HelpSheet: VLOOKUP (Hide Errors) Function

Introduction

Background
Many of the Functions contained in Excel are only partially used. Consequently their effect is diluted and the reports which use them are not as powerful as they should be.

Hit The Ground Sprinting are producing a series of videos which, when used in conjunction with a Helpsheet such as this, will fully explore not only individual Excel Functions but will also examine how different Functions can be combined for even more effective reporting and the introduction of End User interactivity.

If you have not read the Helpsheet How Single Functions Work we suggest you do so before commencing this Helpsheet, as the theory behind how Functions work will help your understanding of the process.

Introduction
This helpsheet should be used in conjunction with the VLOOKUP (Hide Errors) video produced by Hit The Ground Sprinting details of which can be found at www.hitthegroundsprinting.com

Function Purpose
The Function shows you how to hide errors when using the VLOOKUP Function.

Video Commentary
Watch the Video, read the Helpsheet. Watch the Video again and do examples.

This Video explains how the VLOOKUP Function shows errors, and how they can be hidden by adjusting the Function by adding in other Functions.

The Function (or 'Nested' Functions) demonstrated is complex, so is explained one part at a time.

Beginners are advised not to start with this Function if it is the first one they have viewed, but go to www.hitthegroundsprinting.com and look at some of the other Videos first.

Anyone with no knowledge of VLOOKUP Functions is advised NOT to start here before viewing our other Video VLOOKUP (Details Explained) about the basics of VLOOKUP, details of which can be found at www.hitthegroundsprinting.com

The box to the right of the VLookup Function defines it as 'Looks for a value in the left hand column of a table, and then returns a value in the same row from a column you specify. By default the table must be sorted in ascending order'

This video explains how to hide the '#N/A' value by nesting the VLOOKUP Function within two other Functions, the IF Function and the ISNA Function.

If you are not used to nesting Functions do not panic. Tracing through step by step will enable you to build up the Functions in a logical and accurate manner.

The video starts where the video 'VLOOKUP Function (Flexible Criteria)' ends, demonstrating that if a value in the 'table_array' left hand column is found then the value in the corresponding 'col_index_num' column will be returned as the answer.

A value of '3' would be returned.

If you have not seen the video 'VLOOKUP Function (Flexible Criteria)' please go to www.hitthegroundsprinting.com for further details before proceeding with this video.

However if 'Tim' replaces 'Colin' in cell 'H3' a value of '#N/A' is returned, as 'Tim' does not occur between cells 'D4' and 'D10' inclusive.

The Function (or rather nested Functions) used to return a value other than '#N/A' is quite complicated on paper, but if broken down into logical pieces it falls in to place quite easily.

The completed function looks like this

Looking at the Function itself in more detail.

=if(isna(vlookup(h3,d4:f10,3,false))=true,"",vlookup(h3,d4:f10,3,false))

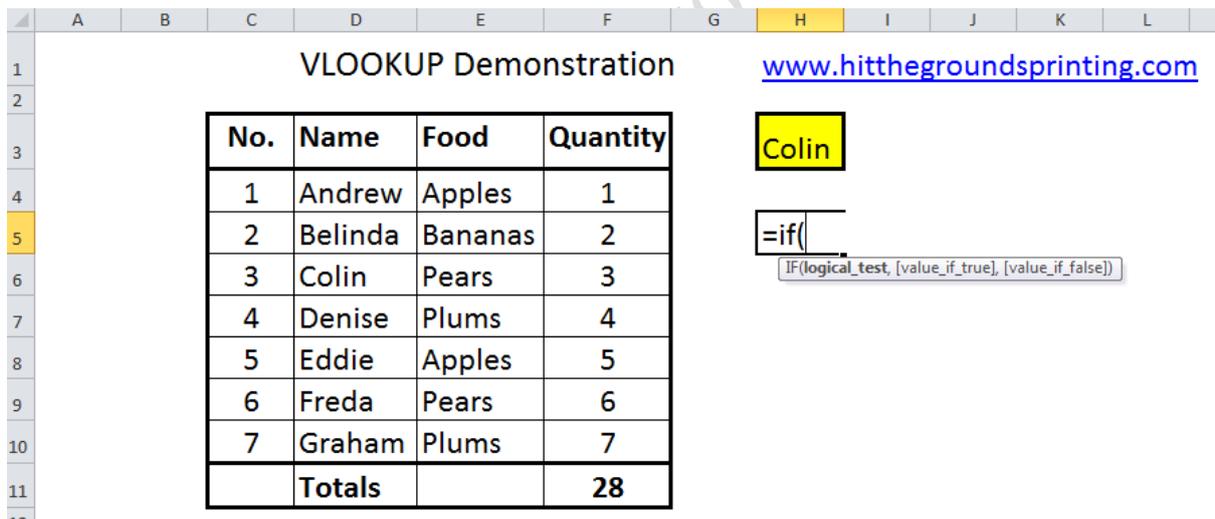Whilst this looks complicated the Function itself has added elements to help, and helps as the Function is entered.

Starting from the left the breakdown is.

=if(isna(vlookup(h3,d4:f10,3,false))=true,

""

vlookup(h3,d4:f10,3,false)

)

The first element will be broken down again as we proceed with the explanation.

=if : Checks whether a condition is met and returns one value if TRUE and another if FALSE

Putting in the bracket then gives us a definition of what the IF Function does.

	A	B	C	D	E	F	G	H	I	J	K	L
1				VLOOKUP Demonstration				www.hitthegroundsprinting.com				
2												
3			No.	Name	Food	Quantity		Colin				
4			1	Andrew	Apples	1						
5			2	Belinda	Bananas	2		=if(				
6			3	Colin	Pears	3		IF(**logical_test**, [value_if_true], [value_if_false])				
7			4	Denise	Plums	4						
8			5	Eddie	Apples	5						
9			6	Freda	Pears	6						
10			7	Graham	Plums	7						
11				Totals		28						

The box to the right of the IF Function defines it as 'Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE'

Therefore we need to put in the following

'logical_test' (which is in **bold** as it is the element of the Function currently being entered. It will consist of a test on the data, for example do the contents of cell 'A1' match the contents of cell 'B1'. In our example we are testing to see if the VLOOKUP criteria we have entered return a valid result or an error)

'value_if_true' (a value to put in if the answer to the logical test is TRUE)

'value_if_false' (a value to put in if the answer to the logical test is FALSE)

Continuing with the Formula we type in 'isna'

We have now nested a Function ('ISNA' within 'IF')

The box to the right of the ISNA Function defines it as 'Checks whether a value is #N/A and returns TRUE or FALSE'

Adding another bracket, which is green, produces the following screen.

We now know that ISNA has to have a value in it. The value will be the VLOOKUP Function we wish to see if we have a correct answer for.

Entering this we get

=if(isna(vlookup(h3,d4:f10,3,false)

Note that the VLOOKUP element is separated from the rest of the Formula by being enclosed in purple brackets.

Putting in another bracket (to close the ISNA Function section of the Formula) we get

=if(isna(vlookup(h3,d4:f10,3,false))

So not only is the VLOOKUP Function enclosed in purple brackets the ISNA Function is enclosed in green ones.

We enter '=true' to come and have now completed the end of the first part, the 'logical_test'

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1				VLOOKUP Demonstration				www.hitthegroundsprinting.com									
2																	
3			No.	Name	Food	Quantity		Colin									
4			1	Andrew	Apples	1											
5			2	Belinda	Bananas	2		=if(isna(vlookup(h3,d4:f10,3,false))=true								
6			3	Colin	Pears	3											
7			4	Denise	Plums	4											
8			5	Eddie	Apples	5											
9			6	Freda	Pears	6											
10			7	Graham	Plums	7											
11				Totals		28											
12																	

IF(**logical_test**, [value_if_true], [value_if_false])   Returns the logical value TRUE   TRUE

Putting in a comma goes to the next part of the IF Function (the ISNA Function is now complete)

We are now required to put in a value if the ISNA Function element is TRUE ('[value_if_true]). If it is TRUE then we will return '#N/A' as an answer, and if we get '#N/A' as the answer we wish to replace it with something else, and that something else is nothing, so we enter in double quotation marks with nothing in between them.

=if(isna(vlookup(h3,d4:f10,3,false))=true,""

IF(logical_test, **[value_if_true]**, [value_if_false])

Another comma takes us to the last part of the IF Function, the value if FALSE (in other words if '#N/A' is not the answer).

This is just a repeat of the previous VLOOKUP Function.

So we get as a final complete VLOOKUP Function enclosed in green brackets.

=if(isna(vlookup(h3,d4:f10,3,false))=true,"",vlookup(h3,d4:f10,3,false)

The last item is to add a closing bracket on the end (thus the Formula starts and ends in a black bracket).

=if(isna(vlookup(h3,d4:f10,3,false))=true,"",vlookup(h3,d4:f10,3,false))

A breakdown of what we did

IF checks to see whether a value of '#N/A' has been returned, in which case it the answer is TRUE.

If the answer is TRUE then double quotations '""' are returned as the answer.

If the answer is FALSE then another VLOOKUP Function is run identical to the previous one which returns the correct answer.

Putting 'Colin' in to 'H3' gave a value of '3' because that is what is returned for 'Colin'

Replacing this with 'Freda' gives a value of '6'

As practice makes perfect apply the above at every practical opportunity

Finally

This Helpsheet was written by Norman of Hit The Ground Sprinting Ltd. Its distribution if Free but please acknowledge the author and company in any communications concerning it. Further it is intended for guidance purposes only. For more information and other Helpsheets please check out the website www.hitthegroundsprinting.com or contact by email on norman@hitthegroundsprinting.com