RELATIVE VARIANCE PLOT

PURPOSE
Generates a subsample relative variance versus subsample index plot.

DESCRIPTION
The relative variance is the variance divided by the mean times 100. The subsample relative variance is the relative variance of the data in the subsample. The relative variance plot is used to answer the question: "Does the subsample spread change over different subsamples?" The plot consists of:

Vertical   axis   =   subsample relative variance;
Horizontal axis   =   subsample index.

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

SYNTAX
RELATIVE VARIANCE 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 VARIANCE PLOT Y X
RELATIVE VARIANCE PLOT Y TAG SUBSET TAG > 2

DEFAULT
None

SYNONYMS
RELATIVE VAR PLOT, RV PLOT, RVAR PLOT, RELV PLOT, RELVAR PLOT, COEFFICIENT VARIATION PLOT, and COEFFICIENT OF VARIATION PLOT are synonyms for RELATIVE VARIANCE PLOT.

RELATED COMMANDS
RELATIVE VARIANCE	=	Compute the relative variance of a variable.
RELSD PLOT	=	Genrates a relative standard deviation 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 VARIANCE
        X1LABEL SAMPLE BATCH
        TITLE RELATIVE VARIANCE PLOT
        RELATIVE VARIANCE PLOT DIAMETER BATCH
```