


```
MM      MM  TTTTTTTTTT  HH      HH      JJ      IIIIII  GGGGGGGG  NN      NN  NN      NN      TTTTTTTTTT
MM      MM  TTTTTTTTTT  HH      HH      JJ      IIIIII  GGGGGGGG  NN      NN  NN      NN  TTTTTTTTTT
MMMM  MMMM  TT          HH      HH      JJ      II      GG          NN      NN  NN      NN  TT
MMMM  MMMM  TT          HH      HH      JJ      II      GG          NN      NN  NN      NN  TT
MM  MM  MM  TT          HH      HH      JJ      II      GG          NNNN   NN  NNNN   NN  TT
MM  MM  MM  TT          HH      HH      JJ      II      GG          NNNN   NN  NNNN   NN  TT
MM      MM  TT          HHHHHHHHHH  JJ      JJ      II      GG          NN  NN  NN      NN  NN  TT
MM      MM  TT          HHHHHHHHHH  JJ      JJ      II      GG          NN  NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GGGGGG  NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GGGGGG  NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG          GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
MM      MM  TT          HH      HH      JJ      II      GG      GG      NN      NN  NN      NN  NN  TT
```

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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
LLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLL  IIIIII  SSSSSSSS
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(2)	50	HISTORY	; Detailed Current Edit History
(3)	58	DECLARATIONS	
(4)	84	MTH\$JIGNNT	- return nearest integer as INTEGER*4

```

0000 1 .TITLE MT4$JIGNNT - Nearest Integer
0000 2 .IDENT /1-002/ ; File: MTHJIGNNT.MAR
0000 3
0000 4
0000 5 :*****
0000 6 :*
0000 7 :* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 23 :* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27 :
0000 28
0000 29
0000 30 : FACILITY: MATH LIBRARY
0000 31 :++
0000 32 : ABSTRACT:
0000 33 :
0000 34 : Return nearest integer of a G REAL*8 to a INTEGER*4.
0000 35 :
0000 36 :--
0000 37
0000 38 : VERSION: 1
0000 39
0000 40 : HISTORY:
0000 41
0000 42 : AUTHOR:
0000 43 : Steven B. Lionel, 05-Feb-79: Version 1
0000 44
0000 45 : MODIFIED BY:
0000 46
0000 47
0000 48 :

```

MTHSJIGNNT
1-002

C 3
- Nearest Integer 16-SEP-1984 01:44:38 VAX/VMS Macro V04-00 Page 2
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:26:25 [MTHRTL.SRC]MTHSJIGNNT.MAR;1 (2)

0000 50 .SBTTL HISTORY ; Detailed Current Edit History
0000 51
0000 52
0000 53 ; Edit History for Version 1 of MTHSJIGNNT
0000 54 :
0000 55 : 1-001 - Original. SBL 05-Feb-79
0000 56 : 1-002 - Use CVTRGL. SBL 21-Aug-1979

```
0000 58 .SBTTL DECLARATIONS
0000 59
0000 60 :
0000 61 : INCLUDE FILES:
0000 62 :
0000 63 :
0000 64 :
0000 65 : EXTERNAL SYMBOLS:
0000 66 :
0000 67 :
0000 68 :
0000 69 : MACROS:
0000 70 :
0000 71 :
0000 72 :
0000 73 : PSECT DECLARATIONS:
0000 74 .PSECT _MTH$CODE PIC, SHR, LONG, EXE, NOWRT
0000 75
0000 76 :
0000 77 : EQUATED SYMBOLS:
0000 78 :
0000 79 :
0000 80 :
0000 81 : OWN STORAGE:
0000 82 :
```

```
0000 84 .SBTTL MTHSJIGNNT - return nearest integer as INTEGER*4
0000 85
0000 86 :++
0000 87 : FUNCTIONAL DESCRIPTION:
0000 88
0000 89 : Returns the nearest integer (rounded away from zero) of a G
0000 90 : REAL*8 to a INTEGER*4 as a function value.
0000 91
0000 92 : CALLING SEQUENCE:
0000 93
0000 94 : nearest_int.wl.v = MTHSJIGNNT (arg.rg.r)
0000 95
0000 96
0000 97 : INPUT PARAMETERS:
0000 98 : arg = 4 ; G floating argument
0000 99
0000 100 : IMPLICIT INPUTS:
0000 101 : NONE
0000 102
0000 103 : OUTPUT PARAMETERS:
0000 104 : NONE
0000 105
0000 106 : IMPLICIT OUTPUTS:
0000 107 : NONE
0000 108
0000 109 : FUNCTION VALUE:
0000 110 : nearest_integer - The integer nearest to arg, rounded
0000 111 : away from zero.
0000 112
0000 113 : SIDE EFFECTS:
0000 114 : Reserved operand, Integer overflow exceptions.
0000 115
0000 116 :--
0000 117
0000 118
0000 119
0000 120 .ENTRY MTHSJIGNNT, ^M<IV>
0000 121 CVTRGL @arg(AP), R0 ; R0 = rounded arg
0000 122 RET
0008 123
0008 124
0008 125 .END
```

00000004

50 04 BC 4000 4BFD 04

MTHSJGNNT
Symbol table

- Nearest Integer

F 3

16-SEP-1984 01:44:38
6-SEP-1984 11:26:25

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

Page 5
(4)

ARG = 00000004
MTHSJGNNT 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
_MTHSCODE	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	30	00:00:00.11	00:00:01.00
Command processing	132	00:00:00.51	00:00:03.25
Pass 1	63	00:00:00.35	00:00:01.95
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	39	00:00:00.31	00:00:01.52
Symbol table output	1	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	269	00:00:01.32	00:00:07.76

The working set limit was 750 pages.
1181 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.
125 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\$:MTHJIGNNT/OBJ=OBJ\$:MTHJIGNNT MSRC\$:MTHJIGNNT/UPDATE=(ENHS:MTHJIGNNT)

