



[Home](#)
[SAS Interview](#)
[SQL & DW](#)
[SAS Tools](#)
[Help](#)
[Analytics](#)

## Concatenation Functions In SAS : CAT, CATT, CATS, CATX, CATQ

Hi All,

Today i am explaining something about to add two or more character strings in SAS. Adding two or more character or string which simply notify towards the CONCATENATION.

We can simply define concatenation as to put two or more strings together is concatenation. Here we would not discuss about the concatenation operators which are || (**vertical bar**) and !! (**Exclamation mark**) but we would discuss on some concatenation functions in SAS which are **CAT, CATT, CATQ, CATS** and **CATX**.

All the Concatenation functions takes two or more arguments and concatenate the strings or variables. For all concatenation functions (if applies) removes the leading or trailing blanks from resultant concatenated string before the concatenating of strings.

**Note** : Whenever we use concatenation operator || or !!, The Length of the resultant string would be the sum of the lengths of all individual strings we are adding or concatenating.

**CAT Function in SAS** : It concatenates the two or more character strings and does not remove leading or trailing blanks. The resultant concatenated string would be a character string.

**Syntax** : Result\_cat =CAT (String1, String2,.....StringN);

**CATT Function in SAS** : It concatenates the two or more character strings and removes trailing blanks from the resultant string or variable. The resultant concatenated string would be a character string.

**Syntax** : Result\_catt =CATT(String1, String2,.....StringN);

**CATS Function in SAS** : It concatenates the two or more character strings and removes all leading and trailing blanks from the resultant string or variable. The resultant concatenated string would be a character string.

**Syntax** : Result\_cats =CATS(String1, String2,.....StringN);

**CATX Function in SAS** : it concatenates the two or more character strings and adds a delimiters after each string's value. It also removes leading and trailing from resultant string or variable. The resultant concatenated string would be a character string. We can say that CATX is same as CATS just it adds a delimiter between values being concatenated.

**Syntax**: Result\_catx=CATX('Delimiter', String1, String2,..... , StringN);

**CATQ Function in SAS** : It concatenates the two or more character or numeric strings by adding a delimiter and quotation mark to that string which contain the delimiter. CATQ function is similar to the CATX function excepts it also adds quotation marks.

**Syntax**: Result\_catQ=CATQ(Modifier,'Delimiter',String1, String2,.....StringN);

Modifiers for CATQ function:-

1. ' or ' : For single quotation mark
2. " or " : For double quotation mark
3. a or A : For adding quotation mark to all of the arguments
4. c or C : For comma as a delimiter

**Page navigation**

**Search**



**Blog Archive**

- 2015 (23)
- ▼ 2014 (32)
  - November (1)
  - October (2)
  - September (13)
  - ▼ August (8)
    - [Difference Between SAS SUM Function And Using '+' ...](#)
    - [How To Handle Special Missing Values In SAS](#)
    - [Column Pointer Control in SAS : @, +N, and #N](#)
    - [Difference Between Run Statement And Quit Statemen...](#)
    - [What Is Data Integration With Consultation Of SAS ...](#)
    - [Library Concatenation in SAS : How To Refer Multip...](#)
    - [Efficiency And Performance Strategies Within SAS](#)
    - [Concatenation Functions In SAS : CAT, CATT, CATS, ...](#)
  - July (4)
  - June (4)

**Follow by Email**

5. d or D : Tells that we have specified delimiter argument

6. h or H : For horizontal tab as a delimiter

For all concatenate functions:-

- The Default LENGTH of returned variable from any CAT\* function would be **200** bytes, if Length is not previously specified to the assigned variable of CAT function
- CAT\* function always returns a value to a variable
- For numeric variables / arguments, CAT\* function removes trailing and leading after formatting numeric arguments to the **BESTw.** format
- The returned values from CAT, CATS, CATT and CATX are normally equivalent with the resultant values of concatenation operator (with certain combination like : Trim, Left, Strip) except in length
- CAT, CATS, CATT and CATX functions are faster than using TRIM and LEFT functions
- In CATQ, if we do not use C,D or H as modifiers, then CATQ would use blank as delimiter

```

Data DSN;
  Separator='&,%'; /* for CATX */
  X='Uma '; /* 3 Trailing Blanks */
  Y=' Shanker'; /* 3 Leading Blanks */
  Result_cat=CAT(X,Y);
  Result_catS=CATS(X,Y);
  Result_catT=CATT(X,Y);
  Result_catX=CATX(Separator,X,Y);
Run;

```

The SAS System

Obs	Separator	X	Y	Result_cat	Result_catS	Result_catT	Result_catX
1	&,%	Uma	Shanker	Uma Shanker	UmaShanker	Uma Shanker	Uma&%Shanker

Alphabetic List of Variables and Attributes

#	Variable	Type	Len
4	Result_cat	Char	200
5	Result_catS	Char	200
6	Result_catT	Char	200
7	Result_catX	Char	200
1	Separator	Char	3
2	X	Char	6
3	Y	Char	10

Posted by Unknown



Labels: CAT function in SAS, CATQ function in sas, CATS Function in sas, CATT function in SAS, CATX function in sas, sas Concatenation function, SAS Concatenation operators, SAS FUNCTIONS

## 2 comments:

**Air Jordan XII Retro XII 'Flu Game' Kids sale** 27 November 2014 at 09:34

Admiring the persistence you put into your site and in depth information you offer. It's great to come across a blog every once in a while that isn't the same outdated rehashed information. Great read! I've bookmarked your site and I'm including your RSS feeds to my Google account.

Reply



**sai venkat** 21 June 2017 at 22:57

It is really a great work and the way in which u r sharing the knowledge is excellent. Thank you so much for sharing this worth able content with us.

SAS Online Training

Reply

Enter your comment...



Comment as:

Google Account

Publish

Preview

[Newer Post](#)

[Home](#)

[Older Post](#)

Subscribe to: [Post Comments \(Atom\)](#)

Simple theme. Powered by [Blogger](#).