


```

000000  TTTTTTTTTT  SSSSSSSS  CCCCCCCC  VV      VV  TTTTTTTTTT  PPPPPPPP  HH      HH
000000  TTTTTTTTTT  SSSSSSSS  CCCCCCCC  VV      VV  TTTTTTTTTT  PPPPPPPP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
00      00      SS      CC      VV      VV  TT      PP      PP  HH      HH
000000  TTTT      SSSSSSSS  CCCCCCCC  VV      VV  TT      PP      PP  HH      HH
000000  TTTT      SSSSSSSS  CCCCCCCC  VV      VV  TT      PP      PP  HH      HH

```

```

LL      IIIIIII  SSSSSSSS
LL      IIIIIII  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
LLLLLLLLLLLL  IIIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIIII  SSSSSSSS

```

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```

(2)	49	HISTORY	: Detailed Current Edit History
(3)	57	DECLARATIONS	
(4)	92	OTSSCVTPH_R9	

```

0000 1 .TITLE OTSSCVTPH_R9 Convert Packed to H floating
0000 2 .IDENT /1-001/ ; File: OTSCVTPH.MAR Edit: PLL1001
0000 3
0000 4
0000 5 *****
0000 6
0000 7 *
0000 8 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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0000 24 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
0000 25 *
0000 26 *****
0000 27
0000 28 FACILITY: LANGUAGE INDEPENDENT SUPPORT
0000 29 +-
0000 30 ABSTRACT:
0000 31 This module contains the routine that converts packed numbers
0000 32 to h floating.
0000 33
0000 34
0000 35 --
0000 36
0000 37 VERSION: 1
0000 38
0000 39 HISTORY:
0000 40
0000 41 AUTHOR:
0000 42 Pamela Levesque, 18-Jan-1982
0000 43
0000 44 MODIFIED BY:
0000 45
0000 46
0000 47

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OTSSCVTPH_R9
1-001

Convert Packed to H floating D 3 16-SEP-1984 00:26:18 VAX/VMS Macro V04-00
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:13:22 [LIBRTL.SRC]OTSCVTPH.MAR;1 Page 2
0000 49 .SBTTL HISTORY ; Detailed Current Edit History
0000 50
0000 51
0000 52 ; Edit History for Version 1 of OTSCVTPH
0000 53 :
0000 54 ; 1-001 - Original. PLL 18-Jan-1982
0000 55

**

```
0000 57      .SBTTL  DECLARATIONS
0000 58
0000 59 :
0000 60 : INCLUDE FILES:
0000 61 :
0000 62      $DSCDEF
0000 63
0000 64 :
0000 65 : EXTERNAL SYMBOLS:
0000 66      .DSABL  GBL           ; Prevent undeclared symbols from being
0000 67                               ; automatically global
0000 68
0000 69      .EXTRN  OTSSCVT_T_H     ; D, E, F, G Conversion routine
0000 70 :
0000 71 :
0000 72 :
0000 73 : MACROS:
0000 74 :     NONE
0000 75 :
0000 76 :
0000 77 :
0000 78 : PSECT DECLARATIONS:
0000 79      .PSECT  _OTSSCODE   PIC, SHR, LONG, EXE, NOWRT,-
0000 80                               USR, CON, REL, LCL, RD
0000 81
0000 82 :
0000 83 : EQUATED SYMBOLS:
0000 84 :     NONE
0000 85 :
0000 86 :
0000 87 :
0000 88 : OWN STORAGE:
0000 89 :     NONE
0000 90 :
```

```

0000 92      .SBTTL OTSSCVTPH_R9
0000 93
0000 94      :++
0000 95      : FUNCTIONAL DESCRIPTION:
0000 96      :
0000 97      :     Converts packed numbers to h floating.
0000 98      :
0000 99      : CALLING SEQUENCE:
0000 100     :
0000 101     :     JSB OTSSCVTPH_R9 (scale.rl.v, srclen.rl.v, src.rp.r, dst.wh.r)
0000 102     :
0000 103     :     Arguments are passed in R6, R7, R8 and R9.
0000 104     :
0000 105     : INPUT PARAMETERS:
0000 106     :
0000 107     :     SCALE.rl.v           The power of ten by which the internal
0000 108     :                               representation of the source must be
0000 109     :                               multiplied to scale the same as the
0000 110     :                               internal representation of the dest.
0000 111     :     SRCLEN.rl.v        The number of digits in the source
0000 112     :     SRC.rp.r           The number to be converted
0000 113     :
0000 114     : IMPLICIT INPUTS:
0000 115     :
0000 116     :     All of the trap bits in the PSL are assumed off.
0000 117     :
0000 118     : OUTPUT PARAMETERS:
0000 119     :
0000 120     :     DST.wh.r             The place to store the converted number
0000 121     :
0000 122     : IMPLICIT OUTPUTS:
0000 123     :
0000 124     :     NONE
0000 125     :
0000 126     : FUNCTION VALUE:
0000 127     :
0000 128     :     1 = SUCCESS, 0 = FAILURE
0000 129     :
0000 130     : SIDE EFFECTS:
0000 131     :
0000 132     :     Destroys registers R0 through R9.
0000 133     :
0000 134     :--
0000 135
0000 136
0000 137 OTSSCVTPH R9::
08 AE 1F 5E 28 C2 0000 138 SOBL2 #40,SP ; Space for temp string and result
68 57 08 0003 139 CVTPS R7,(R8),#31,8(SP) ; Make a separate sign string
0009 140 :
0009 141 : Make a descriptor for the leading separate string.
0009 142 :
0009 143 : PUSHL R3 ; Address = temp string
7E 01 90 000B 144 MOVB #DSC&K_CLASS_S,-(SP) ; Class = static
7E 0E 90 000E 145 MOVB #DSC&K_DTYPE_T,-(SP) ; Data type = ASCII text
7E 20 B0 0011 146 MOVW #32,-(SP) ; Length = 32 bytes
0014 147 :
0014 148 : Now call the conversion routine.

```

```

00000000'GF 7E 56 CE 0014 149 ;
              00 00 DD 0014 150 ;
              10 AE 9F 0017 151 ;
              0C AE 9F 0019 152 ;
              0C 50 FB 001C 153 ;
              69 08 AE 70FD 001F 154 ;
              50 01 DO 0026 155 ;
              5E 30 CO 0029 156 ;
              05 002E 157 ;
              0031 158 1$:
              0034 159 ;
              0035 160 ;
              0035 161 ; Come here on overflow to store the reserved operand.
              0035 162 ;
              69 01 0F 79 0035 163 2$:
              50 D4 0039 164 ;
              F4 11 003B 165 ;
              003D 166 ;
              003D 167 ;
              MNEGL R6,-(SP) ; Scale factor
              PUSHL #0 ; Digits in fraction
              PUSHAB 16(SP) ; Address of result area
              PUSHAB 12(SP) ; Address of descriptor
              CALLS #4,G^OTSSCVT_T_H ; Call the routine
              BLBC R0,2$ ; Failure, must be overflow
              MOVH 8(SP),(R9) ; Store result
              MOVL #1,R0 ; Indicate success
              ADDL2 #48,SP ; Delete stack temps
              RSB ; Return
              ASHQ #15,#1,(R9) ; Store reserved operand
              CLRL R0 ; Indicate failure
              BRB 1$ ; Delete stack temps and return
              .END

```

OTSSCVTPH_R9
Symbol table

Convert Packed to H floating

H 3

16-SEP-1984 00:26:18 VAX/VMS Macro V04-00
6-SEP-1984 11:13:22 [LIBRTL.SRC]OTSCVTPH.MAR;1

Page 6
(4)

DSCBK_CLASS_S
DSCBK_DTYPE_T
OTSSCVTPH_R9
OTSSCVT_T_H

= 00000001
= 0000000E
00000000 RG 02
***** X 00

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
_OTSSCODE	0000003D (61.)	02 (2.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.05	00:00:00.92
Command processing	116	00:00:00.32	00:00:02.41
Pass 1	133	00:00:01.09	00:00:05.16
Symbol table sort	0	00:00:00.10	00:00:00.33
Pass 2	43	00:00:00.30	00:00:01.89
Symbol table output	2	00:00:00.01	00:00:00.01
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	328	00:00:01.90	00:00:10.75

The working set limit was 900 pages.
8057 bytes (16 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 133 non-local and 2 local symbols.
167 source lines were read in Pass 1, producing 10 object records in Pass 2.
8 pages of virtual memory were used to define 7 macros.

! Macro library statistics !

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	4

190 GETS were required to define 4 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LISS:OTSCVTPH/OBJ=OBJ\$:OTSCVTPH MSRC\$:OTSCVTPH/UPDATE=(ENH\$:OTSCVTPH)

OT
1-

