```
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFFFFFFFFFFFFFF
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFFFFFFFFFFFFFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEEEEEEEEEEE     DDD       DDD  FFFFFFFFFFF
EEEEEEEEEEEE     DDD       DDD  FFFFFFFFFFF
EEEEEEEEEEEE     DDD       DDD  FFFFFFFFFFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEE              DDD       DDD  FFF
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFF
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFF
EEEEEEEEEEEEEEE  DDDDDDDDDDD    FFF
```

FILEID**EDFTERM

EDFTERM LIS (ASCII art banner)

EDF$TERM
V04-000
— MACRO-32 SUPPORT ROUTINES FOR EDF.

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16-SEP-1984 00:32:14 VAX/VMS Macro V04-00   Page 1
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```
0000     1              .TITLE  EDF$TERM - MACRO-32 SUPPORT ROUTINES FOR EDF.
0000     2              .IDENT  'V04-000'
0000     3      ;++
0000     4      ;*****************************************************************
0000     5      ;*                                                               *
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0000    23      ;*                                                               *
0000    24      ;*                                                               *
0000    25      ;*****************************************************************
0000    26      ;
0000    27      ; FACILITY:          VAX/VMS FDL EDITOR (EDF Facility)
0000    28      ;
0000    29      ; ABSTRACT:          MACRO-32 subroutines for EDF
0000    30      ;
0000    31      ; ENVIRONMENT:       NATIVE/USER MODE
0000    32      ;
0000    33      ; AUTHOR:            Ken F. Henderson Jr.
0000    34      ;
0000    35      ; CREATION DATE:     7-Apr-1981
0000    36      ;
0000    37      ; MODIFIED BY:
0000    38      ;           V03-002 KFH0002         Ken Henderson          9 Aug 1983
0000    39      ;                   Remove clear of wrap bit.
0000    40      ;
0000    41      ;           V03-001 KFH0001         Ken Henderson          14 Apr 1983
0000    42      ;                   Return EDF$_DEVCLASS in R0 if not
0000    43      ;                   terminal, rather than calling
0000    44      ;                   LIB$STOP. Also, clear TT$M_WRAP bit
0000    45      ;                   in the SETMODE.
0000    46      ;
0000    47      ; --
```

```
                              0000      49 $SSDEF
                              0000      50 $DIBDEF
                              0000      51 $IODEF
                              0000      52 $DCDEF
                              0000      53 $TTDEF
                              0000      54 $TT2DEF
                              0000      55
                          00000000      56                    .PSECT          EDF$TERM_DATABASE,LONG
                              0000      57 ; ++
                              0000      58 ;
                              0000      59 ; This is the static database for the module.
                              0000      60 ; It contains the necessary data blocks for the QIO services.
                              0000      61 ;
                              0000      62 ;
                              0000      63 ; --
                              0000      64
4E 49 24 53 59 53 00000008'010E0000'  0000  65 TTY:           .ASCID          /SYS$INPUT:/
                3A 54 55 50  000E
                              0012      66
                    00000014  0012      67 TTYCHN:         .BLKW           1
                    00000015  0014      68 TTYIN:          .BLKB           1
                              0015      69
                              0015      70                 .ALIGN          LONG
                              0018      71
                    00000020  0018      72 TTYIOSB:        .BLKW           4
                    0000001A  0020      73                 TERMSPEED       = TTYIOSB + 2
                              0020      74
                    00000038  0020      75 EDF$OLDMODE::   .BLKW           12
                    00000021  0038      76                 TERMNUM         = EDF$OLDMODE + 1
                    00000024  0038      77                 TERMCHR         = EDF$OLDMODE + 4
                    00000028  0038      78                 EXTRABITS       = EDF$OLDMODE + 8
                              0038      79
                    00000050  0038      80 EDF$NEWMODE::   .BLKW           12
                    0000003C  0050      81                 NEWCHR          = EDF$NEWMODE + 4
                    0000003F  0050      82                 TERMPAGE        = EDF$NEWMODE + 7
                              0050      83
                    000000C4  0050      84 DIB:            .BLKB           DIB$K_LENGTH
               0000 0074  00C4  85 DIB_DESC:       .WORD           DIB$K_LENGTH, 0
                    00000050' 00C8  86                 .ADDRESS        DIB
                              00CC      87
                              00CC      88                 .ALIGN          LONG
                              00CC      89
                              00CC      90 EXITBLOCK:                                       ; exit control block
                    00000000  00CC      91                 .LONG           0                ; system uses this for pointer
                    00000118' 00D0      92                 .ADDRESS        EDF$RESET_TERM   ; address of exit handler (to reset
                    00000001  00D4      93                 .LONG           1                ; number of args for handler
                    000000DC' 00D8      94                 .ADDRESS        STATUS           ; address to receive status code
                    000000E0  00DC      95 STATUS:         .BLKL           1                ; status code
```

```
                                00000000    97          .PSECT          EDF$TERM_CODE,LONG
                                    0000    98 ; ++
                                    0000    99 ;
                                    0000   100 ; EDF$TERM_SETUP -- Set up the terminal and get its speed.
                                    0000   101 ;
                                    0000   102 ; This routine queries the terminal driver to see what's the
                                    0000   103 ; speed of the terminal we're talking to.
                                    0000   104 ; It also checks to make sure that indeed the input is a terminal,
                                    0000   105 ; and it also sets the page length to 16 for hardcopy terminals.
                                    0000   106 ; It also declares an exit handler and sets up a control/C AST.
                                    0000   107 ;
                                    0000   108 ; CALLING SEQUENCE:
                                    0000   109 ;
                                    0000   110 ; TERMINAL_SPEED          := EDF$TERM_SETUP;
                                    0000   111 ;
                                    0000   112 ;
                                    0000   113 ; --
                                    0000   114
                            0000    0000   115          .ENTRY  EDF$TERM_SETUP,^M<>
                                    0002   116
                                    0002   117          $ASSIGN_S -
                                    0002   118                          DEVNAM  = TTY,-
                                    0002   119                          CHAN    = TTYCHN
                                    0017   120
                   03 50       E8   0017   121          BLBS    R0,7$
                      00CA     31   001A   122          BRW     ERROR
                                    001D   123
                                    001D   124 7$:      $GETCHN_S -
                                    001D   125                          CHAN    = TTYCHN,-
                                    001D   126                          PRIBUF  = DIB_DESC
                                    0037   127
                   03 50       E8   0037   128          BLBS    R0,9$
                      00AA     31   003A   129          BRW     ERROR
          42 8F  00000054'EF   91   003D   130 9$:      CMPB    DIB+DIB$B_DEVCLASS, #DC$_TERM
                      0A       14   0045   131          BEQL    PAST
                                    0047   132
             50  00000000'8F   D0   0047   133          MOVL    #EDF$_DEVCLASS,R0                  ; INDICATE IT'S NOT A TERMINAL
                      0095     31   004E   134          BRW     OUT
                                    0051   135
                                    0051   136 PAST:    $QIOW_S -
                                    0051   137                          CHAN    = TTYCHN,-
                                    0051   138                          FUNC    = #IO$_SENSEMODE,-
                                    0051   139                          IOSB    = TTYIOSB,-
                                    0051   140                          P1      = EDF$OLDMODE
                                    0078   141
 00000038'EF  00000020'EF      7D   0078   142          MOVQ    EDF$OLDMODE,    EDF$NEWMODE       ; COPY EDF$OLDMODE INTO EDF$NEWMODE
 00000040'EF  00000028'EF      7D   0083   143          MOVQ    EDF$OLDMODE+8,  EDF$NEWMODE+8
 00000048'EF  00000030'EF      7D   008E   144          MOVQ    EDF$OLDMODE+16, EDF$NEWMODE+16
                                    0099   145
 00000024'EF      0C           E0   0099   146          BBS     #TT$V_SCOPE,    TERMCHR,-         ; SKIP DOWN IF IT'S A SCOPE
                      07            00A0   147                                  VIDEO
                                    00A1   148
 0000003F'EF      10           90   00A1   149          MOVB    #16,            TERMPAGE          ; SET PAGE = 16 LINES
                                    00A8   150                                                    ; HARDCOPY TERMINALS ARE SPECIAL
                                    00A8   151
                                    00A8   152 VIDEO:
                                    00A8   153          $QIOW_S -
```

```
                          00A8    154              CHAN    = TTYCHN,-
                          00A8    155              FUNC    = #IO$_SETMODE,-
                          00A8    156              P1      = EDF$NEWMODE
                          00CB    157
                          00CB    158      $DCLEXH_S    DESBLK=EXITBLOCK        ; DECLARE THE EXIT HANDLER
                          00D8    159
  000000F0'EF   00   FB   00D8    160      CALLS   #0,   EDF$CTRLCAST           ; SETUP ^C AST ROUTINE
                          00DF    161
  50  0000001A'EF   9A   00DF    162      MOVZBL  TERMSPEED,      R0
                   04   00E6    163 OUT:   RET
                          00E7    164
                          00E7    165 ERROR:
                          00E7    166      $EXIT_S R0
```

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EDFSTERM   - MACRO-32 SUPPORT ROUTINES FOR EDF.   16-SEP-1984 00:32:14 VAX/VMS Macro V04-00   Page 5
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```
              00F0    168 ; ++
              00F0    169 ;
              00F0    170 ; EDF$CTRLCAST -- Set up ^C ast.
              00F0    171 ;
              00F0    172 ; This routine sets up another ^C ast.
              00F0    173 ;
              00F0    174 ; CALLING SEQUENCE:
              00F0    175 ;
              00F0    176 ; EDF$CTRLCAST;
              00F0    177 ;
              00F0    178 ; --
              00F0    179 ;
       0000   00F0    180         .ENTRY  EDF$CTRLCAST,^M<>
              00F2    181
              00F2    182         $QIOW_S -                                      ; SET UP THE CONTROL/C AST
              00F2    183                 CHAN    = TTYCHN,-
              00F2    184                 FUNC    = #IO$_SETMODE!IO$M_CTRLCAST,-
              00F2    185                 P1      = CTRLCAST_ROUTINE
              0117    186
       04     0117    187         RET
```

```
                  0118   189 : ++
                  0118   190 :
                  0118   191 : EDF$RESET_TERM -- Reset TTDRV to its original mode.
                  0118   192 :
                  0118   193 : This routine returns TTDRV to it start mode, plus it calls
                  0118   194 : EDF$RESET_SCROLL to put the scrolling back to full screen.
                  0118   195 :
                  0118   196 : CALLING SEQUENCE:
                  0118   197 :
                  0118   198 : EDF$RESET_TERM;
                  0118   199 :
                  0118   200 : --
                  0118   201
           0000   0118   202        .ENTRY  EDF$RESET_TERM,^M<>
                  011A   203
                  011A   204        $QIOW_S -
                  011A   205                CHAN    = TTYCHN,-
                  011A   206                FUNC    = #IO$_SETMODE,-
                  011A   207                P1      = EDF$OLDMODE
                  013D   208
00000000'EF  00  FB  013D   209        CALLS   #0,     EDF$RESET_SCROLL        ; RESET VT100'S SCROLL REGION
             04  0144   210        RET
```

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EDF$TERM   - MACRO-32 SUPPORT ROUTINES FOR EDF.   16-SEP-1984 00:32:14   VAX/VMS Macro V04-00   Page 7
V04-000   5-SEP-1984 00:24:54   [EDF.SRC]EDFTERM.MAR;1   (6)

```
            0145    212 ; ++
            0145    213 ;
            0145    214 ; CTRLCAST_ROUTINE -- Catch Control/C when typed by the user.
            0145    215 ;
            0145    216 ; This routine does a SYS$EXIT to call the exit handler before leaving.
            0145    217 ;
            0145    218 ; CALLING SEQUENCE:
            0145    219 ;
            0145    220 ; called as an AST routine
            0145    221 ;
            0145    222 ; --
            0145    223
0000        0145    224         .ENTRY   CTRLCAST_ROUTINE,^M<>
            0147    225
            0147    226         $EXIT_S              ; invoke image rundown, which calls the exit handler
            0150    227
04          0150    228         RET                  ; never gets here - we hope!
            0151    229
            0151    230 .END
```

```
$$T1                 = 00000001
CTRLCAST_ROUTINE       00000145 RG   03
DCS_TERM             = 00000042
DIB                    00000050 R    02
DIB$B_DEVCLAS:       = 00000004
DIB$K_LENGTH         = 00000074
DIB_DESC               000000C4 R    02
EDF$CTRLCAST           000000F0 RG   03
EDF$NEWMODE            00000038 RG   02
EDF$OLDMODE            00000020 RG   02
EDF$RESET_SCROLL       ******** X    03
EDF$RESET_TERM         00000118 RG   03
EDF$TERM_SETUP         00000000 RG   03
EDF$_DEVCLASS          ******** X    03
ERROR                  000000E7 R    03
EXITBLOCK              000000CC R    02
EXTRABITS            = 00000028 R    02
IO$M_CTRLCAST        = 00000100
IO$_SENSEMODE        = 00000027
IO$_SETMODE          = 00000023
NEWCHR               = 0000003C R    02
OUT                    000000E6 R    03
PAST                   00000051 R    03
STATUS                 000000DC R    02
SYS$ASSIGN             ******** GX   03
SYS$DCLEXH             ******** GX   03
SYS$EXIT               ******** GX   03
SYS$GETCHN             ******** GX   03
SYS$QIOW               ******** GX   03
TERMCHR              = 00000024 R    02
TERMNUM              = 00000021 R    02
TERMPAGE             = 0000003F R    02
TERMSPEED            = 0000001A R    02
TT$V_SCOPE           = 0000000C
TTY                    00000000 R    02
TTYCHN                 00000012 R    02
TTYIN                  00000014 R    02
TTYIOSB                00000018 R    02
VIDEO                  000000A8 R    03
```

```
+-------------------+
! Psect synopsis !
+-------------------+
```

PSECT name	Allocation	PSECT No.	Attributes											
. ABS .	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE
ABS	00000000 (0.)	01 (1.)	NOPIC	USR	CON	ABS	LCL	NOSHR	EXE	RD	WRT	NOVEC	BYTE
EDF$TERM_DATABASE	000000E0 (224.)	02 (2.)	NOPIC	USR	CON	REL	LCL	NOSHR	EXE	RD	WRT	NOVEC	LONG
EDF$TERM_CODE	00000151 (337.)	03 (3.)	NOPIC	USR	CON	REL	LCL	NOSHR	EXE	RD	WRT	NOVEC	LONG

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EDFSTERM   - MACRO-32 SUPPORT ROUTINES FOR EDF.   16-SEP-1984 00:32:14 VAX/VMS Macro V04-00   Page 9
VAX-11 Macro Run Statistics   5-SEP-1984 00:24:54 [EDF.SRC]EDFTERM.MAR;1   (6)

```
                                +----------------------------+
                                ! Performance indicators !
                                +----------------------------+


Phase                   Page faults     CPU Time      Elapsed Time
-----                   -----------     --------      ------------
Initialization                  33      00:00:00.13   00:00:00.72
Command processing             123      00:00:00.41   00:00:01.96
Pass 1                         318      00:00:10.75   00:00:26.42
Symbol table sort                0      00:00:01.91   00:00:04.11
Pass 2                          56      00:00:01.90   00:00:03.96
Symbol table output              6      00:00:00.08   00:00:00.08
Psect synopsis output            2      00:00:00.03   00:00:00.03
Cross-reference output           0      00:00:00.00   00:00:00.00
Assembler run totals           541      00:00:15.22   00:00:37.29
```

The working set limit was 1200 pages.
61132 bytes (120 pages) of virtual memory were used to buffer the intermediate code.
There were 70 pages of symbol table space allocated to hold 1211 non-local and 2 local symbols.
230 source lines were read in Pass 1, producing 27 object records in Pass 2.
22 pages of virtual memory were used to define 21 macros.

```
                                +----------------------------+
                                ! Macro library statistics !
                                +----------------------------+


Macro library name                      Macros defined
------------------                      --------------
_$255$DUA28:[SYSLIB]STARLET.MLB;2              18
```

1350 GETS were required to define 18 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:EDFTERM/OBJ=OBJ$:EDFTERM MSRC$:EDFTERM/UPDATE=(ENH$:EDFTERM)

EDFTABLES
LIS

EDFTYPE
LIS

EDFUTIL
LIS

EDFTERM
LIS

EDFSTRUCT
LIS