Lists from Scan Cards of Exp. 07 with Program INDEX

Standard and coded information is written onto scan sheets in the course of scanning the film for 8 GeV/c π^+ interactions (see CERN/TC/PHYSICS 66-1). This information is punched into cards and can be used for bookkeeping. A subroutine LIST has been written for INDEX which can produce the following lists:

1) SCAN List: straightforward listing of scan cards with spacing of information for better readability.

2) IEP List: events for measurement are selected (topology) and precise measurement instructions for the Iep operator are printed from the coded comments.

3) EVENT List: this list contains the same events that are given for measurement, but coded comment is simply listed. Various columns for later decisions are inserted.

4) COMPARE List: information of scan 1 and scan 2 is compared and both cards are printed if the information does not agree.

5) ANALYZE List: this option allows statistical analysis of the 2 scans to calculate scanning efficiencies for various topologies, scanners etc.

A standard procedure for the bookkeeping will be something like:
a) scan film twice
b) get COMPARE listing, SCAN listing with all cards of scan 1 and scan 2
c) correct wrong scan cards

d)   get SCAN, IEP and EVENT listing from corrected cards (there is only

one card for every event)

e)   measure events on Iep

f)   analyze GRIND results

Various control cards are used to control the flow of INDEX (details about

formats are given in the example):

a)   standard run cards (obligatory)

EXPER	experiment number
MASTER	special information about Master Index tape (option NEW MI should be used since it is faster to start with a new tape)
SCAN	type of input and input unit
SCNOSD	non-standard scan card format
FINISH	end of run cards

b)   optional run cards:

LISTMI	listings of Master Index tape are requested
UNIT	Unit can be used to switch output onto tape which can then be printed on the 1401
*SCAN	SCAN Listing
*IEP	IEP Listing
*EVENT	EVENT Listing
*COMP	COMPARISON of scans
*ANAL	ANALYSIS of scan data

Run cards can be in any order, except FINISH which must be the last card
before the scan cards. A complete run deck is prepared in the following
way:

T39	T12	T13	T6	
1392	C	C	C	
CN700				operating form
before		to be printed on the 1401		
		1 file under _program_ control		

⁊₉ JOB, 3400, NAME, 10	job card, run time in minutes
⁊₉ EQUIP, 1 = 60	standard input
⁊₉ EQUIP, 2 = 61	standard output
⁊₉ EQUIP, 39 = **, SV	LGO tape (program INDEX)
⁊₉ FTN, L, X	compilation and execution
INDEX, main program	main program for INDEX
SCOPE	system control card
⁊₉ LOAD	)
⁊₉ LOAD, 39	) load program into memory
⁊₉ RUN, 300, 20 000	execution, time, no. of lines

	11	30	40	
EXPER		7		experiment number
MASTER	NEW MI			new Master Index requested
SCAN		1		scan cards on card reader(unit 1)
SCNOSD				non standard scan card format
DATUM		660221		current date 21/2/66
UNIT		6	-1	output onto tape (unit 6)
LISTMI		4		4 listings wanted
*COMP'				COMPARE listing
*SCAN				SCAN listing
*IEP				IEP listing
*EVENT				EVENT listing
FINISH				end of control cards
)				
)scan cards				
)				
⁊₈ End of File				end of job

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