PRED

PURPOSE
This is a very important internal DATAPLOT variable into which the predicted values (i.e., “fitted values”) are automatically placed whenever the FIT, PRE-FIT, Spline Fit, EXACT RATIONAL FIT, LOWESS, SMOOTH, ANOVA, and MEDIAN POLISH commands are executed.

DESCRIPTION
PRED can be used by the analyst in whatever fashion desired. A very common post-fit operation is to superimpose the predicted values atop the raw data as a visual check of model adequacy. This is usually done via

CHARACTERS X BLANK
LINES BLANK SOLID
PLOT Y PRED VERSUS X

SYNTAX
None

EXAMPLES
WRITE X Y PRED RES
PLOT Y PRED VERSUS X
WRITE CALIB. X Y PRED RES
LET PREDNEW = PRED

NOTE
The PRED variable is updated whenever one of the commands specified above is executed. That is, it contains the predicted values from the most recent fit or smooth. If you want to save the predicted values from a particular analysis, enter a command like

LET PRED2 = PRED.

The variable PRED2 will not be erased by subsequent analysis commands.

DEFAULT
None

SYNONYMS
None

RELATED COMMANDS
RES = A variable where residuals are stored.
RESSD = A parameter where the residual standard deviation is stored.
RESDF = A parameter where the residual degrees of freedom is stored.
REPSD = A parameter where the replication standard deviation is stored.
REPDF = A parameter where the replication degrees of freedom is stored.
LOFCDF = A parameter where the lack of fit cdf is stored.
FIT = Carries out a least squares linear or non-linear fit.
EXACT RATIONAL FIT = Carries out an exact rational fit.
PRE-FIT = Carries out a least squares pre-fit.
SPLINE FIT = Carries out a spline fit.
LOWESS = Carries out a locally weighted least squares fit.
SMOOTH = Carries out a smoothing.
ANOVA = Carries out an ANOVA.
MEDIAN POLISH = Carries out a median polish.
PLOT = Generates a data/function plot.

APPLICATIONS
Fitting

IMPLEMENTATION DATE
Pre-1987
PROGRAM

. ALASKA PIPELINE RADIOGRAPHIC DEFECT BIAS CURVE
. PERFORM A LINEAR REGRESSION
SKIP 25
READ BERGER1.DAT MEAS TRUE
FIT MEAS TRUE
TITLE AUTOMATIC
X1LABEL TRUE DEPTH (IN .001 INCH)
Y1LABEL MEASURED DEPTH
CHARACTERS X
LINES BLANK
PLOT MEAS PRED VS TRUE