Programming Staff Note 19

COMPUTATION CENTER
Jan. 8, 1964

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SUBJ: Quit and Interrupt Conditions: A Proposal

1. The Quit Signal- (code 57_8 received by Supervisor)
   Effects the following actions:
   a. The supervisor immediately responds with quit message.
   b. Output and Input Buffer are destroyed. (Hopefully in the future it will be possible to save most input and output.)
   c. ALL machine conditions and pseudo-machine conditions (user conditions) will be SAVED. and RESET.
   d. The unit (console) will be placed at command level.

2. The Interrupt Signal- (code 17_8 received by Supervisor)
   Effects the following actions:
   a. Supervisor responds with interrupt message. (If user at interrupt level 0, appropriate comment such as "NO ACTION" should be output.)
   b. NO machine conditions or pseudo-machine conditions will be saved or destroyed.
   c. The supervisor will transfer control to the proper location as set by the interrupt level logic.

Requirements and Implementation

1. All machine conditions and pseudo-machine conditions can be set, reset and non-destructively tested.

2. The 7750 (in the case of teletypes and 1050's) will determine the difference between an interrupt signal and a quit signal and generate the proper code on the following basis:
   1. When a "break" is received, the 7750 will set a timer and will read the line.
   2. If another "break" is received before the timer goes to zero:
      A quit character is generated.
      Otherwise:
      An Interrupt character is generated.

3. The timer setting should be long enough to allow two "breaks" to be hit comfortably; short enough to allow quick respone to the character.
   Around 2-3 seconds seems reasonable.

3. The Break Procession and Supervisor will be programmed to handle this new character.