

What is the complete guide to CAT, CATT, CATS, and CATX?

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The complete guide to CAT, CATT, CATS, and CATX is a comprehensive resource that provides detailed information on the various aspects of CAT (Computerized Axial Tomography) scans and their related technologies. It covers topics such as the history of CAT scans, their applications, the different types of CAT machines, and the process of conducting a CAT scan. Additionally, the guide delves into the differences between CATT (Computerized Axial Tomography with Time-Delayed Imaging) and CATX (Computerized Axial Tomography with X-ray) scans, as well as the use of CATS (Computerized Axial Tomography Scans) in medical imaging. This guide serves as a valuable reference for both professionals and individuals seeking to understand the intricacies of CAT technology.

SAS: A Complete Guide to CAT, CATT, CATS & CATX

You can use the CAT, CATT, CATS & CATX functions to concatenate string variables together in SAS.

Here is the difference between the various functions:

The CAT function concatenates string variables without removing any blanks.

The CATT function removes trailing spaces from strings and then concatenates string variables.

The CATS function removes both leading and trailing spaces from strings and then concatenates string variables.

The CATX function removes both leading and trailing spaces from strings and then concatenates string

variables with a custom delimiter.

The following example shows how to use each function in practice.

Example: How to Use CAT, CATT, CATS & CATX in SAS

Suppose we have the following dataset in SAS that contains three string variables:

```
/*create dataset*/  
data my_data;  
input player $ team $ conf $;  
datalines;  
Andy Mavs West  
Bob Lakers West  
Chad Nuggets West  
Doug Celtics East  
Eddy Nets East  
;  
run;
```

```
/*view dataset*/  
proc printdata=my_data;
```

Obs	player	team	conf
1	Andy	Mavs	West
2	Bob	Lakers	West
3	Chad	Nuggets	West
4	Doug	Celtics	East
5	Eddy	Nets	East

Now suppose that we would like to use the CAT, CATT, CATS & CATX functions to concatenate these three string variables into a single variable.

We can use the following code to do so:

```
/*create new dataset that concatenates columns*/  
data new_data;  
set my_data;  
cat = cat(player, team, conf);  
catt = catt(player, team, conf);  
cats = cats(player, team, conf);  
catx = catx('-', player, team, conf);  
run;
```

```
/*view dataset*/  
proc printdata=new_data;
```

Obs	player	team	conf	cat	catt	cats	catx
1	Andy	Mavs	West	Andy Mavs West	AndyMavsWest	AndyMavsWest	Andy-Mavs-West
2	Bob	Lakers	West	Bob Lakers West	BobLakersWest	BobLakersWest	Bob-Lakers-West
3	Chad	Nuggets	West	Chad Nuggets West	ChadNuggetsWest	ChadNuggetsWest	Chad-Nuggets-West
4	Doug	Celtics	East	Doug Celtics East	DougCelticsEast	DougCelticsEast	Doug-Celtics-East
5	Eddy	Nets	East	Eddy Nets East	EddyNetsEast	EddyNetsEast	Eddy-Nets-East

Notice that the various concatenate functions have all concatenated the three string variables in slightly different ways.

The CAT function concatenated the three strings and left the spaces in between them.

The CATS function removed both leading and trailing spaces from each string and then concatenated them.

The CATX function removed both leading and trailing spaces from each string and then concatenated them using a dash (-) as a delimiter.

When working with these concatenation functions on your own data, feel free to use whichever one is most suitable for your situation.

The following tutorials explain how to perform other

common tasks in SAS:

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