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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:

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(Rick Hansen Institute)

### Other Members:

Núria Chapinal  
(BC Centre for Disease Control)

Mei Chong  
(BC Centre for Disease Control)

Jing Dong  
(BC Hydro)

Nate Derby  
(Stakana Analytics)

Jeremy Hamm  
(BC Cancer Agency)

## Executive Update

Welcome to another Vancouver SAS Users Group meeting! As always, we're eager to hear from any of you who would like to present or write a newsletter article for our next meeting. Even if you've never given a presentation or written an article before, please write to us at [vansug@gmail.com](mailto:vansug@gmail.com). We would be happy to hear from you.

## TIPS & TRICKS: Use VVALUE () to Load the Formatted Value

Colleen McGahan: [cmcgahan@bccancer.bc.ca](mailto:cmcgahan@bccancer.bc.ca)

Sometimes it is useful, within a DATA step, to utilize a variable's formatted value. The VVALUE function makes this process simple. It takes only one argument - the name of the variable or an array reference. Suppose we had this data set:

VIEWTABLE: Work.Surv2		
	site	rel_ageadj
1	All Cancers	57.147256134
2	Breast	86.929796531
3	Colorectal	54.93896761
4	Lung	14.333283036
5	Prostate	87.181224785

And the variable site is actually formatted as follows:

```
PROC FORMAT;
  VALUE $site '01' = 'Breast'
              '02' = 'Colorectal'
              '03' = 'Lung'
              '04' = 'Prostate'
              '05' = 'All Cancers';
RUN;
```

My aim is to combine the two variables site and rel\_ageadj with plenty of space between them to use as a label on a plot but I want to use the format values for site not its code value. I can use the CATX function to concatenate the two variables using lots of spaces as the delimiter between them, within the CATX function I include a PUT statement to convert rel\_ageadj into a character variable after giving it the format of length 4 with 1 decimal place and also use the VVALUE function to load the formatted value of site into the concatenation as follows:

```
DATA surv2;
  SET surv;
  newvble = CATX(' ', VVALUE(site), PUT(rel_ageadj, 4.1));
RUN;
```

To create newvble:

VIEWTABLE: Work.Surv3			
	site	rel_ageadj	newvble
1	All Cancers	57.147256134	All Cancers 57.1
2	Breast	86.929796531	Breast 86.9
3	Colorectal	54.93896761	Colorectal 54.9
4	Lung	14.333283036	Lung 14.3
5	Prostate	87.181224785	Prostate 87.2

## TIPS & TRICKS: Getting Consistent Variable Names and Formats

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

If you're creating lots of data sets with the same sets of variables, you might want to put their formats into a separate macro for consistency. If you want to change the format of one variable, you can change it in this one macro and re-run your code to implement those changes across all your data sets.

```
%MACRO getVarFormats;
    FORMAT var1 $20. var2 mmdyy10. var3 4. var4 dollar15.2 ...;
%MEND getVarFormats;
```

You can use this in any data set as you would with any macro:

```
DATA blah;
    [input variables]
    %getVarFormats;
    ...
RUN;
```

For thoroughness, you can include a complete set of variables in the %getVarFormats code. SAS will not give you an error if you have variables listed in this macro that are not included in the data set where you call it.

## TIPS & TRICKS: Using vlabel () and vname () Function as Alternative Way to Transpose Data

Jerome Buenaventura: [Jerome\\_img@yahoo.com](mailto:Jerome_img@yahoo.com)

We all know that PROC TRANSPOSE is the commonly used to transpose data from columns to row. But below is the alternative way to do what PROC TRANSPOSE could do.

In the example below we have columns Price1 to Price17 and we want to transpose it from columns to rows. Using the array function loop for each variable we will extract the value, label and variable name. WHERE

- PriceVarName - the variable name(this is same as `__name__` in PROC TRANSPOSE)
- PriceLabel - the label of the variable(this is same as `__label__` in PROC TRANSPOSE)
- PriceValue - content of the variable(this is same as `col1` in PROC TRANSPOSE).

```
DARA VanSUG;
SET sashelp.pricedata;
FORMAT PriceLabel PriceVarName $50.;
ARRAY j(*) price1 - price17;
DO i = 1 to DIM(j);
    PriceVarName = vname(j(i));
    PriceLabel = vlabel(j(i));
    PriceValue = j(i);
OUTPUT;
END;
KEEP region line product date PriceVarName PriceLabel PriceValue;
RUN;
```

## TIPS & TRICKS: Cox Regression Model

Lovedeep Gondara:

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The ZPH option in PROC PHREG will test proportionality of all the predictors in your cox regression model by creating interactions with time using the transformation of time specified in the transform option.

```
PROC PHREG
    DATA = SasData
    ZPH(transform = Identity);
CLASS a b c;
MODEL
    Time*Status(0) = x y a b c;
RUN;
```

SAS will produce a table with predictor variables and corresponding p-values for test of proportionality.

Our next user group meeting will be in **May 9, 2018**. Check out the [VanSUG](http://VansUG.com) website at [vansug.ca](http://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](http://VansUG.com) website at [vansug.ca](http://vansug.ca)!

The **SAS Global Forum 2018** will be held in Denver, CO on April 8-11, 2018. Information can be found at [sasglobalforum.com](http://sasglobalforum.com).

The **PharmaSUG** will be held in Seattle on April 29, 2018 - May 2, 2018. It will feature educational and networking opportunities for SAS users in the pharmaceutical, clinical trial, and healthcare industries. Check out [pharmasug.org](http://pharmasug.org) for presentation topics and registration dates.