

January 27, 1964

CTSS BULLETIN 5

The following changes in CTSS will become effective on January 27th at the Computation Center and January 28th at Project M.A.C.

1. SAVE Command

The SAVE command will save the status of any of the user's active files. During the saving process, the active files are reset; if the user wishes to continue after a SAVE, RESTOR or RESUME should be used. Both RESUME and RESTOR will correctly restore active file status. If there is no active user program to be saved, the SAVE command will issue the comment: "MEMORY BOUND ZERO, NO SAVED FILE CREATED."

2. Automatic Logout

If the user is not in dead status at the time an automatic logout is initiated, a saved file named LOGOUT SAVED will be created. The effect will be the same as if the user had hit the quit button and given the command SAVE LOGOUT. Note: during the INPUT and EDIT commands, the input lines are stored in a file of temporary mode for later processing by the FILE command. Since temporary files are deleted when the user is logged out, the input lines are lost even with this new automatic-saved-file feature. In the very near future the INPUT and EDIT commands will be modified so as to correct this loss.

3. START, OCTLK, OCTPAT, and OCTTRA Commands

If any of these commands is given when the user's status is dead, the message "ILLEGAL SEQUENCE OF COMMANDS" will be typed out and the user returned to dead status. The command OCTTRA normally executed an absolute transfer to B-core location α .

4. Automatic Extension of Track Quota

If the user exceeds his track quota during a write operation his track quota is automatically extended by 100 tracks and the message "TRACK QUOTA HAS BEEN EXTENDED" is typed out. This extension is only temporary and no further extensions will be made. In addition, no new files may be placed in write status until the user takes some action to decrease his track

usage to conform with his allotted track quota. If the user exceeds the extended track quota or attempts to place a new file in write status before reducing his track usage, the error condition "ALLOTTED TRACK QUOTA EXHAUSTED" (code 6) will occur. The action at this point depends upon the calling sequence that was used to the disk routines (ref: CTSS Programmers Guide, page 51).

5. Chronolog Clock

A Chronolog clock has been installed as physical tape unit A7. CTSS will use this clock to obtain the time and date for login and logout and dating files kept on the disk. Background jobs may not use tape A7 for any purpose. Appropriate background library subroutines have been modified to use this clock. The foreground library will soon contain similar routines.

6. MEMO, MODIFY, and DITTO Commands

The following errors have been corrected: 1) the change-type-ball control routine caused the control word to be interpreted as an edit; 2) automatic line numbers greater than 009000 (ninety lines) were incorrect. The edit mode routine have been changed to allow editing of the line before the EDIT FROM control word, and to allow the edit mode to begin with either a DELETE or ERASE control word. When the change-type-ball feature has been used, DITTO will print the following sentence at the beginning of the preliminary page: "ON CHANGE TYPE BALL STOPS-TURN CARRIAGE BACK 2 TURNS, HIT CARRIAGE RETURN". For each change-type-ball stop the following will be printed: "z STOP PAGE x, CHANGE TO y" where z is FIRST, SECOND, etc., x is the page number, and y is any legal type ball name.

7. FAP Command

The FAP command is now the IBM Macro-FAP. The outdated, non-macro version of FAP will be available for a short time as the command CTEST1. In addition to the files normally created by the old FAP (SYMTB and BSS), the new FAP will create, at the users option, a listing file. This file is in variable word length format and when printed off line, by submitting a disk edit print control card, produces a listing similar to the one produced by FAP in FMS. This file will not normally be produced. To obtain this file the command FAP ALPHA (LIST) is given. FAP will then create the listing file, ALPHA BCD, in addition to the symbol table file. ALPHA SYMTB, and the binary program file,

ALPHA BSS, which are always produced.

Two new pseudo-operations have been added to FAP. The pseudo-operation `INSERT NAME` will cause the entire contents of the file `NAME FAP` to be inserted and assembled in place of the `INSERT` instruction. The pseudo-operation `LSTNG` causes the assembly listing to be printed on the console, beginning with the next line, or until another `LSTNG` pseudo-operation is encountered or until the assembly terminates.