

Sept. 27, 1963

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SUBJ: Proposal for Putting the FMS Background System
on the Disk.A. Assumptions

1. Each current record on the system tape will be a file on the disk.
2. The disk routine .SLDAD entry, as described in CC-196 will be implemented. The first two words of each system file will give (1) initial loading location and numbers of words to load and (2) the starting location and the current system record number multiplied by 10.
3. The change-over will be carried out in the simplest manner possible and in such a way that a tape version of the system can be maintained.
4. All parts of the system using tapes for scratch purposes will continue to do so.

B. Method of Change-over to the Disk

Reassemble IOP so that the (LOAD) entry, which now causes loading of the next record on A1, will load the appropriate file from the disk and so that tape spacing on A1 is crippled.

Since IOP keeps track of the current file and record position of every tape in a block called POINT, this information can be used as the name of the disk file. When the tape spacing on A1 is crippled, the position that the tape spacing would have caused will still be noted in POINT.

With the proper use of macro instructions, IOP can be set up so that with a one card change the assembly will give an IOP that allows loading from either tape or disk.

Example: The first record of Fortran is in the second file, hence the entry is POINT after a tape-spacing to the second file should be P2R 1,,2 where the record count is in the address and the file position is in the decrement. The (LOAD) call will then

TSX .SL0AD,4 in the disk routine of the supervisor
PZE 1,,2 name of file on disk comparable to the
first record of Fortran.

No other records of the system besides IOP should have to be changed. The EXIT subprogram will have to be reassembled to let IOP keep track of the spacing to SIGN-ON, which is now done by direct spacing.

- C. To get cards for all the records of Fortran, the records of the system tape can be read and cards punched out with an existing subroutine. All changes sent out by IBM can be added to this deck directly.

Note: The information in POINT is not used in normal FMS operation. By a reassembly of IOP, I can verify that IOP does keep correct track of tape positioning.