EXTEND

PURPOSE

Extend a variable by another variable. The first variable will have the second variable appended onto it.

SYNTAX

EXTEND <var1> <var2>
where <var1> is the variable that will be extended;
and <var2> is the variable that is added onto <var1>.

EXAMPLES

```
EXTEND Y1 Y2
EXTEND Y DEL
EXTEND X X
```

DEFAULT

None

SYNONYMS

APPEND is a synonym to EXTEND, but with the arguments reversed. If you have 2 variables X1 and X2 and wish to append the contents of X2 onto the end of X1, then the following 2 commands are equivalent:

```
EXTEND X1 X2
APPEND X2 X1
```

RELATED COMMANDS

APPEND	=	Appends a variable to another variable.
DELETE	=	Deletes all or part of a variable.
LET	=	Creates or transforms a variable.

APPLICATIONS

Data transformation

IMPLEMENTATION DATE

Pre-1987

PROGRAM

```
. PURPOSE--PLOT OUT THE COMPLEX ROOTS FROM THE FAMILY OF FUNCTIONS K + 1*X + 1*X**2
. ANALYSIS TECHNIQUE--COMPLEX ROOTS + PLOT
DIMENSION 20 VARIABLES
.    STEP 1--DEFINE THE BASE POLYNOMIAL 1 + 1*X + 1*X**2.  IT WILL BE UPDATED LATER
LET P = DATA 1 1 1
LET X2 = DATA -999 -999; LET Y2 = DATA -999 -999; LET D2 = DATA -999 -999
.    STEP 2--EXECUTE A LOOP.  FOR EACH ITERATION, CHANGE THE BASE POLYNOMIAL TO
.              K + 1*X + 1*X**2.  COMPUTE AND STORE THE  2 COMPLEX ROOTS.
LOOP FOR K = 1 1 10
      LET P(1) = K
      LET X Y = COMPLEX ROOTS P
      LET D = K FOR I = 1 1 2
      EXTEND X2 X
      EXTEND Y2 Y
      EXTEND D2 D
END OF LOOP
.    STEP 3--PLOT THE ROOTS
CHAR 1 2 3 4 5 6 7 8 9 0; LINES BLANK ALL
TITLE K + X + X**2 (FOR K = 1 1 10); TITLE SIZE 4
X1LABEL REAL COMPONENT; Y1LABEL COMPLEX COMPONENT
PLOT Y2 X2 D2 EXCEPT D2 = -999
```