Welcome to PC Expert Help.

Excel 2007

Averaging using the IF function and Array formula

To create an average of a particular group of cells you can use the Average function in conjuction with the IF function. This can be very handy for working out the averages of a group of options within a larger group.

Following the example below we want to see what the average lifespan of a set of tires are compared to the laps that they complete.

	A	B	C
1	Tire	Laps	
2	Slick	10	
3	Slick	11	
4	Medium	5	
5	Long	12	
6	Medium	15	
7	Medium	14	
8	Long	16	
9	Long	14	
10	Medium	4	
11	Slick	12	
12	Slick	25	
13	Medium	15	
14	Long	24	
15			
16			

We have our basic information as shown above, however to find out and keep the information of how long, on average, the tires last we need to use a nested function using the Average and the IF function

	A	B	C	D	E	F
1					Average Life of Tires	
2	Tire	Laps		Slick	Medium	Long
3	Slick	10				
4	Slick	11				
5	Medium	5				
6	Long	12				
7	Medium	15				
8	Medium	14				
9	Long	16				
10	Long	14				
11	Medium	4				
12	Slick	12				
13	Slick	25				
14	Medium	15				
15	Long	24				

Next we have to insert the functions to get what we need

Under the Slick tire type in the following formula

=AVERAGE(IF(A2:A14="Slick",B2:B14,""))

This formula will average all the slick tires. To complete this formula we need to make it an Array formula, to do this once you have typed in the last bracket ") " press the Ctrl key down and the Shift key and press enter, this will make the formual an array and add extra brackets }.

It should look like this.

f_x {=AVERAGE(IF(A2:A14="Slick",B2:B14,""))}

	D	E	F	G	H
	Slick	Medium	Long		
	14.5	10.6	16.5		

That's it, complete the rest of the formula's and you now have the average life of your tires.