

How to Easily Convert Character Variables to Numeric in SAS

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In SAS, a character variable can be converted to a numeric variable by using the INPUT function. This function takes the character variable as an argument and assigns it a numeric value based on the informat specified. For example, if the informat is 8.2, then the character variable will be assigned a two-decimal numeric value. Additionally, the PUT function can be used to reverse the conversion from numeric to character.

You can use the **input()** function in SAS to convert a character variable to a numeric variable.

This function uses the following basic syntax:

```
numeric_var = input(character_var, comma9.);
```

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

Example: Convert Character Variable to Numeric in SAS

Suppose we have the following dataset in SAS that shows the total sales made by some store during 10 consecutive days:

```
/*create dataset*/
```

```
data original_data;
```

```
input day $ sales;
```

```
datalines;
```

```
1 7
```

```
2 12
```

```
3 15
```

```
4 14
```

```
5 13
```

```
6 11
```

```
7 10
```

```
8 16
```

```
9 18
```

```
10 24
```

```
;
```

```
run;
```

```
/*view dataset*/
```

```
proc print data=original_data;
```

Obs	day	sales
1	1	7
2	2	12
3	3	15
4	4	14
5	5	13
6	6	11
7	7	10
8	8	16
9	9	18
10	10	24

We can use **proc contents** to view the data type of each variable in the dataset:

```
/*display data type for each variable*/  
proc contents data=original_data;
```

Alphabetic List of Variables and Attributes			
#	Variable	Type	Len
1	day	Char	8
2	sales	Num	8

We can see that **day** is a character variable and **sales** is a numeric variable.

We can use the following code to create a new dataset in which we convert the **day** variable from character to numeric:

```
/*create new dataset where 'day' is numeric*/  
data new_data;  
set original_data;  
numeric_day = input(day, comma9.);  
drop day;  
run;
```

```
/*view new dataset*/  
proc print data=new_data;
```

Obs	sales	numeric_day
1	7	1
2	12	2
3	15	3
4	14	4
5	13	5
6	11	6
7	10	7
8	16	8
9	18	9
10	24	10

Note: We used the **drop** function to drop the original day variable from the dataset.

```
/*display data type for each variable in new dataset*/  
proc contents data=new_data;
```

Alphabetic List of Variables and Attributes			
#	Variable	Type	Len
2	numeric_day	Num	8
1	sales	Num	8

We can see that the new variable we created, **numeric_day**, is a numeric variable.

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