

## EXTREME PLOT

### PURPOSE

Generates a subsample extreme versus subsample index plot.

### DESCRIPTION

The subsample extreme is the data value with the largest absolute value in the subsample. The extreme plot is used to answer the question: "Does the subsample variation change over different subsamples?" The plot consists of:

Vertical axis = subsample extreme;

Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample extreme value. As usual, the appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

### SYNTAX

EXTREME PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on the horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

### EXAMPLES

EXTREME PLOT Y X

EXTREME PLOT Y X1 SUBSET X1 > 3

### DEFAULT

None

### SYNONYMS

None

### RELATED COMMANDS

CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
MINIMUM PLOT	=	Generates a minimum plot.
MAXIMUM PLOT	=	Generates a minimum plot.
RANGE PLOT	=	Generates a range plot.
DECILE PLOT	=	Generates a decile plot.
STANDARD DEVIATION PLOT	=	Generates a stand deviation plot.
MEAN PLOT	=	Generates a mean plot.
BOX PLOT	=	Generates a box plot.
RANGE CHART	=	Generates a range control chart.
S CHART	=	Generates a standard deviation control chart.
PLOT	=	Generates a data or function plot.

### APPLICATIONS

Quality Control

### IMPLEMENTATION DATE

88/2

## PROGRAM

```
SKIP 50
SET READ FORMAT 3F4.0,F5.0,F6.0,F3.0,2F9.0
READ PBF11.DAT YEAR DAY BOT SD F11 FLAG WV CO2
.
RETAIN YEAR DAY BOT SD F11 WV CO2 FLAG SUBSET FLAG 0
LET MONTH=INT(DAY/30.25)+1
LET A = MEAN WV
LET WV = WV - A
.
LINE BLANK DASH
CHARACTER X BLANK
XLIMITS 0 15
YILABEL ABSOLUTE VALUE FROM MEAN
XILABEL GROUP ID
TITLE AUTOMATIC
EXTREME PLOT WV MONTH
```

