... HINGE PLOT

PURPOSE
Generates a subsample lower or upper hinge versus subsample index plot.

DESCRIPTION
The lower hinge is a pseudo lower quartile and the upper hinge is a pseudo upper quartile. Specifically, a hinge is the median of the points between one of the extreme points (i.e., the minimum point or the maximum point) and the median. The subsample hinge is the hinge of the data in the subsample. The hinge plot is used to answer the question: "Does the subsample spread change over different subsamples?" It consist of:

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

In addition, a horizontal line is drawn representing the full sample hinge 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
<LOWER/UPPER> HINGE 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);
   LOWER specifies a lower hinge plot and UPPER specifies an upper hinge plot;
and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES
LOWER HINGE PLOT Y X
UPPER HINGE PLOT Y X1

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS
CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
MEAN PLOT	=	Generates a mean plot.
SD PLOT	=	Generates a standard deviation plot.
BOX PLOT	=	Generates a box plot.
XBAR CHART	=	Generates a mean control chart.
PLOT	=	Generates a data or function plot.

APPLICATIONS
Exploratory Data Analysis

IMPLEMENTATION DATE
88/2

PROGRAM

    . PURPOSE--GENERATE A HINGE 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
    .
    TITLE HINGE PLOT
    XLIMITS 0 15
    YLIMITS 1 1.01
    CHARACTER U U
    LINE BLANK SOLID
    UPPER HINGE PLOT WV MONTH
    PRE-ERASE OFF
    CHARACTER L L
    LOWER HINGE PLOT WV MONTH