


```

MM      MM      TTTTTTTTTT  HH      HH      GGGGGGGG  MM      MM      IIIIII  NN      NN      11
MM      MM      TTTTTTTTTT  HH      HH      GGGGGGGG  MM      MM      IIIIII  NN      NN      11
MMMM    MMMM      TT          HH      HH      GG          MMMM    MMMM      II          NN      NN      1111
MMMM    MMMM      TT          HH      HH      GG          MMMM    MMMM      II          NN      NN      1111
MM  MM  MM      TT          HH      HH      GG          MM  MM  MM      II          NNNN    NN      11
MM  MM  MM      TT          HH      HH      GG          MM  MM  MM      II          NNNN    NN      11
MM      MM      TT          HHHHHHHHHH  GG          MM      MM      II          NN  NN  NN      11
MM      MM      TT          HHHHHHHHHH  GG          MM      MM      II          NN  NN  NN      11
MM      MM      TT          HH      HH      GG  GGGGGG  MM      MM      II          NN  NNNN  NN      11
MM      MM      TT          HH      HH      GG  GGGGGG  MM      MM      II          NN  NNNN  NN      11
MM      MM      TT          HH      HH      GG          MM      MM      II          NN      NN      11
MM      MM      TT          HH      HH      GG          MM      MM      II          NN      NN      11
MM      MM      TT          HH      HH      GG          MM      MM      IIIIII  NN      NN      111111
MM      MM      TT          HH      HH      GGGGGG  GG          MM      MM      IIIIII  NN      NN      111111
MM      MM      TT          HH      HH      GGGGGG  GG          MM      MM      IIIIII  NN      NN      111111

```

```

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
LLLLLLLLLLLL IIIIII  SSSSSSSS
LLLLLLLLLLLL IIIIII  SSSSSSSS

```

(2) 52
(3) 59
(4) 90

HISTORY ; Detailed Current Edit History
DECLARATIONS
MTH\$GMIN1

```

0000 1 .TITLE MTH$GMIN1 GMIN1 function
0000 2 .IDENT /1-001/ ; File: MTH$GMIM1.MAR
0000 3
0000 4
0000 5 *****
0000 6 *
0000 7 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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0000 20 * CORPORATION. *
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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 FACILITY: MATH LIBRARY
0000 30 ++
0000 31 ABSTRACT:
0000 32 This module contains routine MTH$GMIN1:
0000 33 Return the smaller of n G floating-point
0000 34 numbers.
0000 35
0000 36
0000 37 --
0000 38
0000 39
0000 40 VERSION: 1
0000 41
0000 42 HISTORY:
0000 43
0000 44 AUTHOR:
0000 45 Steven B. Lionel, 18-Jan-79: Version 1
0000 46
0000 47 MODIFIED BY:
0000 48
0000 49
0000 50

```

MTH\$GMIN1
1-001

K 15
GMIN1 function 16-SEP-1984 01:29:03 VAX/VMS Macro V04-00 Page (2)
HISTORY ; Detailed Current Edit History 8-SEP-1984 11:23:52 [MTHRTL.SRC]MTH\$GMIN1.MAR;1

0000 52 .SBTTL HISTORY ; Detailed Current Edit History
0000 53
0000 54
0000 55 ; Edit History for Version 1 of MTH\$GMIN1
0000 56
0000 57 ; 1-001 - Original. SBL 18-Jan-79

MT
SY
DI
DI
DO
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65
Th
33
8

```
0000 59      .SBTTL  DECLARATIONS
0000 60
0000 61 :
0000 62 : INCLUDE FILES:
0000 63 :     NONE
0000 64 :
0000 65 :
0000 66 :
0000 67 : EXTERNAL SYMBOLS:
0000 68 :     NONE
0000 69 :
0000 70 :
0000 71 :
0000 72 : MACROS:
0000 73 :     NONE
0000 74 :
0000 75 :
0000 76 :
0000 77 : PSECT DECLARATIONS:
0000 78 :     .PSECT  _MTH$CODE          PIC, SHR, LONG, EXE, NOWRT
0000 79 :
0000 80 :
0000 81 : EQUATED SYMBOLS:
0000 82 :     NONE
0000 83 :
0000 84 :
0000 85 :
0000 86 : OWN STORAGE:
0000 87 :     NONE
0000 88 :
```

```

0000 90      .SBTTL  MTH$GMIN1
0000 91
0000 92      :++
0000 93      : FUNCTIONAL DESCRIPTION:
0000 94      : Return the minimum of n arguments, n is greater than or equal
0000 95      : to 1.
0000 96
0000 97
0000 98      : CALLING SEQUENCE:
0000 99      : Minimum.wg.v = MTH$GMIN1 ({arg.rg.r})
0000 100
0000 101
0000 102
0000 103     : INPUT PARAMETERS:
0000 104     : The n parameters are G floating point values
0000 105     : and are call-by-reference.
0000 106
0000 107
0000 108     : IMPLICIT INPUTS:
0000 109     : NONE
0000 110
0000 111     : OUTPUT PARAMETERS:
0000 112     : NONE
0000 113
0000 114     : IMPLICIT OUTPUTS:
0000 115     : NONE
0000 116
0000 117     : COMPLETION CODES:
0000 118     : NONE
0000 119
0000 120     : SIDE EFFECTS:
0000 121     : Reserved Operand exception can occur.
0000 122
0000 123
0000 124     :--
0000 125
0000 126     .ENTRY  MTH$GMIN1,      ^M<R2>
52   6C   9A   0002 127     MOVZBL  (AP), R2      : R2 = arg count
      8C   D5   0005 128     TSTL   (AP)+      : AP -> first arg
50   9C   50FD 0007 129 1$:  MOVG   @ (AP)+, R0    : R0/R1 = trial min
      09   11   0008 130     BRB    3$          : check arg count
50   00   BC   51FD 000D 131 2$:  CMPG   @0(AP), R0    : if this arg is less than trial min
      F3   19   0012 132     BLSS   1$          : then it becomes new trial min
      8C   D5   0014 133     TSTL   (AP)+      : else ignore it
      F4  52   F5   0016 134 3$:  SOBGTR R2, 2$      : return if arg count exhausted
      04   0019 135     RET                    : with min in R0/R1
      001A 136
      001A 137
      001A 138     .END

```

MTHSGMIN1
Symbol table

GMIN1 function

N 15

16-SEP-1984 01:29:03 VAX/VMS Macro V04-00
6-SEP-1984 11:23:52 [MTHRTL.SRC]MTHGMIN1.MAR;1

Page 5
(4)

MTHSGMIN1 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	0000001A (26.)	01 (1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.06	00:00:00.91
Command processing	116	00:00:00.54	00:00:03.15
Pass 1	69	00:00:00.41	00:00:02.90
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	38	00:00:00.31	00:00:01.07
Symbol table output	1	00:00:00.01	00:00:00.04
Psect synopsis output	2	00:00:00.03	00:00:00.12
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	259	00:00:01.36	00:00:08.28

The working set limit was 900 pages.
1387 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 1 non-local and 3 local symbols.
138 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\$:MTHGMIN1/OBJ=OBJ\$:MTHGMIN1 MSRCS:MTHGMIN1/UPDATE=(ENHS:MTHGMIN1)

B
C
D
E
F
G
H
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J
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p
q
r
s
t
u
v
w
x
y
z
{
|
}
~

MTHGCONJG LIS	MTHGINT LIS	MTHGMOD LIS
MTHEXP LIS	MTHFLOOR LIS	MTHGEXP LIS
MTHDTAN LIS	MTHDTANH LIS	MTHGMINI LIS
MTHGCOSH LIS	MTHGLOG LIS	MTHGACOS LIS
MTHGASTN LIS	MTHGINT LIS	MTHGATAN LIS
MTHGATANH LIS	MTHGMAXI LIS	