

How can PROC TRANSPOSE be used in SAS?

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PROC TRANSPOSE is a powerful SAS procedure that allows for the transformation of data from a vertical to a horizontal format, or vice versa. This procedure is particularly useful in situations where data needs to be restructured or rearranged for easier analysis and reporting. By specifying the appropriate variables and options, PROC TRANSPOSE can efficiently transpose data tables, merge data sets, and create new variables. It also offers various options for handling missing values and duplicate observations. Overall, PROC TRANSPOSE provides a flexible and efficient method for manipulating data in SAS and can greatly enhance data analysis and reporting capabilities.

Use PROC TRANSPOSE in SAS (With Examples)

You can use PROC TRANSPOSE in SAS to quickly transpose a dataset from a .

This function uses the following basic syntax:

```
proc transpose data=long_data out=wide_data;  
by var1;  
id var2;  
var var3;  
run;
```

where:

by: The variable to place along the rows
id: The variable to place along the columns
var: The variable whose values are placed within the dataset

The following example shows how to use PROC TRANSPOSE in practice.

Example: How to Use PROC TRANSPOSE in SAS

Suppose we have the following dataset in a long format in SAS:

```
/*create dataset in long format*/  
data long_data;  
input team $ variable $ value;  
datalines;  
A Points 88  
A Assists 12  
A Rebounds 22  
B Points 91  
B Assists 17  
B Rebounds 28  
C Points 99  
C Assists 24  
C Rebounds 30  
D Points 94  
D Assists 28  
D Rebounds 31  
;
```

```
run;
```

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

Obs	team	variable	value
1	A	Points	88
2	A	Assists	12
3	A	Rebounds	22
4	B	Points	91
5	B	Assists	17
6	B	Rebounds	28
7	C	Points	99
8	C	Assists	24
9	C	Rebounds	30
10	D	Points	94
11	D	Assists	28
12	D	Rebounds	31

We can use PROC TRANSPOSE to convert this dataset from a long format to a wide format:

```
/*create new dataset in wide format*/
```

```
proc transposedata=long_data out=wide_data;
```

```
by team;
```

```
id variable;
```

```
var value;
```

```
run;
```

```
/*view wide data*/
```

```
proc printdata=wide_data;
```

Obs	team	_NAME_	Points	Assists	Rebounds
1	A	value	88	12	22
2	B	value	91	17	28
3	C	value	99	24	30
4	D	value	94	28	31

Notice that this dataset contains the same information as the previous dataset, but it's simply displayed in a wide format.

By default, SAS creates a `_NAME_` variable that shows which variable is used for the values in the dataset.

Feel free to use the `DROP` statement to drop this variable when using `PROC TRANSPOSE`:

```
/*create new dataset in wide format*/  
proc          transposedata=long_data  
out=wide_data(drop=_name_);  
by team;  
id variable;  
var value;  
run;
```

```
/*view wide data*/
```

```
proc printdata=wide_data;
```

Obs	team	Points	Assists	Rebounds
1	A	88	12	22
2	B	91	17	28
3	C	99	24	30
4	D	94	28	31

Notice that the `_NAME_` variable has been dropped from the dataset.

Additional Resources

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