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MM      MM      TTTTTTTTTT  HH      HH      JJ      IIIIII  HH      HH      NN      NN      NN      NN      TTTTTTTTTT
MM      MM      TTTTTTTTTT  HH      HH      JJ      IIIIII  HH      HH      NN      NN      NN      NN      TTTTTTTTTT
MMMM    MMMM      TT          HH      HH      JJ      II       HH      HH      NN      NN      NN      NN      TT
MMMM    MMMM      TT          HH      HH      JJ      II       HH      HH      NN      NN      NN      NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NNNN   NN      NNNN   NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NNNN   NN      NNNN   NN      TT
MM      MM      TT          HHHHHHHHHH  JJ      II       HHHHHHHHHH  NN      NN      NN      NN      NN      NN      TT
MM      MM      TT          HHHHHHHHHH  JJ      II       HHHHHHHHHH  NN      NN      NN      NN      NN      NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NN      NNNN   NN      NNNN   NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NN      NNNN   NN      NNNN   NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NN      NN      NN      NN      NN      NN      TT
MM      MM      TT          HH      HH      JJ      II       HH      HH      NN      NN      NN      NN      NN      NN      TT
MM      MM      TT          HH      HH      JJ      IIIIII  HH      HH      NN      NN      NN      NN      NN      NN      TT
MM      MM      TT          HH      HH      JJ      IIIIII  HH      HH      NN      NN      NN      NN      NN      NN      TT

```

```

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

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(2) 49
(3) 56
(4) 82

HISTORY ; Detailed Current Edit History
DECLARATIONS
MTHSJHNNT - return nearest integer as INTEGER*4

```

0000 1 .TITLE MTHSJHNNT - Nearest Integer of H
0000 2 .IDENT /1-001/ ; File: MTHSJHNNT.MAR
0000 3
0000 4
0000 5 :*****
0000 6 :
0000 7 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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0000 22 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
0000 23 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
0000 24 *
0000 25 *
0000 26 :*****
0000 27 :
0000 28 :
0000 29 : FACILITY: MATH LIBRARY
0000 30 : ++
0000 31 : ABSTRACT:
0000 32 :
0000 33 : Return nearest integer of a REAL*16 to a INTEGER*4.
0000 34 :
0000 35 : --
0000 36 :
0000 37 : VERSION: 1
0000 38 :
0000 39 : HISTORY:
0000 40 :
0000 41 : AUTHOR:
0000 42 : Steven B. Lionel, 21-Aug-1979
0000 43 :
0000 44 : MODIFIED BY:
0000 45 :
0000 46 :
0000 47 :

```

MTHSJHNNT
1-001

J 3
- Nearest Integer of H
HISTORY ; Detailed Current Edit History 16-SEP-1984 01:44:56 VAX/VMS Macro V04-00 Page 2
6-SEP-1984 11:26:27 [MTHRTL.SRC]MTHSJHNNT.MAR;1 (2)

0000 49 .SBTTL HISTORY ; Detailed Current Edit History
0000 50
0000 51
0000 52 ; Edit History for Version 1 of MTHSJHNNT
0000 53
0000 54 ; 1-001 - Original. SBL 21-Aug-79

```
0000 56 .SBTTL DECLARATIONS
0000 57
0000 58 :
0000 59 : INCLUDE FILES:
0000 60 :
0000 61 :
0000 62 :
0000 63 : EXTERNAL SYMBOLS:
0000 64 :
0000 65 :
0000 66 :
0000 67 : MACROS:
0000 68 :
0000 69 :
0000 70 :
0000 71 : PSECT DECLARATIONS:
0000 72 : .PSECT _MTH$CODE PIC, SHR, LONG, EXE, NOWRT
0000 73 :
0000 74 :
0000 75 : EQUATED SYMBOLS:
0000 76 :
0000 77 :
0000 78 :
0000 79 : OWN STORAGE:
0000 80 :
```

```
0000 82      .SBTTL MTH$JIHNNT - return nearest integer as INTEGER*4
0000 83
0000 84 :++
0000 85 : FUNCTIONAL DESCRIPTION:
0000 86 :
0000 87 : Returns the nearest integer (rounded away from zero) of a
0000 88 : REAL*16 to a INTEGER*4 as a function value.
0000 89 :
0000 90 : CALLING SEQUENCE:
0000 91 :
0000 92 :     result.wl.v = MTH$JIHNNT (arg.rh.r)
0000 93 :
0000 94 :
0000 95 : INPUT PARAMETERS:
0000 96 :     arg = 4           ; H floating argument
0000 97 :
0000 98 : IMPLICIT INPUTS:
0000 99 :     NONE
0000 100 :
0000 101 : OUTPUT PARAMETERS:
0000 102 :     NONE
0000 103 :
0000 104 : IMPLICIT OUTPUTS:
0000 105 :     NONE
0000 106 :
0000 107 : FUNCTION VALUE:
0000 108 :     The argument rounded to the nearest longword integer away from
0000 109 :     zero.
0000 110 :
0000 111 : SIDE EFFECTS:
0000 112 :     Reserved operand, Integer overflow exceptions.
0000 113 :
0000 114 :--
0000 115
0000 116
0000 117
0000 118      .ENTRY MTH$JIHNNT,      ^M<IV>
50 04 BC 4000 0002 119      CVTRHL @arg(AP), R0      ; R0 = rounded argument
04 0007 120      RET
0008 121
0008 122
0008 123      .END
```

MTH\$JIHNNT
Symbol table

- Nearest Integer of H

M 3

16-SEP-1984 01:44:56
6-SEP-1984 11:26:27

VAX/VMS Macro V04-00
[MTHRTL.SRC]MTHJIHNNT.MAR;1

Page 5
(4)

ARG = 00000004
MTH\$JIHNNT 00000000 RG 01

! Psect synopsis !

PSECT name	Allocation	PSECT No.	Attributes
. ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
_MTH\$CODE	00000008 (8.)	01 (1.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.09	00:00:01.62
Command processing	116	00:00:00.42	00:00:03.23
Pass 1	65	00:00:00.36	00:00:01.82
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	40	00:00:00.27	00:00:01.19
Symbol table output	1	00:00:00.01	00:00:00.01
Psect synopsis output	3	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	256	00:00:01.17	00:00:07.89

The working set limit was 750 pages.
1165 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 2 non-local and 0 local symbols.
123 source lines were read in Pass 1, producing 10 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

! Macro library statistics !

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:MTHJIHNNT/OBJ=OBJ\$:MTHJIHNNT MSRCS:MTHJIHNNT/UPDATE=(ENHS:MTHJIHNNT)

