

# VIEWS

International SAS Programmer Community

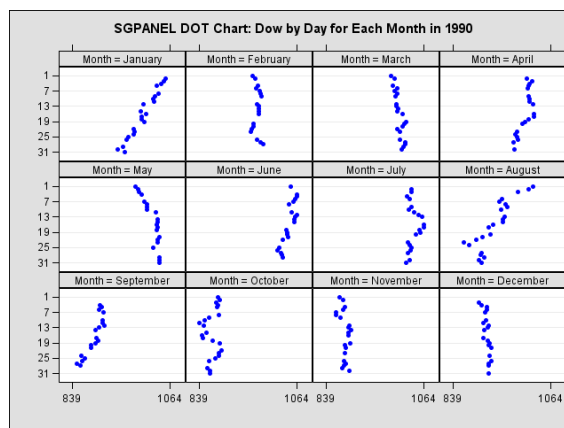


## News, Hints, Tips and Information for SAS® Users

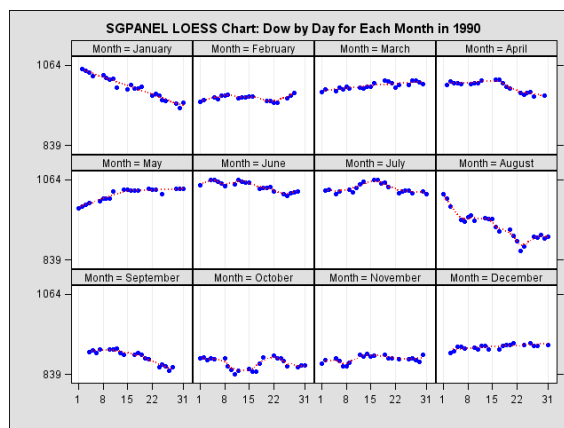
Issue 52, 4th Quarter 2010

LAYOUT facility (see SAS Problem Note 37063 at [support.sas.com](http://support.sas.com)). Even with only graphic-specific display tools, you are confronted with a situation for which I long ago coined the phrase “Options Over-Choice”.

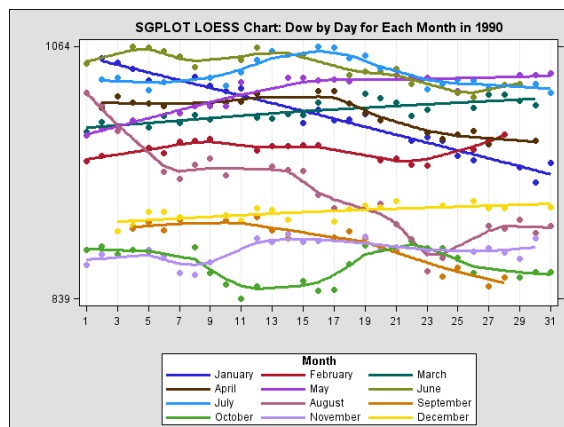
### Case 1. SGPANEL DOT Chart



### Case 2. SGPANEL LOESS Chart



### Case 3a. SGPLOT LOESS Chart (WITHOUT anti-aliasing)



I have failed again to produce this newsletter in its correct month, so I will, therefore, take this opportunity to wish all readers a very merry Christmas! I have a 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, Carole Jesse from snow-bound Minnesota, who reports on the recent MWSUG Conference, and there are also articles from our regular contributors LeRoy Bessler and Murphy Choy, with articles on multiple trend charts, word clouds and problems with balanced scorecards. Now a 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 warnings about familiar features of 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](mailto: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](mailto: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](mailto: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.

## Did You Know?

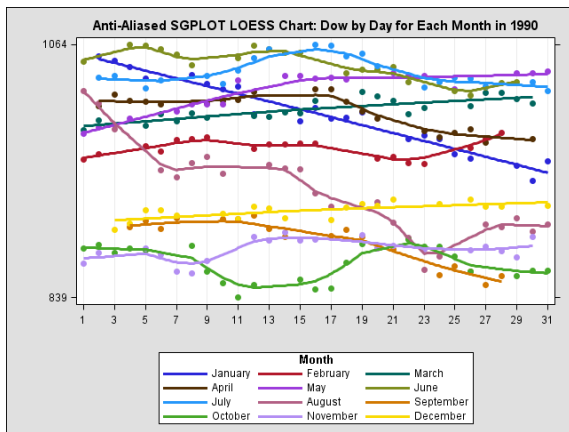
If you have a useful hint or tip, please send it to the Editor, and share it with the *VIEWS* membership.

## All the Ways to Display Multiple Trends

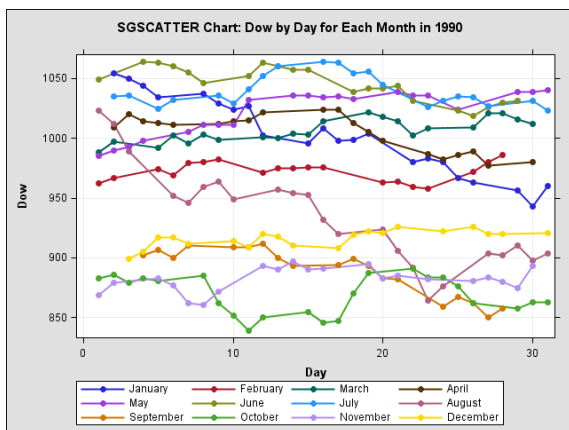
[SAS 9.2] Before the arrival of ODS GRAPHICS, the Statistical Graphics SG-prefixed procedures, and the ODS HTMLPANEL tagset, there were two ways to present multiple trends in a comparison-enabling context: PROC GCHART overlays (i.e. with a PLOT Y\*X=Z statement) or PROC GREPLAY (which can display multiple graphs in an array).

This article excludes the ODS DOCUMENT facility, which, in effect, extends the GREPLAY concept to present tabular as well as graphic outputs in an array. It also excludes the ODS

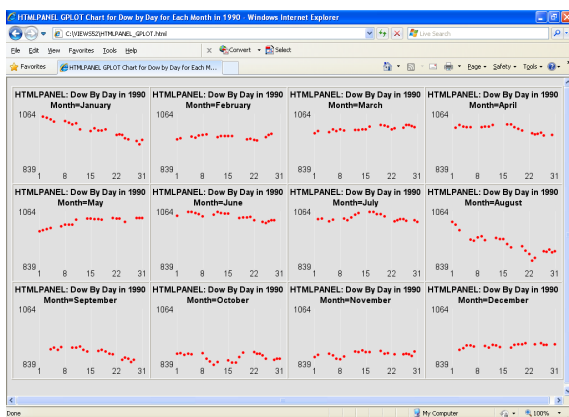
Case 3b. SGPLOT LOESS Chart (WITH anti-aliasing)



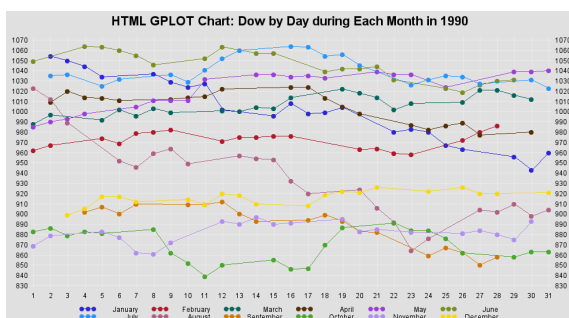
Case 4. SGSCATTER Chart



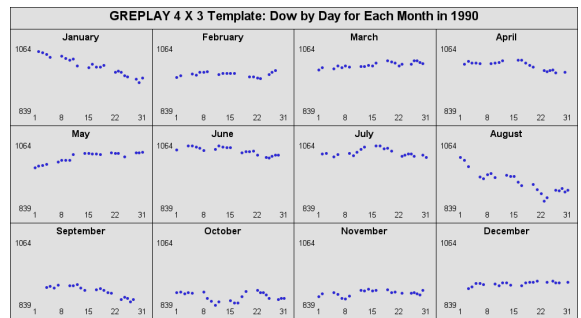
Case 5. HTMLPANEL GPLOT Chart (web page screen print)



Case 6. Traditional GPLOT Overlay Chart



Case 7. GREPLAY of GPLOTs into a 4 x 3 rectangular array



All of these examples were actually created for the ODS HTML destination. To reliably ascertain the actual value of the Dow stock market index on any specific trading day, the availability of a “tool tip” (in HTML language, ALT, or alternative, text) is essential. Tick mark values and grid lines are, at best, useful for only an estimate. The sizing of cases 6 and 7 was optimized to fill the available “live space” (see my discussion of this in *VIEWS News* Issue 37. The images for Cases 1 through 5 are the actual PNG files, which have not yet been optimized. They have the default dimensions.

I believe the best way to determine the precise value of the Dow is from pop-up ALT text on a web page and/or from a companion table. Therefore, whenever I can, I display only the year’s minimum and maximum values for the Dow. PROC SGSCATTER provides NO programmer control of tick mark values. For the day of the month, on displays that are too small to show all of the day numbers, I favour using tick mark values 1, 8, 15, 22, 31. For the small displays in the SGPPANEL DOT chart, the PROC overrode my choice with equally spaced values 1, 7, 13, 19, 25, 31. For the large displays in the SGPLOT LOESS chart, that PROC overrode my choice of 1, 2, 3, . . . , 31 with every other day instead. Only the GPLOT Overlay Chart is willing to display a tick mark for every day of the month.

In Cases 5, 6, and 7, the ALT text for PROC GPLOT is provided via the PLOT statement’s HTML parameter, which identifies a variable on the plot input data set. The variable can be customized with anything the designer/programmer desires, including line breaks, any text, and the plot point values in any format to any precision, e.g. with day of the week name, as well as month, day, year. For Statistical Graphics procedures, ALT text is triggered by IMAGEMAP=ON in an ODS GRAPHICS statement. The text displayed is simply a list of the form Variable Name (or Label) = Value. In Cases 2 and 3, the list also includes the classification variable used to distinguish the multiple lines.

Turning on anti-aliasing, to get the slightly smoother curves, for the SGPLOT LOESS chart required adding ANTIALIASMAX=2500 to the ODS GRAPHICS statement. Why the LOESS fit exhibits a preference to produce what look like straight lines (in this case, three of them) I cannot explain.

These examples were created with Version 9.2 and PNG image files. The redundant design of Case 5, with “Dow by Day in 1990” repeated in EVERY panel, rather than being a title above the array of panels, is due to the fact that the EMBEDDED\_TITLES=NO option on the ODS TAGSETS.HTMLPANEL statement does not work as documented in the Help Text for the tagset. In fact, the BYLINES=NO option does not work as documented either. However, in my case, the bylines were a desired feature.

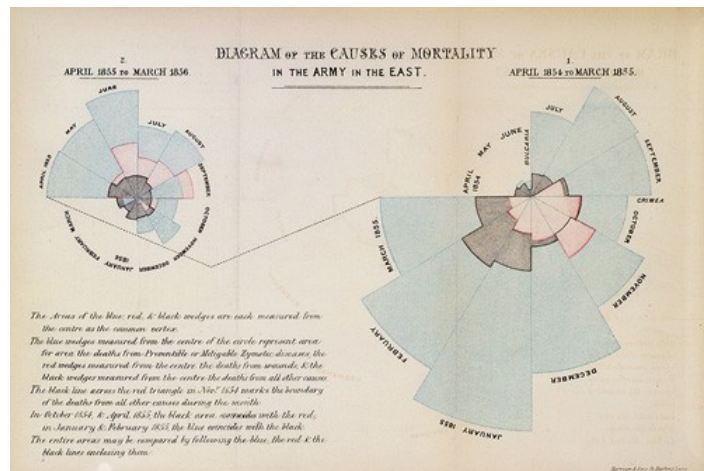
The most complex coding is that required for Case 7. If the HTMLPANEL tagset worked as documented, it would be a much simpler way to emulate what can be done with GREPLAY. Except for the preprocessing needed to prepare the ALT text variable for PROC GPLOT (which offers the advantage of custom text), all of the other six examples require about the same amount of SAS code. The code for these examples will be presented in a future issue of *VIEWS News*, but is available now upon email request to the author.

**LeRoy Bessler**

## Word Clouds with DSGI

With an increasing amount of unstructured information in the internet, data visualization of such information is fast becoming an important part of data analysis. This evolution of graphical approaches to handle unstructured data has led to a new field of analytics known as visual analytics. Newer approaches towards visualization have led to a wide variety of graphical techniques such as word clouds, linkage graphs and geo-visualizations. Many of these techniques have not been incorporated into SAS. However, innovative use of SAS macros in conjunction with the use of SAS DSGI can enable users to exploit the power of visual analytics.

Data visualization has always been an important aspect of statistical inference especially when numbers cannot convey the full picture. Many famous problems have been uncovered and solved using visual analytics. The famous Florence Nightingale produced an excellent statistical diagram detailing the causes of death in the Crimean War, which was subsequently called the Nightingale Rose Diagram (see below).



This particular graph convinced the politicians of the era of the importance of hygiene in saving lives of people. While this graph may have been useful in that era, the modern age has brought forth its need for more sophisticated displays of statistics.

While the Nightingale Rose Diagram might be the best way to display statistical information that is numeric in nature, it is of little practical use to the world of unstructured data. New demands require new solutions. One of the most frequently cited solutions to the world of increasing textual data is the word cloud chart.

Word cloud charts are extremely simple representations of textual information by randomly assigning positions in the chart area. Each word is then plotted in the font that is most representative of the impact of the word, which is typically

exemplified by how often it occurs in the data itself. By having varying word sizes, we can then visualize the impact of various words in the article which is typically unstructured data. Below is an example of word cloud:



From the data, we can see that the words *Singaporeans*, *HDB*, *flats* and *housing* are the key words that are emphasized immensely in a particular speech by a politician in Singapore. From the word cloud, we can easily see what the main themes in the speech are and where the speaker is heading. Given such usefulness in analyzing speeches, why is this so rarely found in SAS?

The problem of getting word clouds in SAS is that there are no pre-defined SAS procedures to generate these graphs. To create word clouds, one has to depend on a customized approach to building the chart, which is not necessarily the simplest of tasks for ordinary SAS programmers or analysts. At the same time, most of the SAS graphing tools does not offer the ability to draw words easily in a chart form. However, with the new experimental DSGI, it has become easier to draw such charts.

DSGI is the SAS Data Step Graphical Interface which provides a variety of tools to draw charts of words in a plot with the flexibility of chart placement. Given this functionality, the DSGI is perfect for creating word clouds. By using the SAS macro below, we can plot these clouds with ease.

Word clouds provide an excellent visual representation to help understand data. With the use of DSGI, we can simplify the creation of such charts.

```

/*****
TAG CLOUD CREATION MACRO

THIS MACRO USES THE DSGI APPROACH TO CREATE THE
TAG CLOUD IMAGES WHICH ARE WIDELY USED AS A
DISPLAY OF THE MOST CRITICAL INFORMATION FROM A
PIECE OF TEXT. THIS GRAPHICAL APPROACH HAS BEEN
IN USE FOR SOME TIME AND HAS RECENTLY GAINED
SOME MOMENTUM IN TEXT ANALYSIS.

```

```

-----
INPUTS                DESCRIPTION
-----
INPUT                TEXT FILES DATA PREPARED IN
                    A PARTICULAR WAY
MAXFONT              MAXIMUM FONT SIZE
*****
%MACRO text_cloud(input);
/*CLEANING THE DATA UP*/
DATA &input.;
  SET &input.;
  /*REMOVING SYMBOLS*/
  WORD = TRANSLATE(WORD
    , ' '
    , '.,?!:~*%$#@#_+==/{ } [ ] | ( ) '
    );
  /*REMOVING UNNECESSARY WORDS*/
  IF UPCASE(WORD) IN ('IS', 'ARE', 'WAS'
    , 'WERE', 'THE', 'I', 'WE'
    , 'THEY', 'THERE', 'THESE'
    , 'IN', 'A', 'OF', 'TO'
    , 'AND', 'IT', 'THAT'
    , 'THIS'
    ) THEN DELETE;
RUN;

/*DATA PRE-SUMMARIZATION*/
PROC SQL NOPRINT;
  CREATE TABLE wordlist
  SELECT word AS word
    , COUNT(*) AS count
  FROM   &input.
  GROUP BY
    word
  ORDER BY
    count DESC
  ;
QUIT;

/*DOW LOOP FOR MIN AND MAX CALCULATIONS*/
DATA wordlist;
  /*DECLARING THE MIN MAX VALUES*/
  min = 100;
  max = 0;

  /*ESTIMATING THE DATASET MIN AND MAX COUNTS*/
  DO UNTIL (eof);
    SET wordlist END = eof;
    IF count < min THEN min = count;
    IF count > max THEN max = count;
  END;

  /*CALCULATING THE FONTSIZE*/
  DO UNTIL (eof2);
    SET wordlist END = eof2;
    fontsize =
      2 + CEIL(14 * (count-min) / (max-min));
    OUTPUT;
  END;
RUN;

/*SORTING THE DATA AND CREATING THE DATA NEEDED
FOR PRINTING*/
PROC SORT DATA = wordlist;
  BY DESCENDING fontsize;
RUN;

DATA wordlist;
  SET wordlist (OBS = 49);
  random = RANUNI(0);
RUN;

```

```

PROC SORT DATA = wordlist;
  BY random;
RUN;

/*DECLARING THE MACRO VARIABLES*/
DATA _NULL_;
  SET wordlist;
  CALL SYMPUT("word" || TRIM(LEFT(_N_))
    , word);
  CALL SYMPUT("font" || TRIM(LEFT(_N_))
    , fontsize);
  CALL SYMPUT("counts", _N_);
RUN;

/*DECLARING THE IMAGE SPECIFICATIONS*/
GOPTIONS RESET = GLOBAL GUNIT = PCT BORDER
  HSIZE = 10 IN VSIZE = 6 IN;

/* EXECUTE DATA STEP WITH DSGI */
DATA _NULL_;
  /*CREATION A LOCATION MEMORY SPOT*/
  RETAIN x y;
  /*INITIAL SPOT*/
  x = 10;
  y = 90;
  /* PREPARE SAS/GRAPH SOFTWARE TO ACCEPT
  DSGI STATEMENTS */
  rc = GINIT();
  rc = GRAPH('CLEAR');

  /*SETTING THE FONT*/
  rc = GSET('TEXTFONT', 'SWISSB');

  /*CREATION OF COUNTER*/
  %LET base = 0;

  /*CREATING THE LOOP*/
  %DO i = 1 %TO 7;
    %DO j = 1 %TO 7;
      /*EVALUATE THE COUNTERS*/
      %LET base = %EVAL(&base. + 1);
      /*DECLARING THE TEXT COLORS*/
      rc = GSET('TEXTCOLOR'
        , FLOOR(RANUNI(0) * 5 + 1));

      /*CALCULATING THE NEXT POSITION*/
      IF x + (&font&base.)
        * LENGTH("&word&base.") / 2 > 160
      THEN DO;
        x = 10;
        y = y - 20;
      END;

      /* DEFINE HEIGHT OF TEXT */
      rc = GSET('TEXHEIGHT', &font&base.);
      rc = GDRAW('TEXT', x, y, "&word&base.");
      /*CALCULATING THE NEXT POSITION*/
      x = x + (&font&base.)
        * LENGTH("&word&base.") / 2;
    %END;
  %END;

  /* DISPLAY THE GRAPH AND END DSGI */
  rc = GRAPH('UPDATE');
  rc = GTERM();
RUN;

%MEND;

```

**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.*

### Data Envelopment Analysis of Bank Branches

**Q:** Do balanced scorecards give accurate results?

**A:** Performance management has been one of the many interesting developments in the field of management in the early turn of the century. With increasing bottomlines and reduced margin, the focus on achieving a higher level of profit with lower cost has been highlighted as the key challenge that management faces. During the 1980s, companies began to use balanced scorecard techniques to measure the performance of the various operating sections. However, there were several problems that came along with the use of such scorecards. The most controversial aspect of the scorecard is the lack of objectivity when it comes to scoring the business for its result. To understand this, we have to first examine the basis on which balance scorecard is developed.

The concept of a balanced scorecard is a development by Robert Kaplan and David Norton to handle long term performance management of a company. Traditional performance management measures focus on the number from annual reports, which are used as the basis for evaluation by stakeholders. This approach led to an extremely short term, tactical view of the business operation resulting in risky business practices. To move away from such behaviours, the Balanced Scorecard method was proposed as the solution.

Balance Scorecard incorporated 4 major aspects of the business and sought to quantify the business according to the dimensions:

- Customer Perspective
- Excellence in Specialization
- Value Creation
- Stakeholder reputation

Using these 4 dimensions, quantifiable targets were created and measured in order to understand the performance of the management. In most common scenarios, the 4 main measures are as follows:

- Finance
- Customer
- Business Processes
- Innovation

Through these 4 main measures, a series of goals and targets were planned in differing time periods which were then used to manage the business and align the goals of the organization. However, there are several major problems with the use of balanced scorecards.

One of the main problems with the use of balanced scorecards is the lack of objectivity in the selection of measures. This is the most cited criticism of the approach. In management meetings, it is very crucial to engage the various parties to ensure that consensus is achieved with regards to all aspects of the measures. While theoretically feasible, in practical terms, it is extremely difficult to get consensus as the various operating divisions will always attempt to maximize their advantage in getting a high score. This results in many difficulties in implementation which

often spells doom for the scorecard.

The successful implementation of the balanced scorecard does not in anyway guarantee success in the business objective. The other problem of the balanced scorecard is the lack of any form of measure of efficiency. Without any proper measurement of efficiency, it is almost impossible to measure management performance given the resource input. In order to achieve a more objective measuring model, Data Envelopment Analysis (DEA) is considered to be the preferred approach in this case.

DEA is a non-parametric operation research technique that is used to estimate production frontier in economics and management science. As the production frontier is widely held to be the most efficient production mix given inputs, by estimating it, we can form the basis of comparison. By comparing existing production to the frontier, we can identify which are the least efficient producers and actions can be taken to ensure better efficiency.

DEA approaches the problem by comparing the inputs and the outputs. Using this information, a linear programming model is built to estimate the production frontier. As linear programming allows for multiple inputs and outputs, this makes it very easy to compare a large number of cases. At the same time, there is no attempt to impose a pre-defined mathematical model which reduces the likelihood of misspecifications. It is able to handle new inputs and outputs without any difficulties. Most importantly, the approach allows the user to see which specific areas, within a unit, need improvement.

While DEA is useful, it is not without shortcomings. As with most non-parametric techniques, it is relatively susceptible to changes in the production frontier given a change in the inputs or outputs. At the same time, due to the relative nature of the model, it does not provide an absolute best specification for any unit thus making it a relative comparison tool.

#### Case Study: AOB Bank

AOB Bank is evaluating the performance of the various offices in the state Bodoland. The traditional balance scorecard process is done in the various offices. However, performances have been dismal in the past few years with poor sales performance and decreasing customer base. The office in ZJ has been the best performing branch in the last year compared to other branches in the state. However, the Director of Banking Operations in the state of Bodoland also noticed that the ZJ branch has a higher operating budget than the other branches. The director has engaged your services as a management scientist to objectively evaluate the performance of the branches using operation research techniques.

The director wishes to compare the performance of ZJ branch with the other branches by measuring the efficiency of the branch.

To analyse the efficiency, we have to first identify the inputs and outputs of the branches. The branches receive resources in terms of manpower, monetary budget and customer base. Manpower here is defined as the number of permanent staff per 100 customers, and is expressed as a ratio. Monetary budget is the operating budget of the branches, and is expressed in the form of thousands of dollars. The last measure is the customer base, which is calculated as the total population handled by the branch in the vicinity of the operation, and is expressed as thousands of customers.

| Branches | Manpower | Monetary Budget | Client Population |
|----------|----------|-----------------|-------------------|
| UJ       | 0.06     | 260             | 11.3              |
| KJ       | 0.05     | 320             | 10.5              |
| DJ       | 0.08     | 340             | 12.0              |
| ZJ       | 0.06     | 460             | 13.1              |

The key measurements are the results from the balanced scorecard which the various branches are evaluated on: customer value score, reputation rating and financial efficacy score.

| Branches | Customer Value Score | Reputation Score | Financial Score |
|----------|----------------------|------------------|-----------------|
| UJ       | 82                   | 72               | 67              |
| KJ       | 81                   | 79               | 80              |
| DJ       | 81                   | 73               | 69              |
| ZJ       | 86                   | 75               | 71              |

Using the above information, we can now start formulating the Data Envelopment Model. The first criteria is to set the score as the sum of the products of the outputs with the output parameter of the production frontier. The second criteria is to limit the sum of the products of the inputs and the input parameter of the frontier to 1. By setting the input sum of the products to 1, we effectively ensure that all other cases will be less than or equal to 1. The final constraint in the model is to set the sum of the products of the output to be less than or equal to the sum of the products of the inputs. With these constraints and the values for input and output, the following SAS code can be used to calculate the score for the ZJ branch:

```
PROC OPTMODEL;
  SET input = {1, 2, 3};
  SET output = {1, 2, 3};
  SET bank = {'UJ', 'KJ', 'DJ', 'ZJ'};
  NUMBER INPUTS{bank, input} = [
    0.06 260 11.3
    0.05 320 10.5
    0.08 340 12.0
    0.06 460 13.1
  ];
  NUMBER OUTPUTS{bank, output} = [
    82 72 67
    81 79 80
    81 73 69
    86 75 71
  ];
  VAR x{1..3} >= 0;
  VAR y{1..3} >= 0;
  MAX score =
    SUM{i IN output} OUTPUTS['ZJ', i]
    * x[i];
  CON INPUTCON:
    SUM{i IN input} INPUTS['ZJ', i] * y[i]
    = 1;
  CON OVERALL{I IN BANK}:
    SUM{j IN output} OUTPUTS[i, j] * x[j]
    <=
    SUM{j IN input} INPUTS[i, j] * y[j];
  SOLVE;
  PRINT score;
RUN;
QUIT;
```

Running the SAS code, we will obtain the results below:

|                             |                     |
|-----------------------------|---------------------|
| <b>Solver</b>               | <b>Dual Simplex</b> |
| <b>Objective Function</b>   | <b>SCORE</b>        |
| <b>Solution Status</b>      | <b>Optimal</b>      |
| <b>Objective Value</b>      | <b>0.88477</b>      |
| <b>Iterations</b>           | <b>3</b>            |
| <b>Primal Infeasibility</b> | <b>3.469447E-18</b> |
| <b>Dual Infeasibility</b>   | <b>0</b>            |
| <b>Bound Infeasibility</b>  | <b>0</b>            |
| <b>Score</b>                |                     |
| <b>0.88477</b>              |                     |

From the results, we can see that the branch is not the most efficient branch. By using the reduced cost suffix on the input parameters of the frontier, we can see the main area of weakness.

|            |                  |
|------------|------------------|
| <b>[1]</b> | <b>Y.RC</b>      |
| <b>1</b>   | <b>-0.00000</b>  |
| <b>2</b>   | <b>-67.24280</b> |
| <b>3</b>   | <b>-0.44239</b>  |

From the results, we can see that the key input that is causing the reduction in efficiency is the monetary budget. It has the highest budget compared to the other branches. With such huge inputs, it was expected to perform much better than the others, however it did not. By running the same process for the other branches, it was established that the UJ branch is the most efficient branch among the 4 branches.

From this example, we can clearly see the problem of over reliance on the balanced scorecard as an indication of performance. By actively adopting operation research techniques, a more robust and objective approach will help management to better identify areas in which improvement is needed.

**Murphy Choy, University College Dublin**

## 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.

## The Shuffle Riff

Consider yourself the SAS programmer who works in a team that deals with address data. Unfortunately, the system used to capture address details does not have any constraints on how address details are entered.

```
DATA sample;
  LENGTH sku 8 address1-address4 $30;
  INFILE DATALINES DLM = ',' DSD MISSOVER;
  INPUT sku address1 $ address2 $ address3 $
        address4 $;
  DATALINES;
0001,9 Church Green,Witney,Oxfordshire,OX28 4AZ
0002,,2 Witney Lane,Leafield,OX29 9PG,
0004,176 Monovale Dr,Los Angeles,CA United States,
0005,,,24800 Pacific Coast Highway,Malibu,
0006,,31663 Broadbeach Way.,Malibu
RUN;

/* A PROC PRINT of your output should appear as
follows:

sku address1                address2    address3    address4
1  9 Church Green           Witney      Oxfordshire  OX28 4AZ
2  2 Witney Lane            Leafield    OX29 9PG
4  176 Monovale Dr          Los Angeles CA United States
5  24800 Pacific Coast Highway Malibu
6  31663 Broadbeach Way.    Malibu
*/
```

Write a SAS program which shuffles the addresses such that Address1 is always populated with the first address line given, Address2 is always populated with the second address line given, etc. Your results should appear as shown within the comments of the SAS program above.

Finally (and nothing to do with SAS) what is the significance of each address?

If you wish us to consider your solution for publication, send it to [fq@amadeus.co.uk](mailto:fq@amadeus.co.uk) by the 31 January 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](http://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.*

The **TRANWRD()** function allows you to update a substring within another string. However you should be aware that, although it can cope with strings greater than 200 characters, unless the output string is pre-defined as greater than 200 characters, it will only return a maximum of 200 characters. This may seem obvious, but when using **TRANWRD()** as a function within another function, you may find that you don't get the results you expect! This also applies to many other string functions.

When allocating a **FILENAME** statement to a database, the **PATH=** option is used to specify the location of that database, whether it is ORACLE, dBase IV or DB/2. The name of this option should not, therefore, be taken literally!

The **BESTw.d** format writes numeric values in the most appropriate layout to fit into the space available. It should be remembered that the **BESTw.d** informat reads numeric values in the most appropriate way, and is an alias of **Dw.d**, **Ew.d**, **Fw.d** and **w.d**.

## News

### 2010 MWSUG Conference in Milwaukee

The two and a half day 2010 MidWest SAS Users Group Conference kicked off on Sunday 10 October 2010, with a closing session late in the day on Tuesday 12 October 2010. The attendance had grown to approximately 400 registered attendees by the time of the kick-off Opening Session Dinner at the Milwaukee Hilton. Interestingly, about half of the attendees were first timers.

Attendees were immediately entertained at the Opening Session Dinner by Art Carpenter's tongue in cheek "Programming for Job Security". Art demonstrated how to write SAS code that no one will understand, that won't work (or won't work the way it is supposed to) and otherwise confuse others who have to work with it. SAS' Diane Hatcher also took the stage and gave the audience a peek at future SAS solutions in development, including a mobile application for analytics demonstrated on an iPhone.

Over the course of the following two days, 9 parallel sections provided endless material, with subjects of interest for beginners and advanced SAS users alike. The demo area included an "Innovation Wall" run by SAS' Margo Stutesman, where attendees could describe the ways in which they have innovated with SAS software. There were plenty of give-aways at the SAS publishing booth where SAS' Shelly Goodin kept the freebies coming. Overall, a "hats-off" to the three co-chairs Alexandra Riley, Craig Wildeman and LeRoy Bessler, for a well planned and executed conference.

*Carole Jesse*

### eBook Review: Quick Results with PROC SQL

Sunil Gupta's excellent e-Guide packs a vast amount of advice and examples about PROC SQL into its 9 pages. Whether you want to extract subsets of data from SAS or relational databases, join tables together, create new tables, or just generate macro variables, then there is a section to help you. All the examples are clearly annotated to help you get the most out of your SQL code. The final benefit is that, being an e-Guide, you can copy and paste the examples directly into your own programs. It can be downloaded from [stores.lulu.com/sunil1021](http://stores.lulu.com/sunil1021).

*Philip R Holland*

## PhUSE News

### 2010 PhUSE Conference

In October, PhUSE held its 6th Annual Conference in Berlin. Heidi Curinckx did an amazing job of chairing the conference and with 368 people attending it was considered a great success. This year's main theme was Innovation Driven by Technology. You can read more about the conference on the PhUSE website ([www.phuse.eu](http://www.phuse.eu)) and PhUSE members will be able to review the papers presented. Next year's conference will be held in Brighton on the 9-12 October 2011.

*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](http://www.sasCommunity.org/wiki/VIEWES_News)
- Andrew Ratcliffe's excellent email newsletter "NOTE:" has been converted into a blog at [notecolon.info](http://notecolon.info).
- More SAS hints and tips can be found on the SAS FAQ pages [www.hollandnumerics.com/sasfaq](http://www.hollandnumerics.com/sasfaq) and also on the Amadeus Software Tips pages at [www.amadeus.co.uk/tips](http://www.amadeus.co.uk/tips).
- 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](http://www.sasprofessionals.net), but currently totalling more than 4,000 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](http://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](http://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](http://www.squidoo.com/sas_contractors)
- SAS users who use Twitter can now join a "twibe" at [twibes.com/SAS](http://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/April 2011

- tba **PhUSE Single Day Event**, Basel, Switzerland  
See the PhUSE web site [www.phuse.eu](http://www.phuse.eu) for further details.
- tba **PhUSE Single Day Event**, Brussels, Belgium  
See the PhUSE web site [www.phuse.eu](http://www.phuse.eu) for further details.
- tba **PhUSE Single Day Event**, Copenhagen, Denmark  
See the PhUSE web site [www.phuse.eu](http://www.phuse.eu) for further details.
- tba **PhUSE Single Day Event**, Frankfurt, Germany  
See the PhUSE web site [www.phuse.eu](http://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](http://www.sasglobalforum.org) for more details.

### May 2011

- tba **PhUSE Single Day Event**, London  
See the PhUSE web site [www.phuse.eu](http://www.phuse.eu) for further details.

### June/July 2011

- tba **SAS Professionals Convention**, Marlow  
See the [www.sasprofessionals.net](http://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](http://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](mailto:event@views-uk.org), and don't forget to look at the web site for the latest news.*

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