```
MMM          MMM  TTTTTTTTTTTTTTT   HHH          HHH  RRRRRRRRRRR     TTTTTTTTTTTTTTT   LLL
MMM          MMM  TTTTTTTTTTTTTTT   HHH          HHH  RRRRRRRRRRRR    TTTTTTTTTTTTTTT   LLL
MMM          MMM  TTTTTTTTTTTTTTT   HHH          HHH  RRRRRRRRRRRR    TTTTTTTTTTTTTTT   LLL
MMMMMM    MMMMMM        TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMMMMM    MMMMMM        TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMMMMM    MMMMMM        TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMM   MMM   MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMM   MMM   MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMM   MMM   MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLL
MMM         MMM         TTT         HHHHHHHHHHHHHHHH  RRRRRRRRRRR           TTT         LLL
MMM         MMM         TTT         HHHHHHHHHHHHHHHH  RRRRRRRRRRRR          TTT         LLL
MMM         MMM         TTT         HHHHHHHHHHHHHHHH  RRRRRRRRRRRR          TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR   RRR             TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR   RRR             TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR   RRR             TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR      RRR          TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR      RRR          TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR      RRR          TTT         LLL
MMM         MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLLLLLLLLLLLLLLL
MMM         MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLLLLLLLLLLLLLLL
MMM         MMM         TTT         HHH          HHH  RRR         RRR       TTT         LLLLLLLLLLLLLLLL
```

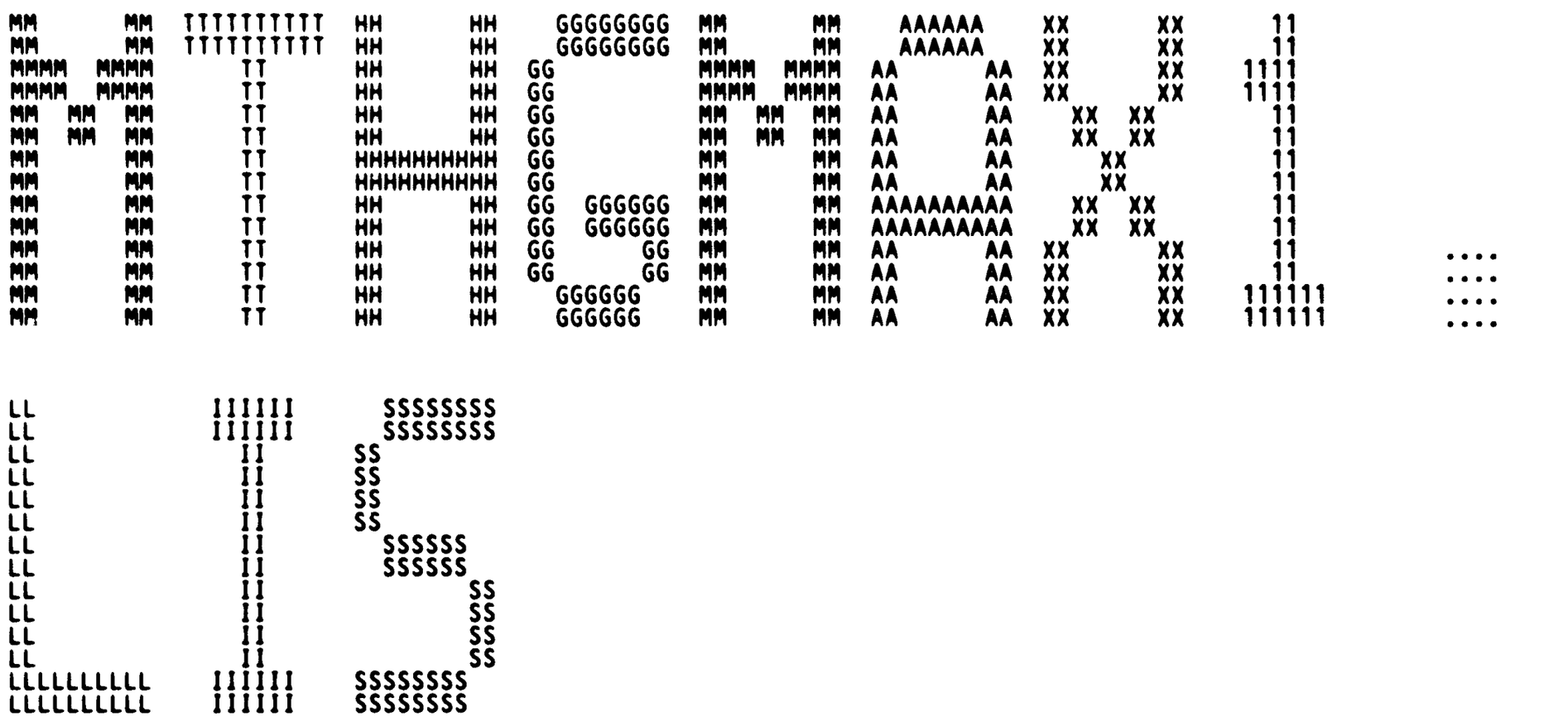
MM MM TTTTTTTTTT HH HH GGGGGGGG MM MM AAAAAA XX XX 11
MM MM TTTTTTTTTT HH HH GGGGGGGG MM MM AAAAAA XX XX 11
MMMM MMMM TT HH HH GG MMMM MMMM AA AA XX XX 1111
MMMM MMMM TT HH HH GG MMMM MMMM AA AA XX XX 1111
MM MM MM TT HH HH GG MM MM MM AA AA XX XX 11
MM MM MM TT HH HH GG MM MM MM AA AA XX XX 11
MM MM TT HHHHHHHHHH GG MM MM AA AA XX 11
MM MM TT HHHHHHHHHH GG MM MM AA AA XX 11
MM MM TT HH HH GG GGGGG MM MM AAAAAAAAAA XX XX 11
MM MM TT HH HH GG GGGGG MM MM AAAAAAAAAA XX XX 11
MM MM TT HH HH GG GG MM MM AA AA XX XX 11 ....
MM MM TT HH HH GG GG MM MM AA AA XX XX 11 ....
MM MM TT HH HH GGGGGG MM MM AA AA XX XX 111111 ....
MM MM TT HH HH GGGGGG 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
LLLLLLLLLL IIIIII SSSSSSSS
LLLLLLLLLL IIIIII SSSSSSSS

Table of contents

```
0000     1          .TITLE  MTH$GMAX1       GMAX1 function
0000     2          .IDENT  /1-001/         ; File: MTHGMAX1.MAR
0000     3
0000     4 ;
0000     5 ;*****************************************************************************
0000     6 ;*                                                                           *
0000     7 ;*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
0000     8 ;*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
0000     9 ;*  ALL RIGHTS RESERVED.                                                     *
0000    10 ;*                                                                           *
0000    11 ;*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED    *
0000    12 ;*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE   *
0000    13 ;*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER    *
0000    14 ;*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY    *
0000    15 ;*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY    *
0000    16 ;*  TRANSFERRED.                                                             *
0000    17 ;*                                                                           *
0000    18 ;*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE    *
0000    19 ;*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
0000    20 ;*  CORPORATION.                                                             *
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 MTH$GMAX1:
0000    33 ;       Return the maximum of n G floating-point values.
0000    34 ;
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, 18-Jan-79: Version 1
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 1 of MTH$GMAX1
0000     54 ;
0000     55 ; 1-001 - Original.  SBL 18-Jan-79
```

```
                        .SBTTL  DECLARATIONS

;
; INCLUDE FILES:
;       NONE
;
;
;
; EXTERNAL SYMBOLS:
;       NONE
;
;
; MACROS:
;       NONE
;
;
; PSECT DECLARATIONS:
00000000        .PSECT  _MTH$CODE       PIC, SHR, LONG, EXE, NOWRT

;
; EQUATED SYMBOLS:
;       NONE
;
;
; OWN STORAGE:
;       NONE
;
```

```
                     0000     89          .SBTTL  MTH$GMAX1
                     0000     90
                     0000     91 ;++
                     0000     92 ; FUNCTIONAL DESCRIPTION:
                     0000     93 ;       Returns the maximum of n arguments, n is greater or equal to 1.
                     0000     94 ;
                     0000     95 ;
                     0000     96 ; CALLING SEQUENCE:
                     0000     97 ;       Maximum.wg.v = MTH$GMAX1 ({arg.rg.r})
                     0000     98 ;
                     0000     99 ;
                     0000    100 ;
                     0000    101 ; INPUT PARAMETERS:
                     0000    102 ;       The n input parameters are G floating-point
                     0000    103 ;       values and are call-by-reference.
                     0000    104 ;
                     0000    105 ;
                     0000    106 ; IMPLICIT INPUTS:
                     0000    107 ;       NONE
                     0000    108 ;
                     0000    109 ; OUTPUT PARAMETERS:
                     0000    110 ;       NONE
                     0000    111 ;
                     0000    112 ; IMPLICIT OUTPUTS:
                     0000    113 ;       NONE
                     0000    114 ;
                     0000    115 ; COMPLETION CODES:
                     0000    116 ;       NONE
                     0000    117 ;
                     0000    118 ; SIDE EFFECTS:
                     0000    119 ;       Reserved Operand exception can occur.
                     0000    120 ;
                     0000    121 ;
                     0000    122 ;--
                     0000    123
                0004 0000    124          .ENTRY  MTH$GMAX1,      ^M<R2>
    52    6C     9A 0002    125          MOVZBL  (AP), R2        ; R2 = arg count
          8C     D5 0005    126          TSTL    (AP)+           ; AP -> first arg
    50    9C 50FD 0007    127 1$:      MOVG    @(AP)+, R0      ; R0/R1 = trial max
          09     11 000B    128          BRB     3$              ; check arg count
                    000D    129
50    00 BC 51FD 000D    130 2$:      CMPG    @0(AP), R0      ; if this arg is greater than trial max
          F3     14 0012    131          BGTR    1$              ; then it becomes trial max
          8C     D5 0014    132          TSTL    (AP)+           ; else ignore it
       F4 52     F5 0016    133 3$:      SOBGTR  R2, 2$          ; return if arg count exausted
                 04 0019    134          RET
                    001A    135
                    001A    136          .END
```

MTH$GMAX1 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	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	29	00:00:00.09	00:00:00.59
Command processing	103	00:00:00.52	00:00:03.54
Pass 1	64	00:00:00.41	00:00:01.19
Symbol table sort	0	00:00:00.00	00:00:00.00
Pass 2	38	00:00:00.35	00:00:01.25
Symbol table output	2	00:00:00.01	00:00:00.05
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	240	00:00:01.40	00:00:06.65

The working set limit was 750 pages.
1371 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.
136 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$:MTHGMAX1/OBJ=OBJ$:MTHGMAX1 MSRC$:MTHGMAX1/UPDATE=(ENH$:MTHGMAX1)

MTHGCONJG
LIS

MTHGINT
LIS

MTHGMOD
LIS

MTHEXP
LIS

MTHFLOOR
LIS

MTHDTAN
LIS

MTHDTANH
LIS

MTHGEXP
LIS

MTHGFLOOR
LIS

MTHGMIN1
LIS

MTHGCOSH
LIS

MTHGLOG
LIS

MTHGACOS
LIS

MTHGASIN
LIS

MTHGNINT
LIS

MTHGATAN
LIS

MTHGATANH
LIS

MTHGMAX1
LIS