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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

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Núria Chapinal
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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 this fall. Even if you've never given a presentation or written an article before, please write to us at vansug@gmail.com. We would be happy to hear from you.

TIPS & TRICKS: Use PRXMATCH () in Place of Multiple INDEX () Functions

Tracy Xu: tracy.xu@bchydro.com

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INDEX () can be used to search a keyword from a string. For example, if you want to select strings with "GREEN" from test table, the INDEX () function is good to use.

```
DATA test;
  INPUT name $50. ;
  DATALINES;
    Greenhouse Solution Ltd
    Evergreen Line
    N L Light
    Sun Lighting Systems Ltd
    Las FARMER MARKET
    Cranberry Farm Company
  ;
RUN;

DATA result1;
  SET test;
  IF INDEX(COMPRESS(UPCASE(name)), 'GREEN') > 0;
RUN;
```

If you want to search multiple keywords, you can write multiple INDEX () functions with OR conditions. For example:

```
IF INDEX(COMPRESS(UPCASE(name)), 'GREEN') > 0
OR INDEX(COMPRESS(UPCASE(name)), 'LIGHT') > 0
OR INDEX(COMPRESS(UPCASE(name)), 'FARM') > 0 ;
```

If you have more than 200 keywords to search, you don't want to use the INDEX () function 200+ times. The PRXMATCH () function, for Perl Regular Expressions Match, can do it all in a single call. This requires less typing and fewer chances for mistakes. For example, the program below will search for keywords "GREEN", "LIGHT", "FARM" in the name field.

```
%let str = /\b(GREEN|LIGHT|FARM)\b/;

DATA result2;
  SET test;
  IF prxmatch("&str.", upcase(name)) > 0 ;
RUN;
```

Two strings return from the code are "N L Light" and "Cranberry Farm Company".

TIPS & TRICKS: Using the %GOTO Statement

Nate Derby: nderby@stakana.com

The %GOTO macro statement isn't well documented, but it can be highly useful. Suppose the macro %makeForecasts() generates forecasts for a certain variable, but you want to design it so that when you call it by itself (with no variables in parentheses), it generates forecasts for all variables. You can do it with the %GOTO statement:

```
%MACRO makeForecasts( var=all );
  %if &var. = all
  %then %do;
    %makeForecasts( var1 );
    %makeForecasts( var2 );
    %makeForecasts( var3 );
    %GOTO theEnd;
  %end;
  [ CODE FOR MAKING FORECASTS ]
%theEnd;
%MEND;
```

This way is more elegant than putting the code for making the forecasts into an %ELSE block.

TIPS & TRICKS: Subtracting Strings with CALL SCAN() Function

Dilnur Kurban: dkurban@rickhanseninstitute.org

While there are many ways to subtract desired strings in SAS, CALL SCAN() function is especially useful in some cases. One of the variables we use at the Rick Hansen Institute is Facility, which includes Province, City and hospital information as shown below and we would like to create a variable with all hospital names. Notice that the starting position of each hospital is different. Using the following code, we can obtain the starting position of the third word separated by dash in Facility (the length of the third word returned is not that useful in our case).

```
CALL SCAN(Facility, 3, position, length, '-');
```

Then we let Facility_new = SUBSTR(Facility, position) and obtain the variable we wanted to create. Note that in the 3rd row, Meadow Lake was treated as one word as there was no dash in between.

	Facility	position	Facility_new
1	SK - Shellbrook - SHELLBROOK & DISTRICT HOSPITAL	18	SHELLBROOK & DISTRICT HOSPITAL
2	AB - Mayerthorpe - MAYERTHORPE HEALTHCARE CENTRE	19	MAYERTHORPE HEALTHCARE CENTRE
3	SK - Meadow Lake - NORTHWEST HEALTH FACILITY	19	NORTHWEST HEALTH FACILITY
4	AB - Drayton Valley - DRAYTON VALLEY HOSPITAL AND CARE CENTRE	22	DRAYTON VALLEY HOSPITAL AND CARE CENTRE
5	AB - Edmonton - GREY NUNS COMMUNITY HOSPITAL	16	GREY NUNS COMMUNITY HOSPITAL

TIPS & TRICKS: Copy Data Structure

Mei Chong:

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If you want to create an empty dataset (dataset2) with the same structure of another dataset (dataset1), all you need is just one SQL statement:

```
PROC SQL;
  CREATE TABLE
    dataset2
  LIKE dataset1;
QUIT;
```

Our next user group meeting will be in **November 22, 2017**. 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 **SAS Global Forum 2018** will be held in Denver, CO on April 8-11, 2018. Information can be found at sasglobalforum.com.

The **2017 Western Users of SAS Software (WUSS) Conference** will be held in Long Beach, California on September 20-22, 2017. Information can be found at wuss.org.

The **Insurance & Finance SAS Users Group** will have a webinar on Oct 8. Go to ifsug.org for details!