

LINEAR CORRELATION PLOT

PURPOSE

Generates a subsample (linear) correlation versus subsample index plot.

DESCRIPTION

The subsample correlation is the usual Pearson product-moment correlation coefficient between 2 user-specified variables for the data in the subsample. The linear correlation plot is used to answer the question: "Does the correlation between 2 variables hold equally well from one subsample to the next? In other words, does the linear relatedness of the 2 variables change from one subsample to the next?"

It consists of:

- Vertical axis = subsample correlation from a linear fit;
- Horizontal axis = subsample index.

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

SYNTAX

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

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

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

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

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

EXAMPLES

LINEAR CORRELATION PLOT Y1 Y2 X

LINEAR CORRELATION PLOT CONC YEAR MONTH SUBSET MONTH = 1 TO 10

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

LINEAR SLOPE PLOT	=	Generates a linear slope plot.
LINEAR INTERCEPT PLOT	=	Generates a linear intercept plot.
LINEAR RESSD PLOT	=	Generates a linear residual standard deviation 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
XTIC OFFSET 0.2 0.2
Y1LABEL CORRELATION
X1LABEL SAMPLE ID
TITLE AUTOMATIC
LINEAR CORRELATION PLOT Y X BATCH
```

