The VanSUG Newsletter

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Who We Are

The Vancouver SAS Users Group (VanSUG) is an informal group of SAS users in the Vancouver area who meet and share their knowledge. There are no fees – we simply meet every spring and fall to have presentations, networking, and fun! Check us out at `vansug.ca`.

Newsletter Inputs

This newsletter is for and by the local Vancouver SAS community. If you'd like to contribute to a future newsletter, please email us at `vansug@gmail.com`!

Executive Team

President:
  Colleen McGahan
    (BC Cancer Agency)

Vice President:
  Suzanne Humphreys
    (Rick Hansen Institute)

Other Members:
  Scott Albrechtsen
    (BC Hydro)
  Núria Chapinal
    (Perinatal Services BC)
  Mei Chong
    (BC Centre for Disease Control)
  Julia Zhu (BC Centre for Excellence in HIV/AIDS)
  Jing Dong
    (BC Hydro)
  Eric Cai
    (BC Cancer Agency)

Executive Update

After 5 years working within the VanSUG executive team, Scott Albrechtsen will be leaving the VanSUG executive team to lead a BC Hydro SAS User Group. Thank you Scott for your contribution to VanSUG! This April, VanSUG Executive members Suzanne Humphreys and Jing Dong attended the SAS Global Forum 2015 in Dallas, TX. While there, they learned about many new updates in SAS Software. Feel free to ask them about some of these new features during the networking session.

PROC MSchart: Adding Native Excel Graphics to Your Excel Worksheets

Beginning in the production release of SAS 9.4 (TS1M3), it is planned for you to be able to generate native Excel graphs using the new MSCHART procedure. If you add PROC MSCHART within the ODS Excel destination, you can generate true native Excel graphics rather than having to embed an image. In the following example, PROC MSCHART is used to tie the graphic to the table. Therefore, any change in the table data also updates the graph. This action enables you to use the interactive capabilities of the native graph to do such things as add styles, filter, and modify chart elements. If you use this outside of ODS Excel, a simple image is generated.

```
/* Summarize the data. */
proc sql;
    create table summary as
    select(region), sum(sales) format=dollar14.2 as sales
    from sashelp.shoes
    group by region;
run;
quit;
ods excel file="c:\temp.xlsx";
title "Sales by Region";
proc mschart
    data=work.summary category=region
    width=4in position="$D$1";
    where region in("Africa","Asia","Canada",
            "Pacific","United States");
    vcolumn sales;
run;
ods excel close;
```
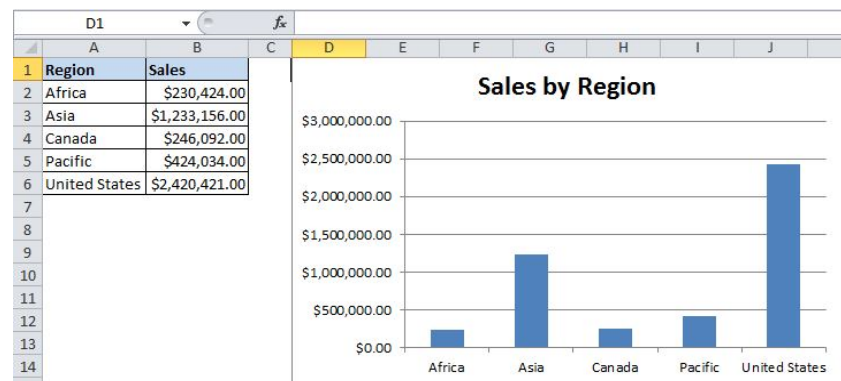
TIPS & TRICKS: Using PERL Regular Expressions
(Search and place a particular pattern into a variable)

Jerome Buenaventura: Jerome_img@yahoo.com

Sometimes addresses contain telephone numbers recorded in multiple different formats and the problem is how can we search this field and create a new variable called 'telno' to hold the data formatted in a consistent way? To do this we will use PRXSUBSTR, it will indicate the position and the length of the particular pattern we want to extract.

In the example below, we want to extract telephone numbers with pattern xxx-xxx-xxxx or xxxxxxxxxx where 'x' is a number, 0 to 9. PRXSUBSTR will return the position of the pattern ('pos' variable) and the length of it ('length' variable) and 'sample' is the source variable.

```
DATA example1;
    SET testdata;

    ExpID=prxparse("/\d{3}-\d{3}-\d{4}|\d{10}/");
    CALL prxsubstr(ExpID,sample,pos,length);
    FORMAT telno $20.;

    IF pos NE 0
    THEN telno=substr(sample,pos,length);
RUN;
```

TIPS & TRICKS: Labels for Odds Ratios in PROC GLIMMIX

Huiru Dong: hdong@cfenet.ubc.ca

When using PROC GLIMMIX for modelling binary or ordinal responses, you can obtain odds ratios and their confidence limits by specifying the ODDSRATIO option in the MODEL statement. Here is an example of the default output table:

Odds Ratio Estimates

Treatment	Gender	Age	Treatment	Gender	_Age	Estimate	DF	95% Confidence Limits	
Drug A		70.05	Drug C		70.05	0.042	55	0.005	0.317
Drug B		70.05	Drug C		70.05	0.024	55	0.002	0.234
	F	70.05		M	70.05	0.161	55	0.033	0.790
		71.05			70.05	1.303	55	1.075	1.580

To make the odds ratio estimates table more interpretable, simply add the LABEL suboption to the ODDSRATIO option. Here is what the modified table looks like:

Odds Ratio Estimates

Comparison	Estimate	DF	95% Confidence Limits	
Treatment Drug A vs Drug C	0.042	55	0.005	0.317
Treatment Drug B vs Drug C	0.024	55	0.002	0.234
Gender F vs M	0.161	55	0.033	0.790
unit change of Age from mean	1.303	55	1.075	1.580

TIPS & TRICKS: NOUNIQUEKEY option

Eric Cai: Eric.Cai@bccancer.bc.ca

Starting in SAS Version 9.3, you can find duplicates in your data set using the NOUNIQUEKEY option in PROC SORT. Furthermore, you can export the singles and the duplicates into separate data sets. Here is an example using the built-in data set SASHELP.ADOMSG, which has an identifier called MSGID. My code below will export the singles into a data set called SINGLES and the duplicates into a data set called DUPLICATES.

```
proc sort
    data = sashelp.adomsg
    out  = duplicates
    uniqueout = singles
    nouniquekey;
    by msgid;
run;
```

Our next user group meeting will be on **November 25, 2015**. Check out the VanSUG website at vansug.ca later for more information!

The archived presentations and newsletters, as well as a link to scheduled SAS training courses held in Vancouver, can all be found on the VanSUG website at vansug.ca!

The **Western Users of SAS Software (WUSS) Conference 2015** will be held in San Diego, California on September 9-11. Information can be found at wuss.org.

A **PharmaSUG** Single Day Event will be held in Seattle this fall! It will feature educational and networking opportunities for SAS users in the pharmaceutical, clinical trial, and healthcare industries. Check out pharmasug.org this summer for presentation topics and registration dates. For more information, please contact SeattleSDE@pharmasug.org.