LOWESS DEGREE

PURPOSE
Specifies whether the LOWESS command performs local linear fitting or local quadratic fitting.

DESCRIPTION
Quadratic fits are recommended if there are local minimum and maximum points in the data. Otherwise, linear fitting should be adequate. Linear fitting is the default.

SYNTAX
LOWESS DEGREE <1/2>

where 1 specifies local linear fitting and 2 specifies local quadratic fitting.

EXAMPLES
LOWESS DEGREE 1
LOWESS DEGREE 2

DEFAULT
The default is local linear fitting (i.e., LOWESS DEGREE 1).

SYNONYMS
None

RELATED COMMANDS

LOWESS SMOOTH	=	Carries out lowess smoothing.
LOWESS PERCENT	=	Sets the width as a percentage rather than a fraction.
SMOOTH	=	Carries out least squares smoothing.
FILTER WIDTH	=	Sets smoothing width for least squares smoothing.

APPLICATIONS
Robust Smoothing, Time Series Analysis

IMPLEMENTATION DATE
94/6

PROGRAM

```
SKIP 25
READ HAYES1.DAT X ST Y
.
MULTIPLOT 2 2; MULTIPLOT CORNER COORDINATES 0 0 100 100
CHARACTER CIRCLE BLANK; LINE BLANK SOLID
TITLE RAW DATA
PLOT Y X
LOWESS FRACTION 0.3
LOWESS Y X
TITLE LINEAR LOWESS (0.3)
PLOT Y PRED VS X
LOWESS DEGREE 2
TITLE QUADRATIC LOWESS (0.3)
LOWESS Y X
PLOT Y PRED VS X
LOWESS FRACTION 0.15
LOWESS Y X
TITLE QUADRATIC LOWESS (0.15)
PLOT Y PRED VS X
END OF MULTIPLOT
```