... DECILE PLOT

PURPOSE
Generates a subsample decile versus subsample index plot.

DESCRIPTION
A subsample decile is the estimated 10%, 20%, 30%, ..., 80%, or 90% point of the subsample. For example, the 30% is the point where 30% of the data are below that point and the remaining 70% are above that point. The decile plot is used to answer the question: “Does the subsample variation change over different subsamples?” The decile plot consists of:

- Vertical axis = subsample decile;
- Horizontal axis = subsample index.

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

SYNTAX
<keyword> DECILE PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>
where <keyword> is FIRST, SECOND, THIRD, FOURTH, FIFTH, SIXTH, SEVENTH, EIGHTH, or NINTH;
<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
FIRST DECILE PLOT Y X
NINTH DECILE PLOT Y X1 SUBSET X1 > 2

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS

- CHARACTERS = Sets the type for plot characters.
- LINES = Sets the type for plot lines.
- LOWER QUARTILE PLOT = Generates a lower quartile plot.
- UPPER QUARTILE PLOT = Generates an upper quartile plot.
- MINIMUM PLOT = Generates a minimum plot.
- MAXIMUM PLOT = Generates a maximum plot.
- RANGE PLOT = Generates a range plot.
- STANDARD DEVIATION PLOT = Generates a standard deviation plot.
- VARIANCE PLOT = Generates a variance 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

PURPOSE--GENERATE A DECILE PLOT OF POINT BARROW FREON-11 DATA

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

CHARACTER X BLANK
LINE BLANK SOLID
XLIMITS 0 15
MULTIPLLOT 3 3; MULTIPLLOT CORNER COORDINATES 0 0 100 100
TITLE AUTOMATIC
FIRST DECILE PLOT WV MONTH
SECOND DECILE PLOT WV MONTH
THIRD DECILE PLOT WV MONTH
FOURTH DECILE PLOT WV MONTH
FIFTH DECILE PLOT WV MONTH
SIXTH DECILE PLOT WV MONTH
SEVENTH DECILE PLOT WV MONTH
EIGHTH DECILE PLOT WV MONTH
NINTH DECILE PLOT WV MONTH
END OF MULTIPLLOT