

VIEWS

International SAS Programmer Community



News, Hints, Tips and Information for SAS® Users

Issue 53, 1st Quarter 2011

Did You Know?

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

My first newsletter for 2011 will, hopefully, make it out before the end of its allotted month, and it gives me my first opportunity to wish you all a happy and prosperous New Year! I have another newsletter issue for you filled with SAS news, hints and tips that I hope you will find interesting. In this issue of *VIEWS News* I would like to welcome our newest *VIEWS* Consultant, Alexandra Riley, who, with our regular contributor LeRoy Bessler, expands on the multiple trend charts from the last issue. There are also articles from our regular contributors Murphy Choy, Peter Crawford and Sanjay Matange, with articles on calculating value on risk with SAS/IML, determining open ODS destinations, and drawing Forest plots with PROC SGPLOT. There is another regular article from Amadeus Software, David Shannon is giving you the chance to try out the latest Amadeus Friday Quiz. Finally, my regular Formats, Options, and Functions section has some new features in SAS 9.2.

I'm also pleased to inform you that I will be co-chairing the Reporting and Information Visualization section at SAS Global Forum in April, and LeRoy, Murphy, Sanjay, David and myself will be presenting in that section. Peter will be chairing the Coders' Corner section there too. We will all be very pleased to talk to you there about *VIEWS* and/or SAS software.

If you would like to contribute an article, to re-visit and improve an existing article, or just discuss the possibility of doing so, please feel free to send an email to me at newsletter@views-uk.org. A list of subject suggestions for your articles can be found on the *VIEWS* web site, and anyone is very welcome to add to that list by sending emails to newsletter@views-uk.org with your own questions.

Philip R Holland (Newsletter Editor)

Membership of *VIEWS* is **free** and you can register for notification of all future *VIEWS* events by emailing us at membership@views-uk.org, making certain you include your name and postal address. If you would like to receive email notification whenever a new issue of the free quarterly *VIEWS News* is published on the web site, please remember to also include your email address, and please inform us when you change it.

Forest Plot using PROC SGPLOT

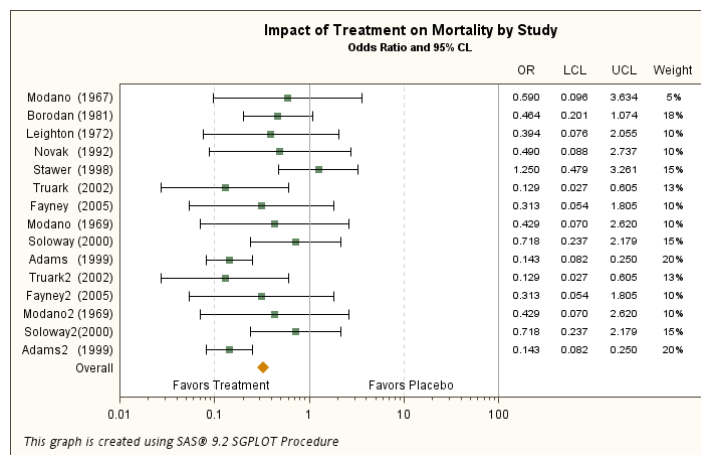
[SAS 9.2] "A Forest Plot is a graphical display designed to illustrate the relative strength of treatment effects in multiple quantitative scientific studies addressing the same question" (Wikipedia). While there are many different types of Forest Plots in use, this common version of the Forest Plot can be done using PROC SGPLOT with a few lines of code.

PROC SGPLOT is optimal for the creation of single-cell graphs. However, this procedure has the following features that can be leveraged to create this multi-cell looking graph:

This procedure supports two sets of axes: X, Y, X2 and Y2. These axes can be used to effectively split each axis into two regions. This axis-split technique is used in the graph to draw the odds ratio on the left side using the X-Y axis, and the statistics columns on the right using the X2-Y axis. The common Y axis ensures the two parts remain aligned with each other.

Each axis is designed to accumulate the data from multiple plot statements assigned to that axis. We have used that technique to put multiple scatter statements on the X2 axis, one for each of the statistics.

The **MARKERCHAR=column** option is supported by the **SCATTER** statement. This option displays the character data from the column at the X, Y location for each observation. We have used this feature to display the statistics columns on the right.



Data for the Forest Plot:

```
DATA work.forest;
INPUT Study $1-16 grp OddsRatio LowerCL
      UpperCL Weight;
FORMAT weight PERCENT5.
      Q1 Q3 4.2
      study2 $CHAR8.;
ObsId = _N_;
IF grp = 1 THEN DO;
  weight = weight * 0.05;
  Q1 = OddsRatio - OddsRatio * weight;
  Q3 = OddsRatio + OddsRatio * weight;
END;
ELSE DO;
  study2 = study;
  study = "";
END;
DATALINES;
Modano (1967)      1  0.590 0.096 3.634  1
Borodan (1981)    1  0.464 0.201 1.074  3.5
Leighton (1972)   1  0.394 0.076 2.055  2
Novak (1992)      1  0.490 0.088 2.737  2
Stawer (1998)     1  1.250 0.479 3.261  3
Truark (2002)     1  0.129 0.027 0.605  2.5
Fayney (2005)     1  0.313 0.054 1.805  2
Modano (1969)     1  0.429 0.070 2.620  2
Soloway (2000)    1  0.718 0.237 2.179  3
Adams (1999)      1  0.143 0.082 0.250  4
Truark2 (2002)    1  0.129 0.027 0.605  2.5
Fayney2 (2005)    1  0.313 0.054 1.805  2
Modano2 (1969)    1  0.429 0.070 2.620  2
Soloway2(2000)    1  0.718 0.237 2.179  3
Adams2 (1999)     1  0.143 0.082 0.250  4
Overall          2  0.328 0.233 0.462  .
RUN;

/*Reverse the order to keep Overall at bottom*/

PROC SORT DATA = work.forest;
  BY DESCENDING obsid;
RUN;

/*Populate LCL2 and UCL2 only for group=1 for
display in graph.
Add columns for OR, LCL, UCL and WT for
display of the stat columns*/

DATA work.forest2;
SET work.forest;
FORMAT oddsratio lowercl uppercl 5.3;
DROP grp;
IF grp = 1 THEN DO;
  lcl2 = lowercl;
  ucl2 = uppercl;
END;
or = 'OR';
lcl = 'LCL';
ucl = 'UCL';
wt = 'Weight';
RUN;

ODS HTML CLOSE;

/*Compute Y axis offset percent based on number
of observations in data*/

DATA _NULL_;
pct = 0.75 / nobs;
CALL SYMPUTX("pct", pct);
CALL SYMPUTX("pct2", 2 * pct);
SET FOREST NOBS = nobs;
RUN;
```

Create the style template:

```
/*Create custom template for Unicode text in
footnote*/

PROC TEMPLATE;
DEFINE STYLE styles.foreststyle;
  PARENT = styles.analysis;
  STYLE GraphFonts FROM GraphFonts /
    'GraphFootnoteFont' =
      ("<MTsans-serif-unicode>", 10PT, ITALIC);
END;
RUN;
```

Create graph using PROC SGPLOT:

```
ODS ESCAPECHAR = '^';
ODS LISTING SGE = OFF IMAGE_DPI = 100
  STYLE = styles.foreststyle;
ODS GRAPHICS / RESET WIDTH = 7IN HEIGHT = 4.5IN
  IMAGENAME = "ForestPlot_PhilHolland";

TITLE "Impact of Treatment on Mortality by
Study";
TITLE2 H = 8PT 'Odds Ratio and 95% CL';
FOOTNOTE J = 1 "This graph is created using
SAS^{UNICODE '00AE'X} 9.2 SGLOT Procedure";

PROC SGLOT DATA = work.forest2 NOAUTOLEGEND;
  SCATTER Y = study2 X = oddsratio /
    MARKERATTRS = GRAPHDATA2
      (SYMBOL = DIAMONDFILLED SIZE = 10);
  SCATTER Y = study X = oddsratio /
    XERRORUPPER = ucl2 XERRORLOWER = lcl2
    MARKERATTRS = GRAPHDATA1
      (SYMBOL = SQUAREFILLED);
  SCATTER Y = study X = or /
    MARKERCHAR = oddsratio X2AXIS;
  SCATTER Y = study X = lcl /
    MARKERCHAR = lowercl X2AXIS;
  SCATTER Y = study X = ucl /
    MARKERCHAR = uppercl X2AXIS;
  SCATTER Y = study X = wt /
    MARKERCHAR = weight X2AXIS;
  REFLINE 1 100 / AXIS = X;
  REFLINE 0.01 0.1 10 / AXIS = X
    LINEATTRS = (PATTERN = SHORTDASH)
    TRANSPARENCY = 0.5;
  INSET 'Favors Treatment' /
    POSITION = BOTTOMLEFT;
  INSET 'Favors Placebo' / POSITION = BOTTOM;
  XAXIS TYPE = LOG OFFSETMIN = 0
    OFFSETMAX = 0.35 MIN = 0.01 MAX = 100
    MINOR DISPLAY = (NOLABEL);
  X2AXIS OFFSETMIN = 0.7 OFFSETMAX = 0.05
    DISPLAY = (NOTICKS NOLABEL);
  YAXIS DISPLAY = (NOTICKS NOLABEL)
    OFFSETMIN = &pct2. OFFSETMAX = &pct.;
RUN;
```

Sanjay Matange, SAS Institute

*This article is an excerpt from a forthcoming presentation,
"Tips and Tricks for Clinical Graphs" by Sanjay Matange
at SAS Global Forum 2011 in Las Vegas, NV, USA*

All the Ways to Display Multiple Trend Charts

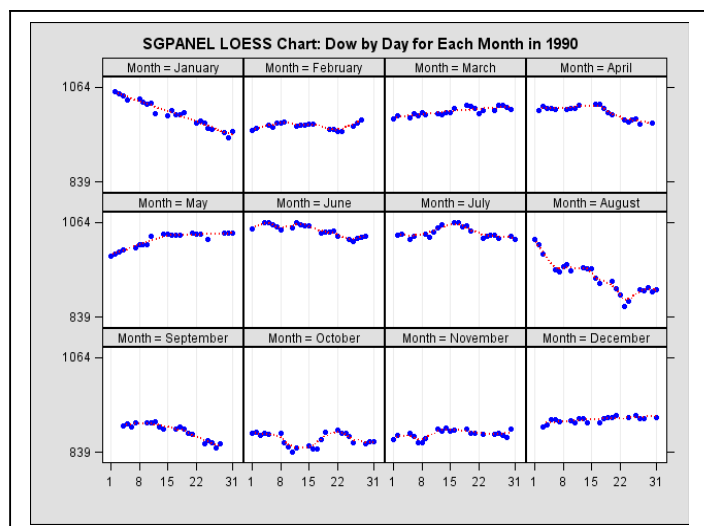
Three Selected Examples and Their Code

[SAS 9.2] The article “All the Ways to Display Multiple Trend Charts” in *VIEWS News* issue 52 introduced seven ways to display multiple trends using a variety of SAS graphical procedures. It also provided comments and comparison, which you might wish to review. This article focuses on three selected examples and provides the relevant code. The examples were generated with SAS 9.2 and produce PNG and HTML output files.

All of these examples take advantage of the ability in HTML to provide pop-up text to reliably provide the detail values of the data points. Therefore, numerous tick marks, to help estimate (imprecisely) the detail of the data points, would be superfluous. Nevertheless, we do demonstrate the ability to optionally provide more tick marks on the “traditional” PROC Gplot Overlay Chart.

In the code for all three examples, DESCRIPTION=' ' is used in order to prevent the display of pop-up text showing the SAS/GRAPH procedure used. Such a pop-up is very distracting when trying to get the pop-up text for the data points instead, which already requires mouse dexterity.

Example 1. SGPanel LOESS Chart (graph)



```
%LET PATH = C:\VIEWS53;

DATA work.DowByDayIn1990
  (KEEP = Year Month MonthAbbrev MonthName Day
   Dow date);
  FORMAT Dow 5.;
  SET sashelp.citiday (KEEP = date snydjcm
    WHERE = (snydjcm NE .));
  Year = YEAR(date);
  IF Year EQ 1990;
  Month = MONTH(Date);
  MonthAbbrev = PUT(Date, MONNAME3.);
  MonthName = PUT(Date, MONNAME9.);
  Day = DAY(Date);
  Dow = ROUND(snydjcm, 1);
RUN;
```

```
DATA work.DowByDayIn1990_withAltText;
  LENGTH AltTextVar $200;
  SET work.DowByDayIn1990;
  AltTextVar = 'alt="On '
    || TRIM(LEFT(PUT(date, WEEKDATX.)))
    || ' 0D'X || 'the Dow was '
    || TRIM(LEFT(PUT(Dow, 5.))) || '";'
  /* '0D'X forces a line break */
RUN;

PROC MEANS DATA = work.DowByDayIn1990
  MIN MAX RANGE NOPRINT;
  VAR Dow;
  OUTPUT OUT = MinMax MIN = DowMin MAX = DowMax
    RANGE = DowRange;
RUN;

DATA _NULL_;
  SET MinMax;
  CALL SYMPUT('YMin',
    TRIM(LEFT(PUT(DowMin, 5.))));
  CALL SYMPUT('YMax',
    TRIM(LEFT(PUT(DowMax, 5.))));
  CALL SYMPUT('YRange',
    TRIM(LEFT(PUT(DowRange, 5.))));
RUN;

DATA _NULL_;
  RETAIN ActuallyMax &YMax. ActuallyMin &YMin.;
  SET MinMax;
  CALL SYMPUT('YIncrement', 10);
  TentativeRoundedYMax = ROUND(ActuallyMax, 10);
  IF ActuallyMax LE TentativeRoundedYMax
    THEN RoundedYMax = TentativeRoundedYMax;
  ELSE RoundedYMax = TentativeRoundedYMax + 10;
  CALL SYMPUT('RoundedYMax',
    TRIM(LEFT(PUT(RoundedYMax, 5.))));
  TentativeRoundedYMin = ROUND(ActuallyMin, 10);
  IF ActuallyMin GE TentativeRoundedYMin
    THEN RoundedYMin = TentativeRoundedYMin;
  ELSE RoundedYMin = TentativeRoundedYMin - 10;
  CALL SYMPUT('RoundedYMin',
    TRIM(LEFT(PUT(RoundedYMin, 5.))));
RUN;

PROC FORMAT LIBRARY = work;
  VALUE MonthNm
    1 = 'January'
    2 = 'February'
    3 = 'March'
    4 = 'April'
    5 = 'May'
    6 = 'June'
    7 = 'July'
    8 = 'August'
    9 = 'September'
    10 = 'October'
    11 = 'November'
    12 = 'December';
RUN;
QUIT;
```

Example 1: SGPanel LOESS Chart (code)

```
GOPTIONS RESET = ALL;
ODS NORESULTS;
```

```

ODS LISTING CLOSE;
ODS GRAPHICS ON / RESET = ALL IMAGEMAP = ON
                    IMAGENAME = 'SGPANEL_LOESS'
                    TIPMAX = 2500;
ODS HTML PATH = "&Path." (URL = NONE)
BODY = 'SGPANEL_LOESS.HTML'
(TITLE = 'SGPANEL LOESS Chart for Dow by
Day for Each Month in 1990');

TITLE 'SGPANEL LOESS Chart: Dow by Day for
Each Month in 1990';

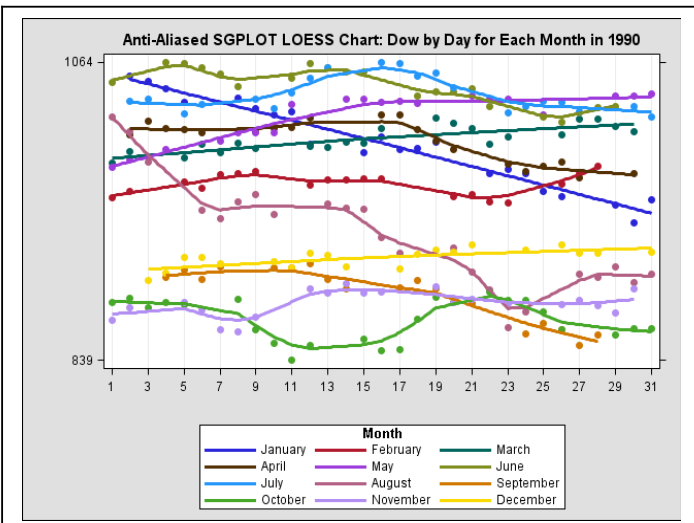
PROC SGPANEL DATA = work.DowByDayIn1990
DESCRIPTION=' ';
PANELBY Month / COLUMNS = 4 ROWS = 3;
LOESS Y = Dow X = Day / NOLEGFIT
MARKERATTRS = (COLOR = BLUE SIZE = 8
                SYMBOL = CIRCLEFILLED)
LINEATTRS = (COLOR = RED PATTERN = 34);
ROWAXIS LABEL = ' ' REFTICKS
VALUES = (&YMin. &YMax.);
COLAXIS LABEL = ' ' GRID
VALUES = (1 8 15 22 31);
FORMAT Month MonthNm.;
FORMAT Dow 5.;
FORMAT Day 2.;

RUN;
QUIT;

ODS HTML CLOSE;
ODS LISTING;

```

Example 2. SGPLOT LOESS Chart (with anti-aliasing)



```

GOPTIONS RESET = ALL;
ODS NORESULTS;

ODS LISTING CLOSE;
ODS GRAPHICS ON / RESET = ALL IMAGEMAP = ON
                    IMAGENAME = 'Anti-Aliased_SGPLOT_LOESS'
                    TIPMAX = 2500 ANTIALIASMAX = 2500;
ODS HTML PATH = "&Path." (URL = NONE)
BODY = 'Anti-Aliased_SGPLOT_LOESS.html'
(TITLE = 'Anti-Aliased SGPLOT LOESS Chart
for Dow by Day for Each Month in 1990');

TITLE 'Anti-Aliased SGPLOT LOESS Chart: Dow
by Day for Each Month in 1990';

```

```

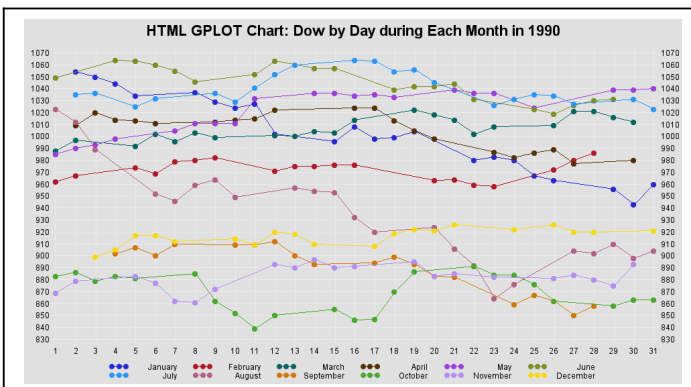
PROC SGPLOT DATA = work.DowByDayIn1990
DESCRIPTION = ' ';
LOESS Y = Dow X = Day /
GROUP = Month
MARKERATTRS = (SIZE = 7
                SYMBOL=CIRCLEFILLED)
LINEATTRS = (THICKNESS = 3 PATTERN = 1);
YAXIS LABEL = ' ' VALUES = (&YMin. &YMax.)
REFTICKS;
XAXIS LABEL = ' ' GRID
VALUES=( 1 2 3 4 5 6 7 8 9 10
         11 12 13 14 15 16 17 18 19 20
         21 22 23 24 25 26 27 28 29 30
         31);
FORMAT Month MonthNm.;
FORMAT Dow 5.;
FORMAT Day 2.;

RUN;
QUIT;

ODS HTML CLOSE;
ODS LISTING;

```

Example 3. "Traditional" PROC GPLOT Overlay Chart



```

GOPTIONS RESET = ALL;
ODS NORESULTS;

ODS LISTING CLOSE;
ODS HTML PATH = "&Path." (URL = NONE)
BODY = 'HTML_GPLOT.html'
(TITLE = 'HTML GPLOT Chart for Dow by Day
for Each Month in 1990');
GOPTIONS HTEXT = 2.25 PCT XPIXELS = 983
YPIXELS = 544;

TITLE1 HEIGHT = 1 PCT ' ' JUSTIFY = CENTER
HEIGHT = 4 PCT 'HTML GPLOT Chart: Dow by
Day during Each Month in 1990';

PROC GPLOT
DATA = work.DowByDayIn1990_withAltText;
SYMBOL1 INTERPOL = JOIN FONT = 'WEBDINGS'
VALUE = '6E'X HEIGHT = 0.75 R = 12;
AXIS1 LABEL = NONE STYLE = 0 MAJOR = NONE
MINOR = NONE
ORDER = &RoundedYMin. TO &RoundedYMax.
BY &YIncrement.;
AXIS2 LABEL = NONE STYLE = 0 MAJOR = NONE
MINOR = NONE ORDER = 1 TO 31 BY 1;
LEGEND1 LABEL = NONE SHAPE = SYMBOL(3, 0.75);

```

```

PLOT Dow * Day = Month / NAME = 'HTML_GPLOT'
DESCRIPTION = ' '
VAXIS = AXIS1 HAXIS = AXIS2 NOFRAME
AUTOVREF AUTOHREF LEGEND = LEGEND1
DESCRIPTION = ' ' HTML = AltTextVar;
PLOT2 Dow * Day = Month /
VAXIS = AXIS1 NOLEGEND;
FORMAT Month MonthNm.;
RUN;
QUIT;

ODS HTML CLOSE;
ODS LISTING;

```

LeRoy Bessler and Alexandra Riley

Delta Gamma VAR using SAS/IML

Value at risk (VAR) is one of the important models that is widely used in portfolio risk and market risk management. VAR has no standardized approach and is essentially a conceptual model. Several approaches have been proposed and adopted in modelling VAR. The simplest approach is the delta-gamma approach. Here we will examine VAR modelling using SAS/IML.

VAR is one of the fundamental concepts in risk management. It is one of the simplest models that is used to estimate the amount of loss of a portfolio in a 1 in 20 negative market scenario. Typically, the model is focused on the upper bound of the distribution of the portfolio in order to establish the maximum upper loss of a portfolio given an event of a given probability of occurrence. As VAR is a conceptual model, there is no standard approach originally. Several approaches have been suggested and the delta-gamma model is one of them. It is one of the simplest and easiest approaches which does not require extreme computing power.

The delta-gamma approach basically assumes linear relationships between the various components of the portfolio, as well as a multivariate normality assumption. By estimating the variance and covariance matrix, we will now be able to calculate the overall variance of the portfolio through the use of standard matrix calculations. The toughest portion of the process is the variance-covariance matrix estimation, which can be extremely time consuming for large datasets. To begin estimating the covariance matrix, one must first create the mean. This is a very simple step.

First we create a $N \times 1$ matrix J with values of 1 in it. We then multiply the transposed matrix with the matrix containing the data and divide by the number of rows.

```
Mean = J*(J`*Data)/(No of rows of Data)
```

The resultant mean matrix table contains a row of the mean value which can then be used to calculate the variance-covariance matrix. To achieve that, we first create the deviation table.

```
Dev = Data - Mean
```

After obtaining the deviation table, we then calculate the variance-covariance matrix by multiplying it by itself and dividing by the number of rows-1.

```
Variance = (Dev`*Dev)/(No of rows of Data - 1)
```

Once the matrix has been created, it is then possible to calculate the lower loss limit through simple matrix

multiplications. In order to do that, a weight matrix must be declared before submitting the macro.

The macro incorporates all the matrix manipulation steps by using SAS/IML. The macro produces the variance-covariance matrix as well as the mean of the portfolio, and the upper and lower limits of the portfolio value in a 1 in 20 scenario. Below is the screen shot of the output from the macro.

```

The SAS System 10:30 Saturday, December 26, 2003 3160
VARIANCE AND COVARIANCE MATRIX

      AZ      DP      COV      EE      SIA      SPH
AZ  0.0157381  0.0005143  -0.000439  0.3288334  -0.044513
DP  0.0005143  0.0033655  0.0008815  0.0020944  -0.004314
COV -0.000439  0.0008815  0.0007252  -0.013454  -0.001513
EE  0.3288334  0.0020944  -0.013454  8.4735586  -1.073586
SIA -0.044513  -0.004314  -0.001513  -1.073586  0.2603077
SPH

INDIVIDUAL VARIABLE MEAN

      AZ      DP      MEANTABLE      EE      SIA      SPH
0.2202166  0.2326555  0.0004682  13.32  4.1084277

PORTFOLIO MEAN
OVERALL_MEAN
3.5923536

PORTFOLIO VARIANCE
OVERALL_VAR
0.2854833

UPPER AND LOWER LIMITS
HIGHER LOWER
4.6395941 2.5451131

```

There are several outputs, of which the lower limit is the most important, as it indicates the lowest value of the portfolio in a 1 in 20 scenario.

The macro, being SAS/IML based will require the SAS/IML license. At the same time, given the memory required for matrix manipulations, this macro is not suitable for use on large SAS datasets. Larger data sets will also cause the macro to take a much longer time.

SAS/IML provides SAS programmers with a simple and easy way to construct the VAR model without having to resort to complex programming. At the same time, users can easily apply the VAR model on data to manage their portfolio risk.

Murphy Choy, University College Dublin

Ask The Consultant

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

Which ODS destinations are open?

Q: Can you find out which ODS destinations are open?

A: [SAS 9.2] Sometimes in a data or reporting macro, I would like to know which ODS destinations are open, but it seemed difficult to uncover. If I wish to create a macro that uses ODS to write to just one destination I need to know what destinations to suppress. There is a source of this information but it is in a dictionary table not a macro variable. Here is a macro which returns a list of open ODS destinations in a string that can be assigned to a macro variable or used in a data step assignment.

```

%MACRO ODSdests(dlm = #) / des =
'returns delimited list of ODS destinations';
%LOCAL dsid destination rc fist dest;
%LET dsid = %SYSFUNC(OPEN(sashelp.vdest, is));
/* No leading ampersand with %SYSCALL */
%SYSCALL SET(dsid);

```

```
%LET rc = %SYSFUNC(FETCH(&dsid.));
%DO %WHILE(NOT &rc.);
  %LET dest = &fist.&destination.;
  %DO; &dest. %END;
  %LET rc = %SYSFUNC(FETCH(&dsid.));
  %LET fist = &d1m.;
%END;
%LET rc = %SYSFUNC(CLOSE(&dsid.));
%MEND ODSdests;
```

An example of calling the macro:

```
ODS HTML(ID = demo1) FILE = '!temp\demo1.html';
ODS PDF(ID = demo2) FILE = '!temp\demo2.pdf';
%PUT now we have >%odsdests(d1m=%STR(,))<;
ODS _ALL_ CLOSE;
%PUT now we have >%odsdests(d1m=%STR( ))<;
```

The source of the info is dictionary.destinations, accessed through the SASHELP view VDEST. Note that this macro does not cross any statement boundaries, and can, therefore, be used anywhere in a SAS program.

Peter Crawford, Crawford Software Consultancy Limited

Friday Quiz from Amadeus Software

The Friday Quiz originated from the Technical staff at Amadeus Software. Most Fridays we would share a recent problem that was encountered (and solved) to compare the approaches that were used. The enthusiasm for thrashing around programming ideas was such that we were encouraged to share the Friday Quiz with the general public.

Each quarter we will publish a new challenge for SAS Programmers to solve. Quizzes vary in style, but are designed not to require more than a few minutes thought. We encourage readers to share their solutions (anonymous or credited) and we will publish a selection at the end of each quarter.

We hope our quizzes serve as a pleasant distraction; but mostly we hope you learn new skills and techniques by sharing each other's code.

A View to a Kill

Imagine you work in a department that collects a large volume of data each month.

To analyse the data and feed valuable insight back to your business, you run an analysis procedure which requires that all the data from the current year are available in a single table.

There are no issues in the first few months of the year, however your business is growing and ever more data are accumulated throughout the year. Recently you have found the cumulative data set is too big for the disk you have available.

A colleague mentioned that an Amadeus Consultant (naturally) had recommended considering something called a SAS View.

The following program illustrates how you have been appending the data together (albeit a very small sample of the problem!).

```
/* Build the problem */
%MACRO month;
  %DO m = 1 %TO 12;
    DATA mon&m.;
      DO customer = 1 TO 20;
        OUTPUT;
      END;
    RUN;
  %END;
%MEND month;

%month

/* This works, but is really slow to build and
   takes up too much disk space */

DATA all_months;
  SET mon:;
RUN;
```

Modify the data step so that ALL_MONTHS requires negligible disk space. Given that both a View and Table of the same name cannot exist in the same library, extend the code so that it defends itself against this problem.

Finally, what are the advantages and disadvantages of your solution?

If you wish us to consider your solution for publication, send it to fq@amadeus.co.uk by the 31 May 2011 and state if you are happy for Amadeus to publish your name along with the code. Solutions can be obtained after that date by request from the same email address, or by visiting the Friday Quiz web page www.amadeus.co.uk/fq.

David Shannon, Amadeus Software

Formats, Options, and Functions

This section is devoted to the description of useful, or unusual, SAS Formats, Options, and Functions.

[SAS 9.2] The ENVLEN() function returns the length of an environment variable supplied in quotes. If the environment variable does not exist, SAS returns -1.

[SAS 9.2] The LRECL= option can now be used to specify record lengths on the Windows platform from 1 to 1,073,741,823 for the following statements: FILE, FILENAME, %INCLUDE and INFILE.

[SAS 9.2] In addition to writing dates in the form “ddmmmyy” or “ddmmmyyyy”, the DATEw. format now writes dates in the form “dd-mmm-yyyy”.

PhUSE News

2011 PhUSE Conference

The 2011 PhUSE conference is scheduled for 9-12 October 2011 in Brighton, UK. The city is recognized as a leading and dynamic conference city both nationally and internationally, combining a seaside location with a vibrant city atmosphere. Brighton is under an hour by rail from London and thirty minutes from London Gatwick Airport, and, in the city itself, everything is within walking distance.

The fantastic venue is without doubt a major draw, but ultimately it is the quality of the conference itself that will

determine its success. The Call for Papers (C4P) Tool is now open and we urge you to submit a paper abstract as early as possible. To help you to decide which stream you would prefer to present in, all stream descriptions are available on the PhUSE website, including two new streams that have been introduced this year. Presenters are encouraged to consider the conference theme of 'Open Standards and Global Collaboration' when putting forward their papers.

We are again able to offer pre-conference training on Sunday 8 October 2011. This year we are pleased to announce that there will be two 'class room' based training sessions on 'Advanced Enterprise Guide' and a 'CDISC Workshop', and there will also be the opportunity to become SAS Certified.

Several 'Discussion Clubs' will be run at the conference which will provide the ideal occasion to share knowledge and views and to discuss and debate experiences for a number of topics including, standardisation and validation. There will also be an opportunity to contribute to a 'live' interactive Wiki where specific content will be discussed whilst the Wiki is being updated online in real-time.

For further information, please see the PhUSE website, www.phuse.eu.

PhUSE Committee

In Brief

- Back issues of *VIEWES News* are available from the *VIEWES* web site, and also from the *VIEWES News* page at www.sasCommunity.org/wiki/VIEWES_News
- Andrew Ratcliffe's has a blog at notecolon.info.
- More SAS hints and tips can be found on the SAS FAQ pages www.hollandnumerics.com/sasfaq, on the Amadeus Software Tips pages at www.amadeus.co.uk/tips and in their free podcasts at: www.amadeus.co.uk/sas-technical-services/podcasts.
- There is a social networking group for SAS users on Ning called **SAS Professionals**, originally intended for SAS users in the UK, at www.sasprofessionals.net, but currently totalling over 4,400 members worldwide.
- Phil Holland has started a group page on Squidoo for other pages related to SAS, and would like to make it a central resource for SAS hints, tips, links and books at www.squidoo.com/groups/SAS_users
- Phil Holland has also created the SAS Contractors group on LinkedIn specifically for independent SAS consultants working in the UK and Europe. Requests to join the group should be made at: www.linkedin.com/groups?gid=2481512 and the associated SAS Contractor Resources page, which is open to all, can be found at: www.squidoo.com/sas_contractors
He also manages the SAS Professional Forum group on LinkedIn, which currently has over 8,700 members. Everyone is welcome to join, but discussions are restricted to SAS-related topics: www.linkedin.com/groups?gid=70702
- SAS users who use Twitter can now join a "twibe" at twibes.com/SAS, which filters your tweets down to those containing "SAS", "EnterpriseGuide" or "PROC".

Diary

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

March 2011

8 **PhUSE Single Day Event**, Copenhagen, Denmark

See the PhUSE web site www.phuse.eu for further details.

15 **SAS Programming Tips and Tricks for Base SAS**, webinar

See the Amadeus web site www.amadeus.co.uk/webinars for further details.

24 **Descriptive Statistics with Base SAS**, webinar

See the Amadeus web site www.amadeus.co.uk/webinars for further details.

29 **PhUSE Single Day Event**, Basel, Switzerland

See the PhUSE web site www.phuse.eu for further details.

April 2011

4-7 **SAS Global Forum**, Las Vegas, NV, USA

The SAS Global Forum (SGF, formerly called SUGI) is held each year and focuses on the technical aspects of SAS software. See www.sasglobalforum.org for more details.

5 **PhUSE Single Day Event**, Paris, France

See the PhUSE web site www.phuse.eu for further details.

12 **Using the SAS 9.2 Statistical Graphics Procedures**, webinar

See the Amadeus web site www.amadeus.co.uk/webinars for further details.

28 **PhUSE Single Day Event**, Brussels, Belgium

See the PhUSE web site www.phuse.eu for further details.

May 2011

4 **PhUSE Single Day Event**, Frankfurt, Germany

See the PhUSE web site www.phuse.eu for further details.

11 **PhUSE Single Day Event**, London

See the PhUSE web site www.phuse.eu for further details.

June/July 2011

tba **SAS Professionals Convention**, Marlow

See the www.sasprofessionals.net web site for details, when they become available.

October 2011

9-12 **PhUSE Conference**, Brighton

The Pharmaceutical Users Software Exchange (PhUSE) conference is the premier programming event for the pharmaceutical industry in Europe. See www.phuse.eu for more details.

All VIEWES event information will be posted and/or emailed to registered members of VIEWES, and will include an event application form. Please send your queries about any VIEWES events to event@views-uk.org, and don't forget to look at the web site for the latest news.

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