```
EEEEEEEEEEEEEEE   DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE   DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEE   DDDDDDDDDDDD     TTTTTTTTTTTTTTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEEEEEEEEEEE      DDD         DDD        TTT
EEEEEEEEEEEE      DDD         DDD        TTT
EEEEEEEEEEEE      DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEE               DDD         DDD        TTT
EEEEEEEEEEEEEEE   DDDDDDDDDDDD           TTT
EEEEEEEEEEEEEEE   DDDDDDDDDDDD           TTT
EEEEEEEEEEEEEEE   DDDDDDDDDDDD           TTT
```

```
EXE

Mod
---
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
EDT
SYS
LBR
LIB
```

```
**FILE**ID**PRPUSH                                H  4
```

```
PPPPPPPP    RRRRRRRR    PPPPPPPP    UU      UU    SSSSSSSS  HH      HH
PPPPPPPP    RRRRRRRR    PPPPPPPP    UU      UU    SSSSSSSS  HH      HH
PP      PP  RR      RR  PP      PP  UU      UU  SS          HH      HH
PP      PP  RR      RR  PP      PP  UU      UU  SS          HH      HH
PP      PP  RR      RR  PP      PP  UU      UU  SS          HH      HH
PP      PP  RR      RR  PP      PP  UU      UU  SS          HH      HH
PPPPPPPP    RRRRRRRR    PPPPPPPP    UU      UU    SSSSSS    HHHHHHHHHH
PPPPPPPP    RRRRRRRR    PPPPPPPP    UU      UU    SSSSSS    HHHHHHHHHH
PP          RR  RR      PP          UU      UU          SS  HH      HH
PP          RR  RR      PP          UU      UU          SS  HH      HH
PP          RR    RR    PP          UU      UU          SS  HH      HH      ....
PP          RR    RR    PP          UU      UU          SS  HH      HH      ....
PP          RR      RR  PP          UUUUUUUUUU  SSSSSSSS    HH      HH      ....
PP          RR      RR  PP          UUUUUUUUUU  SSSSSSSS    HH      HH      ....

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
```

EDT$
V04-

```
0 %TITLE 'EDT$PRPUSH - new parse node'
0 MODULE EDT$PRPUSH (                                   ! New parse node
0               IDENT = 'V04-000'                               ! File: PRPUSH.BLI Edit: JBS1004
0               ) =
1 BEGIN
1 !
1 !****************************************************************************
1 !*                                                                          *
1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                  *
1 !*  ALL RIGHTS RESERVED.                                                    *
1 !*                                                                          *
1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED   *
1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE   *
1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY   *
1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY   *
1 !*  TRANSFERRED.                                                            *
1 !*                                                                          *
1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
1 !*  CORPORATION.                                                            *
1 !*                                                                          *
1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS   *
1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                 *
1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1 
1 !++
1 ! FACILITY:     EDT -- The DEC Standard Editor
1 !
1 ! ABSTRACT:
1 !
1 !       Create a new parse node.
1 !
1 ! ENVIRONMENT:  Runs at any access mode - AST reentrant
1 !
1 ! AUTHOR: Bob Kushlis, CREATION DATE: December 12, 1978
1 !
1 ! MODIFIED BY:
1 !
1 ! 1-001 - Original.  DJS 25-Feb-1981.  This module was created by
1 !       extracting routine PUSH from module PARSER.
1 ! 1-002 - Regularize headers.  JBS 12-Mar-1981
1 ! 1-003 - Use new message codes.  JBS 04-Aug-1981
1 ! 1-004 - Improve the appearance of the listing.  JBS 17-Jun-1983
1 !--
1 
```

```
;    52          0051   1 %SBTTL 'Declarations'
;    53          0052   1 !
;    54          0053   1 ! TABLE OF CONTENTS:
;    55          0054   1 !
;    56          0055   1
;    57          0056   1 REQUIRE 'EDTSRC:TRAROUNAM';
;    58          0495   1
;    59          0496   1 FORWARD ROUTINE
;    60          0497   1     EDT$$PA_NEW_NOD;
;    61          0498   1
;    62          0499   1 !
;    63          0500   1 ! INCLUDE FILES:
;    64          0501   1 !
;    65          0502   1
;    66          0503   1 REQUIRE 'EDTSRC:EDTREQ';
;    67          0638   1
;    68          0639   1 REQUIRE 'EDTSRC:PARLITS';
;    69          0923   1
;    70          0924   1 !
;    71          0925   1 ! MACROS:
;    72          0926   1 !
;    73          0927   1 !       NONE
;    74          0928   1 !
;    75          0929   1 ! EQUATED SYMBOLS:
;    76          0930   1 !
;    77          0931   1 !       NONE
;    78          0932   1 !
;    79          0933   1 ! OWN STORAGE:
;    80          0934   1 !
;    81          0935   1 !       NONE
;    82          0936   1 !
;    83          0937   1 ! EXTERNAL REFERENCES:
;    84          0938   1 !
;    85          0939   1 !       In the routine
```

```
1 %SBTTL 'EDT$$PA_NEW_NOD  - new parse node'
1
1 GLOBAL ROUTINE EDT$$PA_NEW_NOD (                              ! New parse node
1     NT,                                                       ! Stored in [NODE_TYPE]
1     TYP                                                       ! Stored in [COM_NUM]
1     ) =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       Create a semantic node of the specified type and subtype.  If the
1 !       stack overflows, return a 0 otherwise, return the address of the new
1 !       node.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !  NT                   Stored in [NODE_TYPE]
1 !
1 !  TYP                  Stored in [COM_NUM]
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       EDT$$Z_PA_STK
1 !       EDT$$G_PA_SP
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       EDT$$G_PA_ERRNO
1 !       EDT$$Z_PA_STK
1 !       EDT$$G_PA_SP
1 !
1 ! ROUTINE VALUE:
1 !
1 !       0 = parse stack overflow
1 !       non-zero = address of new parse semantic node
1 !
1 ! SIDE EFFECTS:
1 !
1 !       NONE
1 !
1 !--
1
2    BEGIN
2
2    EXTERNAL
2       EDT$$G_PA_ERRNO,                        ! Error number of parsing error.
2       EDT$$Z_PA_STK : BLOCKVECTOR [NUM_NODES, NODE_SIZE, BYTE] FIELD (NODE_FIELDS),
2       EDT$$G_PA_SP;
2
2    MESSAGES ((PARSTKOVF));
2
2    LOCAL
2       NODE : REF NODE_BLOCK;
2
2    EDT$$G_PA_SP = .EDT$$G_PA_SP + 1;
2
3    IF (.EDT$$G_PA_SP GEQU NUM_NODES)
```

```
;   144         0997  2      THEN
;   145         0998  3          BEGIN
;   146         0999  3          EDT$$G_PA_ERRNO = EDT$_PARSTKOVF;
;   147         1000  3          RETURN (0);
;   148         1001  2          END;
;   149         1002  2
;   150         1003  2      NODE = EDT$$Z_PA_STK [.EDT$$G_PA_SP, NODE_TYPE];
;   151         1004  2      CH$FILL (0, NODE_SIZE, .NODE);
;   152         1005  2      NODE [NODE_TYPE] = .NT;
;   153         1006  2      NODE [COM_NUM] = .TYP;
;   154         1007  2      RETURN (.NODE);
;   155         1008  1      END;                                                    ! of routine EDT$$PA_NEW_NOD


                                                                                 .TITLE  EDT$PRPUSH EDT$PRPUSH - new parse node
                                                                                 .IDENT  \V04-000\

                                                                                 .EXTRN  EDT$$G_PA_ERRNO
                                                                                 .EXTRN  EDT$$Z_PA_STK, EDT$$G_PA_SP
                                                                                 .EXTRN  EDT$_PARSTKOVF

                                                                                 .PSECT  _EDT$CODE,NOWRT,  SHR,  PIC,2

                                                            00FC 00000           .ENTRY  EDT$$PA_NEW_NOD, Save R2,R3,R4,R5,R6,R7          ; 0942
                                       57 00000000G  00   9E 00002           MOVAB   EDT$$G_PA_SP, R7
                                                     67   D6 00009           INCL    EDT$$G_PA_SP                                     ; 0994
                                       50            67   D0 0000B           MOVL    EDT$$G_PA_SP, R0                                 ; 0996
                                       14            50   D1 0000E           CMPL    R0, #20
                                                     0D   1F 00011           BLSSU   1$                                               ;
                         00000000G  00 00000000G    8F   D0 00013           MOVL    #EDT$_PARSTKOVF, EDT$$G_PA_ERRNO                 ; 0999
                                                     1E   11 0001E           BRB     2$                                               ; 1000
                                       50            20   C4 00020 1$:       MULL2   #32, R0                                          ; 1003
                                       56 00000000G0040   9E 00023           MOVAB   EDT$$Z_PA_STK[R0], NODE
          20               00          6E            00   2C 0002B           MOVC5   #0, (SP), #0, #32, (NODE)                        ; 1004
                                                     66      00030
                                       66       04   AC   90 00031           MOVB    NT, (NODE)                                       ; 1005
                                 01    A6       08   AC   90 00035           MOVB    TYP, 1(NODE)                                     ; 1006
                                       50            56   D0 0003A           MOVL    NODE, R0                                         ; 1007
                                                          04 0003D           RET
                                                     50   D4 0003E 2$:       CLRL    R0                                               ; 1008
                                                          04 00040           RET                                                      ;

; Routine Size:  65 bytes,    Routine Base:  _EDT$CODE + 0000


;   156         1009  1
;   157         1010  1  !<BLF/PAGE>
;  159          1011   1 END                                                          ! of module EDT$PRPUSH
;  160          1012   1
;  161          1013   0 ELUDOM




;                                          PSECT SUMMARY
;
;       Name                          Bytes                          Attributes
;
;   _EDT$CODE                                  65  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)




;                                 Library Statistics
;
;                                                  -------- Symbols --------           Pages          Processing
;       File                                        Total      Loaded    Percent        Mapped          Time
;
;   _$255$DUA28:[EDT.SRC]EDT.L32;1                    377          51         13            40          00:00.2
;   _$255$DUA28:[EDT.SRC]PSECTS.L32;1                   2           1         50             7          00:00.1




;                                          COMMAND QUALIFIERS
;
;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS$:PRPUSH/OBJ=OBJ$:PRPUSH MSRC$:PRPUSH.BLI/UPDATE=(ENH$:PRPUSH)

; Size:           65 code + 0 data bytes
; Run Time:          00:13.4
; Elapsed Time:      00:17.0
; Lines/CPU Min:      4539
; Lexemes/CPU-Min: 14477
; Memory Used:   99 pages
; Compilation Complete
```

0138 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY