PERCENT DEFECTIVE PLOT

PURPOSE
Generates a subsample percent defective versus subsample index plot.

DESCRIPTION
The subsample percent defective index is the percent defective of the data in the subsample. The percent defective plot is used to answer the question: "Does the subsample percent defective index change over different subsamples?" The plot consists of:

Vertical   axis   =   subsample percent defective index;
Horizontal axis   =   subsample index.

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

SYNTAX
PERCENT DEFECTIVE 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
PERCENT DEFECTIVE PLOT Y X
PERCENT DEFECTIVE PLOT Y X SUBSET X > 6

NOTE 1
The percent defective computes the number of defectives for a variable (i.e., the number of values that fall outside of some user specified tolerance limits) and expresses it as a percentage.

NOTE 2
The upper and lower specification limits must be specified by the user as follows:

LET USL = <value>
LET LSL = <value>

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS

CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
CP PLOT	=	Generates a C_p plot.
CPK PLOT	=	Generates a C_{pk} plot.
EXPECTED LOSS PLOT	=	Generates an expected loss plot.
CAPABILITY ANALYSIS	=	Performs a capability analysis.
BOX PLOT	=	Generates a box plot.
XBAR CHART	=	Generates an xbar control chart.
PLOT	=	Generates a data or function plot.

APPLICATIONS
Quality Control

IMPLEMENTATION DATE
93/10

PROGRAM

        SKIP 25
        READ GEAR.DAT DIAMETER BATCH
        .
        TITLE CASE ASIS
        LABEL CASE ASIS
        TITLE Gear Diameter Analysis
        Y1LABEL PERCENT DEFECTIVE
        X1LABEL Batch
        LEGEND 1 Process Capability
        LEGEND 2 PERCENT DEFECTIVE Plot
        XTIC OFFSET 0.5 0.5
        YTIC OFFSET 2.0 2.0
        CHARACTER CIRCLE BLANK
        CHARACTER FILL ON
        CHARACTER SIZE 1.2
        SPIKE ON
        SPIKE DOTTED
        LINE BLANK SOLID
        .
        LET LSL = 0.99
        LET USL = 1.01
        .
        PERCENT DEFECTIVE PLOT DIAMETER BATCH