

**COMPANY CONFIDENTIAL**

**August 21, 1957**

**Exchange Memo #23**

**I/O Memo #4**

**SUBJECT:           Compatible End of File Recognition**

**BY:                 J. K. Crawford  
                      C. M. Pietras**

**PROPOSAL:           Use the present Tape Mark, with necessary re-  
                      cognition precautions, for End of File recognition  
                      on both binary and coded decimal tapes.**

**REASON:            The "space over defects" benefits of the two gap  
                      head, cannot be fully utilized on machines using  
                      the present method of detecting binary End of File.**

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**DISCUSSION:**

The End of File indications should preferably be a positive one and should function in the same manner in all modes of operation. There are, at present, two forms of End of File indication. The Long Gap and the Tape Mark. They are not Compatible.

The introduction of the two gap head and dual channel clipping will make possible a marked improvement in tape reliability by facilitating a method of skipping bad areas of tape. The advantages thus gained would be curtailed by the use of a long gap for End of File. The present Tape Mark is consistent with the above operations and, with the proper recognition precautions, is applicable in all modes of operation.

**DESCRIPTION:**

Two suggested methods of satisfying the above requirements are as follows:

1. Let the First Character Tape Mark trigger be normally reset by the first bit of the next character. If the record gate falls while the First Character Tape Mark trigger is ON it will turn ON the End of File trigger.
2. Let the First Character Tape Mark trigger be normally reset by the first bit of the next character. If the Record Gate falls while the First Character Tape Mark trigger is ON it will turn ON Trigger A. If a Tape Mark is recognized in the check character while trigger A is ON it will turn ON the End of File trigger.

**ADVANTAGES:**

1. Compatible in all modes of operation.
2. Enables spacing over defects.

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ADVANTAGES:  
(Continued)

3. A positive End of File indication.
4. Less components are required.

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