Concatenate character values using TRIM and CATX functions

TRIM Function

When working with character values, you often need to concatenate character values from multiple variables using the concatenation operator (||). The trailing blanks in character values often leads to unexpected results.

For example, I need to create one student_name variable that contains the values of the two variables first_name and last_name.

```
student_name = first_name || last_name;
```

student_name	
Tim	Yan
Sara	Lee
David	Jason

Notice the values of Student_name do not appear as expected and contain embedded blanks. It is because the original variables first_name and last_name contain trailing blanks. Whenever the value of a character variable does not match the length of the variable, SAS pads the value with trailing blanks.

The TRIM function enables you to remove trailing blanks from character values.

TRIM Function

General form, TRIM function:

TRIM(argument)

where argument can be any character expression, such as

- a character variable: trim(address)
- another character function: trim(left(id))

TRIM Function

Points to Remember

Keep in mind that the TRIM function does not affect how a variable is stored. Suppose you trim the values of a variable and then assign these values to a new variable. The trimmed values are padded with trailing blanks again if the values are shorter than the length of the new variable.

CATX Function

Beginning in SAS®9, the CATX function enables you to concatenate character strings, remove leading and trailing blanks, and insert separators.

You can accomplish the same concatenation using only the CATX function.

General form, CATX function:

CATX(separator,string-1 <,…string-n>)

where

- separator specifies the character string that is used as a separator between concatenated strings
- string specifies a SAS character string.

CATX Function

You can accomplish the same concatenation using only the CATX function

```
student_name = trim(last_name) || ',' || trim(first_name);
student_name = catx(', ',last_name,first_name);
```

In most cases, if the CATX function returns a value to a variable that has not previously been assigned a length, then that variable is given a length of 200 bytes. To save storage space, you can add a LENGTH statement to your DATA step, and specify an appropriate length for your variable before the assignment statements that contain the CATX function.