

4

PROJECT BETA

January 16, 1956

FILE MEMO #10

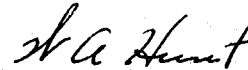
SUBJECT: Temporary Storage of Latest Handled Information

BY: W. A. Hunt

It has become increasingly evident that a machine of the BETA-1 type, may be speeded up by retaining a group of information words, i. e., data, instructions, index information, etc., in a very rapid accessible memory. As to what form of storage that this would take and in what manner the storage would be grouped as well as the amount needed is only speculative at present. However, the following paragraphs will indicate some thoughts on the subject.

The amount of each type of temporary information storage for very high speed access should be related to the probability of re-use and, also, the difficulty of obtaining the information originally. For instance, the amount of this type of storage needed for program loops would probably exceed that of index registers by several times. While it may be desirable to include the index registers with the program, it doesn't seem likely that data should be included in the same manner. Assuming that it is desirable to retain data temporarily in this fashion, the relative ratios of data to be used in calculation and data to be stored must be determined.

Some efficiency could be achieved if the program could indicate the start of a loop and data likely to be reused again. As to the data to be stored, the very high speed access may be obtained free if a delayed store system is included. (See BETA File Memo #8)



W. A. Hunt

WAH:SG