

INTERNAL REPORT 133

ISØ--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. ISØ 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. ISØ rewinds and uses fileset TAPE 8 as temporary storage.

SAMPLE INPUT

JØBCARD, CM73000, P1.  
REQUEST, TAPE99, PLOT=CAL, S, HI.  
REQUEST, ISØ, VRN=P893, DI, IN, FILES=34.  
ISØ.  
(End of record card)  
XSIZE 8.  
YSIZE 6.  
TITLE GROWTH RATE WITH RESPECT TO LENGTH  
AND DENSITY OF ZØØPLANKTON  
BOTTOM LABEL LENGTH OF ZØØPLANKTON (MM)  
ZLEVELS 0. .05 .1 .15 .2 .25 .3  
.35 .4  
FORMAT (3F10.0)  
SIDE LABEL DENSITY OF ZØØPLANKTON (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 ISØ 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 PLØT CARDS.

Label (cols. 1 - 15)	Columns 16 - 80 Column
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).
BØTTØM LABEL	Line of the bottom label (maximum 3 lines).
FØRMAT	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 PLØT	(No information). This card instructs ISØ to complete this contour and clear the label arrays. The FØRMAT, PLØTTER, and TAPE options are not reset. ADDX and ADDY are set to zero.
PLOTTER	(No information). This card instructs ISØ to create the magnetic tape for CALCØMP output. (default is the line printer).
SIDE LABEL	Line of the side label (maximum 3 lines).
TAPE	(No information). This card instructs ISØ 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

