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DECUS NO.	8-290
TITLE	SKINNY BIN LOADER
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DATE	April 10 1970
SOURCE LANGUAGE	PAL-D

Title: Skinny BIN loader

Author: Garth Peterson

Date: 10 April 1970

Name: BIN

Programming language: PAL-D

Abstract:

This is a condensed paper tape binary loader, designed to avoid conflict with the TC01 DECtape Library bootstrap or with the disk data break.

Description:

This binary loader has operating characteristics similar to the standard DEC binary loader for the PDP-8 family (DEC-08-LBAA) but uses less core, specifically, core locations 7641 through 7755 and 7777. It may be loaded into any field. Locations 7641, 7745, and 7750 through 7755 are used for temporary storage only; thus disk and DECtape data breaks will not hurt it. The Skinny BIN Loader, in turn, does not overlay the DECtape Library bootstrap (DEC-08-LUAA).

To use this loader begin by setting up a RIM (Read-In-Mode) loader in any memory field. Position the binary loader tape in the teletype or high-speed paper tape reader so that leader characters are in the read head. Load address 7756, setting the instruction field switches for the field which contains the RIM loader and the data field switches for the field where the binary loader itself should go, and press the START key. After the binary loader has been read in, it will be necessary to press the STOP key to halt the RIM loader.

Now place the binary tape of the actual program to be loaded into core in the teletype or high-speed reader, making sure that reading will begin on actual leader characters and not on blank tape ahead of the leader. Load address 7777, with the instruction field set to the

field of the binary loader and the data field set to the field of the program to be loaded. If the high-speed reader is used, turn off bit 0 in the switch register. Press START. At the end of the input tape the loader will halt at 7667, and if there is no checksum error, the accumulator will be zero and the link will be on. Another input tape may be read without going back to 7777, provided that the data field is correct for the new tape. The data field may have been changed by a field setting character on the previous tape. Field setting characters will override the initial data field switch setting and will make the initial data field immaterial if the source program begins with a FIELD pseudo-op. Field setting characters for non-existent fields will cause improper operation and possibly destruction of the binary loader. Switch 0 is checked for the input device immediately after each new input tape is started.

The Skinny BIN Loader is supplied in ASCII both with and without comments and as a RIM-format paper tape. This RIM tape has a punched checksum and is acceptable as input to another binary loader, but this feature can only be demonstrated on machines with extended memory. Even on a 4K machine, however, this loader can overlay itself with itself and verify its own checksum.