**======================================================================= Relabel**

 **Relabel**

 **PROGRAM RELABEL Relabel**

 **=============== Relabel**

 **VERSION 69-1 (APRIL 1969) Relabel**

 **VERSION 73-1 (JUNE 1973) Relabel**

 **VERSION 77-1 (SEPTEMBER 1977) Relabel**

 **VERSION 80-1 (AUGUST 1980) IBM VERSION Relabel**

 **VERSION 83-1 (JANUARY 1983) COMBINED STATEMENT NUMBER SEQUENCE Relabel**

 **AND LINE I.D. INTO ONE PROGRAM. Relabel**

 **VERSION 86-1 (JANUARY 1986) FORTRAN-77/H VERSION Relabel**

 **VERSION 88-1 (JULY 1988) \*OPTION...INTERNALLY DEFINE ALL I/O Relabel**

 **FILE NAMES (SEE, SUBROUTINES FILIO1 Relabel**

 **AND FILIO2 FOR DETAILS). Relabel**

 **\*IMPROVED BASED ON USER COMMENTS. Relabel**

 **VERSION 89-1 (JANUARY 1989)\*PSYCHOANALYZED BY PROGRAM FREUD TO Relabel**

 **INSURE PROGRAM WILL NOT DO ANYTHING Relabel**

 **CRAZY. Relabel**

 **\*UPDATED TO USE NEW PROGRAM CONVERT Relabel**

 **KEYWORDS. Relabel**

 **\*ADDED LIVERMORE CIVIC COMPILER Relabel**

 **CONVENTIONS. Relabel**

 **VERSION 92-1 (JANUARY 1992)\*ADDED FORTRAN SAVE OPTION Relabel**

 **VERSION 94-1 (JANUARY 1994)\*COMPLETE RE-WRITE Relabel**

 **\*OUTPUT MINIMUM NON-BLANK LENGTH FOR Relabel**

 **EACH LINE - NO SEQUENCE NUMBERS. Relabel**

 **\*INCREASED MAXIMUM NUMBER OF LABELS Relabel**

 **PER ROUTINE FROM 1000 TO 50,000 Relabel**

 **\*CAN NOW PROCESS UPPER OR LOWER CASE Relabel**

 **CODING. Relabel**

 **\*SKIP IMBEDDED BLANKS IN KEYWORDS. Relabel**

 **\*ADDED WRITE(XX,XX,ERR=YYY,END=ZZZ) Relabel**

 **\*ADDED OPEN(XX,ERR=YYY,END=ZZZ) Relabel**

 **\*ADDED CLOSE(XX,ERR=YYY,END=ZZZ) Relabel**

 **\*INTEGER INSTEAD OF CHARACTERS IS NO Relabel**

 **LONGER SUPPORTED - ALL CHARACTERS Relabel**

 **MUST BE IDENTIFIED AS CHARACTERS. Relabel**

 **\*VARIABLE FILENAMES TO ALLOW ACCESS Relabel**

 **FILE STRUCTURES Relabel**

 **(WARNING - INPUT PARAMETER FORMAT Relabel**

 **HAS BEEN CHANGED) Relabel**

 **\*CLOSE ALL FILES BEFORE TERMINATING Relabel**

 **(SEE, SUBROUTINE ENDIT) Relabel**

 **VERSION 96-1 (JANUARY 1996) \*COMPLETE RE-WRITE Relabel**

 **\*IMPROVED COMPUTER INDEPENDENCE Relabel**

 **\*ALL DOUBLE PRECISION Relabel**

 **\*ON SCREEN OUTPUT Relabel**

 **\*IMPROVED OUTPUT PRECISION Relabel**

 **\*DEFINED SCRATCH FILE NAMES Relabel**

 **\*INCREASED THE NUMBER OF LABELS Relabel**

 **IN A ROUTINE FOR 5,000 TO 50,000 Relabel**

 **VERSION 99-1 (MARCH 1999) \*GENERAL IMPROVEMENTS BASED ON Relabel**

 **USER FEEDBACK Relabel**

 **VERS. 2000-1 (FEBRUARY 2000)\*UPDATED TO IGNORE ( AND ) IN QUOTES Relabel**

 **\*GENERAL IMPROVEMENTS BASED ON Relabel**

 **USER FEEDBACK Relabel**

 **VERS. 2002-1 (MAY 2002) \*OPTIONAL INPUT PARAMETERS Relabel**

 **\*CORRECTED END=, ERR=, WHEN I/O UNIT Relabel**

 **NUMBER IS DIMENSIONED Relabel**

 **VERS. 2004-1 (MARCH 2004) \*ADDED INCLUDE FOR COMMON Relabel**

 **\*INCREASED THE NUMBER OF LABELS IN Relabel**

 **A ROUTINE FOR 50,000 TO 100,000 Relabel**

 **VERS. 2007-1 (DEC. 2007) \*72 CHARACTER FILE NAMES. Relabel**

 **VERS. 2010-1 (Apr. 2010) \*General update based on user feedback Relabel**

 **VERS. 2012-1 (Aug. 2012) \*Added CODENAME Relabel**

 **\*32 and 64 bit COMPATIBLE Relabel**

 **\*Added ERROR stop Relabel**

 **VERS. 2015-1 (Jan. 2015) \*Replaced ALL 3 way IF Statements. Relabel**

 **VERS. 2017-1 (May 2017) \*Updated based on user feedback. Relabel**

 **VERS. 2018-1 (Jan. 2018) \*On-line output for ALL ENDERROR Relabel**

 **VERS. 2019-1 (June 2019) \*Identical to 2018-1 Relabel**

 **Relabel**

 **OWNED, MAINTAINED AND DISTRIBUTED BY Relabel**

 **------------------------------------ Relabel**

 **THE NUCLEAR DATA SECTION Relabel**

 **INTERNATIONAL ATOMIC ENERGY AGENCY Relabel**

 **P.O. BOX 100 Relabel**

 **A-1400, VIENNA, AUSTRIA Relabel**

 **EUROPE Relabel**

 **Relabel**

 **ORIGINALLY WRITTEN BY Relabel**

 **------------------------------------ Relabel**

 **Dermott E. Cullen Relabel**

 **Relabel**

 **PRESENT CONTACT INFORMATION Relabel**

 **--------------------------- Relabel**

 **Dermott E. Cullen Relabel**

 **1466 Hudson Way Relabel**

 **Livermore, CA 94550 Relabel**

 **U.S.A. Relabel**

 **Telephone 925-443-1911 Relabel**

 **E. Mail RedCullen1@Comcast.net Relabel**

 **Website RedCullen1.net/HOMEPAGE.NEW Relabel**

 **Relabel**

 **PURPOSE Relabel**

 **------- Relabel**

 **THIS PROGRAM IS DESIGNED TO RE-LABEL A FORTRAN PROGRAM SO THAT Relabel**

 **STATEMENT LABELS ARE IN INCREASING ORDER IN INCREMENTS OF 10 Relabel**

 **WITHIN EACH ROUTINE. Relabel**

 **Relabel**

 **THE FOLLOWING TYPES OF FORTRAN STATEMENTS ARE CONSIDERED, Relabel**

 **Relabel**

 **GO TO NN Relabel**

 **GO TO (NN,MM,.....,JJ,KK),LL (MULTI LINE O.K.) Relabel**

 **DO NN Relabel**

 **IF(......) NN,MM,...JJ,KK Relabel**

 **IF(......) GO TO NN Relabel**

 **IF(......) GO TO (NN,MM,.....,JJ,KK),LL (MULTI LINE O.K.) Relabel**

 **IF(......) READ(.....,END=NN,ERR=MM) Relabel**

 **IF(......) WRITE(.....,END=NN,ERR=MM) Relabel**

 **READ(......,END=NN,ERR=MM) Relabel**

 **OPEN(......,END=NN,ERR=MM) Relabel**

 **Relabel**

 **GO TO STATEMENTS MAY APPEAR IN THE FORM 'GO TO' OR 'GOTO'. IF Relabel**

 **THERE IS ROOM ON THE LINE 'GOTO' WILL BE CONVERTED TO 'GO TO'. Relabel**

 **WHETHER OR NOT 'GOTO' IS CONVERTED TO 'GO TO' IT WILL BE TREATED Relabel**

 **AS IDENTICAL TO 'GO TO' FOR SUBSEQUENT PROCESSING AND RELACEMENT Relabel**

 **OF STATEMENT NUMBERS. Relabel**

 **Relabel**

 **ALL OTHER STATEMENT TYPES ARE NOT CHANGED. IN PARTICULAR ALL I/O Relabel**

 **STATEMENTS AND ASSOCIATED FORMAT STATEMENTS ARE NOT CONVERTED. Relabel**

 **Relabel**

 **WARNING Relabel**

 **------- Relabel**

 **THIS PROGRAM IS ONLY DESIGNED TO MAINTAIN ENDF/B PRE-PROCESSING Relabel**

 **PROGRAMS, WHICH ONLY USE A RESTRICTED SET OF FORTRAN STATEMENT Relabel**

 **TYPES THAT CAN BE USED ON A VARIETY OF DIFFERENT TYPES OF Relabel**

 **COMPUTERS. THIS PROGRAM IS NOT DESIGNED TO HANDLE ALL POSSIBLE Relabel**

 **TYPES OF FORTRAN STATEMENTS. Relabel**

 **Relabel**

 **THE FORTRAN STATEMENTS DESCRIBED ABOVE AND TREATED BY THIS PROGRAM Relabel**

 **DO NOT INCLUDE ALL POSSIBLE FORTRAN STATEMENTS. AS SUCH THIS Relabel**

 **PROGRAM IS NOT COMPLETELY GENERAL AND SHOULD ONLY BE USED WITH Relabel**

 **PROGRAMS THAT ONLY USE THE FORTRAN STATEMENTS DESCRIBED ABOVE. Relabel**

 **Relabel**

 **FAILURE TO FOLLOW THESE INSTRUCTIONS CAN LEAD TO ERROR IN PROGRAMS Relabel**

 **Relabel**

 **OPTIONAL STANDARD FILE NAMES (SEE SUBROUTINES FILIO1 AND FILIO2) Relabel**

 **---------------------------------------------------------------- Relabel**

 **UNIT FILE NAME DESCRIPTION Relabel**

 **---- ---------- ----------- Relabel**

 **2 RELABEL.INP INPUT PARAMETERS Relabel**

 **3 RELABEL.LST OUTPUT REPORT Relabel**

 **10 RELABEL.IN PROGRAM TO READ Relabel**

 **11 RELABEL.OUT PROGRAM TO WRITE Relabel**

 **12 (SCRATCH) Relabel**

 **Relabel**

 **INPUT CARDS Relabel**

 **----------- Relabel**

 **LINE COLUMNS DEFINITION Relabel**

 **---- ------- ---------- Relabel**

 **1 1-72 INPUT PROGRAM FILENAME Relabel**

 **(STANDARD OPTION = RELABEL.IN) Relabel**

 **2 1-72 OUTPUT PROGRAM FILENAME Relabel**

 **(STANDARD OPTION = RELABEL.OUT) Relabel**

 **Relabel**

 **LEAVE THE DEFINITION OF THE FILENAMES BLANK - THE PROGRAM WILL Relabel**

 **THEN USE STANDARD FILENAMES. Relabel**

 **Relabel**

 **EXAMPLE INPUT NO. 1 Relabel**

 **------------------- Relabel**

 **TO READ \PREPRO94\RECENT\RECENT.FOR AND Relabel**

 **WRITE \PREPRO94\RECENT\RECENT.NEW THE FOLLOWING 2 INPUT LINES Relabel**

 **ARE REQUIRED, Relabel**

 **Relabel**

 **\PREPRO94\RECENT\RECENT.FOR Relabel**

 **Relabel**

 **EXAMPLE INPUT NO. 2 Relabel**

 **------------------- Relabel**

 **TO READ RELABEL.IN AND WRITE RELABEL.OUT THE FOLOWING 2 INPUT Relabel**

 **LINES ARE REQUIRED, Relabel**

 **Relabel**

 **RELABEL.IN Relabel**

 **RELABEL.OUT Relabel**

 **Relabel**

 **EXAMPLE INPUT NO. 3 Relabel**

 **------------------- Relabel**

 **TO READ RELABEL.IN AND WRITE RELABEL.OUT, SINCE THESE ARE THE Relabel**

 **STANDARD OPTIONS THE 2 INPUT LINES CAN BE COMPLETELY BLANK. Relabel**

 **Relabel**

 **======================================================================= Relabel**