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DECUS NO.	8-369
TITLE	TRI-DATA CARTRIFILE DEC EDITOR
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SOURCE LANGUAGE	PAL III

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TRI-DATA CARTRIFILE DEC EDITOR

DECUS Program Library Write-up

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ABSTRACT

This program is a modified DEC Editor program allowing use of the CartriFile as an input-output device.

REQUIREMENTS

PDP-8 series computer with 4K of memory *and* a teletype.

One input device consisting of any of the following: ASR-series teletype, high-speed paper-tape reader, or CartriFile.

One output device consisting of any of the following: ASR-series teletype, high-speed paper-tape punch, or CartriFile.

USAGE

This program is loaded from magnetic tape using Tri-Data 8-012A-U-RIM CartriFile Binary Loader.

Operation of this program is identical to that of the DEC Editor Program, except as regarding switch register options and CartriFile input. Switches 0, 1, and 2 function the same as in the DEC Editor. The new I-O switch options are as follows:

<u>Switch</u>	<u>"On" Meaning</u>
7	Causes all four CartriFile tapes to be rewound before executing the next editor I-O command (F, N, P, R, or T). This switch is normally set <i>only</i> when reading the first page of a Cartri-File source tape; it must be turned off after that.
8	Specifies CartriFile output. Data will be output to the lower cartridge of the CartriFile starting with tape 3 and proceeding to tape 4 when tape 3 is filled.
9	Specifies high-speed punch output.
10	Specifies CartriFile input. Data will be read from the upper cartridge of the CartriFile starting with tape 1 and proceeding to tape 2 when tape 1 is filled.
11	Specifies high-speed reader input.

When reading from the CartriFile, this program reads until a form-feed record is read *or* until a maximum of 150 lines is read; if the latter occurs, a form-feed will be generated. Should the user desire to change the default maximum number of CartriFile input lines, he may do so by

placing the *ones complement* of the desired maximum number into location 0174.

The end of a CartriFile source tape is denoted by a record having a dollar sign appearing *before* a slash. When such a record is read, any further R commands (or a continuing N command) will cause a form-feed to be generated. End of file may be reset only by setting switch 7 on, which usually signifies the beginning of a new input file.

This program halts under the following conditions:

Halt Address

1215	A punch command is about to be executed. Turn on the appropriate paper-tape punch (if necessary) and press CONTINUE on the PDP-8 console.
1267	An "N" command is about to be executed. Same as above.
1551	End of output cartridge. Load a fresh magnetic-tape cartridge into the lower slot of the Cartri-File. With both tapes enabled for writing, place the CartriFile back in AUTO mode and press CONTINUE.
1664	A read-error or record-overflow condition has occurred while reading from the CartriFile. If the link bit is set, the record read was longer than 74 characters and will be truncated. The operator may examine and correct the input buffer starting at 7350. Then, he should load address 1665 and press START.
1674	End of input cartridge. Load the next magnetic-tape cartridge into the upper slot of the Cartri-File, place the CartriFile back in AUTO mode, and press CONTINUE.

RESTRICTIONS

If the editor input buffer contains about 4800 characters, the bell will ring if further data input is attempted. When the bell rings, about 400 additional characters may be accepted before violating any fixed program areas.

The CartriFile used by this program *must* be equipped with the new Load Point circuit board (Tri-Data part no. 10118-002).

This editor *cannot* read CartriFile source programs recorded by its earlier versions. To read earlier source magnetic tapes, the following modifications must be made.

Location 1665:	6305	Location 1673:	5304	Location 1701:	7040
1666:	7012	1674:	7700	1702:	0334
1667:	7012	1675:	7402	1703:	3346
1670:	7010	1676:	1335	1707:	7000
1671:	0346	1677:	6314		
1672:	7450	1700:	1346		

DESCRIPTION

This program consists of an overlay to the original DEC editor to provide CartriFile input-output capabilities. Several of the internal editor routines which select I-O devices based on switch settings have been modified. In all other respects, the DEC editor remains as before.

METHOD

Not applicable.

FORMAT

Input and output paper tapes remain unchanged in format. CartriFile lines are output, leaving a line-feed as the first character and either a carriage-return or a form-feed as the last character. Each line of text is output as one magnetic-tape record.

CartriFile records are always output with *one extra* 12-bit word recorded at the end of each record; this word is 0000 for a normal record or 7777 for a split record. A split record is recorded at the end of each magnetic tape when Load Point is sensed; the remainder of the split record is always recorded as the *first* record of the *next* magnetic tape in the file. The user must take account of this format if he desires to process CartriFile source programs in his own programs.

EXECUTION TIME

I-O device dependent.

