MTHRTL

FILEID**MTHDMAX1

```
MM     MM  TTTTTTTTTT  HH     HH  DDDDDDD    MM     MM   AAAAAA   XX     XX      11
MM     MM  TTTTTTTTTT  HH     HH  DDDDDDD    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 MM MM    TT      HH     HH  DD    DD   MM MM MM  AA    AA    XX XX         11
MM MM MM MM    TT      HH     HH  DD    DD   MM MM MM  AA    AA     XX           11
MM     MM      TT      HHHHHHHHHH DD    DD   MM     MM  AA    AA    XX           11
MM     MM      TT      HHHHHHHHHH DD    DD   MM     MM  AA    AA    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  DDDDDDD    MM     MM  AA    AA   XX     XX   111111
MM     MM      TT      HH     HH  DDDDDDD    MM     MM  AA    AA   XX     XX   111111
```

```
LL              IIIIII     SSSSSSSS
LL              IIIIII     SSSSSSSS
LL                II      SS
LL                II      SS
LL                II      SS
LL                II       SSSSS
LL                II       SSSSS
LL                II           SS
LL                II           SS
LL                II           SS
LL                II           SS
LLLLLLLLL       IIIIII    SSSSSSSS
LLLLLLLLL       IIIIII    SSSSSSSS
```

```
0000      1              .TITLE  MTH$DMAX1       DMAX1 function
0000      2              .IDENT  /1-002/         ; File: MTHDMAX1.MAR
0000      3
0000      4
0000      5      ;*******************************************************************
0000      6      ;*                                                                 *
0000      7      ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                        *
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0000     24      ;*                                                                 *
0000     25      ;*                                                                 *
0000     26      ;*******************************************************************
0000     27
0000     28
0000     29      ; FACILITY: MATH LIBRARY
0000     30      ;++
0000     31      ; ABSTRACT:
0000     32      ;      This module contains MTH$DMAX1:
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      ;
```

MTH$DMAX1
1-002

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DMAX1 function   16-SEP-1984 01:18:23   VAX/VMS Macro V04-00   Page 2
HISTORY ; Detailed Current Edit History   6-SEP-1984 11:22:18   LMTHRTL.SRCJMTHDMAX1.MAR;1   (2)

```
0000    50                    .SBTTL  HISTORY             ; Detailed Current Edit History
0000    51
0000    52
0000    53 ; Edit History for Version 0 of MTH$DMAX1
0000    54 ;
0000    55 ; 0-4   - remove MTH$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:
          00000000        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      ;
```

MTH$DMAX1
1-002

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DMAX1 function
MTH$DMAX1

16-SEP-1984 01:18:23   VAX/VMS Macro V04-00   Page 4
6-SEP-1984 11:22:18   [MTHRTL.SRC]MTHDMAX1.MAR;1   (4)

```
                              0000    91              .SBTTL  MTH$DMAX1
                              0000    92
                              0000    93  ;++
                              0000    94  ; FUNCTIONAL DESCRIPTION:
                              0000    95  ;       Returns the maximum of n arguments, n is greater or equal to 1.
                              0000    96  ;
                              0000    97  ;
                              0000    98  ; CALLING SEQUENCE:
                              0000    99  ;       Maximum.wd.v = MTH$DMAX1 ({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
                       0004   0000   126              .ENTRY  MTH$DMAX1,       ^M<R2>
           52   6C   9A   0002   127              MOVZBL  (AP), R2         ; R2 = arg count
                8C   D5   0005   128              TSTL    (AP)+            ; AP -> first arg
           50   9C   70   0007   129  1$:         MOVD    @(AP)+, R0       ; R0/R1 = trial max
                08   11   000A   130              BRB     3$               ; check arg count
                         000C   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 exausted
                     04   0017   136              RET
                         0018   137
                         0018   138              .END
```

MTH$DMAX1   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
_255DUA28:[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 MSRC$:MTHDMAX1/UPDATE=(ENH$:MTHDMAX1)

MTHDCOSH
LIS

MTHDMIN1
LIS

MTHDLOG
LIS

MTHDSINCO
LIS

MTHDATANH
LIS

MTHDNINT
LIS

MTHDSQRT
LIS

MTHDCONJG
LIS

MTHDINT
LIS

MTHDMAX1
LIS

MTHDSIGN
LIS

MTHDIM
LIS

MTHDMOD
LIS

MTHDSINH
LIS

MTHDEXP
LIS

MTHDFLOOR
LIS

MTHDPROD
LIS