MULTICS SYSTEM-PROGRAMMERS' MANUAL

SECTION BE.10.02

Published: 6/30/66

Identification

Elementary File System Print Routines L. B. Ratcliff

Purpose

The EFS print routines enable the 6.36/64.5 file system user to obtain a listing of any file as it is written or read within the EFS. These routines are available to 6.36/64.5 system users as debugging aids; they are not a part of the EPL I/O capability. Since listings appear only on the GE635 printer, these routines are more useful to the 64.5 user than the 6.36 user.

Usage

While a file is open, the user may request a listing of the file with one of the following EPL statements:

call eflsys\$printd(filename, length, option, status)

call eflsys\$printw(filename, length, option, status)

Procedure <u>printd</u> enables a dynamic listing of all records written to (or read from) the specified file <u>after</u> the call to printd. Printing terminates when the file is closed. Listings may be obtained of eight or fewer files. Listings are sorted by file name.

A call to <u>printw</u> effectively supplies a listing of the specified file at the end of process. The call may be given any time the file is open.

If the user's process fails, all dynamic listings (printd) will be output, tracing I/O to the point of failure.

These file listings are printed on the GE635 printer. They are not available as foreign files.

The argument list provided with each call specifies the following information (see figure 1):

- <u>filename</u> is a character string which is the name of the file to be printed.
- <u>length</u> is an integer whose value is the number of ASCII characters in the file name.

option

is an integer which is,

- = 1 to obtain an octal listing, or
- = 0 to turn off the print option for the specified file.

Each time a file is written or read, the data is also

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printed on the GE635 printer only if the most recent call to printd (specifying that file) was with <u>option</u> set non-zero. For a specified file, if printw is called more than once, the final <u>option</u> value determines what listing action is to occur at the end of the process.

<u>status</u> is a bit string (1 bit). If bit 1 = 1 upon return, the specified file is not open.

The file listing includes status return characters which indicate the contents of the status return bits for each specific read or write. These characters are

E Bit 1 = 1. An error was detected by EFS in attempting to perform the read or write.

- R Bit 2 = 1. An end of record was encountered in attempting to perform a read.
- X Bit 3 = 1. The last word read was the last word of the logical record.
- F Bit 4 = 1. An end of file was encountered.

In listings produced by calls to printw, the status return character, R will mark the end of each logical record; no other status return characters will appear.

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Argument List

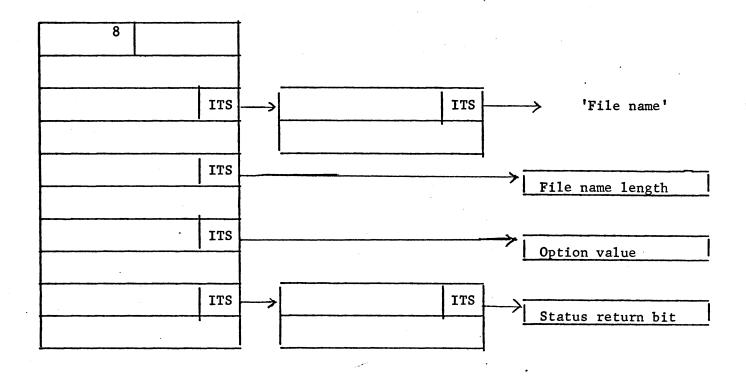


FIGURE 1 - Argument list for printd and printw