


```

MM      MM      TTTTTTTTTT  HH      HH      DDDDDDDD  MM      MM      IIIIII  NN      NN      11
MM      MM      TTTTTTTTTT  HH      HH      DDDDDDDD  MM      MM      IIIIII  NN      NN      11
MMMM    MMMM      TT          HH      HH      DD          DD  MMMM    MMMM  II          NN      NN      1111
MMMM    MMMM      TT          HH      HH      DD          DD  MMMM    MMMM  II          NN      NN      1111
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NNNN    NN      11
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NNNN    NN      11
MM      MM      TT          HHHHHHHHHH  DD          DD  MM      MM      II          NN      NN      11
MM      MM      TT          HHHHHHHHHH  DD          DD  MM      MM      II          NN      NN      11
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NN      NNNN    11
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NN      NNNN    11
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NN      NN      11
MM      MM      TT          HH      HH      DD          DD  MM      MM      II          NN      NN      11
MM      MM      TT          HH      HH      DDDDDDDD  MM      MM      IIIIII  NN      NN      111111
MM      MM      TT          HH      HH      DDDDDDDD  MM      MM      IIIIII  NN      NN      111111

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....
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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
LLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLL  IIIIII  SSSSSSSS

```

(2)	52	HISTORY	; Detailed Current Edit History
(3)	61	DECLARATIONS	
(4)	92	MTHSDMIN1	

```

0000 1      .TITLE MTH$DMIN1      DMIN1 function
0000 2      .IDENT /1-002/      ; File: MTH$DMIM1.MAR
0000 3
0000 4
0000 5 :*****
0000 6 :*
0000 7 :*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 21 :*
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 :   This module contains routine MTH$DMIN1:
0000 33 :   Return the smaller of n double-precision floating-point
0000 34 :   numbers.
0000 35
0000 36
0000 37
0000 38 : --
0000 39
0000 40 : VERSION: 0
0000 41
0000 42 : HISTORY:
0000 43
0000 44 : AUTHOR:
0000 45 :   Jonathan M. Taylor, 14-JUL-77: Version 0
0000 46
0000 47 : MODIFIED BY:
0000 48
0000 49
0000 50 :

```

MTH\$DMIN1
1-002

E 9
DMIN1 function 16-SEP-1984 01:18:43 VAX/VMS Macro V04-00
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:22:20 [MTHRTL.SRC]MTH\$DMIN1.MAR;1

Page 2
(2)

```
0000 52 .SBTTL HISTORY ; Detailed Current Edit History
0000 53
0000 54
0000 55 ; Edit History for Version 0 of MTH$DMIN1
0000 56
0000 57 ; 0-4 - Remove MTH$FLAG_JACKET. TNH 26-July-78
0000 58 ; 1-001 - Update version number and copyright notice. JBS 16-NOV-78
0000 59 ; 1-002 - Add "_" to the PSECT directive. JBS 22-DEC-78
```

MTH
Syn

DIV
DIV
DON
ERR
EXP
HIG
MTH
MTH
MTH
NO
RET
SFS
SFS
STE
STE
STE
TES
TWO
UND

PSE

\$AB
_MT

Pha

Ini
COM
Pas
Syn
Pas
Syn
Pse
Crc
Ass

The
654
The
331
8 p

```
0000 61      .SBTTL DECLARATIONS
0000 62
0000 63 :
0000 64 : INCLUDE FILES:
0000 65 :     oerr.mar
0000 66 :
0000 67 :
0000 68 :
0000 69 : EXTERNAL SYMBOLS:
0000 70 :     NONE
0000 71 :
0000 72 :
0000 73 :
0000 74 : MACROS:
0000 75 :     NONE
0000 76 :
0000 77 :
0000 78 :
0000 79 : PSECT DECLARATIONS:
0000 80 :     .PSECT _MTH$CODE          PIC, SHR, LONG, EXE, NOWRT
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 :
```

Mac
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88
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MAC

```

0000 92      .SBTTL MTH$DMIN1
0000 93
0000 94 :++
0000 95 : FUNCTIONAL DESCRIPTION:
0000 96 :   Return the minimum of n arguments, n is greater than or equal
0000 97 :   to 1.
0000 98 :
0000 99 :
0000 100 : CALLING SEQUENCE:
0000 101 :   Minimum.wd.v = MTH$DMIN1 ({arg.rd.r})
0000 102 :
0000 103 :
0000 104 :
0000 105 : INPUT PARAMETERS:
0000 106 :   The n parameters are double-precision floating point values
0000 107 :   and are call-by-reference.
0000 108 :
0000 109 :
0000 110 : IMPLICIT INPUTS:
0000 111 :   NONE
0000 112 :
0000 113 : OUTPUT PARAMETERS:
0000 114 :   NONE
0000 115 :
0000 116 : IMPLICIT OUTPUTS:
0000 117 :   NONE
0000 118 :
0000 119 : COMPLETION CODES:
0000 120 :   NONE
0000 121 :
0000 122 : SIDE EFFECTS:
0000 123 :   Reserved Operand exception can occur.
0000 124 :
0000 125 :
0000 126 :--
0000 127
52 6C 0004 0000 128      ENTRY MTH$DMIN1,      ^M<R2>
50 8C 0002 129      MOVZBL (AP), R2          ; R2 = arg count
50 9C 0005 130      TSTL (AP)+          ; AP -> first arg
50 08 0007 131 1$:   MOVD @ (AP)+, R0        ; R0/R1 = trial min
50 00 BC 71 000A 132      BRB 3$          ; check arg count
50 00 BC 71 000C 133 2$:   CMPD @0(AP), R0      ; if this arg is less than trial min
50 00 F5 19 0010 134      BLSS 1$          ; then it becomes new trial min
50 00 8C D5 0012 135      TSTL (AP)+          ; else ignore it
50 00 F5 52 F5 0014 136 3$:   SOBGTR R2, 2$      ; return if arg count exhausted
50 00 04 0017 137      RET              ; with min in R0/R1
0018 138
0018 139
0018 140      .END

```

MTHSDMIN1
Symbol table

DMIN1 function

H 9

16-SEP-1984 01:18:43
6-SEP-1984 11:22:20

VAX/VMS Macro V04-00
[MTHRTL.SRC]MTHDMIN1.MAR;1

Page 5
(4)

MTH
Tab

MTHSDMIN1 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	00000018 (24.)	01 (1.)	PIC USR CON REL LCL SHR EXE RD NOWRT NOVEC LONG

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.05	00:00:00.94
Command processing	124	00:00:00.43	00:00:03.64
Pass 1	69	00:00:00.33	00:00:01.79
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	38	00:00:00.31	00:00:01.32
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	268	00:00:01.17	00:00:07.73

The working set limit was 900 pages.
 1403 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.
 140 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=LISS:MTHDMIN1/OBJ=OBJ\$:MTHDMIN1 MSRCS:MTHDMIN1/UPDATE=(ENH\$:MTHDMIN1)

0259 AH-BT13A-SE
VAX/VMS V4.0

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MTHDCOSH LIS					MTHDMINI LIS				
					MTHDLOG LIS			MTHDSINCO LIS	
MTHDATANH LIS						MTHDNINT LIS			MTHDSQRT LIS
	MTHDCONJG LIS			MTHDINT LIS	MTHDMAXI LIS		MTHDSIGN LIS		
			MTHD1M LIS		MTHDMOD LIS			MTHDSINH LIS	
		MTHDEXP LIS							
			MTHDFLOOR LIS			MTHDPROD LIS			