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CTSS BULLETIN NO. 17

CTSS Library

The following subprograms have now been added to the CTSS library:

FSTAT	CHMØDE
CØMFL	GCLC
SCLS	GLØC
SIØC	ERASE
RENAME	SCLC
CØMARG	GCLS
PRNTP	

The following subprograms have been modified:

DELETE	DSKLØD
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Most of these subprograms allow Fortran and MAD programs easier access to supervisor subroutines. For a more complete description of these subroutines see the CTSS Programmer's Guide.

1. File Name Specification

It may be useful to recall the conventions used to specify both names of a disk file as a single argument.

In FAP: TSX \$subroutine,4
 PØE FIL
 ...
 FIL BCI 2, NAME1 NAME2

In Fortran: CALL subroutine (12H NAME1 NAME2)
 OR CALL SETNAM(FIL,12H NAME1 NAME2)
 ...
 CALL subroutine (FIL,...)

In MAD: EXECUTE subroutine (FIL,...)
 ...
 VECTOR VALUES FIL-Ø NAME1 NAME2Ø

In the following examples only the MAD calling sequences will be given when the FAP and Fortran calling sequences can be inferred. Any exceptions will be explicitly stated. Any statement A = function.(...) may be replaced by EXECUTE function.(...) whenever the value of A is not needed.

2. FSTAT

A = FSTAT.(FIL)

Sets A = 0 if FIL does not exist, otherwise the prefix of A is the mode of FIL, the decrement of A is the logical disk module that FIL is stored on, and the tag and address of A is the estimated maximum word count of FIL.

3. DELETE, ERASE

A = DELETE.(FIL)
or A = ERASE.(FIL)

Sets A = 0 if successful, otherwise A contains the error code from the disk routine. If successful all copies of FIL will have been deleted. If any copies of FIL are R1 mode, a question is printed at the users console. The user types "YES" if he wishes this file to be deleted. If any copies of FIL are R2 mode, they will not be deleted. If any copies of FIL are R2 mode or the user does not type "YES" for copies of Fil of R1 mode then the subroutine is not successful.

4. RENAME

A = RENAME.(OLD,NEW)

Sets A = 0 if successful (i.e., file OLD has been renamed NEW), otherwise A contains the error code from the disk routine. If successful, all previous copies of NEW will have been deleted (RENAME calls DELETE to accomplish this).

5. CHMODE

A = CHMODE.(FIL, MODE)

MODE must be one of the following integers:

<u>MODE</u>	<u>New Mode of FIL</u>
0	temporary
1	permanent
2	R1 (read-only class 1)
3	R2 (read-only class 2)

Sets A = 0 if successful, otherwise A contains the error code from the disk routine.

6. DSKLOD

A = DSKLOD.(FIL,B,N)

Loads first N words of FIL into block starting at B(N-1), unless the number of words in FIL is less than N. A will be set to the number of words actually loaded. If A < N the file will be loaded into the block B(N-1) thru B(N-A).

7. COMFL

EXECUTE COMFL.(CF)

CF must be one of the integers 0,1,2, or 3. The user is switched to the specified common file.

8. COMARG

A = COMARG.(N)
A = COMARG.(N,B)
EXECUTE COMARG.(N,B)

The Nth argument from the command buffer is transferred to A and/or B.

9. GCLC

A = GCLC.(CC,LC)

Sets CC to the value of the command counter and LC to the number of the last command in the chain. The address part of A will be set equal to the value of CC and the decrement part of A will be set equal to the value of LC.

10. SCLC

EXECUTE SCLC.(CC,LC)

The command counter is set to CC and the number of the last command in the chain is set to LC.

11. GCLS

EXECUTE GCLS.(LIST,N)

LIST is a vector, usually 20 words long. The contents of the Nth command list, including the fence, are transferred into the vector LIST(0),..., LIST(i), where LIST(i) is the fence. Words beyond the fence are not transferred.

12. SCLS

EXECUTE SCLS.(LIST,N)

LIST is a vector which must include a fence (e.g., VECTOR VALUES LIST =\$hollerith string\$, 7777777777K). The Nth command list is set to the contents of the vector LIST. In Fortran one may write, CALL SCLS(nH.....,N).

13. PRNTP

EXECUTE PRNTP.(MESS)

...

VECTOR VALUES MESS =\$hollerith string\$,7777777777K

The contents of the vector MESS up to the fence is printed, 72 characters per line, on the users console. The vector MESS may be of any length. If the fence is 3777777777₈ there will be no carriage return at the end of the message. In Fortran one may write,

CALL PRNTP(nH....)

however, the fence which Fortran automatically supplies in this case is 7777777777₈.

14. GL~~L~~C

A = GL~~L~~C.(L~~L~~C)

Sets A equal to the current contents of the A-core location whose address is in L~~L~~C.

15. SL~~L~~C

EXECUTE SL~~L~~C.(A,L~~L~~C)

The A-core location whose address is in L~~L~~C is set equal to the contents of A. This subprogram may only be used by MI416 programmers.