PURPOSE
This keyword is used to concatenate two previously created strings.

DESCRIPTION
Strings are created with either the READ STRING command or the LET STRING command. The READ STRING can read strings either from the terminal or from a file. Another distinction is that READ STRING preserves the case of the string while LET STRING converts all characters to upper case.

The & keyword is restricted to the LET STRING case.

SYNTAX
None

EXAMPLES
LET STRING FNAME = CALIB.DAT
LET STRING PATH = /usr/nist/heckert/datafiles/
LET STRING NAME = ^PATH&^FNAME
READ ^NAME X1 X2 X3

NOTE 1
When concatenating strings, you need to use the substitution character (^) in front of the strings. For example, given
LET STRING A = CUBE01
LET STRING B = .DAT
then the following
LET STRING C = ^A&^B
generates the string CUBE01.DAT. However,
LET STRING D = A&B
generates the string A&B.

NOTE 2
The following commands
LET STRING A = CUBE01
LET STRING C = ^A&.DAT
generate the string CUBE01.DAT as expected. However, the following command
LET STRING A = CUBE01.&.DAT
generates the string CUBE01.&.DAT instead of CUBE01.DAT.

NOTE 3
DATAPLOT does not at this time support commands for extracting a subset of a string or for returning the number of characters in an already existing string.

NOTE 4
More than one concatenation character can appear on a line.

NOTE 5
The & and ^ keywords can be effectively used with the LOOP command for reading and analyzing similarly structured files. The program example below is used to analyze 100 files named CALIB1.DAT, CALIB2.DAT, ..., CALIB100.DAT. These files are assumed to all exist, have 5 header lines, and 2 columns of data (the number of rows can vary. Each of these will be analyzed with a DATAPLOT macro.

DEFAULT
None
SYNONYMS
None

RELATED COMMANDS
LET STRING = Define a string.
READ STRING = Read a string.
^ = Substitute the value of a string or a parameter into a command.

APPLICATIONS
Concatenating strings, useful in macros

IMPLEMENTATION DATE
89/2

PROGRAM
LET STRING S1 = CALIB
LET STRING S3 = .DAT
SKIP 5
LOOP FOR K = 1 1 100
    DELETE X Y
    LET STRING S2 = ^K
    LET STRING S4 = ^S1&^S2&^S3
    READ ^S4 X Y
    CALL ANALYSIS.DP
END OF LOOP