					3
=====					
			_		Merger
	PROGRAM				Merger
			(JANUARY 1980)		Merger
			(DECEMBER 1980		Merger
			(JANUARY 1982)		Merger
				*NEW, MORE COMPATIBLE I/O UNIT NUMBERS.	Merger
	VERSION	85-1	(AUGUST 1985)	*FORTRAN-77/H VERSION	Merger
	VERSION	86-1	(JANUARY 1986)	*ENDF/B-VI FORMATS	Merger
	VERSION	88-1	(JULY 1988)	*OPTIONINTERNALLY DEFINE ALL I/O	Merger
				FILE NAMES (SEE, SUBROUTINES FILIO1	Merger
				AND FILIO2 FOR DETAILS).	Merger
				*IMPROVED BASED ON USER COMMENTS.	Merger
	VERSION	89-1	(JANUARY 1989)	*PSYCHOANALYZED BY PROGRAM FREUD TO	Merger
				INSURE PROGRAM WILL NOT DO ANYTHING	Merger
				CRAZY.	Merger
				*UPDATED TO USE NEW PROGRAM CONVERT	Merger
				KEYWORDS.	Merger
				*ADDED LIVERMORE CIVIC COMPILER	Merger
				CONVENTIONS.	Merger
	WED GTON	00 1	(TANTIA DV 1000)		_
	VERSION	92-1		*UPDATED BASED ON USER COMMENTS	Merger
				*ADDED FORTRAN SAVE OPTION	Merger
	VERSION	92-2	(JOLY 1992)	*ALLOW UP TO 99 ENDF/B DATA FILES.	Merger
				(TO ALLOW MANAGEMENT OF THE ENTIRE	Merger
				ENDF/B SYSTEM).	Merger
	VERSION	94-1	(JANUARY 1994)	*VARIABLE ENDF/B DATA FILENAMES	Merger
				TO ALLOW ACCESS TO FILE STRUCTURES	Merger
				(WARNING - INPUT PARAMETER FORMAT	Merger
				HAS BEEN CHANGED)	Merger
				*ONLY SPECIFY FILENAMES - NO UNIT	Merger
				NUMBERS ON INPUT (WARNING - INPUT	Merger
				PARAMETERS FORMAT HAS BEEN CHANGED)	Merger
				*CLOSE ALL FILES BEFORE TERMINATING	Merger
				(SEE, SUBROUTINE ENDIT)	Merger
				*REQUEST LOG DELETED	Merger
	VERSTON	96-1		*COMPLETE RE-WRITE	Merger
			(0111,01111 1550)	*IMPROVED COMPUTER INDEPENDENCE	Merger
				*ALL DOUBLE PRECISION	Merger
				*ON SCREEN OUTPUT	_
					Merger
				*UNIFORM TREATMENT OF ENDF/B I/O	Merger
		00 1	(303 DOTT 1000)	*IMPROVED OUTPUT PRECISION	Merger
	VERSION	99-1	(MARCH 1999)	*GENERAL IMPROVEMENTS BASED ON	Merger
				USER FEEDBACK	Merger
	VERS. 20	000-1	(FEBRUARY 2000)*GENERAL IMPROVEMENTS BASED ON	Merger
				USER FEEDBACK	Merger
	VERS. 20	002-1	(MAY 2002)	*OPTIONAL INPUT PARAMETERS	Merger
	VERS. 20	004-1	(MERCH 2004)	*ADDED INCLUDE TO DEFINE COMMON	Merger
				*ADDED TEND LINE IF NO DATA RETRIEVED	Merger
					Merger
	OWNED, N	MAINTA	AINED AND DISTR	IBUTED BY	Merger
					Merger
	THE NUCI	LEAR D	DATA SECTION		Merger
			ATOMIC ENERGY	AGENCY	Merger
	P.O. BOX		- -		Merger
			IA, AUSTRIA		Merger
	EUROPE		. ,		Merger
					Merger
	ORTGTNAT	יו.ע שם	RITTEN BY		Merger
					Merger
					_
	DERMOTT				Merger
			CALIFORNIA	T A DOD A TODY	Merger
		PITAR	ERMORE NATIONAL	LADURATURI	Merger
	L-159				Merger
	P.O. BOX		0.4550		Merger
	LIVERMOR	KE, CA	A 94550		Merger
	U.S.A.				Merger
			25-423-7359		Merger
			JLLEN1@LLNL.GOV		Merger
	WEBSITE	HT	TP://WWW.LLNL.	GOV/CULLEN1	Merger
					Merger
	AUTHORS	MESSA	AGE		Merger

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FOR THIS PROGRAM INCLUDING ALL RECENT IMPROVEMENTS. PLEASE READ ALL OF THESE COMMENTS BEFORE IMPLEMENTATION, PARTICULARLY THE Merger COMMENTS CONCERNING MACHINE DEPENDENT CODING. Merger Merger AT THE PRESENT TIME WE ARE ATTEMPTING TO DEVELOP A SET OF COMPUTER Merger INDEPENDENT PROGRAMS THAT CAN EASILY BE IMPLEMENTED ON ANY ONE Merger OF A WIDE VARIETY OF COMPUTERS. IN ORDER TO ASSIST IN THIS PROJECT Merger IT WOULD BE APPECIATED IF YOU WOULD NOTIFY THE AUTHOR OF ANY Merger COMPILER DIAGNOSTICS, OPERATING PROBLEMS OR SUGGESTIONS ON HOW TO Merger Merger IMPROVE THIS PROGRAM. HOPEFULLY, IN THIS WAY FUTURE VERSIONS OF THIS PROGRAM WILL BE COMPLETELY COMPATIBLE FOR USE ON YOUR Merger COMPUTER. Merger Merger PURPOSE Merger Merger THIS PROGRAM IS DESIGNED TO SELECTIVELY RETRIEVE DATA OFF OF FROM Merger 1 TO 10 ENDF/B DATA TAPES AND TO MERGE THE SELECTED DATA INTO A Merger SINGLE MAT/MF/MT ORDERED FINAL OUTPUT FILE. Merger Merger IN THE DISCUSSION THAT FOLLOWS FOR SIMPLICITY THE ENDF/B Merger TERMINOLOGY---ENDF/B TAPE---WILL BE USED. IN FACT THE ACTUAL Merger MEDIUM USED MAY BE TAPE, CARD, DISK OR ANY OTHER MEDIUM. Merger Merger ENDF/B FORMAT Merger Merger THIS PROGRAM ONLY USES THE ENDF/B BCD OR CARD IMAGE FORMAT (AS Merger OPPOSED TO THE BINARY FORMAT) AND CAN HANDLE DATA IN ANY VERSION Merger OF THE ENDF/B FORMAT (I.E., ENDF/B-I, II, III, IV OR V FORMAT). Merger THE ONLY NUMERICAL DATA THAT THIS PROGRAM READS IS THE ZA FROM THE Merger FIRST CARD OF EACH SECTION AND THE MAT/MF/MT FROM EACH CARD. Merger SEQUENCE NUMBERS ARE IGNORED ON INPUT AND ALL OTHER FIELDS ARE Merger READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH Merger BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. Merger Merger IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B Merger FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS Merger ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE Merger NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE Merger CORRECTLY OUTPUT ON ALL CARDS. Merger Merger SECTION SIZE Merger Merger SINCE THIS PROGRAM ONLY READS THE DATA ONE CARD AT A TIME THERE Merger IS NO LIMIT TO THE SIZE OF ANY GIVEN SECTION, E.G. THE TOTAL Merger CROSS SECTION MAY BE DESCRIBED BY 200,000 DATA POINTS. Merger Merger SELECTION OF DATA Merger Merger THE USER MAY CHOOSE TO MERGE ALL DATA OR THE USER MAY SPECIFY Merger THAT ONLY CERTAIN DATA SHOULD BE SELECTED. THE DATA TO BE Merger SELECTED IS DEFINED BY SPECIFYING UP TO 100 MAT/MF/MT OR Merger ZA/MF/MT RANGES. EACH RANGE IS DEFINED BY LOWER AND UPPER LIMITS Merger OF MAT/MF/MT OR ZA/MF/MT. Merger Merger REQUEST LIMITS Merger Merger IN ORDER TO SIMPLIFY THE INPUT OF SELECTION REQUESTS THE FOLLOWING Merger CONVENTIONS HAVE BEEN INTRODUCED IN ORDER TO DEFINE THE UPPER LIMITS OF REQUESTS IF THEY ARE NOT DEFINED BY INPUT (I.E., IF THEY Merger ARE ZERO). Merger Merger (1) MAT OR ZA - IF THE UPPER LIMIT IS ZERO IT IS SET EQUAL TO THE Merger LOWER LIMIT. Merger (2) MF OR MT - IF THE UPPER LIMIT IS ZERO IT IS SET EQUAL TO THE Merger MAXIMUM POSSIBLE VALUE, 99 OR 999 RESPECTIVELY. Merger Merger WITH THESE CONVENTIONS AN ENTIRE EVALUATION MAY BE SELECTED BY Merger MERELY SPECIFYING THE LOWER LIMIT OF MAT OR ZA. THE UPPER MAT OR Merger

THE COMMENTS BELOW SHOULD BE CONSIDERED THE LATEST DOCUMENTATION

ZA LIMIT WILL BE SET EQUAL TO THE LOWER LIMIT, THE LOWER LIMITS OF Merger MF/MT WILL BE 0/0 AND THE UPPER LIMITS OF MF/MT WILL BE SET TO Merger 99/999. THIS WILL CAUSE ALL SECTIONS OF A SINGLE EVALUATION TO BE Merger SELECTED. Merger Merger Merger SATISFYING SELECTION CRITERIA Merger IN ORDER FOR A SECTION TO MEET THE SELECTION CRITERIA SPECIFIED Merger BY ONE OF THE RETRIEVAL REQUESTS, EACH OF THE THREE FIELDS (Merger MAT/MF/MT OR ZA/MF/MT) MUST INDIVIDUALLY SATISFY THE CORRESPONDING Merger LIMITS OF THE REQUEST. IT IS NOT SUFFICIENT THAT THE MAT OF A Merger SECTION LIE BETWEEN THE MINIMUM AND MAXIMUM MATS OF A REQUEST. THE Merger MF AND MT WILL ALSO BE INDIVIDUALLY COMPARED TO THE MF AND MT Merger LIMITS OF THE REQUEST. FOR EXAMPLE, A SECTION WITH MAT/MF/MT= Merger 2500/3/2 DOES NOT SATISFY A REQUEST THAT SPECIFIES A REQUEST USING Merger THE RANGE 2000/3/1 THROUGH 3000/3/1. THIS REQUEST SPECIFIES ALL Merger MATERIALS WITH MAT BETWEEN 2000 AND 3000, BUT ONLY THOSE SECTIONS WITH MF/MT=3/1. SIMILARLY A REQUEST FOR 2000/3/1 THROUGH 3000/99/ Merger 999 WILL NOT SELECT ANY SECTIONS WITH MF=1 OR 2, SINCE THE Merger REQUEST SPECIFIES ALL MATERIALS WITH MAT BETWEEN 2000 AND 3000, Merger BUT ONLY THOSE SECTIONS WITH MF= 3, OR MORE. Merger Merger DUPLICATE SECTIONS Merger IF TWO OR MORE SECTIONS WITH THE SAME MAT/MF/MT ARE FOUND EITHER Merger ON THE SAME OR DIFFERENT TAPES, THE SECTION FROM THE TAPE DEFINED Merger EARLIEST IN THE INPUT CARDS WILL BE COPIED TO THE FINAL TAPE AND Merger ALL OTHER SECTIONS WITH THE SAME MAT/MF/MT WILL BE SKIPPED. THE Merger OUTPUT REPORT WILL INDICATE WHICH SECTIONS WERE COPIED FROM WHICH Merger TAPES, AS WELL AS WHICH SECTIONS ARE DUPLICATE AND WERE SKIPPED. Merger REACTION INDEX Merger Merger THIS PROGRAM DOES NOT UPDATE THE REACTION INDEX IN MF=1, MT=451. Merger FOR EACH MATERIAL THE PROGRAM WILL FOLLOW THE CONVENTIONS Merger DEFINED ABOVE AND ONLY COPY ONE SECTION MF=1, MT=451 AND SKIP Merger ALL OTHERS (IF MORE THAN ONE). THIS CONVENTION HAS BEEN ADOPTED Merger BECAUSE MOST USERS DO NOT REQUIRE A CORRECT REACTION INDEX FOR THERE APPLICATIONS AND IT WAS NOT CONSIDERED WORTHWHILE TO INCLUDE Merger THE OVERHEAD OF CONSTRUCTING A CORRECT REACTION INDEX IN THIS Merger PROGRAM. HOWEVER, IF YOU REQUIRE A REACTION INDEX FOR YOUR Merger APPLICATION AFTER RUNNING THIS PROGRAM YOU MAY USE PROGRAM Merger DICTIN TO CREATE ONE. Merger Merger RETRIEVAL STATISTICS Merger THERE WILL ALWAYS BE AN OUTPUT REPORT LISTING INDICATING WHICH Merger SECTIONS WHERE SELECTED, WHICH DUPLICATE SECTIONS WERE SKIPPED, Merger WHICH TAPE THE SECTION WAS ON, WHICH REQUEST (MAT/MF/MT OR Merger ZA/MF/MT RANGE) CAUSED THE SECTION TO BE SELECTED AND HOW MANY Merger CARDS WERE IN THE SECTION. IN ADDITION THE USER MAY OPTIONALLY Merger OBTAIN A FILE CONTAINING THE SAME INFORMATION. THIS FILE MAY BE COMBINED WITH OTHER SIMILAR FILES OUTPUT BY THIS PROGRAM IN ORDER Merger TO ACCUMULATE RETRIEVAL STATISTICS OVER A PERIOD OF TIME. IF Merger SPECIFIED THIS FILE WILL CONTAIN THE FOLLOWING INFORMATION IN Merger 617 FORMAT. Merger Merger (1) ZA Merger (2) MAT Merger (3) MF Merger (4) MT Merger (5) NUMBER OF CARDS IN SECTION Merger

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(6) REQUEST NUMBER THAT CAUSED SECTION TO BE SELECTED

INPUT CARDS (BCD - 80 CHARACTERS/RECORD)

VARY FROM 1 TO 99 ENDF/B DATA FILES (BCD - 80 CHARACTERS/RECORD)

INPUT FILES

UNIT DESCRIPTION

OUTPUT FILES Merge								
	DECORTORION							
	DESCRIPTION							
	OUTPUT REPORT LISTING (BCD - 120 CHARACTERS/RECORD)							
10	OUTPUT REPORT LISTING (BCD - 120 CHARACTERS/RECORD) MERGED ENDF/B DATA (BCD - 80 CHARACTERS/RECORD)							
OPTIONAL STANDARD FILE NAMES (SEE SUBROUTINES FILIO1 AND FILIO2) M								
	INTER DIE NAME DECONTON							
	F FILE NAME DESCRIPTION							
2	MERGER.INP INPUT PARAMETERS							
3	MERGER.LST OUTPUT LISTING							
	ENDFB.OUT RETRIEVED ENDF/B DATA ENDFB.IN1 ENDF/B DATA TO READFILENAMES WILL BE DEFINED							
	ENDER IN THE ORDER ENDER IN ENDER IN THE ORDER IN THE ORD							
	ENDFB.IN2 IN THE ORDER ENDFB.IN1, ENDFB.IN2,ENDFB.I99 ENDFB.IN3 CORRESPONDING TO THE FIRST, SECOND,99-TH							
	ENDFB.IN4 ENDF/B DATA FILE TO READ.							
	ENDFB.IN5							
	ENDFB.IN6							
18	ENDFB.IN'	7		Merger				
	•			Merger				
110	ENDFB.199	9		Merger Merger				
	<u></u>			Merger				
INPUI	CARDS			Merger				
				Merger				
			DESCRIPTION	Merger				
1	1-60		FILENAME FOR MERGED OUTPUT.	Merger Merger				
_	1 00	HOU	(LEAVE BLANK FOR STANDARD = ENDFB.OUT)	Merger				
2	1-66	16A4,A2	MERGED FILE LABEL	Merger				
			IF BLANK - LABEL FROM FIRST FILE READ WILL	_				
	6E E0		BE OUTPUT	Merger				
	67-70	14	MERGED FILE ENDF/B NUMBER IF ZERO - NUMBER OF FIRST FILE READ WILL	Merger Merger				
			BE OUTPUT.	Merger				
	71-72	12	RETRIEVAL CRITERIA	Merger				
			= 0 - MAT/MF/MT RANGES	Merger				
			= 1 - ZA/MF/MT RANGES	Merger				
3-N	1-60	A60	FILENAME FOR FILE TO RETRIEVE DATA FROM	Merger				
			(LEAVE BLANK FOR STANDARDENDFB.IN1,ETC.) TERMINATE LIST OF FILES WITH A LINE THAT	Merger				
			SAYS END OR end	Merger				
VARY	1- 6	16	LOWER PRIMARY LIMIT (MAT OR ZA)	Merger				
	7- 8	12	LOWER MF LIMIT	Merger				
	9-11 12-17	13 16	LOWER MT LIMIT	Merger				
	18-19		UPPER PRIMARY LIMIT (MAT OR ZA) UPPER MF LIMIT	Merger Merger				
	20-22	I3	UPPER MT LIMIT	Merger				
			RANGES OF MAT/MF/MT OR ZA/MF/MT TO BE	Merger				
			RETRIEVED ARE SPECIFIED BY DEFINING	Merger				
			ONE RANGE (LOWER AND UPPER LIMITS) PER CARD. THE USER MAY SPECIFY 0 TO 100	Merger Merger				
			RANGES AND THE LIST OF REQUEST RANGES	Merger				
			IS TERMINATED BY A BLANK CARD. IF	Merger				
			THE FIRST CARD IS BLANK (0 REQUESTS)	Merger				
			ALL DATA WILL BE RETRIEVED. IF THE UPPER	Merger				
			PRIMARY CRITERIA (MAT OR ZA) IS LESS THAN THE LOWER PRIMARY CRITERIA, THE UPPER					
			PRIMARY CRITERIA WILL BE SET EQUAL TO	Merger Merger				
			THE LOWER PRIMARY CRITERIA. IF THE UPPER	Merger				
			MF OR MT LIMIT IS ZERO, OR BLANK, IT	Merger				
			WILL BE SET TO THE MAXIMUM POSSIBLE	Merger				
			VALUE, I.E. MF=99 OR MT=999 (SEE	Merger				
			EXAMPLE INPUT).	Merger Merger				
EXAMPLE INPUT NO. 1								
				Merger Merger				
	MERGE ENDF/B DATA ONTO UNIT 10 FROM UNITS 11, 12, 13 AND 14. M							
RETRIEVE DATA BY MAT NUMBER. RETRIEVE MATS 1103, 1106, ALL MATS M								

```
BETWEEN 1204 AND 1215, MF=1, 3, 4 AND 5 OF MAT 1219 AND MF=3,
     MT=1 OF MAT 1304. USE STANDARD FILENAMES.
                                                                        Merger
                                                                        Merger
     THE FOLLOWING 13 INPUT CARDS ARE REQUIRED.
                                                                        Merger
                                                                        Merger
                                                                        Merger
    EXAMPLE FILE LABEL FOR MERGER
                                                                   0 0 Merger
    ENDFB.IN1
                                                                        Merger
    ENDFB.IN2
                                                                        Merger
    ENDFB.IN3
                                                                        Merger
    ENDFB.IN4
                                                                        Merger
    END
                                                                        Merger
                                4317 (UPPER LIMIT SET TO 1103/99/999) Merger
4317 (UPPER LIMIT SET TO 1106/99/999) Merger
      1103
      1106
                                4317 (UPPER LIMIT SET TO 1215/99/999) Merger
      1204
                 1215
                                4317 (UPPER LIMIT SET TO 1219/ 1/999) Merger
4317 (UPPER LIMIT SET TO 1219/ 5/999) Merger
      1219 1
                 1219 1
      1219 3
                 1219 5
                               4317 (UPPER LIMIT COMPLETELY DEFINED) Merger
      1304 3 1 1304 3 1
                                       (BLANK CARD TERMINATES REQUESTS) Merger
     EXAMPLE INPUT NO. 2
                                                                        Merger
                                                                        Merger
     THE SAME AS EXAMPLE 1, EXCEPT SPECIFY FILENAMES
                                                                        Merger
                                                                        Merger
    \ENDFB6\MERGED.LIB
                                                                        Merger
    EXAMPLE FILE LABEL FOR MERGER
                                                                    0 0 Merger
    ENDFB6.PART1
                                                                        Merger
    ENDFB6.PART2
                                                                        Merger
    ENDFB6.PART3
                                                                        Merger
    ENDFB6.PART4
                                                                        Merger
    END
      1103
                                4317 (UPPER LIMIT SET TO 1103/99/999) Merger
      1106
                                4317 (UPPER LIMIT SET TO 1106/99/999) Merger
      1204
                                      (UPPER LIMIT SET TO 1215/99/999) Merger
                 1215
                                4317
                                4317 (UPPER LIMIT SET TO 1219/ 1/999) Merger
      1219 1
                 1219 1
      1219 3
                 1219 5
                                4317 (UPPER LIMIT SET TO 1219/ 5/999) Merger
      1304 3 1 1304 3 1
                                4317 (UPPER LIMIT COMPLETELY DEFINED) Merger
                                       (BLANK CARD TERMINATES REQUESTS) Merger
                                                                       Merger
```

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