

The simplest and most common way to group observations and address all conditions is with a series of IF-THEN statements. By adding the keyword ELSE to your IF statements, you can tell SAS that these statements are related.

IF-THEN/ELSE logic takes this basic form:

IF condition THEN action;

ELSE *IF condition THEN action;*

ELSE *IF condition THEN action;*

Notice that the ELSE statement is simply an IF-THEN statement with an ELSE tacked onto the front. You can have any number of these statements.



IF-THEN/ELSE logic has two advantages when compared to a simple series of IF-THEN statements without any ELSE statements.

- First, it is more efficient, using less computer time; once an observation satisfies a condition, SAS skips the rest of the series.
- Second, ELSE logic ensures that your groups are mutually exclusive so you don't accidentally have an observation fitting into more than one group.



Sometimes **the last ELSE statement** in a series is a little different, containing just an action, with no IF or THEN. Please note the final ELSE statement in this series below:

IF *condition* THEN *action*;

ELSE IF *condition* THEN *action*;

ELSE *action*;

An ELSE of this kind becomes a default which is automatically executed for all observations failing to satisfy any of the previous IF statements. You can only have one of these statements, and it must be the last in the IF-THEN/ELSE series.

