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

```
_$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
```

FILEID**GCODE

E 16

```
  GGGGGGGG    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE
  GGGGGGGG    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE
GG          CC          OO      OO  DD      DD  EE
GG          CC          OO      OO  DD      DD  EE
GG          CC          OO      OO  DD      DD  EE
GG          CC          OO      OO  DD      DD  EE
GG          CC          OO      OO  DD      DD  EEEEEEEE
GG          CC          OO      OO  DD      DD  EEEEEEEE
GG  GGGGGG  CC          OO      OO  DD      DD  EE
GG  GGGGGG  CC          OO      OO  DD      DD  EE
GG      GG  CC          OO      OO  DD      DD  EE              ....
GG      GG  CC          OO      OO  DD      DD  EE              ....
  GGGGGG      CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE      ....
  GGGGGG      CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE      ....

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

```
  0 MODULE gcode (  IDENT = 'V04-000'
P 0                 %BLISS32[, ADDRESSING_MODE (EXTERNAL    = LONG_RELATIVE,
  0                                              NONEXTERNAL = LONG_RELATIVE)]
  0                 ) =
  1 BEGIN
  1 !
  1 !****************************************************************************
  1 !*                                                                          *
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  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
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  1 !*                                                                          *
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  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
  1 !*  CORPORATION.                                                            *
  1 !*                                                                          *
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  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                 *
  1 !*                                                                          *
  1 !*                                                                          *
  1 !****************************************************************************
  1 !
  1
  1 !++
  1 ! FACILITY:     DSR (Digital Standard RUNOFF) / DSRPLUS
  1 !
  1 ! ABSTRACT:     Generates intermediate code for paper positioning.
  1 !
  1 ! ENVIRONMENT:  Transportable
  1 !
  1 ! AUTHOR:       R.W.Friday       CREATION DATE: June, 1978
  1
```

```
;    41          0040   1 %SBTTL 'Revision History'
;    42          0041   1 ! MODIFIED BY:
;    43          0042   1 !
;    44          0043   1 !        009      RER00009       Ron Randall     17-Mar-1983
;    45          0044   1 !                 For DSRPLUS:  Added code related to topnote tests.
;    46          0045   1 !
;    47          0046   1 !        008      RER00008       Ron Randall     07-Mar-1983
;    48          0047   1 !                 Global edit of all modules. Updated module names, idents,
;    49          0048   1 !                 copyright dates. Changed require files to BLISS l:brary.
;    50          0049   1 !--
;    51          0050   1
;    53          0051  1 %SBTTL 'Module Level Declarations'
;    54          0052  1 !
;    55          0053  1 ! TABLE OF CONTENTS:
;    56          0054  1 !
;    57          0055  1 FORWARD ROUTINE
;    58          0056  1     gcpage       : NOVALUE,
;    59          0057  1     gcpos        : NOVALUE,
;    60          0058  1     gcskip       : NOVALUE,
;    61          0059  1     gtpc         : NOVALUE,
;    62          0060  1     guskip       : NOVALUE;
;    63          0061  1
;    64          0062  1 !
;    65          0063  1 ! INCLUDE FILES:
;    66          0064  1 !
;    67          0065  1 LIBRARY 'NXPORT:XPORT';                   ! XPORT Library
;    68          0066  1 REQUIRE 'REQ:RNODEF';                     ! RUNOFF variant definitions
;    69          0197  1
;    70        U 0198  1 %IF DSRPLUS %THEN
;    71        U 0199  1 LIBRARY 'REQ:DPLLIB';                     ! DSRPLUS BLISS Library
;    72          0200  1 %ELSE
;    73          0201  1 LIBRARY 'REQ:DSRLIB';                     ! DSR BLISS Library
;    74          0202  1 %FI
;    75          0203  1
;    76          0204  1 !
;    77          0205  1 ! EXTERNAL REFERENCES:
;    78          0206  1 !
;    79          0207  1 EXTERNAL LITERAL
;    80          0208  1     rintes       : UNSIGNED (8);
;    81          0209  1
;    82          0210  1 EXTERNAL
;    83          0211  1     fnct         : fnct_definition,
;    84          0212  1     gca          : gca_definition,
;    85          0213  1     irac         : irac_definition,
;    86          0214  1     mra          : REF FIXED_STRING,
;    87          0215  1     sca          : sca_definition,
;    88          0216  1     tsf          : tsf_definition;
;    89          0217  1
;    90        U 0218  1 %IF DSRPLUS %THEN
;    91        U 0219  1 EXTERNAL
;    92        U 0220  1     topnot       : tn_definition;
;    93          0221  1 %FI
;    94          0222  1
;    95          0223  1 EXTERNAL ROUTINE
;    96          0224  1     outcrg;
;    97          0225  1
;  99      0226  1 GLOBAL ROUTINE gcpage : NOVALUE =
; 100      0227  1
; 101      0228  1 !++
; 102      0229  1 ! FUNCTIONAL DESCRIPTION:
; 103      0230  1 !
; 104      0231  1 !       Generates code for starting a new page, if not already
; 105      0232  1 !       at the top of a page.
; 106      0233  1 !
; 107      0234  1 ! FORMAL PARAMETERS:    None
; 108      0235  1 !
; 109      0236  1 ! IMPLICIT INPUTS:      None
; 110      0237  1 !
; 111      0238  1 ! IMPLICIT OUTPUTS:     None
; 112      0239  1 !
; 113      0240  1 ! ROUTINE VALUE:
; 114      0241  1 ! COMPLETION CODES:     None
; 115      0242  1 !
; 116      0243  1 ! SIDE EFFECTS:         None
; 117      0244  1 !--
; 118      0245  1
; 119      0246  2     BEGIN
; 120      0247  2
; 121      0248  2     IF  .fnct_collecting                            ! Don't start a new page if
; 122      0249  2     THEN                                            ! footnotes are being collected,
; 123      0250  2         RETURN;                                     ! since footnotes all belong on
; 124      0251  2                                                     ! one page.
; 125      0252  2     fs_wchar (mra, rintes);
; 126      0253  2     fs_wchar (mra, %C'p');
; 127      0254  2     fs_wchar (mra, %C' ');
; 128      0255  2     tsf_int_vl = .tsf_int_vl + 3;
; 129      0256  1     END;                                            ! End of GCPAGE

                                                             .TITLE  GCODE
                                                             .IDENT  \V04-000\

                                                             .EXTRN  RINTES, FNCT, GCA
                                                             .EXTRN  IRAC, MRA, SCA, TSF
                                                             .EXTRN  OUTCRG

                                                             .PSECT  $CODE$,NOWRT,2

                                  0000 00000                 .ENTRY  GCPAGE, Save nothing                  ; 0226
                    33 00000000G  EF   E8 00002              BLBS    FNCT+20, 1$                           ; 0248
                    50 00000000G  EF   D0 00009              MOVL    MRA, R0                               ; 0252
                    51        04  A0   9E 00010              MOVAB   4(R0), R1                             ;
              00    B1       00G  8F   90 C0014              MOVB    #RINTES, @0(R1)                       ;
                                  61   D6 00019              INCL    (R1)                                  ;
                              0C  A0   D6 0001B              INCL    12(R0)                                ;
              00    B1        70  8F   90 0001E              MOVB    #112, @0(R1)                          ; 0253
                                  61   D6 00023              INCL    (R1)                                  ;
                              0C  A0   D6 00025              INCL    12(R0)                                ;
              00    B1            20   90 00028              MOVB    #32, @0(R1)                           ; 0254
                                  61   D6 0002C              INCL    (R1)                                  ;
                              0C  A0   D6 0002E              INCL    12(R0)                                ;
                    50 00000000G  EF   D0 00031              MOVL    TSF, R0                               ;
              18    A0            03   C0 00038              ADDL2   #3, 24(R0)                            ; 0255
```

```
                                                     04 0003C 1$:      RET                                                 ; 0256

; Routine Size:  61 bytes,     Routine Base:  $CODE$ + 0000


;  130           0257  1
```

```
1 GLOBAL ROUTINE gcpos (position) : NOVALUE =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       Generates code to position to a particular line on a page.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       position - Indicates which line is to be positioned to.
1 !                  Negative means from the bottom of the page;
1 !                  positive means from the top.
1 !
1 ! IMPLICIT INPUTS:      None
1 !
1 ! IMPLICIT OUTPUTS:     None
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:     None
1 !
1 ! SIDE EFFECTS:         None
1 !--
1
2     BEGIN
2     LOCAL
2         tsf_phregs : REF VECTOR [tsf_nregs];
2
2     !
2     ! Don't go anywhere if footnotes are being collected.  Leave
2     ! the paper positioned where it is.
2     !
2     IF  .fnct_collecting
2     THEN
2         RETURN;
2
2     tsf_phregs = tsf__phregs;
2
2     IF  .tsf_next_reg GEQ tsf_nregs
2     !
2     ! Be sure not to allocate too many "registers".
2     !
2     THEN
2         outcrg ();
2
2     tsf_phregs [.tsf_next_reg] = .position;
2     fs_wchar (mra, rintes);
2     fs_wchar (mra, %C'g');
2     fs_wchar (mra, .tsf_next_reg);
2     tsf_int_vl   = .tsf_int_vl + 3;
2     tsf_next_reg = .tsf_next_reg + 1;
2     tsf_bar_char = .sca_bar_char;                   ! Propogate change bars.
2     tsf_bars     = .tsf_bars OR .irac_bars;
1     END;                                            ! End of GCPOS
```

```
                                                       003C 00000         .ENTRY  GCPOS, Save R2,R3,R4,R5                     ; 0258
                                       55 00000000G  EF  9E 00002         MOVAB   TSF, R5                                     ;
                                       74 00000000G  EF  E8 00009         BLBS    FNCT+20, 2$                                 ; 0289
                                       50            65  D0 00010         MOVL    TSF, R0                                     ; 0293
                                       52      008C  C0  9E 00013         MOVAB   140(R0), TSF_PHREGS                         ;
                                       05      0088  C0  D1 00018         CMPL    136(R0), #5                                 ; 0295
                                                     07  19 0001D         BLSS    1$                                          ;
                            00000000G  EF            00  FB 0001F         CALLS   #0, OUTCRG                                  ; 0300
                                       53            65  D0 00026 1$:     MOVL    TSF, R3                                     ; 0302
                                       54      0088  C3  9E 00029         MOVAB   136(R3), R4                                 ;
                                       50            64  D0 0002E         MOVL    (R4), R0                                    ;
                                     6240        04  AC  D0 00031         MOVL    POSITION, (TSF_PHREGS)[R0]                  ;
                                       52 00000000G  EF  D0 00036         MOVL    MRA, R2                                     ; 0303
                                       51        04  A2  9E 0003D         MOVAB   4(R2), R1                                   ;
                                   00  B1       00G  8F  90 00041         MOVB    #RINTES, @0(R1)                             ;
                                                     61  D6 00046         INCL    (R1)                                        ;
                                                 0C  A2  D6 00048         INCL    12(R2)                                      ;
                                   00  B1        67  8F  90 0004B         MOVB    #103, @0(R1)                                ; 0304
                                                     61  D6 00050         INCL    (R1)                                        ;
                                                 0C  A2  D6 00052         INCL    12(R2)                                      ;
                                   00  B1            50  90 00055         MOVB    R0, @0(R1)                                  ; 0305
                                                     61  D6 00059         INCL    (R1)                                        ;
                                                 0C  A2  D6 0005B         INCL    12(R2)                                      ;
                                   18  A3            03  C0 0005E         ADDL2   #3, 24(R3)                                  ; 0306
                                                     64  D6 00062         INCL    (R4)                                        ; 0307
                                   1C  A3 00000000G  FF  D0 00064         MOVL    @SCA+136, 28(R3)                            ; 0308
           50        7C  A3            01            00  EF 0006C         EXTZV   #0, #1, 124(R3), R0                         ; 0309
           51 00000000G  EF            01            00  EF 00072         EXTZV   #0, #1, IRAC, R1                            ;
                                       50            51  88 0007B         BISB2   R1, R0                                      ;
      7C   A3            01            00            50  F0 0007E         INSV    R0, #0, #1, 124(R3)                         ;
                                                         04 00084 2$:     RET                                                 ; 0310

; Routine Size:  133 bytes,    Routine Base:  $CODE$ + 003D


;  185          0311  1
;  187          0312  1 GLOBAL ROUTINE gcskip (spacing) : NOVALUE =
;  188          0313  1
;  189          0314  1 !++
;  190          0315  1 ! FUNCTIONAL DESCRIPTION:
;  191          0316  1 !
;  192          0317  1 !       Generate code to skip lines that don't occur at the top
;  193          0318  1 !       of a page.
;  194          0319  1 !
;  195          0320  1 ! FORMAL PARAMETERS:
;  196          0321  1 !
;  197          0322  1 !       spacing - Indicates how many lines are to be skipped.
;  198          0323  1 !
;  199          0324  1 ! IMPLICIT INPUTS:       None
;  200          0325  1 !
;  201          0326  1 ! IMPLICIT OUTPUTS:      None
;  202          0327  1 !
;  203          0328  1 ! ROUTINE VALUE:
;  204          0329  1 ! COMPLETION CODES:      None
;  205          0330  1 !
;  206          0331  1 ! SIDE EFFECTS:          None
;  207          0332  1 !--
;  208          0333  1
;  209          0334  2     BEGIN
;  210          0335  2     LOCAL
;  211          0336  2         tsf_phregs : REF VECTOR [tsf_nregs];
;  212          0337  2
;  213          0338  2     tsf_phregs = tsf__phregs;
;  214          0339  2
;  215          0340  2     IF  .spacing LEQ 0
;  216          0341  2     THEN
;  217          0342  2         RETURN;                     ! Don't generate code for single spacing.
;  218          0343  2
;  219          0344  2     IF  .tsf_next_reg GEQ tsf_nregs     ! Don't allocate too many "registers".
;  220          0345  2     THEN
;  221          0346  2         outcrg ();
;  222          0347  2
;  223          0348  2     tsf_phregs [.tsf_next_reg] = .spacing;
;  224          0349  2     fs_wchar (mra, rintes);
;  225          0350  2
;  226        U 0351  2 %IF DSRPLUS %THEN
;  227        U 0352  2     !
;  228        U 0353  2     ! If collecting topnotes, make the lines unconditional and count them.
;  229        U 0354  2     !
;  230        U 0355  2     IF  .tn_collecting
;  231        U 0356  2     THEN
;  232        U 0357  2         BEGIN
;  233        U 0358  2         fs_wchar (mra, %C'u');
;  234        U 0359  2         tsf_lines = .tsf_lines + .spacing;
;  235        U 0360  2         END
;  236        U 0361  2     ELSE
;  237        U 0362  2         BEGIN
;  238          0363  2 %FI
;  239          0364  2     !
;  240          0365  2     ! If collecting footnotes, make the lines unconditional and count them.
;  241          0366  2     !
;  242          0367  2     IF  .fnct_collecting
;  243          0368  2     THEN
;  244          0369  3         BEGIN
;  245          0370  3         fs_wchar (mra, %C'u');
;  246          0371  3         tsf_lines = .tsf_lines + .spacing;
;  247          0372  3         END
;  248          0373  2     ELSE
;  249          0374  2         fs_wchar (mra, %C's');
;  250          0375  2
;  251        U 0376  2 %IF DSRPLUS %THEN
;  252        U 0377  2         END;
;  253          0378  2 %FI
;  254          0379  2
;  255          0380  2     fs_wchar (mra, .tsf_next_reg);
;  256          0381  2     tsf_int_vl   = .tsf_int_vl + 3;
;  257          0382  2     tsf_next_reg = .tsf_next_reg + 1;
;  258          0383  2     tsf_bar_char = .sca_bar_char;                ! Propogate change bars.
;  259          0384  2     tsf_bars     = .tsf_bars OR .irac_bars;
;  260          0385  1     END;                                         ! End of GCSKIP



                                                        003C 00000         .ENTRY  GCSKIP, Save R2,R3,R4,R5                     ; 0312
                                        55 00000000G EF   9E 00002         MOVAB   TSF, R5                                      :
                                        50           65   D0 00009         MOVL    TSF, R0                                      ; 0338
                                        52      008C C0   9E 0000C         MOVAB   140(R0), TSF_PHREGS                          :
                                        54        04 AC   D0 00011         MOVL    SPACING, R4                                  ; 0340
                                                     01   14 00015         BGTR    1$                                           :
                                                          04 00017         RET                                                  :
                                        05      0088 C0   D1 00018 1$:     CMPL    136(R0), #5                                  ; 0344
                                                     07   19 0001D         BLSS    2$                                           :
                            00000000G   EF           00   FB 0001F         CALLS   #0, OUTCRG                                   ; 0346
                                        50           65   D0 00026 2$:     MOVL    TSF, R0                                      ; 0348
                                        53      0088 C0   9E 00029         MOVAB   136(R0), R3                                  :
                                        51           63   D0 0002E         MOVL    (R3), R1                                     :
                                      6241           54   D0 00031         MOVL    R4, (TSF_PHREGS)[R1]                         :
                                        52 00000000G EF   D0 00035         MOVL    MRA, R2                                      ; 0349
                                        51        04 A2   9E 0003C         MOVAB   4(R2), R1                                    :
                                   00   B1       00G 8F   90 00040         MOVB    #RINTES, @0(R1)                              :
                                                     61   D6 00045         INCL    (R1)                                         :
                                                  0C A2   D6 00047         INCL    12(R2)                                       :
                                        10 00000000G EF   E9 0004A         BLBC    FNCT+20, 3$                                  ; 0367
                                   00   B1        75 8F   90 00051         MOVB    #117, @0(R1)                                 ; 0370
                                                     61   D6 00056         INCL    (R1)                                         :
                                                  0C A2   D6 00058         INCL    12(R2)                                       :
                                   34   A0           54   C0 0005B         ADDL2   R4, 52(R0)                                   ; 0371
                                                     0A   11 0005F         BRB     4$                                           ; 0367
                                   00   B1        73 8F   90 00061 3$:     MOVB    #115, @0(R1)                                 ; 0374
                                                     61   D6 00066         INCL    (R1)                                         :
                                                  0C A2   D6 00068         INCL    12(R2)                                       :
                                   00   B1           63   90 0006B 4$:     MOVB    (R3), @0(R1)                                 ; 0380
                                                     61   D6 0006F         INCL    (R1)                                         :
                                                  0C A2   D6 00071         INCL    12(R2)                                       :
                                   18   A0           03   C0 00074         ADDL2   #3, 24(R0)                                   ; 0381
                                                     63   D6 00078         INCL    (R3)                                         ; 0382
                                   1C   A0 00000000G FF   D0 0007A         MOVL    @SCA+136, 28(R0)                             ; 0383
           51        7C  A0             01           00   EF 00082         EXTZV   #0, #1, 124(R0), R1                          ; 0384
```

```
        52 00000000G  EF            01           00  EF 00088        EXTZV   #0, #1, IRAC, R2                    ;
                                    51           52  88 00091        BISB2   R2, R1                              ;
     7C   A0          01            00           51  F0 00094        INSV    R1, #0, #1, 124(R0)                 ;
                                                     04 0009A        RET                                         ; 0385

; Routine Size:  155 bytes,    Routine Base:  $CODE$ + 00C2

;  261          0386  1
;  263        0387  1 GLOBAL ROUTINE gtpc (count) : NOVALUE =
;  264        0388  1
;  265        0389  1 !++
;  266        0390  1 ! FUNCTIONAL DESCRIPTION:
;  267        0391  1 !
;  268        0392  1 !       Generates intermediate code for a .TEST PAGE command.
;  269        0393  1 !
;  270        0394  1 ! FORMAL PARAMETERS:
;  271        0395  1 !
;  272        0396  1 !       count - Specifies how many free lines should be tested for.
;  273        0397  1 !
;  274        0398  1 ! IMPLICIT INPUTS:        None
;  275        0399  1 !
;  276        0400  1 ! IMPLICIT OUTPUTS:       None
;  277        0401  1 !
;  278        0402  1 ! ROUTINE VALUE:
;  279        0403  1 ! COMPLETION CODES:       None
;  280        0404  1 !
;  281        0405  1 ! SIDE EFFECTS:           None
;  282        0406  1 !--
;  283        0407  1
;  284        0408  2     BEGIN
;  285        0409  2     LOCAL
;  286        0410  2         tsf_phregs : REF VECTOR [tsf_nregs];
;  287        0411  2
;  288        0412  2     tsf_phregs = tsf__phregs;
;  289        0413  2
;  290        0414  2     !
;  291        0415  2     ! If collecting a footnote, don't bother to do a test page, since
;  292        0416  2     ! the text will fit by definition.
;  293        0417  2     !
;  294        0418  2     IF  .fnct_collecting
;  295        0419  2     THEN
;  296        0420  2         RETURN;
;  297        0421  2
;  298      U 0422  2 %IF DSRPLUS %THEN
;  299      U 0423  2     !
;  300      U 0424  2     ! If collecting a topnote, don't bother to do a test page.
;  301      U 0425  2     !
;  302      U 0426  2     IF  .tn_collecting
;  303      U 0427  2     THEN
;  304      U 0428  2         RETURN;
;  305        0429  2 %FI
;  306        0430  2
;  307        0431  2     IF  .tsf_next_reg GEQ tsf_nregs     ! Don't allocate too many "registers".
;  308        0432  2     THEN
;  309        0433  2         outcrg ();
;  310        0434  2
;  311        0435  2     tsf_phregs [.tsf_next_reg] = .count;
;  312        0436  2     fs_wchar (mra, rintes);                         ! If (test page..)
;  313        0437  2     fs_wchar (mra, %C't');
;  314        0438  2     fs_wchar (mra, .tsf_next_reg);
;  315        0439  2     fs_wchar (mra, rintes);                         ! end THEN
;  316        0440  2     fs_wchar (mra, %C'.');
;  317        0441  2     fs_wchar (mra, %C' ');
;  318        0442  2     fs_wchar (mra, rintes);                         ! else (page..)
;  319        0443  2     fs_wchar (mra, %C'p');
;  320     0444  2       fs_wchar (mra, %C' ');
;  321     0445  2       fs_wchar (mra, rintes);                      ! end ELSE
;  322     0446  2       fs_wchar (mra, %C'.');
;  323     0447  2       fs_wchar (mra, %C' ');
;  324     0448  2       tsf_int_vl   = .tsf_int_vl + 12;
;  325     0449  2       tsf_next_reg = .tsf_next_reg + 1;
;  326     0450  2       tsf_bar_char = .sca_bar_char;                ! Propogate change bars.
;  327     0451  2       tsf_bars     = .tsf_bars OR .irac_bars;
;  328     0452  1       END;                                         ! End of GTPC



                                    003C 00000          .ENTRY  GTPC, Save R2,R3,R4,R5                  ; 0387
                 55 00000000G  EF   9E 00002          MOVAB   TSF, R5
                 50            65   D0 00009          MOVL    TSF, R0                                 ; 0412
                 52      008C  C0   9E 0000C          MOVAB   140(R0), TSF_PHREGS
                 01 00000000G  EF   E9 00011          BLBC    FNCT+20, 1$                             ; 0418
                                    04 00018          RET
                 05      0088  C0   D1 00019 1$:      CMPL    136(R0), #5                             ; 0431
                               07   19 0001E          BLSS    2$
        00000000G  EF          00   FB 00020          CALLS   #0, OUTCRG                              ; 0433
                 50            65   D0 00027 2$:      MOVL    TSF, R0                                 ; 0435
                 54      0088  C0   9E 0002A          MOVAB   136(R0), R4
                 53            64   D0 0002F          MOVL    (R4), R3                                ;
               6243        04  AC   D0 00032          MOVL    COUNT, (TSF_PHREGS)[R3]
                 51 00000000G  EF   D0 00037          MOVL    MRA, R1                                 ; 0436
                 52        04  A1   9E 0003E          MOVAB   4(R1), R2
           00    B2       00G  8F   90 00042          MOVB    #RINTES, @0(R2)
                               62   D6 00047          INCL    (R2)
                 51            0C   C0 00049          ADDL2   #12, R1
                               61   D6 0004C          INCL    (R1)
           00    B2        74  8F   90 0004E          MOVB    #116, @0(R2)                            ; 0437
                               62   D6 00053          INCL    (R2)                                    ;
                               61   D6 00055          INCL    (R1)                                    ;
           00    B2            53   90 00057          MOVB    R3, @0(R2)                              ; 0438
                               62   D6 0005B          INCL    (R2)                                    ;
                               61   D6 0005D          INCL    (R1)                                    ;
           00    B2       00G  8F   90 0005F          MOVB    #RINTES, @0(R2)                         ; 0439
                               62   D6 00064          INCL    (R2)                                    ;
                               61   D6 00066          INCL    (R1)                                    ;
           00    B2            2E   90 00068          MOVB    #46, @0(R2)                             ; 0440
                               62   D6 0006C          INCL    (R2)                                    ;
                               61   D6 0006E          INCL    (R1)                                    ;
           00    B2            20   90 00070          MOVB    #32, @0(R2)                             ; 0441
                               62   D6 00074          INCL    (R2)                                    ;
                               61   D6 00076          INCL    (R1)                                    ;
           00    B2       00G  8F   90 00078          MOVB    #RINTES, @0(R2)                         ; 0442
                               62   D6 0007D          INCL    (R2)                                    ;
                               61   D6 0007F          INCL    (R1)                                    ;
           00    B2        70  8F   90 00081          MOVB    #112, @0(R2)                            ; 0443
                               62   D6 00086          INCL    (R2)                                    ;
                               61   D6 00088          INCL    (R1)                                    ;
           00    B2            20   90 0008A          MOVB    #32, @0(R2)                             ; 0444
                               62   D6 0008E          INCL    (R2)                                    ;
                               61   D6 00090          INCL    (R1)                                    ;
```

```
                                    00   B2         00G  8F  90 00092        MOVB     #RINTES, @0(R2)                          ; 0445
                                                         62  D6 00097        INCL     (R2)                                     ;
                                                         61  D6 00099        INCL     (R1)                                     ;
                                    00   B2              2E  90 0009B        MOVB     #46, @0(R2)                              ; 0446
                                                         62  D6 0009F        INCL     (R2)                                     ;
                                                         61  D6 000A1        INCL     (R1)                                     ;
                                    00   B2              20  90 000A3        MOVB     #32, @0(R2)                              ; 0447
                                                         62  D6 000A7        INCL     (R2)                                     ;
                                                         61  D6 000A9        INCL     (R1)                                     ;
                                    18   A0              0C  C0 000AB        ADDL2    #12, 24(R0)                              ; 0448
                                                         64  D6 000AF        INCL     (R4)                                     ; 0449
                                    1C   A0 00000000G    FF  D0 000B1        MOVL     @SCA+136, 28(R0)                         ; 0450
            51        7C    A0           01              00  EF 000B9        EXTZV    #0, #1, 124(R0), R1                      ; 0451
            52 00000000G    EF           01              00  EF 000BF        EXTZV    #0, #1, IRAC, R2                         ;
                                         51              52  88 000C8        BISB2    R2, R1                                   ;
       7C   A0              01           00              51  F0 000CB        INSV     R1, #0, #1, 124(R0)                      ;
                                                             04 000D1        RET                                               ; 0452

; Routine Size:  210 bytes,    Routine Base:  $CODE$ + 015D


;  329            0453  1
```

```
  1 GLOBAL ROUTINE guskip (spacing) : NOVALUE =
  1
  1 !++
  1 ! FUNCTIONAL DESCRIPTION:
  1 !
  1 !       Generates code to skip unconditionally a number of lines.
  1 !
  1 ! FORMAL PARAMETERS:
  1 !
  1 !       spacing - Indicates how many lines should be skipped.
  1 !
  1 ! IMPLICIT INPUTS:        None
  1 !
  1 ! IMPLICIT OUTPUTS:       None
  1 !
  1 ! ROUTINE VALUE:
  1 ! COMPLETION CODES:       None
  1 !
  1 ! SIDE EFFECTS:           None
  1 !--
  1
  2     BEGIN
  2     LOCAL
  2         tsf_phregs : REF VECTOR [tsf_nregs];
  2
  2     tsf_phregs = tsf__phregs;
  2
  2     IF  .spacing LEQ 0
  2     THEN
  2         RETURN;                 ! Don't generate code for single spacing.
  2
  2     IF  .tsf_next_reg GEQ tsf_nregs     ! Don't allocate too many "registers".
  2     THEN
  2         outcrg ();
  2
  2     tsf_phregs [.tsf_next_reg] = .spacing;
  2     fs_wchar (mra, rintes);
  2     fs_wchar (mra, %C'u');
  2     fs_wchar (mra, .tsf_next_reg);
  2     tsf_int_vl   = .tsf_int_vl + 3;
  2     tsf_next_reg = .tsf_next_reg + 1;
  2     tsf_bar_char = .sca_bar_char;                  ! Propogate change bars.
  2     tsf_bars     = .tsf_bars OR .irac_bars;
  2
  2     !
  2     ! If collecting a footnote, count the number of lines to be generated.
  2     !
  2     IF  .fnct_collecting
  2     THEN
  2         tsf_lines = .tsf_lines + .spacing;
  2
U 2 %IF DSRPLUS %THEN
U 2     !
U 2     ! If collecting a topnote, count the number of lines to be generated.
U 2     !
U 2     IF  .tn_collecting
U 2     THEN
```

```
;  388        U 0511  2          tsf_lines = .tsf_lines + .spacing;
;  389          0512  2 %FI
;  390          0513  2
;  391          0514  1     END;                                         ! End of GUSKIP



                                                       007C 00000          .ENTRY  GUSKIP, Save R2,R3,R4,R5,R6                  ; 0454
                                        56 00000000G EF  9E 00002          MOVAB   TSF, R6
                                        50           66  D0 00009          MOVL    TSF, R0                                      ; 0479
                                        52     008C  C0  9E 0000C          MOVAB   140(R0), TSF_PHREGS
                                        55       04  AC  D0 00011          MOVL    SPACING, R5                                  ; 0481
                                                     76  15 00015          BLEQ    2$
                                        05     0088  C0  D1 00017          CMPL    136(R0), #5                                  ; 0485
                                                     07  19 0001C          BLSS    1$
                             00000000G  EF           00  FB 0001E          CALLS   #0, OUTCRG                                   ; 0487
                                        51           66  D0 00025 1$:      MOVL    TSF, R1                                      ; 0489
                                        54     0088  C1  9E 00028          MOVAB   136(R1), R4
                                        53           64  D0 0002D          MOVL    (R4), R3
                                      6243           55  D0 00030          MOVL    R5, (TSF_PHREGS)[R3]
                                        50 00000000G EF  D0 00034          MOVL    MRA, R0                                      ; 0490
                                        52       04  A0  9E 0003B          MOVAB   4(R0), R2
                                   00   B2      00G  8F  90 0003F          MOVB    #RINTES, @0(R2)
                                                     62  D6 00044          INCL    (R2)
                                                 0C  A0  D6 00046          INCL    12(R0)
                                   00   B2       75  8F  90 00049          MOVB    #117, @0(R2)                                 ; 0491
                                                     62  D6 0004E          INCL    (R2)
                                                 0C  A0  D6 00050          INCL    12(R0)
                                   00   B2           53  90 00053          MOVB    R3, @0(R2)                                   ; 0492
                                                     62  D6 00057          INCL    (R2)
                                                 0C  A0  D6 00059          INCL    12(R0)
                                   18   A1           03  C0 0005C          ADDL2   #3, 24(R1)                                   ; 0493
                                                     64  D6 00060          INCL    (R4)                                         ; 0494
                                   1C   A1 00000000G FF  D0 00062          MOVL    @SCA+136, 28(R1)                             ; 0495
           50        7C   A1            01           00  EF 0006A          EXTZV   #0, #1, 124(R1), R0                          ; 0496
           52 00000000G   EF            01           00  EF 00070          EXTZV   #0, #1, IRAC, R2
                                        50           52  88 00079          BISB2   R2, R0
      7C   A1             01            00           50  F0 0007C          INSV    R0, #0, #1, 124(R1)
                                        04 00000000G EF  E9 00082          BLBC    FNCT+20, 2$                                  ; 0501
                                   34   A1           55  C0 00089          ADDL2   R5, 52(R1)                                   ; 0503
                                                         04 0008D 2$:      RET                                                  ; 0514

; Routine Size:  142 bytes,    Routine Base:  $CODE$ + 022F


;  392          0515  1
;  393          0516  1 END                                              ! End of module
;  394          0517  0 ELUDOM




;                                       PSECT SUMMARY
```

```
;
;       Name                    Bytes                          Attributes
;
;   $CODE$                            701  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        28         2           86       00:00.3





;                                        COMMAND QUALIFIERS

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

; Size:           701 code + 0 data bytes
; Run Time:          00:15.6
; Elapsed Time:      00:38.3
; Lines/CPU Min:       1994
; Lexemes/CPU-Min: 26477
; Memory Used:  103 pages
; Compilation Complete
```

0341 AH-BT13A-SE
VAX/VMS V4.0

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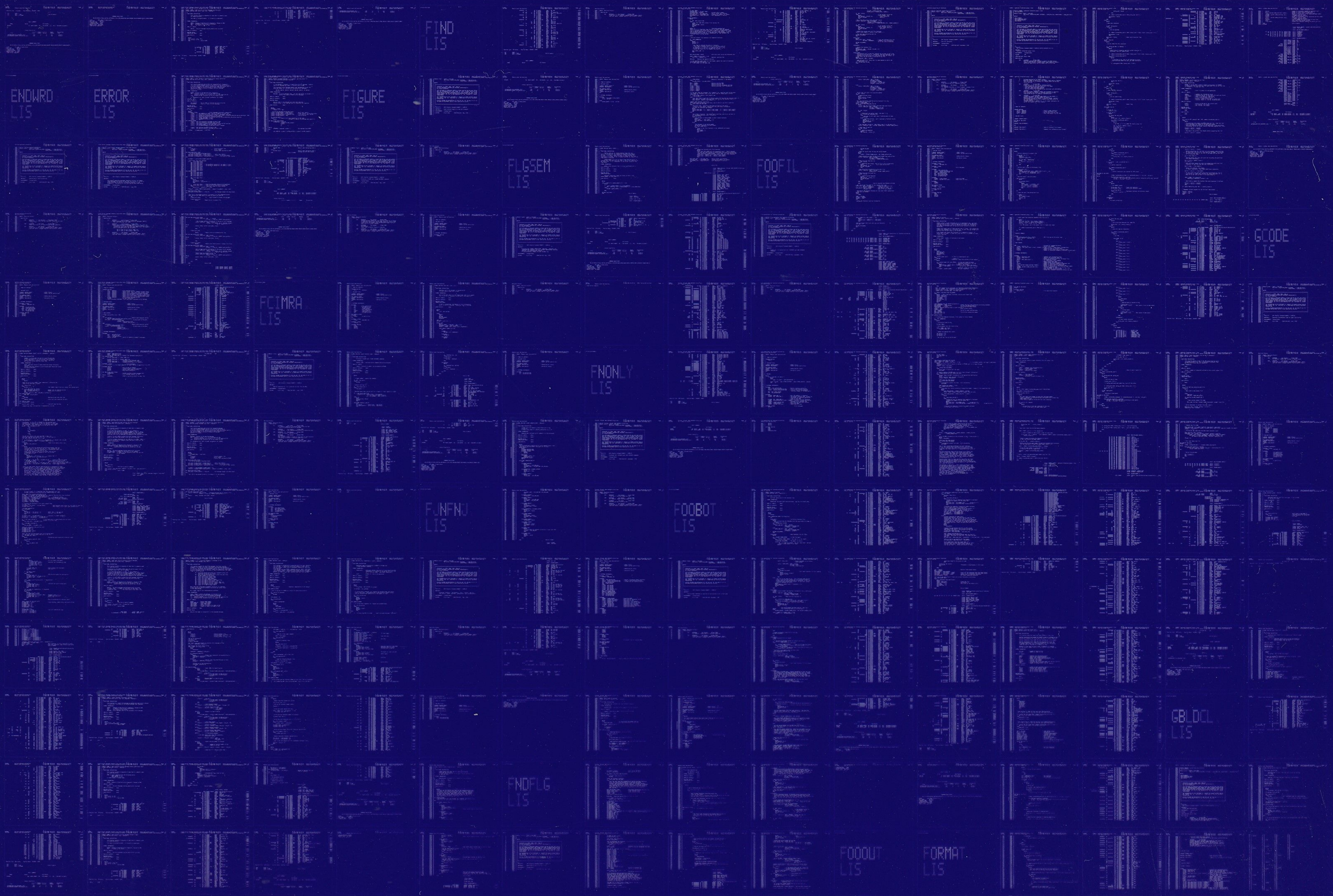

FIND
LIS

ENDWRD
LIS

ERROR
LIS

FIGURE
LIS

FLGSEM
LIS

FOOFIL
LIS

GCODE
LIS

FCIMRA
LIS

FNONLY
LIS

FJNFNJ
LIS

FOOBOT
LIS

GBLDCL
LIS

FNDFLG
LIS

FOOOUT
LIS

FORMAT
LIS

0342 AH-BT13A-SE
VAX/VMS V4.0

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GETQC
LIS

GNAME
LIS

INDEX
LIS

GLBDAT
LIS

GETLIN
LIS

GETONE
LIS

LAYOUT
LIS

GTABS
LIS

GLNM
LIS

GETQS
LIS

IFIFNE
LIS

GETDD
LIS

GSLU
LIS

LIT
LIS

LIST
LIS

GETNUM
LIS

HEADER
LIS