

# How do you use the FIND function in SAS, and what are some examples of its usage?

Authored by  
**stats writer**

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The FIND function in SAS is a powerful tool that allows users to search for a specific character or substring within a given string or variable. It is commonly used in data manipulation and analysis tasks to identify patterns and extract information from text data.

To use the FIND function, the user must specify the string or variable to be searched, as well as the character or substring to be found. The function will then return the position of the first occurrence of the specified character or substring within the string. If the character or substring is not found, the function will return a value of 0.

For example, suppose we have a variable called "product\_name" that contains the names of various products. We can use the FIND function to search for the word "apple" within this variable. If the word is found, the function will return the position of the first "a" in the word "apple". If the word is not found, the function will return a value of 0.

Another example of using the FIND function is to extract a specific part of a string. For instance, if we have a variable called "address" that contains a full address including street name, city, and state, we can use the FIND function to extract just the state abbreviation. By searching for the string "CA" within the "address" variable, the function will return the position of the first "C" in "CA", which can then be used to extract the state abbreviation.

In summary, the FIND function in SAS is a useful tool for searching and extracting information from text data. Its versatility makes it a valuable function in data manipulation and analysis tasks.

## Use the FIND Function in SAS (With Examples)

**You can use the FIND function in SAS to find the position of the first occurrence of some substring within a string.**

**Here are the two most common ways to use this function:**

### Method 1: Find Position of First Occurrence of String

```
data new_data; set original_data; first_occurrence =  
find(variable_name, "string");  
run;
```

## Method 2: Find Position of First Occurrence of String (Ignoring Case)

```
data new_data;  
set original_data;  
first_occurrence = find(variable_name, "string", "i");  
run;
```

The "i" argument tells SAS to ignore the case when searching for the substring.

The following examples show how to use each method with the following dataset in SAS:

```
/*create dataset*/  
data original_data;  
input phrase $1-25;  
datalines;
```

The fox ran fast

That is a quick FOX

This fox is a slow fox

## The zebra is cool

;

```
run;/*view dataset*/
```

```
proc printdata=original_data;
```

Obs	phrase
1	The fox ran fast
2	That is a quick FOX
3	This fox is a slow fox
4	The zebra is cool

### Example 1: Find Position of First Occurrence of String

The following code shows how to find the position of the first occurrence of "fox" in each string:

```
data new_data;  
set original_data;  
first_fox = find(phrase, "fox");  
run;
```

Obs	phrase	first_fox
1	The fox ran fast	5
2	That is a quick FOX	0
3	This fox is a slow fox	6
4	The zebra is cool	0

## Here's how to interpret the output:

The fox ran fast (First occurrence is at position 5) That is a quick FOX (The lowercase string "fox" never occurs) This fox is a slow fox (First occurrence is at position 6) The zebra is cool (The string "fox" never occurs)

### Example 2: Find Position of First Occurrence of String (Ignoring Case)

```
data new_data;  
set original_data;  
first_fox = find(phrase, "fox", "i");  
run;
```

Obs	phrase	first_fox
1	The fox ran fast	5
2	That is a quick FOX	17
3	This fox is a slow fox	6
4	The zebra is cool	0

## Here's how to interpret the output:

The fox ran fast (First occurrence is at position 5) That is a quick FOX (First occurrence of "fox" is at position 17) This fox is a slow fox (First occurrence is at position 6) The zebra is cool (The string "fox" never occurs)

## 6)The zebra is cool (The string "fox" never occurs)

### Additional Resources

The following tutorials explain how to perform other common tasks in SAS:

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