

VIEWS

NEWS¹⁴

2ND QUARTER 2001

NEWS, HINTS, TIPS AND INFORMATION FOR UK SAS USERS

The music has stopped and everybody has found a seat - yes, the VIEWS committee has finished its changes that I began to describe in the last issue. Details of the current committee are in the News section, but I'd just like to add a word of thanks to past committee members.

Voluntary committee work is frequently a combination of too much work and not enough thanks, and VIEWS is no exception. A number of people who are no longer on the committee contributed a great deal to VIEWS over the last four years: Louise Harvey, Nelson Kinnersley, Andy Knight, Jo Price, Simon Warman-Freed, Nicola Tilling, Tony Woods, and David Yeates. Thanks folks, your contributions were (and are still) appreciated.

And while we're on the subject of thanks, I am extremely grateful to ASA Recruitment & Contract Consultants for their continued support of VIEWS News. With the inestimable help of Simon Batt at Clockhouse Publishing, they have made it relatively easy for me to continue to produce VIEWS News.

This year will see an apparent lull in VIEWS activities. The newsletter and web site will continue, and we have the two-day multi-stream conference planned for September, but we have no plans for any other events this year. This year's conference will take a great deal of organisation and we thought it best to focus on getting it right. I hope that, come the end of September, you will agree that the VIEWS conference was worth it.

Finally, as the new VIEWS chairman, I'd like to "say a few words." Firstly, I'd like to offer my appreciation of the efforts of our out-going chairman, Phil Mason. Over the last four years, Phil has been instrumental in making VIEWS what it is today - a successful, flourishing, and popular user group. For my part, I intend to keep up the momentum to see VIEWS continue to grow in popularity and in its value to the UK SAS community. If you have any comments to make about what VIEWS does well or badly, or what VIEWS should do but currently doesn't, please write to me and let me know (my contact details are in *Contacts*).

Andrew Ratcliffe (Editor & Acting Chairman)

THE CONSULTANT

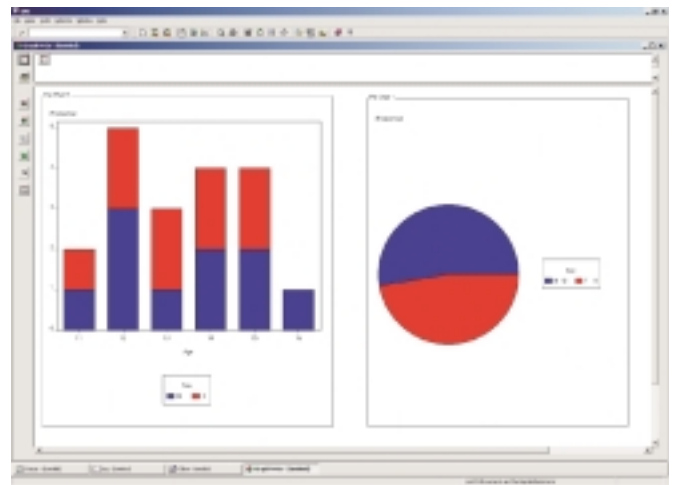
This part of VIEWS News is where you can get your technical questions answered. Send your questions to the Editor.

Interactive Graphing

Q: SAS/GRAPH is great for coding-up re-runnable graphs, but does SAS offer anything in the way of interactive graphing tools that allow me to play-around with my graphing options?

A: Sounds like you need Graph-N-Go! It was available as a free extra with V6, but is now incorporated as part of V8 SAS/GRAPH. You can use drag-and-drop and point-and-click to produce a nice graph; it will then create SAS/GRAPH code for you to place in your regular jobs - so it has the benefits of interactivity combined with the benefits of being able to be re-run. Not only that, but you can save graphs in many popular formats (JPG, GIF, etc), and you can create web pages (HTML files) directly from Graph-N-Go. You decide whether the Web pages display a static image of your graphs or an interactive version of the graph based on an ActiveX control or Java Applet.

To run Graph-N-Go in SAS V8, just use the GNG command or navigate to Solutions->Reporting->Graph-N-Go through the pull-down menus.



Andrew Ratcliffe

Re: Professional Percentages

Q: David Shannon's article on percentages in the last issue was most interesting. I notice that the value is truncated to 1 decimal place before it is formatted. Is there any way to round the value before formatting?

A: Yes, just use the picture statement's ROUND option. The following code demonstrates both techniques.

```
Proc format;
Picture pct1dp
LOW-HIGH = '0009.9%' (prefix='(');
Picture pct1dpr (round)
LOW-HIGH = '0009.9%' (prefix='(');
Run;
```

```
Data test;
Input var1 var2;
var3=(var1/var2)*100;
var4=var3;
var5=(var1/var2)*100;
format var4 pct1dp. Var5 pct1dpr.;
cards;
1 16
run;
```

```
proc print label;
var var1-var5;
label Var1='Numerator'
Var2='Denominator'
Var3='Percentage'
Var4='Unrounded'
Var5='Rounded';
run;
```

Result:

OBS	Numerator	Denominator	Percentage	Unrounded	Rounded
1	1	16	6.25	(6.2%)	(6.3%)

Chris Murphy & David Shannon

Various Missings

Q: Is it possible to flag null values of SAS numeric variables to show why they are missing?

A: Yes, by using the 'special' numeric, missing values you can add more information to your data. There are 27 values (the letters A through Z and the underscore value). They can be represented by:

```
.'value' (.a-.z and ._.).
```

In the following data step, I have used the 'missing' statement to cause the values 'r' and 'l' to be read as special values.

```
data scores;
  missing r l;
  input subject $1. score;
cards;
A 5
B 3
C r
D 6
E 2
F l
;
run;
```

I could have also have them read by using the .r and .l notation in the cards.

By defining the following format, I can print out the data set and see why my data is missing.

```
proc format;
  value miss
  .r='Refused to answer'
  .l='Lost result'
  ;
run;
```

```
title 'scores dataset';
```

```
proc print data=scores;
  id subject;
  format score miss.;
run;
```

scores dataset

SUBJECT	SCORE
A	5
B	3
C	Refused to answer
D	6
E	2
F	Lost result

The values also have an 'internal' numerical order from ._. through .a to .z.

The value .z is greater than .y, the value .b is greater than .a. The missing value '.' is, to the SAS system, the next 'lowest' missing value, and '._' is the very lowest of all.

However in procedures and functions all of these values are regarded as missing.

Chris Murphy

DID YOU KNOW?

If you have a useful hint or tip, please send it to the Editor and share it with the VIEWS membership.

DDE, SAS v8 and Excel v97+.

Use of the LRECL parameter on the filename statement behaves differently from earlier versions of SAS and/or earlier versions of Excel. The value of LRECL must be sufficient to support additional information required by the DDE buffer used by Excel 97 and later versions. Failure to provide a sufficiently wide LRECL will result in the SAS system becoming unstable, and may result in the following error message:

ERROR: Read Access Violation Followed by a string of messages about various SAS DLLs.

Usually the fix is to set the LRECL to 1024 or greater. There probably is an intelligent approach to determining the best LRECL value, but I typically increase the LRECL by multiples of 512 until the problem goes away.

```
/* Original FILENAME statement, note the value of LRECL, */
/* assuming a data file with a maximum record length of 200 */ filename
ac1 dde "Excel|Sheet1!r2c1:r368c40" lrecl=210 notab;
/* Modified FILENAME statement, prevents the READ ACCESS */
/* VIOLATION errors */
filename ac1 dde "Excel|Sheet1!r2c1:r368c40" lrecl=1024 notab;
```

Chris Roper

A Few Words of Caution When Using POPMENU()

You may be aware of the SCL popmenu() function. Its first argument is a

list of character values that are displayed in a windows-style pop-up menu. The function returns the index of the selected item. Under most operating systems it is possible to insert a null value into the list that will then be displayed as a separator line in the displayed menu. This separator is not selectable. But beware! If your list is too long, SAS will instead use a scrollable listbox to display the menu. If this happens, you will find that the separator lines are displayed as blank lines, and are selectable. A convenient way to deal with this is to use the setlatr() function to give the separator line the INACTIVE attribute. This will ensure that it cannot be selected. For instance, for SAS 6.12:

```
INIT:
  l = makelist();
  l = insertc(l, 'a1', -1);
  l = insertc(l, 'a2', -1);
  l = insertc(l, '', -1);
  rc = setlatr(l, 'INACTIVE', -1);
  l = insertc(l, 'b1', -1);
  l = insertc(l, 'b2', -1);
  sel = popmenu(l);
  return;
```

And in V8:

```
dcl list l={'a1', 'a2', '', 'b1', 'b2'};
dcl num sel;

INIT:
  rc = setlatr(l, 'INACTIVE', 3);
  sel = popmenu(l);
  return;
```

Howard Lethbridge

A V8 Upgrade Tip

If your application is invoked from a configuration file using the -INITCMD option, then make sure that in the SASV8.CFG file, the option is positioned after the -DMSEXP option. Otherwise the option has no effect.

Amadeus SAS Consultancy Team

SQL Server in SAS

I've recently been using libnames with an ODBC engine to read/write MS SQL Server tables instead of swapping out to the MS Enterprise Manager and Query Analyser. This lets me stay in the SAS world and I've found it a boon to making sense of my frequently pitiful attempts to maintain the SAS and SQL Server integrated applications I am now charged with maintaining and documenting. In addition, I almost never PROC SQL anymore to the SQL Server tables, I just use regular SAS code - it's soooo much more fun this way! :->)

Chris Roper

Remote Connection Problems

Ever had a problem connecting to a remote library due to connection difficulties? Well why not try the following piece of code to attempt to re-assign the libname due to any connection problems? This code will attempt to re-assign every 300 seconds before continuing.

```
%macro libcheck;
%do %until (&syslibrc eq 0);
  libname ora_test oracle user=abc pw=xxx path=prod schema=tia;
  %if &syslibrc ne 0 %then %do;
    data null;
      rc=sleep(300);
    run;
  %end;
%end;
%mend;

%libcheck;
```

Offering similar functionality, the OS/390 version of SAS has a WAIT= engine option that specifies how long SAS will wait for a data set that is held by another job or user before the LIBNAME statement fails.

Amadeus SAS Consultancy Team & Howard Lethbridge

Bits and Bytes

For low-level data manipulation, SAS software provides a full range of binary functions including BAND, BOR, BXOR, BNOT, BLSHIFT, and BRSHIFT. The subject of these functions can be any non-missing, non-negative numeric value.

If you are reading binary data, you may need to manipulate it in a binary fashion. The 'and', 'or', and shift functions give you much more than just comparison opportunities. You can multiply or divide by multiples of two by using the shift functions:

```

Value = 0abcdfx;
v2 = bshift(value,1);
v3 = brshift(value,1);
put value= binary32. v2= binary32. v3= binary32.;
put value= comma11. v2= comma11. v3= comma11.;
run;

value=0000000010101011100110111101111
v2=00000000101010111001101111011110
v3=0000000010101011100110111101111
value=11,259,375 v2=22,518,750 v3=5,629,687

```

Note also how you can define a constant hexadecimal value by starting the value with a numeric value (often zero) and ending it with an 'x'. Shifting left multiplies the value by a multiple of two, shifting right divides by a multiple of two. In some circumstances you could just use a plain multiply or divide, but not in cases where floating-point representations come into play. Whichever way you look at it, it's nice to know you have the option, and to understand what's going on underneath the covers of SAS software.

Andrew Ratcliffe

FORMATS, OPTIONS, AND FUNCTIONS

The default format for numeric values is **BESTw.d**. Almost a "virtual" format, BEST tells SAS to choose the most suitable format given the field size and the value. Note that you may code a number of decimal places, but it will be ignored!

The **ENCRYPT** data set option does as its name suggests: it causes your data to be encrypted. Specify ENCRYPT=YES together with either READ= or PW=. Don't forget your password: else your data set will be useless!

The first function in the book is **ABS**. This function gives you the absolute value of its parameter. The absolute value is the un-signed version of the parameter, i.e. abs(3)=3, abs(-5.2)=5.2.

NEWS

IEWS Committee Reorganisation

As mentioned last month, we have had a number of changes to the IEVS committee. In summary, the committee members now are:

Andrew Ratcliffe	Chairman, Newsletter Editor	chair@views-uk.org
Andy Lawton	Secretary	secretary@views-uk.org
Lisa Harvey	Treasurer	treasurer@views-uk.org
John Raddon	SAS Liaison	sasliaison@views-uk.org
Bernie Ruane	Partner Liaison	partners@views-uk.org
Andrea Tushingham	Member	
Bruce Bovill	Webmaster, Honorary member	webmaster@views-uk.org
Phil Mason	Honorary member	philmason@views-uk.org

Please feel free to contact any of the committee members using the email addresses shown above. If you have any queries about events or about joining views, you can use events@views-uk.org and membership@views-uk.org respectively.

More Hints, Tips and Experience

Your erstwhile editor (Andrew Ratcliffe) has started to produce an HTML e-newsletter of his own. It is available by free subscription and is emailed monthly. To subscribe, visit the archive and web site at www.ratcliffe.co.uk/note_colon, or send an email to listmgr@ratcliffe.co.uk with a subject of "subscribe-note.colon" (without the quotes).

This newsletter has no connection with IEVS - it is produced by Andrew's consulting company (Ratcliffe Technical Services Limited).

PharmaSIG Cancelled

You will have seen in the IEVS calendar that we were planning a pharmaceutical special interest group (SIG) meeting at the end of March. In the absence of us posting any promotional material, you may have guessed that it was cancelled. You would be correct if that is what you guessed!

We had a number of key speakers pull-out at short notice and we were unable to replace them in the remaining time available. SAS very kindly offered some SAS speakers to fill the empty slots, but we felt it would have left the agenda too heavily laden with SAS speakers, so we

decided that our only course of action was to cancel the event.

On the happier side of things, we are determined to organise a strong pharmaceutical stream at this year's conference. So, if you're interested in pharmaceutical matters, make sure you come to the IEVS conference later this year. A date and location will soon be firmly fixed. Keep an eye on the IEVS web site for latest news.

IN BRIEF

- There are plenty of tips from the experts at **service/techtips/quicktips/** on the SAS web site.
- Tony Payne, winner of Best Paper at IEVS 2000, will be presenting his paper at this year's **SEUGI** in Florence, Italy. Tony's trip is his prize for the Best Paper award.
- If you can't lay your hands on the V8 Online Doc CD-ROM, you can find the same content at <http://v8doc.sas.com/sashtml>
- Accessing SAS data on a variety of platforms got easier in V8 with the introduction of CEDA: Cross-Environment Data Access. In V8 and V8.1 it requires SAS/CONNECT, but in V8.2 it'll be part of Base SAS.
- V8.2 of SAS software is highly likely to hit production in Europe before the Summer, and a Linux version will be part of that roll-out (in the same time-frame). See www.sas.com/newversion for details of the enhancements.

DIARY OF EVENTS

Are you organising an event that would be of interest to the IEVS readership? Let us know, as we are interested in all non profit making events related to SAS software.

May 2001

29-1/6 **SEUGI**, Florence, Italy
30-1/6 **DiaMondSUG**,
Chicago

August 2001

1st **Views News** 15th edition

September 2001

25-26 **IEWS main conference**,
April 2002
? **SUGI**, Orlando, Florida,
USA

Views News is published quarterly by IEVS - the UK's independent SAS user group. IEVS is a non-profit organisation. Our Mission Statement and Rules can be viewed on our web site together with a list of current committee members.

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