

LINEAR RESSD PLOT

PURPOSE

Generates a subsample linear residual standard deviation versus subsample index plot.

DESCRIPTION

The subsample residual standard deviation is the residual standard deviation resulting from a least squares linear fit (between 2 user-specified variables) of the data in the subsample. The linear residual standard deviation plot is used to answer the question: "Does the residual standard deviation of a fitted line between 2 variables change from one subsample to the next? In other words, does the quality and goodness of the linear fit change from one subsample to the next?" The plot consists of:

Vertical axis = subsample residual standard deviation from a linear fit;
Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample linear residual 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

LINEAR RESSD PLOT <y1> <y2> <x> <SUBSET/EXCEPT/FOR qualification>

where <y1> is a response (= dependent variable in the fit) variable;

<y2> is another response (= independent variable in the fit) variable;

<x> is the subsample identifier variable (this variable appears on horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

LINEAR RESSD PLOT PRES TEMP DAY

LINEAR RESSD PLOT CONC YEAR MONTH SUBSET MONTH > 1

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

LINEAR SLOPE PLOT	=	Generates a linear slope plot.
LINEAR CORRELATION PLOT	=	Generates a linear correlation plot.
LINEAR INTERCEPT PLOT	=	Generates a linear intercept plot.
CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
FIT	=	Carries out a least squares fit.

APPLICATIONS

Exploratory Data Analysis

IMPLEMENTATION DATE

88/3

PROGRAM

```
SKIP 25
READ BERGER1.DAT Y X BATCH
LINE BLANK DASH
CHARACTER X BLANK
Y1LABEL RESSD
X1LABEL SAMPLE ID
TITLE AUTOMATIC
XTIC OFFSET 0.2 0.2
LINEAR RESSD PLOT Y X BATCH
```

