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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](http://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](mailto:vansug@gmail.com)!

## Executive Team

### President:

Colleen McGahan  
(BC Cancer Agency)

### Vice President:

Scott Albrechtsen (BC Hydro)

### Other Members:

Núria Chapinal (UBC)

Mei Chong (BC Centre  
for Disease Control)

Suzanne Humphreys  
(Rick Hansen Institute)

Libo Lu (KBM Group)

Julia Zhu (BC Centre  
for Excellence in HIV/AIDS)

## VanSUG Social Event on June 19

Join us on **June 19th at 6:30pm** for a social evening with your favourite local SAS users! The pool room is reserved so bring your pool skills with you, as well as networking and getting to know other Vancouver SAS users in a relaxed and informal setting. It's at The Wicklow:

The Wicklow  
610 Stamps Landing  
[thewicklow.com](http://thewicklow.com)  
604-879-0821

More information is at [goo.gl/fMnRl](http://goo.gl/fMnRl). Please RSVP by June 7 at [vansug@gmail.com](mailto:vansug@gmail.com).

## TIPS & TRICKS: CLASS Statement in Model Building

Núria Chapinal: [nchapinal@yahoo.com](mailto:nchapinal@yahoo.com)

When you list a variable in a CLASS Statement (e.g., for PROC GLM/MIXED/LOGISTIC/GLIMMIX), the observations with missing values for that variable won't be considered in the model, even if that variable is not included in the model.

Suppose you have a dataset with 20 observations, one outcome variable and the explanatory variables `variable1`, `variable2`, and `variable3` in the CLASS statement. `variable3` has one missing value. As long as `variable3` is in the CLASS statement (regardless whether `variable3` is an independent variable in the model or not), only 19 observations will be considered in the model.

This is actually a great option if you want to compare different models, and you want to make sure the same observations are used for each model. However, if you do not want to lose observations because they are missing the value for a variable that is no longer in your model because it had no effect, then drop the variable from the class statement too.

## Submissions Needed

We need submissions for our next meeting in November. This can be any of the following:

- A newsletter tip or trick.
- A SAS coding presentation.
- A business analytics presentation.

Interested? Please email us at [vansug@gmail.com](mailto:vansug@gmail.com).

## New Features in SAS 9.4

SAS 9.4 is coming this summer – are you ready? Some changes that you'll find are the following:

- Improved graphics! Robert Allison shows some examples with SAS/GRAPH at [goo.gl/hKZj8](http://goo.gl/hKZj8). Improvements with the SG Procedures are detailed at [goo.gl/j2WqC](http://goo.gl/j2WqC).
- Clustering support for the metadata and middle-tier servers enabling scalability and higher availability. Through server clustering, where multiple servers manage copies of the same data, the threat of data loss or whole-system downtime is drastically reduced. Clustering also allows users and tasks to be spread across the clustered environment to distribute the workload and improve performance.
- Introduction of SAS Environment Manager, which provides SAS administrators with a deeper understanding of their SAS deployments and increased capabilities to monitor and manage their SAS servers. Through a plug-in interface, SAS Environment Manager deploys software agents on each managed SAS server and interacts with these agents to gather health and availability information, perform resource control actions, collect server resource usage, and more.
- Availability of High-Performance Analytics procedures (HP PROCs) to customers running on a single server. Customers will be able to leverage the performance benefits of multi-core computing as they take advantage of these new HP PROCs. An added benefit of the HP PROCs is that when you grow your SAS deployment from a single server to multiple servers, your high-performance code automatically scales to run in your multi-server, distributed environment.
- The SAS Web Application Server embedded in SAS 9.4 reduces overall cost and complexity of SAS deployments. By eliminating the cost to acquire, integrate, maintain and support third-party software, the SAS Web Application Server saves you money and time. By reducing integration complexity and embedding software optimized for SAS, the SAS Web Application Server provides right-sized, integrated technology that simplifies IT management and makes your SAS environment cloud-ready.

For more information, check out a SAS blog entry at [goo.gl/U0s1t](http://goo.gl/U0s1t).

### TIPS & TRICKS: Missing Values with PROC SUMMARY

Núria Chapinal: [nchapinal@yahoo.com](mailto:nchapinal@yahoo.com)

PROC SUMMARY generates by default the variable `_FREQ_` in the new dataset, which indicates the number of rows in the original dataset within each classification. Therefore, missing values are included when `_FREQ_` is calculated. To calculate the number of actual observations used to calculate the values of the generated variables, use the `N` option in the `OUTPUT OUT` statement. If there are no missing values, `_FREQ_` and `N` will be identical.

```
PROC SUMMARY DATA=old_file;  
  BY class_variable;  
  VAR variable1 variable2;  
  OUTPUT OUT=new_file mean=mean1 mean2 N=n1 n2;  
RUN;
```

### TIPS & TRICKS: Monitoring Statistical Models

Nate Derby: [nderby@stakana.com](mailto:nderby@stakana.com)

If you periodically run a statistical model, do you check the accuracy of your model? If not, you could get really bad results and not even know it. Just because you fit a model on the data a while ago doesn't mean that the model is appropriate for new data. If the data start behaving differently than when the model was fit, your results are probably off.

How can you check your model? You can look at some accuracy statistics over time via a *gain chart*, *lift chart*, *K-S chart* or *ROC chart*. Each can give you valuable information about your model accuracy. If the accuracy is off, your model should be refit to the new data before proceeding.

For more information about this (including a SAS macro), go to [goo.gl/WUhhj](http://goo.gl/WUhhj).

Our next meeting will be on **November 27, 2013**. Check out the VanSUG website at [vansug.ca](http://vansug.ca) later for more information!

The first **VanSUG Social Event** will be on June 19. Check out the information in this newsletter for details.

Archives 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](http://vansug.ca)!

The **Insurance & Finance SAS Users Group** will have a webinar on June 19. Go to [ifsug.org](http://ifsug.org) for details!

The **2012 Western Users of SAS Software (WUSS) Conference** will be held in Las Vegas, NV on November 13-15. Come on down! Information can be found at [wuss.org](http://wuss.org).