ISO--A CONTOUR PLOTTER ALLOWING
FULL LABELING OF TITLE, X AND Y AXES

ABSTRACT

A convenient method of portraying functions of n dimensions to aid modeling
is needed. Unfortunately, visual representations are limited to only
two independent variables. ISO was written to partially meet the demands
of two-independent-variable graphics.

LIMITATIONS

A complete rectangular data grid must be created:

NX number of x values (not greater than 200)
NY number of y values (not greater than 200)
NX*NY not greater than 10000
NZ number of z levels (not greater than 100).

Note:
1. Cost is proportional to NX*NY*NZ.
2. NZ contour lines will be drawn.
3. ISO rewinds and uses fileset TAPE 8 as temporary storage.

SAMPLE INPUT

JOBCARD,CM73000,P1.
REQUEST,TAPE99,PLT=CAL,S,H1.
REQUEST,ISO,VRN=P893,D1,IN,FILES=34.
ISO.
(End of record card)
XSIZE 8.
YSIZE 6.
TITLE GROWTH RATE WITH RESPECT TO LENGTH
AND DENSITY OF ZOOPLANKTON
BOTTOM LABEL LENGTH OF ZOOPLANKTON (MM)
ZLEVELS 0 .05 .1 .15 .2 .25 .3
.35 .4
FORMAT (3F10.0)
SIDE LABEL DENSITY OF ZOOPLANKTON (NUMBER/CU. MET.)
ADDX 5.
PLOTTER
(End of record card)
(data x, y, and z per card according to the specified format ordered
with respect to x and y corresponding to the increasing or
decreasing numbers on the axes.)
(End of job card)
INSTRUCTIONS

The ISO cards are prepared according to the following format. Columns 1 - 15 is the label and the information (if any) is in columns 16 - 80. A blank label means that the previous label is in effect. All labels start in column 1 of the card. There is no defined order for the cards between the NEXT PLOT CARDS.

Label (cols. 1 - 15) Columns 16 - 80
ADDX Add the number of inches specified to the x direction before the next plot (decimal number).
ADDY Add the number of inches specified to the y direction before the next plot (decimal number).
BOTTOM LABEL Line of the bottom label (maximum 3 lines).
FORMAT Variable format, or BINARY, or FREE FIELD. FREE FIELD allows data to be entered x, y, and z on each card separating the numbers by blanks and punching decimals (default is BINARY).
NEXT PLOT (No information). This card instructs ISO to complete this contour and clear the label arrays. The FORMAT, PLOTTER, and TAPE options are not reset. ADDX and ADDY are set to zero.
PLOTTER (No information). This card instructs ISO to create the magnetic tape for CALCOMP output. (default is the line printer).
SIDE LABEL Line of the side label (maximum 3 lines).
TAPE (No information). This card instructs ISO to read the x, y, and z values from fileset ALTTAPE (default is INPUT).
TITLE Line of the title (maximum 3 lines).
ZLEVELS Values for the isopleth lines (decimals punched separated by blanks).
GROWTH RATE WITH RESPECT TO LENGTH AND DENSITY OF ZOOPLANKTON

LENGTH OF ZOOPLANKTON (MM)

DENSITY OF ZOOPLANKTON (NUMBER/CU. NET.)