

How can a DO UNTIL statement be used in SAS?

Authored by
stats writer

June 23, 2024

RECOMMENDED CITATION

stats writer (2024). *How can a DO UNTIL statement be used in SAS?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=148104>

A DO UNTIL statement in SAS is a looping construct that allows a set of SAS statements to be executed repeatedly until a specified condition is met. This allows for efficient and flexible programming, as the number of iterations is not predetermined and can vary based on the condition. The DO UNTIL statement is typically used to validate data or perform calculations until a certain threshold is reached. It is an effective tool for controlling the flow of SAS programs and ensuring accurate results.

Use a DO UNTIL Statement in SAS

You can use a DO UNTIL statement in SAS to do some loop over and over until some condition has been met.

The following examples show two different ways to use this statement in practice.

Example 1: DO UNTIL Statement in SAS

The following code shows how to use a DO UNTIL statement in SAS to create a dataset that contains two variables called var1 and var2 that continue to generate new values until the value of var1 is greater than 100:

```
/*create dataset using DO UNTIL statement*/
```

```
data my_data;
```

```
var1 = 1;
```

```
var2 = 1;
```

```
do until(var1 > 100);
```

```
var1 = var1 + var2;  
var2 = var1 * var2;  
var1 + 1;  
  
output;  
  
end;  
  
run;  
  
/*view dataset*/  
proc printdata=my_data;
```

Obs	var1	var2
1	3	2
2	6	10
3	17	160
4	178	28320

The DO UNTIL statement continued to generate new values for var1 and var2 until the value of var1 was greater than 100.

Once the value of var1 exceeded 100, the DO UNTIL statement stopped and new values stopped being added to the dataset.

Example 2: DO UNTIL Statement with TO Statement in SAS

The following code shows how to use a DO UNTIL statement with a TO statement in SAS to create a dataset that contains two variables called var1 and var2 that continue to generate new values until the value of var1 is greater than 10:

```
/*create dataset using DO UNTIL statement with TO  
statement*/  
data my_data;  
  
var1 = 0;  
  
do var2 = 1 to 5 until(var1 > 10);  
var1 = var2**2;  
  
output;  
  
end;  
  
run;  
  
/*view dataset*/  
proc printdata=my_data;
```

Obs	var1	var2
1	1	1
2	4	2
3	9	3
4	16	4

The **TO** statement told **SAS** to attempt to generate values for **var2** ranging from 1 to 5 but only until the value of **var1** was greater than 10.

Once the value of **var1** exceeded 10, the **DO UNTIL** statement stopped and new values stopped getting added to the dataset.

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