

UNIVERSITY OF ILLINOIS
DIGITAL COMPUTER

LIBRARY ROUTINE Y 1 - 199

TITLE: Transfer Blocks of Words from the Memory to the Drum or from the drum to the Memory (DOI or SADOI)

TYPE: Closed subroutine with 3 program parameters

NUMBER OF WORDS: 40

TEMPORARY STORAGE: 0

DURATION: 10 + 1.8r milliseconds to record
10 + 1.3r milliseconds to playback
where r is the number of words transferred.

DESCRIPTION: The entry

p	J0 n
	50 p
p+1	26 --
	00 q
p+2	00 r

will cause the block of r words starting at location n in the memory to be recorded on the drum starting at drum location q. A sum check constant will be recorded at q + r. Control will be returned to the right hand side of p + 2.

The entry

p	50 n
	50 p
p+1	26 --
	00 q
p+2	00 r

will cause the block of r words starting at drum location q to be placed in the memory starting at location n. A sum check constant must be in q + r on the drum. This sum check constant will be compared with the sum calculated from the words played back from the drum, and if the two do not agree a drum error will be indicated by the machine stopping on an FF order on the left hand side of word 32 relative to the routine. If the sum check constant agrees with the calculated sum, control will be returned to the right hand side of p + 2.

NOTE: A 24 order may not be substituted for the 26 order in the entry sequence.

LOCATION	ORDER		NOTES	PAGE 1
	OOK (Y 1)			
0	K5 F		}	Prepare programs parameters
	42 9L			
1	42 33L			
	F4 21L			
2	42 3L		}	
	42 31L			
3	41 F		}	Test constants prepared
	L5 F			
4	10 20F			
	F0 21L			
5	S4 F		}	
	42 35L			
6	42 36L		}	record or playback memory location of block
	42 37L			
7	S5 F			
	32 32L		}	Prepare record order
8	42 10L			
	42 16L		}	record loop
9	L1 38L			
	L4 F			
10	40 11L			
	L5 F		}	
11	86 11F			
	00 F		}	
12	F5 11L			
	40 11L			
13	F5 10L		}	
	42 10L			
14	F0 35L		}	
	32 10L			
15	L5 11L		}	
	40 20L			
16	L7 F		}	
	L4 F			

LOCATION	ORDER	NOTES
17	40 F	
	F5 16L	Sum check
18	42 16L	
	F0 36L	
19	36 16L	
	F1 F	
20	86 11F	record
	00 F	sum check
21	23 31L	
	00 F	
22	85 11F	
	00 F	
23	32 23L	
	40 F	playback
24	16 F	
	40 F	loop
25	F5 22L	
	40 22L	
26	F5 23L	
	42 23L	
27	F0 37L	
	36 22L	
28	L5 22L	
	40 29L	Playback
29	85 11F	
	00 F	sum check
30	F4 F	
	40 F	and test
31	L3 F	
	32 F	
32	FF 16F	
	42 23L	prepare
33	L1 39L	
	L4 F	to playback

LOCATION	ORDER		NOTES PAGE 3
34	40 22L		
	26 22L		
35	NO 11L		
	L5 F		} Test constants
36	77 F		
	L4 F		
37	S2 23L		
	40 F		
38	9L 4085L		} Words for preparation of drum orders
	00 F		
39	KO 4085L		
	00 F		

Y1

Rt: 7/29/60
DATE <u>October 5, 1955</u>
PROGRAMMED BY _____
APPROVED BY <u>J. P. Nash</u>

DEM/mge
10/5/55