RELATIVE STANDARD DEVIATION PLOT

PURPOSE
Generates a subsample relative standard deviation versus subsample index plot.

DESCRIPTION
The relative standard deviation is the standard deviation divided by the absolute value of the mean times 100. The subsample relative standard deviation is the relative standard deviation of the data in the subsample. The relative standard deviation plot is used to answer the question: “Does the subsample spread change over different subsamples?” It consists of:

- Vertical axis = subsample relative standard deviation;
- Horizontal axis = subsample index.

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

SYNTAX
RELATIVE STANDARD DEVIATION 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
RELATIVE STANDARD DEVIATION PLOT Y X
RELATIVE STANDARD DEVIATION PLOT Y TAG SUBSET TAG > 2

DEFAULT
None

SYNONYMS
RELSD PLOT, RELATIVE SD PLOT, RELS PLOT, RS PLOT, and RSD PLOT are synonyms for RELATIVE STANDARD DEVIATION PLOT.

RELATED COMMANDS
RELATIVE STAND DEVIATION = Compute the relative standard deviation of a variable.
RELATIVE VARIANCE PLOT = Generate a relative variance plot.
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
SKIP 25
READ GEAR.DAT DIAMETER BATCH
LINE BLANK DASH
CHARACTER X BLANK
XTIC OFFSET 0.2 0.2
Y1LABEL RELATIVE STANDARD DEVIATION
X1LABEL SAMPLE BATCH
TITLE AUTOMATIC
RELSD PLOT DIAMETER BATCH