

VIEWS NEWS



News, Hints, Tips, and information for UK SAS Users

Issue 2 Spring 1998

I'm sure you'll be keen to read the overview of what was on offer at this year's SUGI conference in Nashville. SUGI was the first significant opportunity to hear about the new features contained in version 7. If you want to know more, and can't attend SEUGI, make sure you book your seat for July's VIEWS meeting. We'll be including a detailed review of version 7 and all of its new features.

VIEWS News is your eyes and ears onto the SAS-world. Keep the mail coming - we love to read your comments and suggestions. All persons and organisations referenced in this issue are listed in the Contacts section

Andrew Ratcliffe (Editor)

The Consultant...

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

Do Templates Have a Future?

Q: With the increasing graphical manipulation features of word processing (WP) and desktop publishing (DTP) software, there seems no significant use for SAS/GRAPH software's templates anymore. Would you agree?

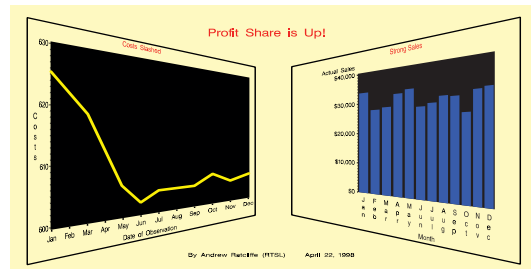


Figure 1. Do Templates have a Future?

A: I agree, to some extent WPs and DTPs have decreased the benefit of SAS Templates, but IMHO they do still have a use. Firstly, in the pharmaceutical industry where the emphasis is on getting data into study reports with minimal manual intervention, and secondly where GREPLAY can do nice things not so easily done in WPs. Take a look at the code following this article. It was used to produce Figure 1.

The example code displays two graphics in a visually interesting manner. Handy for showing two key graphs on the front page of a report. It's of no use for literal comparison between the graphs (they should be shown properly inside the report), but it makes people pick-up the report and start to read it - which is half the battle.

```
proc datasets lib=work nolist;
  delete views/mt=catalog;
run; quit;

goptions ftext=swiss htext=2 cback=CXFFFFB;

goptions nodisplay;

footnote;

title c=red 'Strong Sales';
proc gchart data=sashelp.prdsale gout=work.views;
  where year eq 1994;
  vbar month / sumvar=actual discrete frame;
  pattern c=blue value=solid;
  format actual dollar12.0;
run; quit;
```

```
title c=red 'Costs Slashed';
proc gplot data=sashelp.citimon gout=work.views;
  where date between '1jan89'd and '31dec89'd;
  plot fmlid82*date/haxis='1jan89'd to '1dec89'd by month frame;
  symbol i=join w=4;
  label fmlid82='Costs';
  format date monname3.;
run; quit;

title c=red 'Profit Share is Up!';
footnote h=1 'By Andrew Ratcliffe (RTSL) %sysfunc(date(), worddate.) ';
proc gslide gout=work.views; run; quit;

goptions display;

proc greplay igout=work.views gout=work.final
  nobs tc=work.template;
  tdef front 1/llx=0 lly=0 ulx=0 uly=100
    lrx=48 lry=20 urx=48 ury=80
    2/llx=52 lly=20 ulx=52 uly=80
    lrx=100 lry=0 urx=100 ury=100
    3/llx=0 lly=0 ulx=0 uly=100
    lrx=100 lry=0 urx=100 ury=100;
  template front;
  treplay 1=gplot 2=gchart 3=gslide;
run; quit;
```

Andrew Ratcliffe

Is It Numeric?

Q: Do you have a good way of checking a character string to see if it contains one valid number? I'm reading lines from a file and this is how I can tell data lines from title lines. Unfortunately my numbers sometimes include the exponentiation symbol (E).

A: The INPUT function can do this nicely with the ?? format modifier, which prevents error messages (and _ERROR_ from being set) for non-numeric values. Some demonstration code follows.

```
data _null_;
  input @1 charvar $char8.;
  length status $ 16;
  if input(charvar, ?? 8.) eq . then
    status = 'Non-numeric';
  else
    status = 'Numeric';
  put @1 charvar $char8. @12 status;
  cards;

      Non-numeric
11      Numeric
22      Numeric
3.14    Numeric
2.3E3   Numeric
BAD NUM Non-numeric
6E7E8   Non-numeric
1 2      Non-numeric
NOTE: The DATA statement used 0.66 seconds.
```



Win A Free Flight to Europe!

Regular visitors to the VIEWS web site will know that VIEWS has been running a SAS coding competition. The competition was launched after the publication date of the last edition of VIEWS News so we were not surprised that the number of entries did not satisfy our minimum criteria. No prizes were awarded and we're running another competition (with a different question).

All SAS coders in the UK are invited to submit entries for the competition whose prizes are generously supplied by Base 3 Systems and SAS Institute. As SAS Institute Quality Partners, Base 3 Systems are highly supportive of VIEWS' efforts to increase SAS coding standards throughout the UK.

The full question is on the VIEWS web site at <http://www.views-uk.demon.co.uk>. Get your thinking caps on and give it a go. Entries must be received by the end of June.

Andrew Ratcliffe

The length of the informat that you specify in the INPUT function must be the same as (or greater than) the length of the string variable you're using (eight in our case).

Andrew Ratcliffe

Cross-Shaped Axes

Q: I need to plot a scattergram of data using cross-shaped axes (as opposed to SAS's regular L-shape). Can SAS do this?

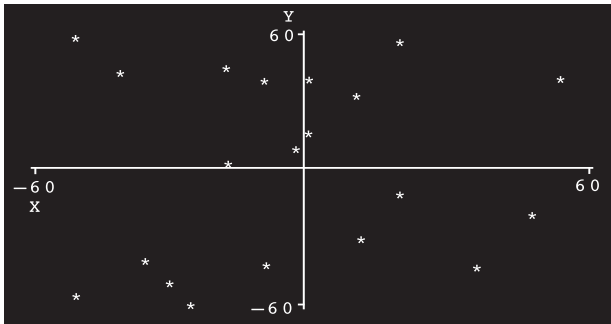


Figure 2. Cross-Shaped Axes

A: Yes, you just need to use AXIS statements with the ORIGIN option on each. Take a look at the following code. The result is shown in Figure 2.

```
data testdata;
  drop i;
  do i=1 to 20;
    x=ranuni(0)*120 - 60;
    y=ranuni(0)*120 - 60;
    output;
  end;
run;

axis1 origin=(0pct,50pct)
      order=(-60 to 60 by 120)
      label=(justify=left);
axis2 origin=(50pct,0pct)
      order=(-60 to 60 by 120);
symbol1 v=star;

proc gplot data=testdata;
  plot y*x / haxis=axis1 vaxis=axis2;
run;
quit;
```

The ORIGIN parameter tells SAS where to place the start of the horizontal (AXIS1) and vertical (AXIS2) axes on the page.

I've used LABEL on the horizontal axis definition to move the label ("X") to the left-hand end of the axis rather than the default central position – which leaves it on top of the Y axis. I've used the ORDER option so that I only get tick-mark labels at the ends of the axes, not at each major tick-mark (not even at zero).

That's the fundamentals but, as with most SAS graphs, we need to do some more work to make it look tidy. I'll cover this in the next issue...

Andrew Ratcliffe

Did You Know?

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

PUT Alignment

By default character values are left-justified, but this can be changed using the format modifiers described on Page 462-465 of the SAS Language Reference manual.

-L	Left align value
-C	Centre value
-R	Right align value

Here's an example:

```
data _null_ ;
  retain text 'Read VIEWS regularly' ;
  put text $60. ;          * Default alignment ;
  put text $60. -L ;       * Left ;
  put text $60. -C ;       * Centre ;
  put text $60. -R ;       * Right ;
```

```
run ;
Read VIEWS regularly
Read VIEWS regularly
Read VIEWS regularly
Read VIEWS regularly
```

Andrew Ratcliffe

Put a Zip in Your Pipe And Smoke It

Pipes are a way to read live output from programs. A good application of this is to read compressed data as it is decompressed. This enables you to read files that may be too large to fit on your disk if uncompressed. The example below uses PKZIP to decompress an archive. The -c option sends decompressed data to the console, which means that it flows into the pipe, and can be read by SAS. The PIPE parameter must be specified on the FILENAME statement to use tell SAS that this fileref is a pipe.

```
450 ** Define pipe to get output from PKZIP ;
451 FILENAME testpipe PIPE 'pkunzip.exe c:\temp\test -c' ;
452
453 data report ;
454 * Read data from pipe ;
455 infile testpipe ;
456 input line & $200. ;
457 * Skipping PKZIP header ;
458 if _n_<=9 then
459   delete ;
460 run ;
NOTE: The infile TESTPIPE is:
FILENAME=pkunzip.exe c:\temp\test -c,
RECFM=V,LRECL=66
```

```
NOTE: 16 records were read from the infile TESTPIPE.
The minimum record length was 0.
The maximum record length was 66.
NOTE: SAS went to a new line when INPUT statement reached past the end
of a line.
NOTE: The data set WORK.REPORT has 2 observations and 1 variables.
NOTE: The DATA statement used 3.29 seconds.
461
462 proc print data=report ;
463 run ;

NOTE: The PROCEDURE PRINT used 2.75 seconds.
```

Whilst the example is for SAS running PKZIP on a PC, the concept is equally applicable to many other compression utilities on other platforms, for example TAR on UNIX.

Phil Mason

Don't Use The DATE. Format!

Nor many of the other date and datetime formats. No, there's nothing wrong with them, but if you're using SAS version 6.10 or later, and if you're writing



Notes From Nashville

Yeehaaa. The world's largest conference centre (Opryland, Nashville) played host to the 23rd international SAS users group meeting at the end of March. Close to three thousand attendees assembled to share knowledge and experience, and to hear details of version 7 of the SAS System.

With seminars, hands-on workshops, posters, and 300 papers spread across 13 streams, attendees had a tough time deciding which sessions to attend.

As part of version 7 (to be shipped 4Q98, subject to satisfactory quality assurance testing), SAS Institute announced a raft of incremental improvements throughout their range of products. Those enhancements included:

- Long names for the likes of variables, members, and procedures
- A comprehensive output delivery system (ODS) permitting PROC output to be written as data sets and HTML in addition to the conventional Output window and output file.
- An extensive array of new client/server features, ranging from a wider range of data sources through to Java-based client front-ends and a Java development environment.

Many attendees expecting revolutionary enhancements were disappointed by what they heard. SAS Institute staff, however, were keen to suggest privately that the changes made for version 7 were largely structural and unseen. These changes, they insisted, would permit many significant new features to be added in due course. We await those enhancements with interest.

Andrew Ratcliffe

programs that may be used internationally, you might like to consider using the international date and datetime formats instead.

The SAS System now supports international formats that are equivalent to some of the most commonly used English-language date formats. In each case the format works like the corresponding English-language format. Only the maximum, minimum, and default width are different. An example follows. Note the use of the DFLANG system option to specify the language required.

```
options dflang=french;

data _null_;
  date='1aug98'd;
  put date date. / date worddate. / date eurdfde. / date eurdfwdx.;
run;

01AUG98
      1 August 1998
01aou98
      1er août 1998
NOTE: The DATA statement used 0.95 seconds.
```

Andrew Ratcliffe

Control of SAS/EIS

If you have a SAS Frame application that takes you to an EIS object, you can often control several aspects of the EIS object from the Frame SCL. Each EIS object has an SCL List that controls its initial display, initial where clause and other aspects. You can access this SCL list and change values within it before you call the EIS object.

Use the FILLIST function with the EIS objects name:

```
rc=fillist('EIS'
           , 'SASUSER.TEST.TEST.MULTI'
           , TLIST);
```

Using getnitem() and setnitem() you can change the values in this list. Use savelist() to save it back and then call the EIS object. Note that the use of an EIS object in this way is not documented in the SAS manuals.

Amadeus SAS Consultancy Team

News

IEWS Web Site Continues to Grow

Have you visited us recently? The content of the IEWS web site is expanding week-by-week. In addition to the SAS coding competition, the web site offers an FTP archive of useful SAS software utilities, back issues of IEWS News, details about the committee, the latest news on IEWS events, and much more.



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Online Observations

Many of us lament the loss of SAS Institute's quarterly technical journal named *Observations*. In the middle of last year it was replaced with an online version. Besides not being available to those without web access, it is necessary to repeatedly visit the web site to look for new articles appearing.

The current feature article is *Indexing in the SAS System, Version 6*. Here is the list of previous articles listed in early April.

- Dynamic Hotspotting with the SAS/GRAPH Output Object in SAS/AF FRAME Entries.
- SAS/AF Interface For Dynamic Hotspotting of SAS/GRAPH Outputs.
- SCL for the Rest of Us: Nonvisual Uses of Screen Control Language.
- Dynamically Creating Templates with PROC GREPLAY.
- Self-modifying SAS Programs: A DATA Step Interface.
- A Tip for Using the TABULATE Procedure: Generating Tables with Percentages in Only One Category.
- The Importance of the IN = Data Set Option in Merging Data Sets.

In Brief

- SAS V6.12 TS045 is now available and being automatically shipped for PC, UNIX, and Alpha VMS platforms. TS045 requires an existing TS020 installation.
- Use the current date/time in a title:
`title "%sysfunc(date(), date9.) %sysfunc(time(), time.);"`
- SAS Institute has welcomed Info Quest Solutions as its fifth UK Quality Partner.
- SAS Institute's new *Solutions@Work: SAS/IntrNet Examples* CD contains tools and example applications that offer detailed information and guidelines designed for SAS programmers and users who wish to extend their SAS applications to the Web using SAS/IntrNet software.
- The SAS webring is now active.
Visit the home of the webring: <http://www.pwcons.com>
- VIEWS News is now online on the VIEWS web site.
- Is this your own copy of *IEWS News*? If not, send your postal address to Bruce Bovill at SAS Institute and get yourself joined. It's free!
- On the subject of the VIEWS mailing list, be reassured that VIEWS do not sell or distribute your contact details to anyone.

Diary

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

June 1998

- 9-12 SEUGI 16 in Prague, Czech Republic.
Europe's biggest SAS user group event. Contact SAS Institute for further information.

July 1998

- 9 VIEWS 4 at the Paragon Hotel, Earls Court, London.
Contact a VIEWS committee member or check-out the web site for more information. *Registration is free.*

August 1998

- 1 Summer edition of *IEWS News* published

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