

P
RESOURCE ONE TSS (8-3)

@ENTER
@ENTER UCB2.
PASSWORD- OK
06/16/73 1348:51
@COPY FILE Y-SIMPLE TO
@COPY FILE SA ? PLINECOLLECTOR TO '/SAPL' (NEW FILE). SYSTEM S3 NOT MOUN
@COPY FILE SA ?
@FILE DIRECTORY
-TAPE FILES:
MAKESMP
GDSMP
GCSMP
SPSMP
SBSMP
SYSMP
SISMP
SCSMP
SUSMP
ACCESSSMP
TAPE DIRECTORY
X2
MACPAC
GLOBSMP
GHOLD
PEEXECUTIVE
PEDITOR
PDEBUGGER
PUTILITY
PLINECOLLECTOR
RUNTIME
X3
X4

QEXECUTIVE
QEDITOR
QDEBUGGER
QUTILITY
QLINECOLLECTOR
PREPROCESSOR
X5
X6
SEXECUTIVE
SEEDITOR
SDEBUGGER
SUTILITY
SLINECOLLECTOR
X7
PB-SIMPLE
Y-SIMPLE
CU-SIMPLE
X8
APL-TRANSLATOR
XAPL2
X9
CHUTNEY
COSMETIC
NICE LINKAGE
LSMANUAL
X10
-

N

COMPLETED
@COPY FILE (UCB1Z ? ?) ?
@COPY FILE (UCB1)SAPL TO 7 ?
@COPY FILE (UCB1)SAPL TO '/SAPL' (NEW FILE). SYSTEM S3 NOT MOUNTED. ?
@MOUNT TAPE ON UNIT: 000000000000
@BREAK LINKS.
@BR. ?
@GO TO FILE RUNTIME
e
e
e

@COPY FILE LSMANUAL TO
@COPY FILE
@DISMOUNT TAPE ON UNIT:
@FILE DIRECTORY
-TAPE FILES:
MAKESMP
GDSMP
GCSMP
SPSMP
SBSMP
SYSMP

S1SMP
SCSMP
SUSMP
ACCESSSMP
TAPE DIRECTORY
X2
MACPAC
GLOBSMP
GHOLD
PEEXECUTIVE
PEDITOR
PDEBUGGER
PUTILITY
PLINECOLLECTOR
RUNTIME
X3
X4
QEXECUTIVE
QEDITOR
QDEBUGGER
QUTILITY
QLINECOLLECTOR
PREPROCESSOR
X5
X6
SEXECUTIVE
SEEDITOR
SDEBUGGER
SUTILITY
SLINECOLLECTOR

@COPY FILE (UCB1)SAPL TO '/SAPL' (NEW FILE). HASH TABLE FULLI>>53220452
@COPY FILE MACAPLPAC TO L-TRANSLATOR?N?O?
@COPY FILE Y-SIMPLE TO
@COPY FILE MACPAC TO
@COPY FILE '
@COPY FILE (UCB1)MACAPL TO '/MACAPL' (NEW FILE). HASH TABLE FULLI>>5320
@

FILE DIRECTORY
-DRUM FILES:
/ACCESSSMP
/BBSMP
/BCESSSMP
/BCSMP
/BEDITOR
/BEXECUTIVE
/BHOLD
/BISMP
/BLINECOLLECTOR
/BPSMP
/BUSMP
/BUTILITY

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/BDEBUGGER
/BYSMP
/CMYRUN
/CTEST
/CU-SIMPLE
/DMYRUN
/DTEST
/DUMPSMP
/GCSMP
/GDSMP
/GLOBSMP
/GHOLD
/MACPAC
/MAKESMP
/MYRUN
/PDEBUGGER
/PEXECUTIVE
/PB-SIMPLE
/PUTILITY
/RUNTIME
/SBSMP
/SCSMP
/SISMP
/S

```

```

@
CHANGE DRUM ASG TO 511.
NEW D. A. = 509 OUT OF 511
@COPY FILE M
@COPY FILE (UCB1)MACAPL TO '/MACAPL' (NEW FILE). HASH TABLE FULLI>>5320
@QED.
*READ FROM A
*READ FROM E
*READ FROM A
*READ FROM (UCB1)APL TESTS
*READ FROM (UCB1)APL TESTS.
3333 WORDS.
*PRINT.
DOUBLE? NO

```

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*****TP FACT
* META-APL ASSEMBLY TEST PROGRAM
*
* DEL R ← F N
* [1] BRANCH (2 4)[IORG + N>0]
* [2] R ← 1
* [3] BRANCH 0
* [4] R ← N PRODUCT F N-1
* [5] RETURN
* DEL

```

	PROGRAM	40, 40
*		
P	FCN	
F	FCN	
*		
P	FUNCTION	0, 1, 0, 0
	STATEMENT	1
	SHORTCONST	6
	ETC	CALLFCN, 1, F
	ETC	ATTNTRAP
	ENDFUNCTION	
*		
F	FUNCTION	1, 5, 1, 1
	LOCAL	R
	LOCAL	N
*		
	STATEMENT	1
	SHORTCONST	0
	SHORTLOCAL	N
	ETC	INTERCHANGE
	GENSCALAR	LESS
	ETC	GETORIGIN
	GENSCALAR	SUM
	ETC	CONVEC, 2, ((INTTYPEB, 2), (INTTYPEB, 4))
	INDEX	1
	ETC	BRANCH
*		
	STATEMENT	2
	SHORTCONST	1
	MEMREF	ASNORESULT; SHORTLOCAL R
*		
	STATEMENT	3
	SHORTCONST	0
	ETC	BRANCH
*		
	STATEMENT	4
	SHORTCONST	1
	SHORTLOCAL	N
	GENSCALAR	DIFFERENCE
	ETC	CALLFCN, 1, F
	SHORTLOCAL	N
	GENSCALAR	PRODUCT

```
*      MEMREF      ASNORESULT;  SHORTLOCAL R
*
*      STATEMENT    5
*      ETC           RETURNF
*
*      ENDFUNCTION
*
*      ENDPROGRAM
*****TP  IDX
*      PROGRAM      100,40
*
*      A            GLVAR
*      B            GLVAR
*      C            GLVAR
*      I            GLVAR
*      J            GLVAR
*      K            GLVAR
*
*      P            FCN
*
*      P            FUNCTION    0,14,0,0
*
*      SETORIGIN 1
*      STATEMENT    1
*      SHORTCONST 1
*      ETC          SETORIGIN
*      ETC          EAT1
*
*      A←(2 2 2) RESHAPE INDEXGEN 8
*      STATEMENT    2
*      SHORTCONST 8
*      ETC          INDEXGEN
*      ETC          CONVEC,3,((INTTYPEB,2),(INTTYPEB,2),(INTTYPEB,2))
*      ETC          RESHAPE
*      MEMREF      ASNORESULT; LONGGLOBAL, A
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* B←C←(SHAPE A) RESHAPE 0
    STATEMENT 3
    SHORTCONST 0
    LONGGLOBAL A
    ETC SHAPE
    ETC RESHAPE
    MEMREF ASSIGN; LONGGLOBAL C
    MEMREF ASNORESULT; LONGGLOBAL B

```

```

* I←1
    STATEMENT 4
    SHORTCONST 1
    MEMREF ASNORESULT; LONGGLOBAL I

```

```

* J←1
    STATEMENT 5
    SHORTCONST 1
    MEMREF ASNORESULT; LONGGLOBAL J

```

```

* K←1
    STATEMENT 6
    SHORTCONST 1
    MEMREF ASNORESULT; LONGGLOBAL K

```

```

* B[I.,J.,K]←A[I.,J.,K]
    STATEMENT 7
    LONGGLOBAL K; LONGGLOBAL J; LONGGLOBAL I
    LONGGLOBAL A
    INDEX 3
    LONGGLOBAL K; LONGGLOBAL J; LONGGLOBAL I
    MEMREF 3; LONGGLOBAL B
    ETC EAT1

```

```

* K←K+1
    STATEMENT 8
    SHORTCONST 1
    LONGGLOBAL K
    GENSCALAR SUM
    MEMREF ASNORESULT; LONGGLOBAL K

```

```

* BRANCH 7 PRODUCT INDEXGEN K LESS 3

```

```

    STATEMENT 9
    SHORTCONST 3
    LONGGLOBAL K
    GENSCALAR LESS
    ETC INDEXGEN
    SHORTCONST 7
    GENSCALAR PRODUCT
    ETC BRANCH

```

```

* J←J+1
    STATEMENT 10
    SHORTCONST 1
    LONGGLOBAL J
    GENSCALAR SUM
    MEMREF ASNORESULT; LONGGLOBAL J

```

```

* BRANCH 6 PRODUCT INDEXGEN J LESS 3

```

```

    STATEMENT 11
    SHORTCONST 3
    LONGGLOBAL J

```

```

GENSCALAR LESS
ETC INDEXGEN
SHORTCONST 6
GENSCALAR PRODUCT
ETC BRANCH

* I←I+1
STATEMENT 12
SHORTCONST 1
LONGGLOBAL I
GENSCALAR SUM
MEMREF ASNORESULT; LONGGLOBAL I
* BRANCH 5 PRODUCT INDEXGEN I LESS 3
STATEMENT 13
SHORTCONST 3
LONGGLOBAL I
GENSCALAR LESS
ETC INDEXGEN
SHORTCONST 5
GENSCALAR PRODUCT
ETC BRANCH

* ATTNTRAP

```

```

STATEMENT 14
ETC ATTNTRAP

*
ENDFUNCTION

*
ENDPROGRAM
*****TP REF
PROGRAM 40,40

*
A GLVAR
*
P FCN
F FCN
G FCN
*
P FUNCTION 0,2,0,0
STATEMENT 1
MEMREF REFERENCE; LONGGLOBAL A
ETC CALLFCN,1,F
STATEMENT 2
ETC ATTNTRAP
ENDFUNCTION

*
F FUNCTION 0,3,1,1

```

```

LOCAL      DATA
STATEMENT  1
MEMREF     REFERENCE; LONGLOCAL L
MEMREF     REFERENCE; LONGLOCAL X
ETC        CALLFCN,2,G
STATEMENT  2
ETC        ATTNTRAP
STATEMENT  3
ETC        RETURNF
ENDFUNCTION

```

```

*
G          FUNCTION  0,3,2,0
LOCAL      X,Y
STATEMENT  1
SHORTCONST 1
MEMREF     ASNORESULT; LONGLOCAL X
STATEMENT  2
SHORTCONST 2
MEMREF     ASNORESULT; LONGLOCAL Y
STATEMENT  3
ETC        RETURNF
ENDFUNCTION

```

```

*
ENDPROGRAM
*****TP ARITH
PROGRAM    200,50

```

```

*
A          GLVAR
B          GLVAR
I          GLVAR

```

```

-----

R          GLVAR
*
P          FCN
D          FCN
*
P          FUNCTION  0,16,0,0
* SETORIGIN 1
STATEMENT  1
SHORTCONST 1
ETC        SETORIGIN
ETC        EAT1
* A-1.0 PRODUCT INDEXGEN 25
STATEMENT  2
SHORTCONST 25

```

```

ETC INDEXGEN
ETC CONSCALAR,(040000B,000200B)
GENSCALAR PRODUCT
MEMREF ASNORESULT; LONGGLOBAL A

* B←A+A
STATEMENT 3
LONGGLOBAL A
LONGGLOBAL A
GENSCALAR SUM
MEMREF ASNORESULT; LONGGLOBAL B

* I←1.0
STATEMENT 4
ETC CONSCALAR,(040000B,000200B)
MEMREF ASNORESULT; LONGGLOBAL I

* LOOP: R←D[A.,B.,I]
STATEMENT 5
LONGGLOBAL I; LONGGLOBAL B; LONGGLOBAL A
ETC CALLFCN,3,D
MEMREF ASNORESULT; LONGGLOBAL R

* ATTNTRAP
STATEMENT 6
ETC ATTNTRAP

* BRANCH LOOP PRODUCT INDEXGEN (I←I+1)<5
STATEMENT 7
SHORTCONST 5
SHORTCONST 1
LONGGLOBAL I
GENSCALAR SUM
MEMREF ASSIGN; LONGGLOBAL I
GENSCALAR LESS
ETC INDEXGEN
SHORTCONST 5
GENSCALAR PRODUCT
ETC BRANCH

* R←(0 0 1 1) AND (0 1 0 1)
STATEMENT 8
ETC CONVEC,4
GCONSCALAR INTTYPEB,0
GCONSCALAR INTTYPEB,1
GCONSCALAR INTTYPEB,0

```

```

GCONSCALAR 040000B,000200B
ETC CONVEC,4
GCONSCALAR INTTYPEB,0
GCONSCALAR INTTYPEB,0
GCONSCALAR INTTYPEB,1

```

GCONSCALAR 040000B,000200B
GENSCALAR AND
MEMREF ASNORESULT; LONGGLOBAL R

* ATTNTRAP

STATEMENT 9
ETC ATTNTRAP

* R←(0 0 1 1) OR (0 1 0 1)

STATEMENT 10
ETC CONVEC,4
GCONSCALAR INT

*FINISHED.

WRITE OUT!

@LOGOUT UCB2.

TIME USED 0:0:28 IN 1:10:56

06/16/73 1459:15

RESOURCE ONE TSS (8-3)

@ENTER UCB2.

PASSWORD- OK

06/16/73 1500:00

@FI

@WR ?

@LOGOUT UCB2

@LOGOUT UCB2

@LOGOUT UCB2.

TIME USED 0:0:0 IN 0:1:28

06/16/73 1500:51N;S[