

POUGHKEEPSIE

August 1, 1957

MEMO TO: Mr. J. C. Gibson

SUBJECT: Maximum Data Rate for I/O Units - Project 7000

REFERENCE: Your letter of July 30, 1957 - same subject

It is our intention to incorporate byte converters in the adapters for the 729 III tape drives connected to the Exchange. By controlling the timing of the byte converter the repetition rate of three 8 bit bytes transferred to and from the Exchange can be averaged over the period of time required for four 6 bit bytes on the tape side of the byte converter. The circuitry to provide this has been designed. Thus the maximum rep rate for 8 bit bytes transferred between the adapter and Exchange is in the order of 20 u secs per byte provided that the rep rate of the tape is 16.8 u secs per 6 bit byte.

When the speed of the 729 III is firmly established we will take another look at the situation if necessary.

To my knowledge the Tractor committee is not trying to find a low speed version of the 100 x tape in the range of 10 to 20 times nor has this been considered part of their function.

Until the basic characteristics of the tape units you speak of in the 4.4 x to 20 x range are known we cannot postulate a means of incorporating them into the Stretch system that would be anything but conjecture.

The High Speed Exchange will cover a range of speed. I see no problem in connecting I/O units of 20 x or less to the High Speed Exchange if it is desired.

H. K. Wild
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HKW:ps

- cc: Mr. G. A. Blaauw
- Mr. F. P. Brooks
- Dr. W. Buchholz
- Mr. J. D. Calvert
- Mr. E. F. Codd
- Mr. S. W. Dunwell
- Mr. R. A. Gregory
- Mr. J. E. Griffith ✓
- Mr. H. A. Mussell
- Mr. D. W. Sweeney
- Mr. W. W. Wolensky