

COMPUTER SYSTEMS LABORATORY
WASHINGTON UNIVERSITY
ST. LOUIS, MO. 63110

Technical Memorandum No. 62

June 1, 1968

LAP6 Modifications

M. A. Clark, ed.

Abstract

A summary of some of the LAP6 variations which might be of general interest. The modifications described are modifications to LAP6 itself unless otherwise indicated, and can be made with minimal effort to assembled copies of LAP6. The number of LAP6 words changed is indicated for each modification.

The Computer Systems Laboratory is supported in part by the Advanced Research Projects Agency of the Department of Defense under contract SD-302, and in part by the Division of Research Facilities and Resources of the National Institutes of Health under grant FR-00396.

LAP6 Modifications

The abstracted descriptions are necessarily abbreviated; generally if a feature is not mentioned, it is not affected by the change. Full documentation, including supplements and a modification procedure, is supplied by the modifiers, who helped prepare the summary, and who are responsible for the changes. Please contact the modifier directly.

Several of the modifications are compatible; that is, two or more can be made to the same copy of LAP6 without contradiction. It is recommended that the reel of any modified LAP6 tape show the identification code of each modification incorporated.

General

LAP6-1D

Change: 5 words
Add: Display program CEMOD-1D
in blocks 270-273.

The COPY BINARY command has the format:

→CB (*NAME*, *UNIT*) EOL

If no arguments are stated, any binary programs (e.g., not already in a LAP6 file) can be filed. The present tape blocks, lengths, and starting quarters of the programs to be filed (up to 63) are specified in response to a display program. The unit is fixed. The command uses COPY FILE in its execution.

Modifier: R. M. Joy, Dept. of Pharmacology, Stanford Univ., Palo Alto, Calif. 94304, Oct. 21, 1967.

LAP6-1W

Change: 5 words

The FREE command has the format

→F*x* (*M*, (*N*,)) (*NAME*, *UNIT*) EOL

allowing it to be given arguments; these are left in locations 2371-2377. *M* and *N* are numerical. The command "EXITS" from LAP6.

Modifier: C. C. Bjerke, Laboratory Computer Facility, Univ. of Wisc., 83 Medical Sciences Bldg., Madison, Wisc. 53706, Dec. 10, 1967.

LAP6-2W

Change: 9 words

The COPY MANUSCRIPT and COPY BINARY commands have the formats

→CM (*BBB*, *N*,) *NAME*, *UNIT* EOL

→CB (*QBBB*, *N*,) *NAME*, *UNIT* EOL

allowing any manuscript or program (e.g., not already in a LAP6 file) to be filed on the other unit of the tape transport. The present tape location of the item to be filed is specified by the *BBB*, *N*, and *UNIT* arguments; starting quarter by *Q*.

Modifier: C. C. Bjerke, Laboratory Computer Facility, Univ. of Wisc., 83 Medical Sciences Bldg., Madison, Wisc. 53706, Dec. 21, 1967.

LAP6-8W

Change: 21 words

The PRINT INDEX command has the format

→PX (*NAME*,) *UNIT*_{EOL}

allowing a *NAME*, as specified, to be typed at the top of the index print-out.

Modifier: D. J. Nichols, Laboratory Computer Facility , Univ. of Wisc.,
83 Medical Sciences Bldg., Madison, Wisc. 53706, Feb. 9,
1968.

LAP6-9W

Change: 29 words

When the symbols are displayed during either CONVERT or DISPLAY SYMBOLS, striking P will cause the table to be printed on the teletype.

Modifier: A. C. Roohvarg, Laboratory Computer Facility , Univ. of Wisc.,
83 Medical Sciences Bldg., Madison, Wisc. 53706, Feb. 21,
1968.

LAP6-6W

Change: 17 words

The COPY FILE command has the format

→CF *UNIT* (*,BN*)_{EOL}

allowing it to operate between indices whose tape locations are different. *BN* locates the index on the *UNIT* from which the entries are to be copied.

Modifier: A. C. Roohvarg, Laboratory Computer Facility , Univ. of Wisc.,
83 Medical Sciences Bldg., Madison, Wisc. 53706, Feb. 21,
1968.

LAP6A

Modification to: LAP6

Change: 11/12 words

To correct errors in LAP6.

Modifier: M. A. Clark, Computer Systems Lab., Washington Univ., 724 S.
Euclid Ave., St. Louis, Mo., 63110. June 1, 1968.

For the LINC-8

LAP6-3L

Change: 22 words

The teletype commands PX, LI, and PM operate via buffered teletype attached to the LINC-8 on channel 14. The Relay Register is not used. The mnemonics EXC and PDP represent the codes 740 and 513 respectively. The mnemonic MTT is not recognized. CASE 1 and CASE 2 locate displays in the forward direction. CASE 0 is not used.

Modifier: M. A. Clark, CSL, Wash. Univ., 724 S. Euclid Ave., St. Louis, Mo. 63110, Aug. 14, 1967.

LAP6-5W

Change: 27 words

For the LINC-8 which requires space on the tape for PROGOFOP, m blocks starting at block 0 are automatically excluded from the LAP6 file area. $0 \leq m \leq$ upper boundary of lower file (e.g., 270).

Modifier: C. C. Bjerke, Laboratory Computer Facility, Univ. of Wisc., 83 Medical Sciences Bldg., Madison, Wisc. 53706, Dec. 18, 1967.

LAP6-1C

Change: 29 words

The teletype commands PX, LI, and PM operate via buffered teletype attached to the LINC-8 on channel 14. The Relay Register is not used. LI and PM pause for aligning fan-fold paper and generate fan-fold page size pages. The mnemonics TYP, PDP, SKP, and EXC represent the codes 514, 513, 467, and 740 respectively. The mnemonics ENI, PIN, and MTT are not recognized. CASE 1 and CASE 2 locate displays in the forward direction. CASE 0 is not used.

Modifier: W. H. Calvin, Univ. of Wash., Sch. of Medicine, Seattle, Wash. 98105, Feb. 1, 1968.

LAP6-1H

Modification to: LAP6-3L

Change: 7 words

The teletype commands LI and PM generate nearly 11 inch pages. The commands PX, LI, and PM use either high-speed punch, or teletype, or both, depending on the settings of sense switches 0 and 1.

Modifier: G. W. Johnson, Institute of Oceanography, Dalhousie Univ., Halifax, Nova Scotia, Canada, May 7, 1968.

For the μ -LINCs

LAP6-2L

Change: 6 words

The teletype commands PX, LI, and PM operate via unbuffered teletype attached to the μ -LINC 1 on channel 2. The Relay Register is not used. The mnemonic SPG represents the code 600. The mnemonic LMB is not recognized.

Modifier: M. A. Clark, CSL, Wash. Univ., 724 S. Euclid Ave., St. Louis, Mo. 63110, July 31, 1967.

LAP6-1S

Change: 8 words

The teletype commands PX, LI, and PM operate via buffered teletype attached to the μ -LINC-300. The Relay Register is not used. Knob 3 controls the number of manuscript lines displayed.

Modifier: F. T. Davidson, Spear, Inc., 335 Bear Hill Rd., Waltham, Mass. 02154, Sept. 18, 1967.

LAP6-2S

Change: 11 words

The teletype commands PX, LI, and PM operate via buffered Kleinschmidt printer attached to the μ -LINC-300. LI and PM generate fan-fold page size pages. The code for a slash (/) is substituted for the vertical bar (|) during printing. The Relay Register is not used. Knob 3 controls the number of manuscript lines displayed.

Modifier: F. T. Davidson, Spear, Inc., 335 Bear Hill Rd., Waltham, Mass. 02154, Sept. 18, 1967.

LAP6-3S

Change: 7 words

The teletype commands PX, LI, and PM operate via unbuffered teletype attached to the μ -LINC-300.

Modifier: F. T. Davidson, Spear, Inc., 335 Bear Hill Rd., Waltham, Mass. 02154, Sept. 18, 1967.

LAP6-4L

Change: 2 words

For μ -LINCs with no knobs the manuscript display is fixed at n lines per frame. $1 \leq n \leq 17_8$.

Modifier: M. A. Clark, CSL, Wash. Univ., 724 S. Euclid Ave., St. Louis, Mo. 63110, Dec. 1, 1967.