

## UPCASE Function

The UPCASE function converts all letters in a character expression to uppercase.

General form, UPCASE function:

**UPCASE(argument)**

where argument can be any SAS character expression, such as a character variable or constant.



## LOWCASE Function

The LOWCASE function converts all letters in a character expression to lowercase.

General form, LOWCASE function:

**LOWCASE(argument)**

where argument can be any SAS character expression, such as a character variable or constant.



## PROPCASE Function

Beginning in SAS®9, the PROPCASE function converts all words in an argument to proper case (so that the first letter in each word is capitalized).

General form, PROPCASE function:

**PROPCASE**(argument, 'delimiter(s)')

where

- argument can be any SAS expression, such as a character variable or constant
- delimiter(s) specifies one or more delimiters that are enclosed in quotation marks. The default delimiters are blank, forward slash, hyphen, open parenthesis, period, and tab.

Additional Note If you specify delimiter(s), then the default delimiters are no longer in effect.

The PROPCASE function copies a character argument and converts all uppercase letters to lowercase letters. It then converts to uppercase the first character of a word that is preceded by a delimiter. PROPCASE uses the default delimiters unless you use the delimiter(s) argument.

