KURTOSIS PLOT

PURPOSE
Generates a subsample kurtosis versus subsample index plot.

DESCRIPTION
The subsample kurtosis is the kurtosis of the data in the subsample. The kurtosis plot is used to answer the question: “Does the subsample distribution change over different subsamples?” It consists of:

Vertical axis = subsample kurtosis;
Horizontal axis = subsample index.

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

SYNTAX
KURTOSIS PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>
where <y> is the response (= dependent) variable;
<x> is the subsample identifier variable (this variable appears on horizontal axis);
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
KURTOSIS PLOT Y X
KURTOSIS PLOT Y X SUBSET X + 2 TO 10

NOTE
The kurtosis is the standardized fourth central moment. It is a measure of the “peakedness” of a distribution.

DEFAULT
None

SYNONYMS
K PLOT

RELATED COMMANDS
CHARACTERS = Sets the type for plot characters.
LINES = Sets the type for plot lines.
SKEWNESS PLOT = Generates a skewness plot
VARIANCE PLOT = Generates a variance plot
STANDARD DEVIATION PLOT = Generates a standard deviation plot.
RANGE PLOT = Generates a range plot
MEAN PLOT = Generates a mean plot.
MEDIAN PLOT = Generates a median plot.
BOX PLOT = Generates a box plot.
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
.XLIMITS 0 15
CHARACTER X BLANK
LINE BLANK SOLID
Y1LABEL KURTOSIS
X1LABEL GROUPS
TITLE AUTOMATIC
KURTOSIS PLOT WV MONTH