

# UGSolutions

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## New Search

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PRODUCT: NX  
SUBJECT: Syntax for Expression Functions [ug\\_cell\\_hlookup](#) and [ug\\_cell\\_vlookup](#)

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PLATFORM: INTEL	OPERATING SYSTEM: WINDOW
OS VERSION: XP32_SP2	PRODUCT VERSION: V4, V5 and V6

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### HARDWARE/SOFTWARE CONFIGURATION

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Platform: INTEL  
OS: WINDOW  
OS Version: XP32\_SP2

Family: NX  
Application: DESIGN  
Function: EXPRESSION  
Subfunction: FUNCTION\_BUILDR  
Release: V4, V5 and V6

### SYMPTOM/PROBLEM

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What is the exact syntax to use for the following Expression Functions:

[ug\\_cell\\_hlookup](#)  
[ug\\_cell\\_vlookup](#)

In Tools -> Expression dialog, click on Functions button to initiate Insert Function dialog, set the Category to spreadsheet; there are functions named [ug\\_cell\\_hlookup](#) and [ug\\_cell\\_vlookup](#). What are the meanings for the function arguments for these functions?

### SOLUTION/WORKAROUND

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The following explains [ug\\_cell\\_hlookup](#), which can apply to [ug\\_cell\\_vlookup](#)

In the [ug\\_cell\\_hlookup](#) function dialog:

Specify a spreadsheet = user must indicate from which xls file to perform the lookup within.

Specify the lookup target = is the value to be found in the top row of the specified table range. This can be a value, a reference, or a text string (example: Bolts ; this looks for cell that contains the string "Bolts"; Top row does not necessary mean First row).

Specify a table range = The range of cells to perform the lookup with (example: A2:C4 ; this looks for cells from A2 to C4).

Specify the offset to the data cell =Once the column of the target is found; the offset is the number of rows to move down for the return data.

Specify the kind of lookup in the table = This mode flag works for cases where the table is numeric values and take effect when the target value falls between two cells in the table. The mode is ignored for tables where the target row or column contains text. The modes are:

0=Requires an exact match  
1>Returns the higher cell  
2>Returns the lower cell  
3>Returns the closest cell

Below is an example to put this all together:  
The content of D:\temp\Book3.xls is shown below:

	A	B	C
1	new	old	same
2	Axles	Bearings	Bolts
3	4	7	10
4	5	8	11
5	6	9	12

Enter the dialog for the function `ug_cell_hlookup`:  
Specify a spreadsheet = D:\temp\Book3.xls

Specify the lookup target = Bolts (this looks for cell that contains the string "Bolts"; Top row does not necessary mean First row)

Specify a table range = A2:C5 (this looks for cells from A2 to C5, we're not including row 1 because "Bolt" is in row 2)

Specify the offset to the data cell = 2 (this is the number of row to offset from target)

Specify the kind of lookup in the table = 0

OK the dialog and following user defined expression named GTAC will show up:  
GTAC=`ug_cell_hlookup`( "D:\temp\Book3.xls", "Bolts", "A2:C5", 2, 0 )  
and its expression value is 11

More info on Specify a table range -  
when you are using target from a row that is not the top row (say row 2 for example), then you must set your range value such that the beginning of the range is the same row as your target, so if we used A1 in the above example, it fails, because Excel is looking only in row 1 for your specified target value. The correct range for above example would start from A2. According to Excel help doc on HLOOKUP function, the row number of target must be the very top row for range specification.

`ug_cell_hlookup` and `ug_cell_vlookup`

These are actually Microsoft Excel functions, additional info can be found in Excel Help Doc, look for "HLOOKUP" and "VLOOKUP".

REFERENCES/NOTES

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