



```

MM      MM      TTTTTTTTTT  HH      HH  DDDDDDDD  MM      MM      AAAAAA  XX      XX      11
MM      MM      TTTTTTTTTT  HH      HH  DDDDDDDD  MM      MM      AAAAAA  XX      XX      11
MMMM    MMMM      TT          HH      HH  DD      DD  MMMM    MMMM  AA      AA  XX      XX      1111
MMMM    MMMM      TT          HH      HH  DD      DD  MMMM    MMMM  AA      AA  XX      XX      1111
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HHHHHHHHHH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HHHHHHHHHH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AAAAAAAAAA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AAAAAAAAAA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DD      DD  MM      MM      AA      AA  XX      XX      11
MM      MM      TT          HH      HH  DDDDDDDD  MM      MM      AA      AA  XX      XX      111111
MM      MM      TT          HH      HH  DDDDDDDD  MM      MM      AA      AA  XX      XX      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

```

MTH  
Syn  
MTH  
PSE  
---  
\_M1  
Pha  
---  
In  
Con  
Pas  
Syn  
Pas  
Syn  
Pse  
Crc  
Ass  
The  
14C  
The  
14C  
0 P  
Mac  
---  
\_S2  
0 C  
The  
MAC

(2) 50  
(3) 59  
(4) 91

HISTORY ; Detailed Current Edit History  
DECLARATIONS  
MTHSDMAX1

```

0000 1      .TITLE MTHSDMAX1      DMAX1 function
0000 2      .IDENT /1-002/      ; File: MTHDMAX1.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 MTHSDMAX1:
0000 33 :   Return the maximum of n double-precision floating-point values.
0000 34 :
0000 35 :
0000 36 :--
0000 37
0000 38 : VERSION: 0
0000 39
0000 40 : HISTORY:
0000 41
0000 42 : AUTHOR:
0000 43 :   Jonathan M. Taylor, 14-JUL-77: Version 0
0000 44
0000 45 : MODIFIED BY:
0000 46
0000 47
0000 48

```

```
0000 50 .SBTTL HISTORY ; Detailed Current Edit History
0000 51
0000 52
0000 53 ; Edit History for Version 0 of MTHSDMAX1
0000 54 :
0000 55 : 0-4 - remove MTH$FLAG_JACKET. TNH 26-July-78
0000 56 : 1-001 - Update version number and copyright notice. JBS 16-NOV-78
0000 57 : 1-002 - Add "_" to the PSECT directive. JBS 22-DEC-78
```

```
0000 59          .SBTTL  DECLARATIONS
0000 60
0000 61 :
0000 62 : INCLUDE FILES:
0000 63 :   oerr.mar
0000 64 :
0000 65 :
0000 66 :
0000 67 :
0000 68 : EXTERNAL SYMBOLS:
0000 69 :   NONE
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  _MTH$CODE          PIC, SHR, LONG, EXE, NOWRT
0000 80
0000 81 :
0000 82 : EQUATED SYMBOLS:
0000 83 :   NONE
0000 84 :
0000 85 :
0000 86 :
0000 87 : OWN STORAGE:
0000 88 :   NONE
0000 89 :
```

```

0000 91      .SBTTL  MTHSDMAX1
0000 92
0000 93      :++
0000 94      : FUNCTIONAL DESCRIPTION:
0000 95      : Returns the maximum of n arguments, n is greater or equal to 1.
0000 96      :
0000 97      :
0000 98      : CALLING SEQUENCE:
0000 99      : Maximum.wd.v = MTHSDMAX1 ({arg.rd.r})
0000 100     :
0000 101     :
0000 102     :
0000 103     : INPUT PARAMETERS:
0000 104     : The n input parameters are double-precision floating-point
0000 105     : values 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
52  6C 0004 0000 126     .ENTRY  MTHSDMAX1,      ^M<R2>
      8C 9A 0002 127     MOVZBL  (AP), R2      ; R2 = arg count
50  9C 0005 128     TSTL   (AP)+      ; AP -> first arg
      08 70 0007 129 1$:  MOVD   @ (AP)+, R0    ; R0/R1 = trial max
      00 11 000A 130     BRB    3$          ; check arg count
      00 131     ;
50  00 BC 71 000C 132 2$:  CMPD   @0 (AP), R0    ; if this arg is greater than trial max
      F5 14 0010 133     BGTR   1$          ; then it becomes trial max
      8C D5 0012 134     TSTL   (AP)+      ; else ignore it
      F5 52 F5 0014 135 3$:  SOBGTR R2, 2$     ; return if arg count exhausted
      04 0017 136     RET
      0018 137
      0018 138     .END

```

MTHSDMAX1  
Symbol table

DMAX1 function

N 8

16-SEP-1984 01:18:23  
6-SEP-1984 11:22:18

VAX/VMS Macro V04-00  
[MTHRTL.SRC]MTHDMAX1.MAR;1

Page 5  
(4)

MTI  
3-

MTHSDMAX1 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	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	30	00:00:00.09	00:00:00.37
Command processing	125	00:00:00.58	00:00:04.00
Pass 1	69	00:00:00.40	00:00:02.16
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	40	00:00:00.36	00:00:01.37
Symbol table output	1	00:00:00.01	00:00:00.01
Psect synopsis output	3	00:00:00.01	00:00:00.19
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	270	00:00:01.45	00:00:08.11

The working set limit was 750 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\$:MTHDMAX1/OBJ=OBJ\$:MTHDMAX1 MSRCS:MTHDMAX1/UPDATE=(ENHS:MTHDMAX1)



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			