

Re: Permutations – 8 columns

Source: <http://www.tech-archive.net/Archive/Excel/microsoft.public.excel.programming/2005-03/0388.html>

From: Sandip (*sansshah01_at_yahoo.com*)

Date: 03/01/05

Date: 28 Feb 2005 23:20:38 -0800

Hi,

Thanks Markos for your input. I was told not to put the email address which I regularly use since spamsters pick the emails from here. I tried both yours and Tom's VB code and they work fine.

Appreciate your help.

Tim, I agree that the method suggested by you is the right and the best solution, however until I get the necessary permissions to use excel SQL driver to access the database, I will have to use the long way to getting a list by permutation of various columns.

Thanks a lot.

Bye

Sandip.

Markos wrote:

> *sansshah01@yahoo.com* wrote:

> > *Hi,*

> >

> > *I have gone through various posts in this group for the solution of a*

> > *permutation I require but could not find one.*

> >

> > *The data I have is as follows in eight columns*

> >

> > *Col A Col B Col C Col D Col E etc*

> > *Period Account Currency Code Country etc*

> > *Nov-04 99700 USD 1234 USA*

> > *Dec-04 51000 2270 EUR*

> > *61000 2568 IND*

> > *38000*

> >

> > *I need to have a macro which would give me a combination of data in*

> > *various columns into a database format. There can be additions to the*

> > *information in some of the columns for eg. incase a new account is*

> > *created.*
> >
> > *The output on another sheet needs to be as follows*
> >
> > *for eg.*
> > *Col A Col B Col C Col D Col E etc*
> > *Period Account Currency Code Country etc*
> > *Nov-04 99700 USD 1234 USA*
> > *Nov-04 99700 USD 1234 EUR*
> > *Nov-04 99700 USD 1234 IND*
> > *Nov-04 99700 USD 2270 USA*
> >
> > *Let me provide a background on why I am following this process*
since if
> > *someone has a better suggestion for arrive at the end result, I am*
open
> > *for it.*
> >
> > *We have a database where all the financial information is stored.*
We
> > *are not allowed to extract the information directly from the*
database
> > *in a tabular form. However using Excel retrieve I am allowed to*
extract
> > *the information based on various paramaters and unique variables of*
> > *each parameter is being listed by me as shown in the first table.*
> >
> > *After having a permutation of various cols and parameters, I will*
be
> > *adding an amount column which would provide the information*
retrieved
> > *based on the unique combination of 8 columns / 8 parameters.*
> >
> > *Anyone's help is highly appreciated.*
> >
> > *Regards*
> > *Sandip.*
> >
> *Hello, Sandip.*
>
> *This is probably going to seem lame to all the brilliant folks out*
there
> *(and I tried to send this to you privately to save myself some*
> *embarrassment), but here it is:*
>
> *I would do this using a procedure that filled an array, and then*
copied
> *the results to your target worksheet. I'll restrict it to 3 columns*
to
> *make it a bit easier to read.*
>

```
> First, here is the listing:
> *****
>
> Option Base 1
>
> Function GetLastRow(ColumnNumber) As Long
>
> Cells(65536, ColumnNumber).Select
> Selection.End(xlUp).Select
> GetLastRow = Selection.Row
> End Function
>
> Sub CreatePermutations()
> Const OFFSET_ROW = 1
> Const NUMBER_OF_COLUMNS = 3
> Const PERIOD_COL = 1
> Const ACCOUNT_COL = 2
> Const CURRENCY_COL = 3
>
> Dim TotalPeriods As Long, iPeriod As Long
> Dim TotalAccounts As Long, iAccount As Long
> Dim TotalCurrencies As Long, iCurrency As Long
> Dim arrTemp(), arrPointer As Long
>
> TotalPeriods = GetLastRow(PERIOD_COL) – OFFSET_ROW
> TotalAccounts = GetLastRow(ACCOUNT_COL) – OFFSET_ROW
> TotalCurrencies = GetLastRow(CURRENCY_COL) – OFFSET_ROW
>
> ReDim arrTemp(TotalPeriods * TotalAccounts * TotalCurrencies,
> NUMBER_OF_COLUMNS)
> arrPointer = 1
>
> For iPeriod = 1 To TotalPeriods
> For iAccount = 1 To TotalAccounts
> For iCurrency = 1 To TotalCurrencies
> arrTemp(arrPointer, PERIOD_COL) = _
> Cells(iPeriod + OFFSET_ROW, PERIOD_COL)
> arrTemp(arrPointer, ACCOUNT_COL) = _
> Cells(iAccount + OFFSET_ROW, ACCOUNT_COL)
> arrTemp(arrPointer, CURRENCY_COL) = _
> Cells(iCurrency + OFFSET_ROW, CURRENCY_COL)
> arrPointer = arrPointer + 1
> Next
> Next iAccount
> Next iPeriod
>
> Sheets("TargetSheet").Activate
> Range(Cells(OFFSET_ROW + 1, 1), _
> Cells(UBound(arrTemp, 1) + 1, _
> NUMBER_OF_COLUMNS)).Value = arrTemp
> End Sub
```

>
> *Okay, here's the explanation:*
>
> *At the top of the code module, type "Option Base 1", which tells Excel*
> *to use "1" as the first item in an array instead of zero (0). This isn't*
> *strictly required, but it makes the code a little cleaner later on.*
Then,
> *the GetLastRow function is created because we don't like to write the*

> *same code more than once and we are going to find out how many rows*
> *are in each column.*
>
> *Then, to make things easier to keep track of, we use names for the*
> *columns, although it's fine to use the column number, if you want.*
>
> *The number of total possible combinations (as you probably already*
know)
> *is obtained by multiplying the number of each of the choices in each*
> *column. We declare and resize (REDIM) an array variable with the*
number
> *of rows (first dimension) the same as the number of possible*
> *combinations, and the number of columns (second dimension) the same*
as
> *the number of columns of data.*
>
> *We start the arrPointer variable to point to the first record (row)*
in
> *the now blank array, and then create nested loops that fill each row*
of
> *the array with all the possible combinations. Look carefully at the*
> *code. I've used very descriptive names, so that you can follow what's*
> *happening.*
>
> *When the array is full, the routine shifts to your target worksheet,*
and
> *transfers its data to the proper location on the sheet. Take note*
that
> *if you specify the total "receiving area" as I've done by using*
>
> *Range(Cells(OFFSET_ROW + 1, 1), Cells(UBound(arrTemp, 1) + 1, _*
> *NUMBER_OF_COLUMNS)).Value = arrTemp*
>
> *then you don't have to create another set of nested loops to put the*
> *data back into the worksheet. Specifying a single target cell for the*
> *upper-left-hand corner doesn't work, unfortunately, you have to do it*
> *the way I've shown. Also, this routine doesn't copy the column*
headers,
> *but I assume that you can handle that part on your own.*
>

microsoft.public.excel.programming: Re: Permutations – 8 columns

- > *If you have any questions, please feel free to email me. Again, I can*
- > *already hear people laughing out there, but I have to do this type of*
- > *chore on a very regular basis, and I know it works this way.*
- >
- > *Good Luck!*
- > *Mark*
- > _____
- > *Mark S Menikos*
- > *mark@brothers3.us*