



SAS Tips and Techniques

From Around the world

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“Tips and Techniques from around the world” , Phil Mason

What is the purpose of this book?

The purpose of the book is to provide tips to the SAS user. Tips range from basic to advanced and readers will certainly find useful tips on how to save time and effort.

The book received good reviews by some good authors (example: Art Carpenter).

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Strength and Weaknesses

Strength: Each chapter is organized from most useful to least useful tip. Chapters are concise and the table of contents is organized by topics (functions, data steps, macros, proc sql,...).

Weaknesses: Some examples are so concise you can't redo them. “Prerequisites” are not stated ahead.

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To whom the book would mostly benefit?

New SAS users with at least six months of experience eager to learn.

The tips assume a relatively good understanding of SAS.

Tips and techniques provide the user with a “shortcut” to advanced techniques.

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Did I learn anything?

Yes! And I'm still reading the book!

Examples:

- Viewing variable names and not labels by default.
- Create CSV files easily from data step.
- Putting numbers in macro variables.
- Creating and using macro variables at run time.
- View variable names and not labels by default.
- Autosaving SAS codes.
- Creating templates with graphics (logo).
- Incrementing/truncating by time intervals.

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Best tips or techniques addressed in this book.

- Creating Excel pivot tables directly from SAS.
- Creating and using macro variables at run time.

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Creating and using macro variables at run time.

```
%let x=0 ;  
data _null_ ;  
call execute('%let x=1 ;') ;  
x=resolve('&x') ;  
put x= ;  
run ;
```

Output: x=1;

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What is one new thing you learned from this book?

- Creating Excel pivot table from SAS.

```
%macro createpivottable(infile,xlsheet,rcols,hcols,dfields);  
/* Firstly use Proc Export to create the Excel Workbook */ proc  
export data=&infile outfile="&xlsheet" dbms=excel replace; run;  
data _null_; /* Open a text file which will be used to write VBA  
Commands to */ %let filrf=pivvbs; %let  
rc=%sysfunc(filename(filrf,'c:\sas\pivot.vbs')); %if &rc ne 0  
%then %put %sysfunc(sysmsg()); /* Create an instance of the  
Excel Automation Server */ %let fid=%sysfunc(fopen(&filrf,O));  
%if &rc ne 0 %then %put %sysfunc(sysmsg()); %let  
rc=%sysfunc(fput(&fid,Set XL =  
CreateObject("Excel.Application"))); /* Make Excel visible,  
otherwise there isn't a lot of point! */ %let  
rc=%sysfunc(fwrite(&fid,-)); %let  
rc=%sysfunc(fput(&fid,XL.Visible=True)); /* Open the newly  
created workbook */ %let rc=%sysfunc(fwrite(&fid,-)); %let  
wstring=XL.Workbooks.Open "&xlsheet";
```

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```
/* Determine the last cell in the range */ %let  
rc=%sysfunc(fput(&fid,&wstring)); %let rc=%sysfunc(fwrite(&fid,-));  
%let rc=%sysfunc(fput(&fid,Xllastcell= xl.cells.specialcells(11).address));  
%let rc=%sysfunc(fwrite(&fid,-)); /* Add a new worksheet to the  
workbook to hold the pivot table */ %let  
rc=%sysfunc(fput(&fid,XL.Sheets.Add.name = "PivotTable")); %let  
rc=%sysfunc(fwrite(&fid,-)); %let sname=%scan(&xlsheet,-2,\.); %let  
wstring=xldata="&sname"; %let rc=%sysfunc(fput(&fid,&wstring)); %let  
rc=%sysfunc(fwrite(&fid,-)); %let  
rc=%sysfunc(fput(&fid,XL.Sheets(xldata).select)); /* Start the pivot table  
wizard and set the range for the pivot table to the data previously  
exported */ %let rc=%sysfunc(fwrite(&fid,-)); %let  
wstring=%nrstr(XL.ActiveSheet.PivotTableWizard  
SourceType=xlDatabase,XL.Range("A1" & ":" &  
xllastcell),"Pivottable!R1C1",xldata)); %let  
rc=%sysfunc(fput(&fid,&wstring)); %let rc=%sysfunc(fwrite(&fid,-)); /*  
Loop through the list of row fields and set them in the pivot table */ %let  
i=0; %do %while(%scan(&rcols,&i+1,%str( )) ne %str( )); %let i =  
%eval(&i+1); %let var = %scan(&rcols,&i,%str( )); %let  
rc=%sysfunc(fput(&fid,XL.ActiveSheet.PivotTables(xldata).PivotFields("&v  
ar").Orientation = 1)) ; %let rc=%sysfunc(fwrite(&fid,-)); %end; %let  
i=0;
```

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```
/* Loop through the list of column fields and set them in the pivot table */
%do %while(%scan(&hcols,&i+1,%str( )) ne %str( )); %let i =
%eval(&i+1); %let var = %scan(&hcols,&i,%str( )); %let
rc=%sysfunc(fput(&fid,XL.ActiveSheet.PivotTables(xldata).PivotFields("&v
ar").Orientation =2)) ; %let rc=%sysfunc(fwrite(&fid,-)); %end; /* Loop
through the list of data fields and set them in the pivot table */ %let i=0;
%do %while(%scan(&dfields,&i+1,%str( )) ne %str( )); %let i =
%eval(&i+1); %let var = %scan(&dfields,&i,%str( )); %let
rc=%sysfunc(fput(&fid,XL.ActiveSheet.PivotTables(xldata).PivotFields("&v
ar").Orientation =4)) ; %let rc=%sysfunc(fwrite(&fid,-)); %end; /* Hide
the field list */ %let
rc=%sysfunc(fput(&fid,XL.Activeworkbook.ShowPivotTableFieldList =
False)); %let rc=%sysfunc(fwrite(&fid,-)); /* Close the file */ %let
rc=%sysfunc(fclose(&fid)); x "c:\sas\pivot.vbs"; run; %mend;
```

```
%createpivottable(sashelp.prdsale,c:\prdsale.xls,country region
division,quarter year month,actual predict);
```

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Are there other books (or sources of information) available with similar content?

<http://www.lexjansen.com/>

SUGI, NESUG and other papers.

However, you need to read far more to acquire as many tips as presented in the book.

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- •Contact Josée Blackburn at jblackburn@ohri.ca