					MERG= MERG
PROGRAM	MERGE	R			MERG
=======					MERG
VERSION			Y 1980)		MERG
VERSION				\	MERG
VERSION		•		,	MERG
		•		+NEW MODE COMPARED E T/O INVER NUMBERO	
		-	-	*NEW, MORE COMPATIBLE I/O UNIT NUMBERS	
		-	-	*FORTRAN-77/H VERSION	MERG
		-		*ENDF/B-VI FORMATS	MERG
VERSION	88-1	(JULY 1	.988)	*OPTIONINTERNALLY DEFINE ALL I/O	MERG
				FILE NAMES (SEE, SUBROUTINES FILIO1	MERG
				AND FILIO2 FOR DETAILS).	MERG
				*IMPROVED BASED ON USER COMMENTS.	MERG
VERSION	89-1	(JANUAR	Y 1989)	*PSYCHOANALYZED BY PROGRAM FREUD TO	MERG
				INSURE PROGRAM WILL NOT DO ANYTHING	MERG
				CRAZY.	MERG
				*UPDATED TO USE NEW PROGRAM CONVERT	MERG
				KEYWORDS.	MERG
				*ADDED LIVERMORE CIVIC COMPILER	MERG
				CONVENTIONS.	MERG
VERSION	92-1	(.TANIITAT	v 10001	*UPDATED BASED ON USER COMMENTS	MERG
* ELOION	JZ-1	(OMNOAR			
TEDOTO:	02.0	/ TTT 1		*ADDED FORTRAN SAVE OPTION	MERG
VERSION	92-2	(חחדת 1	992)	*ALLOW UP TO 99 ENDF/B DATA FILES.	MERG
				(TO ALLOW MANAGEMENT OF THE ENTIRE	MERG
				ENDF/B SYSTEM).	MERG
VERSION	94-1	(JANUAR	Y 1994)	*VARIABLE ENDF/B DATA FILENAMES	MERG
				TO ALLOW ACCESS TO FILE STRUCTURES	MERG
				(WARNING - INPUT PARAMETER FORMAT	MERG
				HAS BEEN CHANGED)	MERG
				*ONLY SPECIFY FILENAMES - NO UNIT	MERG
				NUMBERS ON INPUT (WARNING - INPUT	MERG
				PARAMETERS FORMAT HAS BEEN CHANGED)	MERG
				*CLOSE ALL FILES BEFORE TERMINATING	MERG
				(SEE, SUBROUTINE ENDIT)	MERG
				*REQUEST LOG DELETED	MERG
TED C TON	06-1	/ TANIIIA E		_	MERG
VERSION	90-1	(JANUAR	(1 1990)	*COMPLETE RE-WRITE	
				*IMPROVED COMPUTER INDEPENDENCE	MERG
				*ALL DOUBLE PRECISION	MERG
				*ON SCREEN OUTPUT	MERG
				*UNIFORM TREATMENT OF ENDF/B I/O	MERG
				*IMPROVED OUTPUT PRECISION	MERG
VERSION	99-1	(MARCH	1999)	*GENERAL IMPROVEMENTS BASED ON	MERG
				USER FEEDBACK	MERG
VERS. 20	00-1	(FEBRUA	RY 2000)*GENERAL IMPROVEMENTS BASED ON	MERG
				USER FEEDBACK	MERG
VERS. 20	02-1	(MAY 20	02)	*OPTIONAL INPUT PARAMETERS	MERG
		/MADCH	2004)	*ADDED INCLUDE TO DEFINE COMMON	MERG
	04-1	(MAKCI			
	04-1	(MARCH		*ADDED TEND LINE IF NO DATA RETRIEVED	MERG
VERS. 20			2007)		
VERS. 20	07-1	(JAN.	2007)	*CHECKED AGAINST ALL ENDF/B-VII.	MERG
VERS. 20	07-1	(JAN.		*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES.	MERG
VERS. 20 VERS. 20 VERS. 20)07-1)07-2	(JAN. (JUNE	2007)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES.	MERG MERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1	(JAN. (JUNE (Apr.	2007)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback	MERG MERG MERG kMERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1	(JAN. (JUNE (Apr.	2007)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME	MERG MERG MERG MERG MERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1	(JAN. (JUNE (Apr.	2007)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible	MERG MERG MERG MERG MERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1 012-1	(JAN. (JUNE (Apr. (Aug.	2007) 2010) 2012)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop	MERG MERG MERG MERG MERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1 012-1	(JAN. (JUNE (Apr. (Aug.	2007) 2010) 2012) 2015)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements.	MERG MERG MERG MERG MERG
VERS. 20 VERS. 20 VERS. 20 VERS. 20 VERS. 20	007-1 007-2 010-1 012-1	(JAN. (JUNE (Apr. (Aug.	2007) 2010) 2012)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop	MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1	(JAN. (JUNE (Apr. (Aug.	2007) 2010) 2012) 2015) 2015)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements.	MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan.	2007) 2010) 2012) 2015) 2017) 2018)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck.	MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June	2007) 2010) 2012) 2015) 2017) 2018) 2019)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June	2007) 2010) 2012) 2015) 2017) 2018) 2019)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROW *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try.	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1 020-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020) 2021)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence number definition.	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1 120-1	(JAN. (JUNE (Apr. (Aug. (Jan. (May (Jan. (June (Feb. (Apr.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020) 2021)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence number definition.	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1 020-1	(JAN. (JUNE (Apr. (Aug. (Jan. (June (Feb. (Apr.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020) 2021)	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbck. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence number definition.	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1 020-1 021-1	(JAN. (JUNE (Apr. (Aug. (Jan. (June (Feb. (Apr.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020) 2021) DD DISTR	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbock. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence number definition.	MERG MERG MERG MERG MERG MERG MERG MERG
VERS. 20	007-1 007-2 010-1 012-1 015-1 017-1 018-1 019-1 020-1 021-1	(JAN. (JUNE (Apr. (Aug. (Jan. (June (Feb. (Apr.	2007) 2010) 2012) 2015) 2017) 2018) 2019) 2020) 2021) DD DISTR	*CHECKED AGAINST ALL ENDF/B-VII. *UP, TO 1,000 ENDF/B FILES. *72 CHARACTER FILE NAMES. *General update based on user feedback *Added CODENAME *32 and 64 bit Compatible *Added ERROR stop *Replaced ALL 3 way IF Statements. *Updated based on user feedbock. *Added on-line output for ALL ENDERROR *Identical to 2018-1 *Allow EMPTY files = file exists, but 0 length = EOF at first read try. *Updated for FORTRAN 2018 *Updated SEND/FEND/MEND/TEND Sequence number definition.	MERG MERG MERG MERG MERG MERG MERG MERG

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EUROPE	MERGER
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	MERGER
Website RedCullen1.net/HOMEPAGE.NEW	MERGER
AUMILIONG MEGGAGE	MERGER
AUTHORS MESSAGE	MERGER
	MERGER
	MERGER MERGER
COMMENTS CONCERNING MACHINE DEPENDENT CODING.	MERGER MERGER
COMMENTS CONCERNING MACHINE DEFENDENT CODING.	MERGER
AT THE PRESENT TIME WE ARE ATTEMPTING TO DEVELOP A SET OF COMPUTER	
	MERGER
OF A WIDE VARIETY OF COMPUTERS. IN ORDER TO ASSIST IN THIS PROJECT	
	MERGER
COMPILER DIAGNOSTICS, OPERATING PROBLEMS OR SUGGESTIONS ON HOW TO	
·	MERGER
·	MERGER
	MERGER
	MERGER
	MERGER
	MERGER
THIS PROGRAM IS DESIGNED TO SELECTIVELY RETRIEVE DATA OFF OF FROM	
	MERGER
	MERGER
• •	MERGER
IN THE DISCUSSION THAT FOLLOWS FOR SIMPLICITY THE ENDF/B	MERGER
TERMINOLOGYENDF/B TAPEWILL 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
	MERGER
THE ONLY NUMERICAL DATA THAT THIS PROGRAM READS IS THE ZA FROM THE	MERGER
·	MERGER
SEQUENCE NUMBERS ARE IGNORED ON INPUT AND ALL OTHER FIELDS ARE	
-	MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH	MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT.	MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT.	MERGER MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B	MERGER MERGER MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS	MERGER MERGER MERGER MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE	MERGER MERGER MERGER MERGER MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE	MERGER MERGER MERGER MERGER MERGER MERGER MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE	MERGER MERGER MERGER MERGER MERGER MERGER MERGER MERGER
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READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE	MERGER
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READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE SINCE THIS PROGRAM ONLY READS THE DATA ONE CARD AT A TIME THERE IS NO LIMIT TO THE SIZE OF ANY GIVEN SECTION, E.G. THE TOTAL	MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE	MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE SINCE THIS PROGRAM ONLY READS THE DATA ONE CARD AT A TIME THERE IS NO LIMIT TO THE SIZE OF ANY GIVEN SECTION, E.G. THE TOTAL CROSS SECTION MAY BE DESCRIBED BY 200,000 DATA POINTS.	MERGER
READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE SINCE THIS PROGRAM ONLY READS THE DATA ONE CARD AT A TIME THERE IS NO LIMIT TO THE SIZE OF ANY GIVEN SECTION, E.G. THE TOTAL CROSS SECTION MAY BE DESCRIBED BY 200,000 DATA POINTS.	MERGER
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READ AS HOLLERITH. AS SUCH THIS PROGRAM NEED NOT DISTINGUISH BETWEEN DIFFERENT VERSIONS OF THE ENDF/B FORMAT. IT IS ASSUMED THAT THE DATA IS CORRECTLY CODED IN THE ENDF/B FORMAT AND NO ERROR CHECKING IS PERFORMED. IN PARTICULAR IT IS ASSUMED THAT THE MAT, MF AND MT ON EACH CARD IS CORRECT. SEQUENCE NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE CORRECTLY OUTPUT ON ALL CARDS. SECTION SIZE	MERGER

SELECTED IS DEFINED BY SPECIFYING UP TO 100 MAT/MF/MT OR ZA/MF/MT RANGES. EACH RANGE IS DEFINED BY LOWER AND UPPER LIMITS OF MAT/MF/MT OR ZA/MF/MT.

REQUEST LIMITS

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IN ORDER TO SIMPLIFY THE INPUT OF SELECTION REQUESTS THE FOLLOWINGMERGER CONVENTIONS HAVE BEEN INTRODUCED IN ORDER TO DEFINE THE UPPER LIMITS OF REQUESTS IF THEY ARE NOT DEFINED BY INPUT (I.E., IF THEYMERGER ARE ZERO). 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 EOUAL TO THE MERGER MAXIMUM POSSIBLE VALUE, 99 OR 999 RESPECTIVELY.

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 ZA LIMIT WILL BE SET EQUAL TO THE LOWER LIMIT, THE LOWER LIMITS OFMERGER 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.

SATISFYING SELECTION CRITERIA

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 CORRESPONDINGMERGER 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. THEMERGER MF AND MT WILL ALSO BE INDIVIDUALLY COMPARED TO THE MF AND MT 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 USINGMERGER 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 MERGER 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

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 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 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

ALL OTHERS (IF MORE THAN ONE). THIS CONVENTION HAS BEEN ADOPTED MERGER BECAUSE MOST USERS DO NOT REQUIRE A CORRECT REACTION INDEX FOR MERGER THERE APPLICATIONS AND IT WAS NOT CONSIDERED WORTHWHILE TO INCLUDEMERGER 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

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 CARDS WERE IN THE SECTION. IN ADDITION THE USER MAY OPTIONALLY MERGER OBTAIN A FILE CONTAINING THE SAME INFORMATION. THIS FILE MAY BE MERGER COMBINED WITH OTHER SIMILAR FILES OUTPUT BY THIS PROGRAM IN ORDER MERGER

			STATISTICS OVER A PERIOD OF TIME. IF L CONTAIN THE FOLLOWING INFORMATION IN	MERGER MERGER			
617 F	I7 FORMAT.						
(1) Z) ZA						
(2) M2		MERGER MERGER					
(3) MI	F	MERGER					
(4) M	r			MERGER			
	5) NUMBER OF CARDS IN SECTION						
(6) RI	(6) REQUEST NUMBER THAT CAUSED SECTION TO BE SELECTED						
				MERGER			
	FILES			MERGER MERGER			
ONIT	IT DESCRIPTION						
	2 INPUT CARDS (BCD - 80 CHARACTERS/RECORD)						
		-	/B DATA FILES (BCD - 80 CHARACTERS/RECORD)	MERGER MERGER			
			, 2 21111 1 1 1 1 2 2 0 0 0 1 1 1 1 1 1 1	MERGER			
OUTPU	r FILES			MERGER			
				MERGER			
UNIT	DESCRIPTI	ON		MERGER			
				MERGER			
3	OUTPUT RE	EPORT LIST	TING (BCD - 120 CHARACTERS/RECORD)	MERGER			
10	MERGED EN	NDF/B DATA	A (BCD - 80 CHARACTERS/RECORD)	MERGER			
				MERGER			
			NAMES (SEE SUBROUTINES FILIO1 AND FILIO2)				
	FILE NAME			MERGER			
	MEDGED IN			MERGER			
	MERGER. IN		PARAMETERS	MERGER MERGER			
			EVED ENDF/B DATA	MERGER			
			B DATA TO READFILENAMES WILL BE DEFINED				
13			E ORDER ENDFB.IN1, ENDFB.IN2,ENDFB.I99				
			SPONDING TO THE FIRST, SECOND,99-TH	MERGER			
15			B DATA FILE TO READ.	MERGER			
16	ENDFB.IN5	5		MERGER			
17	ENDFB.IN6	5		MERGER			
18	ENDFB.IN7	7		MERGER			
	•			MERGER			
				MERGER			
110	ENDFB. 199	•		MERGER			
TAIDIII	T CARRO			MERGER			
	r cards			MERGER MERGER			
		FORMAT	DESCRIPTION	MERGER			
				MERGER			
1	1-72	A72	FILENAME FOR MERGED OUTPUT.	MERGER			
			(LEAVE BLANK FOR STANDARD = ENDFB.OUT)	MERGER			
2	1-66		MERGED FILE LABEL	MERGER			
			IF BLANK - LABEL FROM FIRST FILE READ WIL:	LMERGER			
			BE OUTPUT	MERGER			
	67-70	14		MERGER			
			IF ZERO - NUMBER OF FIRST FILE READ WILL				
	71-72	12	BE OUTPUT. RETRIEVAL CRITERIA	MERGER			
	/1-/2	12	= 0 - MAT/MF/MT RANGES	MERGER MERGER			
			= 1 - ZA/MF/MT RANGES	MERGER			
3-N	1-72	A72	FILENAME FOR FILE TO RETRIEVE DATA FROM				
			(LEAVE BLANK FOR STANDARDENDFB.IN1,ETC.)				
			TERMINATE LIST OF FILES WITH A LINE THAT				
			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		LOWER MT LIMIT	MERGER			
	12-17		UPPER PRIMARY LIMIT (MAT OR ZA)	MERGER			
	18-19		UPPER MF LIMIT	MERGER			
	20-22	13	UPPER MT LIMIT	MERGER			
				MERGER			
				MERGER			
			ONE RANGE (LOWER AND UPPER LIMITS) PER	PHINGER			

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CARD. THE USER MAY SPECIFY 0 TO 100
                                                                   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 MERGER
                        THE LOWER PRIMARY CRITERIA, THE UPPER
                                                                   MERGER
                        PRIMARY CRITERIA WILL BE SET EQUAL TO
                                                                   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.
                                                                   MERGER
RETRIEVE DATA BY MAT NUMBER. RETRIEVE MATS 1103, 1106, ALL MATS
                                                                   MERGER
 BETWEEN 1204 AND 1215, MF=1, 3, 4 AND 5 OF MAT 1219 AND MF=3,
                                                                   MERGER
MT=1 OF MAT 1304. USE STANDARD FILENAMES.
                                                                   MERGER
                                                                   MERGER
THE FOLLOWING 13 INPUT CARDS ARE REQUIRED.
                                                                   MERGER
                                                                   MERGER
ENDFB.OUT
                                                                   MERGER
EXAMPLE FILE LABEL FOR MERGER
                                                                0 OMERGER
ENDFB.IN1
                                                                   MERGER
ENDFB.IN2
                                                                   MERGER
ENDFB.IN3
                                                                   MERGER
ENDFB.IN4
                                                                   MERGER
END
                                                                   MERGER
 1103
                            4317
                                  (UPPER LIMIT SET TO 1103/99/999) MERGER
 1106
                                  (UPPER LIMIT SET TO 1106/99/999) MERGER
                            4317
 1204
             1215
                            4317
                                  (UPPER LIMIT SET TO 1215/99/999) MERGER
  1219 1
             1219 1
                            4317
                                  (UPPER LIMIT SET TO 1219/ 1/999) MERGER
                                  (UPPER LIMIT SET TO 1219/ 5/999) MERGER
             1219 5
 1219 3
                            4317
 1304 3 1 1304 3 1
                            4317
                                  (UPPER LIMIT COMPLETELY DEFINED) MERGER
                                   (BLANK CARD TERMINATES REQUESTS) MERGER
                                                                   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 OMERGER
ENDFB6.PART1
                                                                   MERGER
ENDFB6.PART2
                                                                   MERGER
ENDFB6.PART3
                                                                   MERGER
ENDFB6.PART4
                                                                   MERGER
END
                                                                   MERGER
 1103
                            4317 (UPPER LIMIT SET TO 1103/99/999) MERGER
 1106
                                  (UPPER LIMIT SET TO 1106/99/999) MERGER
                            4317
  1204
             1215
                            4317
                                  (UPPER LIMIT SET TO 1215/99/999) MERGER
             1219 1
                                  (UPPER LIMIT SET TO 1219/ 1/999) MERGER
 1219 1
                            4317
  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
```