



DECUS

PROGRAM LIBRARY

DECUS NO.	12-20
TITLE	FORMATXT
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DATE	November 18, 1970
SOURCE LANGUAGE	LAP6-DIAL

FORMATXT

DECUS Program Library Write-up

DECUS No. 12-20

PURPOSE

Programs can be typed onto paper tape using a teletype off line. However, when loaded onto the PDP-12 by PIP they will be unformatted.

FORMATXT will load a source program from paper tape onto LINCtape, in a form recognizable to LAP6-DIAL, formatted as if the program had been typed in via "EDITOR."

USAGE

4000-7777 including buffer storage.

CHARACTERS ACCEPTED

All characters accepted by LAP6-DIAL.

CHARACTERS IGNORED

Blank tape (0000); L/T(200); BELL(207); H TAB(211); Line Feed (212); Control Z (232); #(243); %(245); '(247); Alt Mode (315); Rubout (777).

SPECIAL CHARACTERS

(a) RETURN (215) is the line terminator and causes the current line to be transferred from the Buffer to the Storage area.

(b) ← (337) Left arrow signifies: Delete (see below)

(c) Ⓢ (300) is the Terminator for the paper tape. It must follow the Terminator (RETURN) of the last program line when it will complete the loading and restart DIAL.

DELETE

← prevents the transfer of a completed line from the Buffer area to the Data field. It is used when typing the source off line (i.e. preparing the punched paper tape). If a mistake is made in the early part of a long line, it is sometimes easier to delete the line and retype it correctly, rather than do numerous backspaces and rubouts. In this event, complete the line by typing RETURN (and LINE FEED if desired) followed by ←. This will effectively delete the line.

Note: DELETE is only recognized if it immediately follows a RETURN. LINE FEED and any other characters ignored by FORMATXT will not interfere with this.

No other deletions, except of the line in the Buffer area, are possible.

FORMATTING

The source is tabulated into four zones as in LAP6-DIAL EDITOR.

LOADING

As it is for use with the DIAL system, FORMATXT should be saved on a LAP6-DIAL system tape, using PIP. (Starting address $\emptyset4\emptyset2\emptyset$, LINC MODE.)

OPERATING PROCEDURE

Start LAP6-DIAL and LOAD FORMATXT
i.e. Line feed LO FORMATXT,u ↓ u=unit

If not saved in "LOAD and GO" mode, I/O preset and start $2\emptyset$.

The program initializes and waits for paper tape reader input.

Load the reader with the source tape to be formatted and switch it on. The paper tape will be read into a buffer store and at the end of each line providing no delete instruction is present (see below); the source is stripped, formatted and stored in the data field.

When each quarter of the data field is filled, it is written onto LINCtape, unit \emptyset . (Blocks $4\emptyset\emptyset$ through $47\emptyset$.)

The end of the source must be indicated by \odot (ASCII $3\emptyset\emptyset$), which may be either present on the paper tape, or, after switching off the tape reader, may be typed at the keyboard. This finishes the writing onto LINCtape and exits to Dial.

Although the source program is now within the working area, it is unknown to the LAP6-DIAL EDITOR, so clear the working area if necessary.

Line Feed CL ↓

Note: This does not affect the program in Block $4\emptyset\emptyset$.

Now add the program to the working area.

Line Feed AP $4\emptyset\emptyset$ ↓

The source will now be displayed after being shifted to start at Block $37\emptyset$ and can now be edited, assembled or saved as required.

LINCTAPE STORAGE

The LAP6-DIAL working area is Block $37\emptyset$ through 417. FORMATXT starts loading into Block $4\emptyset\emptyset$, Unit \emptyset .

Should the source exceed $7\emptyset$ Blocks (octal) FORMATXT exits to Dial after writing Block $47\emptyset$ to enable the first part of the program to be saved separately. Then load FORMATXT again using DIAL and load the remainder of the program.

Note

1. To interrupt program, press stop. To restart, press I/O Preset and Start 20.
2. When a program has been saved in two parts, it is necessary to examine the break as it could occur in the middle of a line. This must be corrected afterward by DIAL EDITOR.
3. To use with high speed reader change the following:

4245 6011 RSF
4247 6016 RFC RRB

