



DECUS

PROGRAM LIBRARY

DECUS NO.	8-181
TITLE	Automatic Binary Loader and Duplicator-Coder for Auto Bin
AUTHOR	Michael A. Robinton
COMPANY	National Semi Conductor Santa Clare, California
DATE	December 21, 1968
SOURCE LANGUAGE	PAL

Handwritten text, possibly a title or header, which is extremely faint and illegible.

Column 1	Column 2	Column 3



AUTOMATIC BINARY LOADER
AND
DUPLICATOR-CODER FOR AUTO BIN

DECUS Program Library Write-up

DECUS No. 8-181

ABSTRACT

Automatic Binary Loader will automatically start tapes which it loads into core in any memory field.

OPERATING INSTRUCTIONS

Load with RIM at 7756 into desired memory field. If loaded with RIM into the same memory field or into another field with AUTO BIN, AUTO BIN will automatically start in that memory field and TLS.

The starting address 7777.

The program occupies locations 7600-7754, using 7754 as a temporary location so as not to interfere with Data Break use of this location.

To load the binary tape, start AUTO BIN and type the desired Data Field number. Then type "G" (GO). All illegal characters will echo on the Teletype, but will be ignored by the program.

AUTO BIN will automatically start the binary tapes within the starting address coded in binary as well as 0200 code that immediately follows a checksum. If 0300 code is the trailer code immediately following the checksum, the BIN loader will look for another block of tape to load. For example: The numbers immediately following the checksum are 254 and 243 (ASCII code), therefore, the program just loaded will automatically start at location 5443. If code 0200 is the first number coded in the trailer, the AUTO BIN Loader will continue to run as if started at 7777. (i.e. automatic start in locations 0000 through 0077 is not possible with AUTO BIN.)

AUTO BIN automatically starts programs with flags and AC cleared.

AUTO BIN performs a checksum calculation and will halt if there is an error displaying it in the AC. It may then be restarted by pressing "CONTINUE."

Blank tapes may precede the leader code on tapes loaded with AUTO BIN.

Tapes may be coded to automatically start by using the Duplicator-Coder for AUTO BIN or by editing on a Teletype.

DUPLICATOR-CODER FOR AUTO BIN

The Duplicator-Coder has a starting address of 0200 occupying locations 0010 to 0431. Duplicator-Coder may be loaded with either BIN or AUTO BIN. If loaded with AUTO BIN it will automatically start and issue a CR/LF.

The high-speed reader and punch may be used. The program will automatically select the correct input/output devices.

When duplicating or coding tapes the program does an automatic checksum similar to the BIN loader and will detect any reader-checksum error and notify the operator.

Load the tape to be duplicated or coded in the reader. Blank tape may precede the leader code of tapes to be coded, duplicated or assembled into blocks.

To duplicate without coding type "G" (GO). To code the first and intermediate blocks of a multiple block tape type "C" (CONTINUE). To code the final trailer of a tape for automatic start, type the starting address (up to four digits with leading zeros not necessary) then type "G."

AUTO BIN will not automatically start from 0000 to 0077, therefore, do not attempt to code tapes with these addresses for they will be ignored by the coder.

If more than four digits are typed in the address, the last four digits will be the ones coded for auto starting. Also, a carriage return will reset the starting address to be coded to zero. You may now type "G", "C", or a starting address and "G". Illegal characters will be echoed back on the Teletype but will be ignored. After the first digit of an address, "C" is illegal.

When the coder is finished running it is ready to accept a new block of tape to duplicate or code.

If the low-speed reader or punch is used the program will halt to enable you to turn the reader-punch on and off between instructions issued from the keyboard. This will occur before and after the tape is duplicated and coded.