


```

MM      MM      TTTTTTTTTT  HH      HH      DDDDDDDD  CCCCCCCC  000000  NN      NN      JJ      GGGGGGGG
MM      MM      TTTTTTTTTT  HH      HH      DDDDDDDD  CCCCCCCC  000000  NN      NN      JJ      GGGGGGGG
MMMM    MMMM    TT          HH      HH      DD      DD  CC      CC      00      00  NN      NN      JJ      GG      GGGGGGGG
MMMM    MMMM    TT          HH      HH      DD      DD  CC      CC      00      00  NN      NN      JJ      GG      GGGGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NNNN     NN      JJ      GG      GGGGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NNNN     NN      JJ      GG      GGGGGGGG
MM      MM      TT          HHHHHHHHHH  DD      DD  CC      CC      00      00  NN      NN      JJ      GG      GGGGGGGG
MM      MM      TT          HHHHHHHHHH  DD      DD  CC      CC      00      00  NN      NN      JJ      GG      GGGGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NN      NNNN     JJ      JJ      GG      GGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NN      NNNN     JJ      JJ      GG      GGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NN      NN      JJ      JJ      GG      GG      GGGGGG
MM      MM      TT          HH      HH      DD      DD  CC      CC      00      00  NN      NN      JJ      JJ      GG      GG      GG
MM      MM      TT          HH      HH      DDDDDDDD  CCCCCCCC  000000  NN      NN      JJJJJJ  GGGGGG  GG
MM      MM      TT          HH      HH      DDDDDDDD  CCCCCCCC  000000  NN      NN      JJJJJJ  GGGGGG  GG

```

```

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
LLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLL  IIIIII  SSSSSSSS

```

(2) 51
(3) 58
(4) 89

HISTORY ; Detailed Current Edit History
DECLARATIONS
MTH\$DCONJG - return D COMPLEX*16 conjugate

```

0000 1      .TITLE MTH$DCONJG - D COMPLEX*16 Conjugate
0000 2      .IDENT /1-001/ ; File: MTH$DCONJG.MAR
0000 3
0000 4 :
0000 5 :*****
0000 6 :*
0000 7 :*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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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 :
0000 30 : FACILITY: MATH LIBRARY
0000 31 : ++
0000 32 : ABSTRACT:
0000 33 :   This module contains routine MTH$DCONJG:
0000 34 :   Return D COMPLEX*16 conjugate.
0000 35 :
0000 36 :
0000 37 : --
0000 38 :
0000 39 : VERSION: 1
0000 40 :
0000 41 : HISTORY:
0000 42 :
0000 43 : AUTHOR:
0000 44 :   Steven B. Lionel, 20-July-1979
0000 45 :
0000 46 : MODIFIED BY:
0000 47 :
0000 48 :
0000 49 :

```

MTH\$DCONJG
1-001

- D COMPLEX*16 Conjugate K 2
HISTORY ; Detailed Current Edit History 16-SEP-1984 01:15:33 VAX/VMS Macro V04-00 Page 2
6-SEP-1984 11:21:55 [MTHRTL.SRC]MTHDCONJG.MAR;1 (2)

0000 51 .SBTTL HISTORY ; Detailed Current Edit History
0000 52
0000 53
0000 54 ; Edit History
0000 55 :
0000 56 ; 1-001 - Adapted from MTH\$CONJG version 1-002. SBL 20-July-1979

MTH
Sym
DCO
DCO
D-1
D-1
D-2
D-L
D-L
ERR
GEQ
GEQ
GTR
LON
MTH
MTH
MTH
MTH
MTH
ONE
SD
VAC

PSE

MT

Pha

Ini

Com

Pas

Sym

Pas

Sym

Pse

Cro

Ass

The

412

The

342

1 p

```
0000 58      .SBTTL  DECLARATIONS
0000 59
0000 60  :
0000 61  : INCLUDE FILES:
0000 62  :
0000 63  :
0000 64  :
0000 65  :
0000 66  : EXTERNAL SYMBOLS:
0000 67  :     NONE
0000 68  :
0000 69  :
0000 70  :
0000 71  : MACROS:
0000 72  :     NONE
0000 73  :
0000 74  :
0000 75  :
0000 76  : PSECT DECLARATIONS:
0000 77  :     .PSECT  _MTH$CODE           PIC, SHR, EXE, NOWRT, LONG
0000 78  :
0000 79  :
0000 80  : EQUATED SYMBOLS:
0000 81  :     NONE
0000 82  :
0000 83  :
0000 84  :
0000 85  : OWN STORAGE:
0000 86  :     NONE
0000 87  :
```

```

0000 89      .SBTTL MTH$DCONJG - return D COMPLEX*16 conjugate
0000 90
0000 91      :++
0000 92      : FUNCTIONAL DESCRIPTION:
0000 93      : Returns the complex conjugate of COMPLEX*16 number (r,i).
0000 94      : Result is (r,-i).
0000 95      :
0000 96      :
0000 97      : CALLING SEQUENCE:
0000 98      : CALL MTH$DCONJG (result.wdc.r, arg.rdc.r)
0000 99      :
0000 100     :
0000 101     :
0000 102     : INPUT PARAMETERS:
0000 103     : arg      = 8                ; D COMPLEX*16 argument by reference.
0000 104     :
0000 105     :
0000 106     : IMPLICIT INPUTS:
0000 107     : NONE
0000 108     :
0000 109     : OUTPUT PARAMETERS:
0000 110     :
0000 111     : result = 4                ; D COMPLEX*16 result by reference
0000 112     :
0000 113     : IMPLICIT OUTPUTS:
0000 114     : NONE
0000 115     :
0000 116     : COMPLETION CODES:
0000 117     : NONE
0000 118     :
0000 119     : SIDE EFFECTS:
0000 120     : Reserved Operand exception can occur.
0000 121     :
0000 122     :
0000 123     :--
0000 124
0000 125
0000 126
0000 127     .ENTRY MTH$DCONJG      ^M<>
50  08 AC 0000 0002 128     MOVL arg(AP), R0                ; argument address
51  04 AC 0006 129     MOVL result(AP), R1            ; result address
   81 80 70 000A 130     MOVD (R0)+, (R1)+          ; real part
   61 60 72 000D 131     MNEGD (R0), (R1)          ; imaginary part
   04 0010 132     RET
   0011 133
   0011 134
   0011 135     .END

```

MTH\$DCONJG
Symbol table

- D COMPLEX*16 Conjugate

N 2

16-SEP-1984 01:15:33
6-SEP-1984 11:21:55

VAX/VMS Macro V04-00
[MTHRTL.SRC]MTH\$DCONJG.MAR;1

Page 5
(4)

ARG = 00000008
MTH\$DCONJG = 00000000 RG 01
RESULT = 00000004

! 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	00000011 (17.)	01 (1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG		

! Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization	32	00:00:00.10	00:00:01.68
Command processing	116	00:00:00.53	00:00:02.60
Pass 1	65	00:00:00.39	00:00:01.68
Symbol table sort	0	00:00:00.00	00:00:00.03
Pass 2	37	00:00:00.31	00:00:01.05
Symbol table output	2	00:00:00.00	00:00:00.31
Psect synopsis output	2	00:00:00.02	00:00:00.12
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	256	00:00:01.35	00:00:07.48

The working set limit was 750 pages.
1355 bytes (3 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 3 non-local and 0 local symbols.
135 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\$:MTH\$DCONJG/OBJ=OBJ\$:MTH\$DCONJG MSRC\$:MTH\$DCONJG/UPDATE=(ENH\$:MTH\$DCONJG)

MTH\$
Tab

