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===== Activate
PROGRAM ACTIVATE Activate
VERS. 2000-1 (APRIL 2000) *INITIAL VERSION. Activate
VERS. 2002-1 (MAY 2002) *OPTIONAL INPUT PARAMETERS Activate
VERS. 2004-1 (JAN. 2004) *CORRECTED ERROR - FIRST RECORD AFTER MF=10 WAS MISSING. Activate
                          *ADDED INCLUDE TO DEFINE COMMON Activate
                          *INCREASED MAX. POINTS FROM 100,000 Activate
                          TO 1,000,000. Activate

Acknowledgement 2004
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Currently almost all improvements to this code are based upon feedback from code users who report problems. This feedback benefits ALL users of this code, and ALL users are encouraged to report problems.

Improvements on the 2004 version of this code based on user feedback including,
1) Andrej Trkov - reported that the first record of the section after an inserted MF=10 was missing.

OWNED, MAINTAINED AND DISTRIBUTED BY
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THE NUCLEAR DATA SECTION
INTERNATIONAL ATOMIC ENERGY AGENCY
P.O. BOX 100
A-1400, VIENNA, AUSTRIA
EUROPE

ORIGINALLY WRITTEN BY
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DERMOTT E. CULLEN
UNIVERSITY OF CALIFORNIA
LAWRENCE LIVERMORE NATIONAL LABORATORY
L-159
P.O. BOX 808
LIVERMORE, CA 94550
U.S.A.
TELEPHONE 925-423-7359
E. MAIL CULLEN1@LLNL.GOV
WEBSITE HTTP://WWW.LLNL.GOV/CULLEN1

AUTHORS MESSAGE
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THE REPORT DESCRIBED ABOVE IS THE LATEST PUBLISHED DOCUMENTATION FOR THIS PROGRAM. HOWEVER, THE COMMENTS BELOW SHOULD BE CONSIDERED THE LATEST DOCUMENTATION INCLUDING ALL RECENT IMPROVEMENTS. PLEASE READ ALL OF THESE COMMENTS BEFORE IMPLEMENTATION.

AT THE PRESENT TIME WE ARE ATTEMPTING TO DEVELOP A SET OF COMPUTER INDEPENDENT PROGRAMS THAT CAN EASILY BE IMPLEMENTED ON ANY ONE OF A WIDE VARIETY OF COMPUTERS. IN ORDER TO ASSIST IN THIS PROJECT IT WOULD BE APPRECIATED IF YOU WOULD NOTIFY THE AUTHOR OF ANY COMPILER DIAGNOSTICS, OPERATING PROBLEMS OR SUGGESTIONS ON HOW TO IMPROVE THIS PROGRAM. HOPEFULLY, IN THIS WAY FUTURE VERSIONS OF THIS PROGRAM WILL BE COMPLETELY COMPATIBLE FOR USE ON YOUR COMPUTER.

PURPOSE
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THIS PROGRAM IS DESIGNED TO CREATE FILE 10 ACTIVATION CROSS SECTIONS BY COMBINING FILE 3 CROSS SECTIONS AND FILE 9 MULTIPLIERS

IN THE FOLLOWING DISCUSSION FOR SIMPLICITY THE ENDF/B TERMINOLOGY ---ENDF/B TAPE---WILL BE USED. IN FACT THE ACTUAL MEDIUM MAY BE TAPE, CARDS, DISK OR ANY OTHER MEDIUM.

ASSUMPTIONS
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IT IS ASSUMED THAT THE FILE 9 MULTIPLIERS ARE FAIRLY SMOOTH VERSUS ENERGY, AND THAT THE ACTIVATION CROSS SECTIONS FOR FILE 10 CAN BE DEFINED AT EXACTLY THE SAME ENERGIES AS THE FILE 3 CROSS SECTIONS, AND THAT THESE NEED MERELY BE MULTIPLIED BY THE FILE 9 TO DEFINE THE FILE 10 ACTIVATION CROSS SECTIONS.

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 LINE IS CORRECT. SEQUENCE
NUMBERS (COLUMNS 76-80) ARE IGNORED ON INPUT, BUT WILL BE
CORRECTLY OUTPUT ON ALL LINES. THE FORMAT OF SECTION MF=1, MT=451
AND ALL SECTIONS OF MF=3 MUST BE CORRECT. THE PROGRAM COPIES ALL
OTHER SECTION OF DATA AS HOLLERITH AND AS SUCH IS INSENSITIVE TO
THE CORRECTNESS OR INCORRECTNESS OF ALL OTHER SECTIONS.

CONTENTS OF OUTPUT

DOCUMENTATION

THESE COMMENT LINES ARE ONLY ADDED TO EXISTING HOLLERITH SECTIONS, I.E., THIS PROGRAM WILL NOT CREATE A HOLLERITH SECTION. THE FORMAT OF THE HOLLERITH SECTION IN ENDF/B-V DIFFERS FROM THE THAT OF EARLIER VERSIONS OF ENDF/B. BY READING AN EXISTING MF=1, MT=451 IT IS POSSIBLE FOR THIS PROGRAM TO DETERMINE WHICH VERSION OF THE ENDF/B FORMAT THE DATA IS IN. WITHOUT HAVING A SECTION OF MF=1, MT=451 PRESENT IT IS IMPOSSIBLE FOR THIS PROGRAM TO DETERMINE WHICH VERSION OF THE ENDF/B FORMAT THE DATA IS IN, AND AS SUCH IT IS IMPOSSIBLE FOR THE PROGRAM TO DETERMINE WHAT FORMAT SHOULD BE USED TO CREATE A HOLLERITH SECTION.

THIS PROGRAM DOES NOT UPDATE THE REACTION INDEX IN MF=1, MT=451.
THIS CONVENTION HAS BEEN ADOPTED BECAUSE MOST USERS DO NOT

OPTIONAL STANDARD FILE NAMES (SEE SUBROUTINE FILEIO)

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