



Conditional Processing with IF-THEN

Scenario

Use IF-THEN syntax to assign values conditionally to a new column.

Files

- **p104d05.sas**
- **storm_summary** – a SAS table that contains one row per storm for the 1980 through 2016 storm seasons

Syntax

```
IF expression THEN statement;
```

Notes

- The expression following IF defines a condition that is evaluated as true or false for each row.
- If the condition is true, the statement following THEN is executed.
- Only one statement is permitted after THEN.

Demo

1. Open **p104d05.sas** from the **demos** folder and find the **Demo** section of the program. Create a column named **PressureGroup** that is based on the following assignments:

MinPressure ≤ 920 ⇒ 1

MinPressure > 920 ⇒ 0

```
data storm_new;  
  set pgl.storm_summary;  
  keep Season Name Basin MinPressure PressureGroup;  
  *Add IF-THEN statements;  
  if MinPressure ≤ 920 then PressureGroup=1;  
  if MinPressure > 920 then PressureGroup=0;  
run;
```

2. Highlight the DATA step, run the selected code, and examine the data. What value is assigned to **PressureGroup** when **MinPressure** is missing?
3. Add a new IF-THEN statement **before** the existing IF-THEN statements to assign **PressureGroup=.** if **MinPressure** is missing.

```
data storm_new;  
  set pgl.storm_summary;  
  keep Season Name Basin MinPressure PressureGroup;  
  *Add IF-THEN statements;  
  if MinPressure=. then PressureGroup=.;  
  if MinPressure ≤ 920 then PressureGroup=1;  
  if MinPressure > 920 then PressureGroup=0;  
run;
```

4. Highlight the DATA step and run the selected code. What value is assigned to **PressureGroup**?

When MinPressure is missing, the first two IF conditions are true. The last assignment statement determines the value of PressureGroup.

	 Season	 Name	 Basin	 MinPressure	 PressureGroup
1	1980		na	.	1
2	1980		SP	998	0
3	1980	AGATHA	EP	.	1
4	1980	ALBINE	SI	.	1
5	1980	ALEX	WP	998	0
6	1980	ALLEN	NA	899	1
7	1980	AMY	SI	915	1
8	1980	BERENICE	SI		1

End of Demonstration