POUGHKEEPSIE
Department 539
South Road Laboratory

June 16, 1958

FILE MEMO

SUBJECT: RELEASE Instruction

Reference: My memo of June 11.

The above subject has been reviewed with Messrs. E. F. Codd, E. W. Coffin, R. P. Fletcher, J. R. Lyon, and A. Padegs. It was concluded that RELEASE should not be eliminated.

There are three major reasons for having a RELEASE instruction:

1. To break out of a closed chaining loop during program debugging (particularly with the High Speed Exchange where COPY CW cannot be given to analyze the program error).

2. To stop data transfer and free a channel to be used by another unit (particularly with the High Speed Exchange).

3. To reset the status bits and free a unit for another instruction while interrupts are disabled (useful for supervisory purposes).

These are all sufficiently important to justify the operation. Number 3, however, is made impossible by the present provision of an EOP interrupt after RELEASE. For this reason it is agreed to provide a pair of instructions as with READ, etc:

RELEASE (REL)
RELEASE EOS (REL E)

They differ only in whether EOP is given at the end.

Note that both instructions prevent and clear all status indications from the instruction in progress. REL replaces them by its own EOP. The only exception is that locating on disks or rewinding on tapes will give rise to a UNIT SIGNAL indication when the mechanical operation is finished. REL or REL E given prior to receipt of the UNIT SIGNAL will not suppress it.

H. G. Kolsky

In the Basic Exchange, REL and REL E usually keep the unit channel BUSY after being accepted until the end of the block is reached. A new instruction would receive a UNIT BUSY REJECT meanwhile.

The addition of REL E is not yet reflected in the new manual.

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