

How can the FINDC function be used in SAS?

Authored by
stats writer

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FINDC is a SAS function that is used to search for a specific character or string within a given text or variable. It can be used in SAS programming to locate and extract specific information from large datasets, such as identifying and retrieving specific records or values. FINDC can also be used to manipulate and clean data by replacing or removing certain characters within a string. This function is particularly useful for data analysis and data management tasks, as it provides a quick and efficient way to search and manipulate text data in SAS.

Use the FINDC Function in SAS

You can use the FINDC function in SAS to return the position of the first occurrence of any individual character within a string.

This function uses the following basic syntax:

FINDC(string, charlist)

where:

string: The string to analyze
charlist: The list of characters to search for within *source*

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

Example: Using the FINDC Function in SAS

Suppose we have the following dataset in SAS that contains a column of names:

```
/*create dataset*/  
data original_data;  
input name $25.;  
datalines;  
Andy Lincoln Bernard  
Barren Michael Smith  
Chad Simpson Arnolds  
Derrick Smith Henrys  
Eric Millerton Smith  
Frank Giovanni Goode  
;  
run;  
  
/*view dataset*/  
proc printdata=original_data;
```

Obs	name
1	Andy Lincoln Bernard
2	Barren Michael Smith
3	Chad Simpson Arnolds
4	Derrick Smith Henrys
5	Eric Millerton Smith
6	Frank Giovanni Goode

We can use the FINDC function to search for the

position of the first occurrence of the characters x, y or z:

```
/*find position of first occurrence of either x, y or z in  
name*/
```

```
data new_data;
```

```
set original_data;
```

```
first_xyz = findc(name, 'xyz');
```

```
run;
```

```
/*view results*/
```

```
proc printdata=new_data;
```

Obs	name	first_xyz
1	Andy Lincoln Bernard	4
2	Barren Michael Smith	0
3	Chad Simpson Arnolds	0
4	Derrick Smith Henrys	19
5	Eric Millerton Smith	0
6	Frank Giovanni Goode	0

The new column called first_xyz displays the position of the first occurrence of the characters x, y or z in the name column.

If none of these three characters are present in the

name column, then the FINDC function simply returns a value of 0.

For example, from the output we can see:

The position of the first occurrence of x, y or z in the first row is in position 4. We can see that the character in position 4 in the first row is a y.

And so on.

The Difference BETWEEN FIND and FINDC Functions

The FIND function in SAS returns the position of the first occurrence of a particular substring in another string.

The following example illustrates the difference between the FIND and FINDC functions:

```
/*create new dataset*/  
data new_data;  
set original_data;  
find_smith = find(name, 'Smith');  
findc_smith = findc(name, 'Smith');  
run;
```

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

Obs	name	find_smith	findc_smith
1	Andy Lincoln Bernard	0	7
2	Barren Michael Smith	16	9
3	Chad Simpson Arnolds	0	2
4	Derrick Smith Henrys	9	5
5	Eric Millerton Smith	16	3
6	Frank Giovanni Goode	0	8

The **find_smith** column displays the position of the first occurrence of the substring 'Smith' in the name column.

The **findc_smith** column displays the position of the first occurrence of the letters s, m, i, torh in the name column.

For example, from the output we can see:

The substring 'Smith' never occurs in the first name so **find_smith** returns a value of 0.

The letter i occurs in the 7th position of the first name so **findc_smith** returns a value of 7.

And so on.

The following tutorials explain how to use other common functions in SAS:

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