A2        CALLS   #3, ENDWRD
                                    3E  11 000A9        BRB     10$
                    50              66  D0 000AB 6$:    MOVL    MRA, R0                                          ; 0898
              04    A0              64  C2 000AE        SUBL2   SCA+332, 4(R0)
              0C    A0              64  C2 000B2        SUBL2   SCA+332, 12(R0)                                  ; 0899
```

```
                                 64  D4 000B6          CLRL    SCA+332                                 ; 0900
                51       04  A0  03  C3 000B8          SUBL3   #3, 4(R0), TEMP_PTR                     ; 0903
                             52  81  9A 000BD          MOVZBL  (TEMP_PTR)+, R2                         ; 0904
                             55  52  D1 000C0          CMPL    R2, R5
                                 06  12 000C3          BNEQ    7$
                         4A  8F  61  91 000C5          CMPB    (TEMP_PTR), #74                         ; 0905
                                 06  13 000C9          BEQL    8$
                         04  A0  60  D1 000CB 7$:      CMPL    (R0), 4(R0)                             ; 0906
                                 18  12 000CF          BNEQ    10$
                50       04  A3  63  C3 000D1 8$:      SUBL3   IRA, IRA+4, R0                          ; 0911
                                 FF  A0  9F 000D6          PUSHAB  -1(R0)
                                 63  DD 000D9          PUSHL   IRA                                     ; 0910
                             00000000G  8F  DD 000DB          PUSHL   #RNFFNA                         ; 0909
                    00000000G    EF  03  FB 000E1 9$:      CALLS   #3, ERMS
                                 04  00E8          RET                                             ; 0908
                             50  66  D0 000E9 10$:      MOVL    MRA, R0                                 ; 0917
                             51       04  A0  9E 000EC          MOVAB   4(R0), R1
                         00  B1  55  90 000F0          MOVB    R5, @0(R1)
                                 61  D6 000F4          INCL    (R1)
                                 0C  A0  D6 000F6          INCL    12(R0)
                         00  B1      4A  8F  90 000F9          MOVB    #74, @0(R1)                     ; 0918
                                 61  D6 000FE          INCL    (R1)
                                 0C  A0  D6 00100          INCL    12(R0)
                         00  B1          20  90 00103          MOVB    #32, @0(R1)                     ; 0919
                                 61  D6 00107          INCL    (R1)
                                 0C  A0  D6 00109          INCL    12(R0)
                             50 00000000G  EF  D0 0010C          MOVL    TSF, R0
                             60  03  C0 00113          ADDL2   #3, (R0)                                ; 0920
                                 20  A0  D6 00116          INCL    32(R0)                              ; 0921
                         AC  A4  61  D0 00119          MOVL    (R1), SCA+248                           ; 0922
                                 04  0011D          RET                                             ; 0923

; Routine Size:  286 bytes,    Routine Base:  $CODE$ + 0449
```

```
;  799     0924  1 GLOBAL ROUTINE XR : NOVALUE =
;  800     0925  1
;  801     0926  1 !++
;  802     0927  1 ! FUNCTIONAL DESCRIPTION:
;  803     0928  1 !
;  804     0929  1 !       This routine is called when an Index flag is seen. It is also
;  805     0930  1 !       called when a space is seen at the end of a word, and that word is
;  806     0931  1 !       to be entered into the index.
;  807     0932  1 !
;  808     0933  1 ! FORMAL PARAMETERS: None
;  809     0934  1 !
;  810     0935  1 ! IMPLICIT INPUTS: None
;  811     0936  1 !
;  812     0937  1 ! IMPLICIT OUTPUTS: None
;  813     0938  1 !
;  814     0939  1 ! ROUTINE VALUE:
;  815     0940  1 ! COMPLETION CODES: None
;  816     0941  1 !
;  817     0942  1 ! SIDE EFFECTS: None
;  818     0943  1 !
;  819     0944  1 !--
;  820     0945  1
;  821     0946  2     BEGIN
;  822     0947  2
;  823     0948  2     IF .KHAR EQL .FLGT [IND_FLAG, FLAG_CHARACTER]
;  824     0949  2     THEN
;  825     0950  2         KCNS ();                                    !Position past Index flag
;  826     0951  2
;  827     0952  2     !If indexing is already on, terminate current phrase and enter
;  828     0953  2     !it into the idex.
;  829     0954  2
;  830     0955  2     IF .SCA_X_FLAG
;  831     0956  2     THEN
;  832     0957  3         BEGIN
;  833     0958  3         OUTXPH ();                                  !Output word to index.
;  834     0959  3         RETURN;
;  835     0960  3         END
;  836     0961  2     ELSE
;  837     0962  2     !Turn on indexing if indexing is wanted.
;  838     0963  2         SCA_X_FLAG = .SCA_DO_IND;
;  839     0964  2
;  840     0965  2     IF .SCA_X_FLAG
;  841     0966  2     THEN
;  842     0967  2     !The index flag has just been turned on.  Initialize the
;  843     0968  2     !work areas for the Index flag.
;  844     0969  3         BEGIN
;  845     0970  3         FS_INIT (XMRA);
;  846     0971  3
;  847     0972  3         INCR I FROM 0 TO TSF_SIZE - 1 DO
;  848     0973  3             XTSF [.I] = 0;
;  849     0974  3
;  850     0975  2         END;
;  851     0976  2
;  852     0977  1     END;                                            !End of XR
```

```
                                                  003C 00000          .ENTRY  XR, Save R2,R3,R4,R5                            ; 0924
                                          55 00000000G  EF   9E 00002 MOVAB   KHAR, R5
                                          54 00000000G  FF   9E 00009 MOVAB   SCA+156, R4
                                          53 00000000G  EF   9E 00010 MOVAB   XMRA, R3
                                          52 00000000G  EF   9E 00017 MOVAB   IRA+12, R2
                                00000000G EF            65   D1 0001E CMPL    KHAR, FLGT+112                              ; 0948
                                                        16   12 00025 BNEQ    2$
                                                        62   D5 00027 TSTL    IRA+12                                      ; 0950
                                                        09   14 00029 BGTR    1$
                                          65        00G   8F   9A 0002B MOVZBL  #RINTES, KHAR
                                          62              01   CE 0002F MNEGL   #1, IRA+12
                                                        09   11 00032 BRB     2$
                                          65        F8    B2   9A 00034 1$:   MOVZBL  @IRA+4, KHAR
                                                    F8    A2   D6 00038       INCL    IRA+4
                                                        62   D7 0003B       DECL    IRA+12
                                          08            64   E9 0003D 2$:   BLBC    SCA+156, 3$                             ; 0955
                                00000000G EF            00   FB 00040       CALLS   #0, OUTXPH                          ; 0958
                                                        04 00047            RET                                         ; 0957
                    64      0C    A4                01   EF 00048 3$:   EXTZV   #3, #1, SCA+168, SCA+156                ; 0963
                                          18            64   E9 0004E       BLBC    SCA+156, 5$                             ; 0965
                                                0C    A3   D4 00051       CLRL    XMRA+12                                 ; 0970
                                          63        10    A3   9E 00054       MOVAB   XMRA+16, XMRA
                                                04    A3   63   D0 00058       MOVL    XMRA, XMRA+4
                                                        50   D4 0005C       CLRL    I                                       ; 0972
                                              00000000GEF40   D4 0005E 4$:   CLRL    XTSF[I]                                 ; 0973
                                F5              50            27   F3 00065       AOBLEQ  #39, I, 4$
                                                        04 00069 5$:   RET                                         ; 0977

; Routine Size:  106 bytes,    Routine Base:  $CODE$ + 0567

;  853          0978  1
;  854          0979  1 END                                     !End of module
;  855          0980  0 ELUDOM



;                                    PSECT SUMMARY
;
;      Name                    Bytes                           Attributes
;
;  $OWN$                          8  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $PLIT$                        48  NOVEC,NOWRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  $CODE$                      1489  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        0        0      252          00:00.1
;  _$255$DUA28:[RUNOFF.SRC]DSRLIB.L32;1    1248      100        8       86          00:00.3
```

```
;                                       COMMAND QUALIFIERS

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

; Size:          1489 code + 56 data bytes
; Run Time:         00:40.3
; Elapsed Time:     01:29.0
; Lines/CPU Min:     1457
; Lexemes/CPU-Min: 24624
; Memory Used:  360 pages
; Compilation Complete
```