

VIEWS

International SAS Programmer Community



News, Hints, Tips and Information for SAS® Users

Issue 32, 4th Quarter 2005

Shoe Sales in Europe by City
Total Sales = 7,267,940

	Sales	Percent
Heidelberg	967739	13.32
Lisbon	898345	12.36
Warsaw	786714	10.82
London	762009	10.48
Copenhagen	693116	9.54
Prague	636721	8.76
Paris	621877	8.56
Moscow	560976	7.72
Geneva	447208	6.15
Budapest	410529	5.65
Rome	282064	3.88
Madrid	200642	2.76

There is no limit to the number of bars that this chart can handle, but for a sufficiently large number, the viewer may have difficulty trying to associate the bar name with its respective data in the lists. Though the situation in this rather small chart may not be a demonstration of that problem, the solution, when needed, is to omit the lists, and to annotate their data to the ends of the bars. A further minor enhancement to readability is to right-justify the bar names.

Here is the result:

Shoe Sales in Europe by City
Total Sales = 7,267,940

Heidelberg	967,739 - 13%
Lisbon	898,345 - 12%
Warsaw	786,714 - 11%
London	762,009 - 10%
Copenhagen	693,116 - 10%
Prague	636,721 - 9%
Paris	621,877 - 9%
Moscow	560,976 - 8%
Geneva	447,208 - 6%
Budapest	410,529 - 6%
Rome	282,064 - 4%
Madrid	200,642 - 3%

The conference season has ended for 2006 with 2 big events in Heidelberg and Birmingham, both with *VIEWS* involvement.

The 1st PhUSE Conference in Heidelberg was a great success with presentations and posters from SAS experts well known to *VIEWS* News readers. LeRoy Bessler, one of those experts, has another of his SAS/GRAPH articles in this issue.

The SAS Forum UK in Birmingham has, hopefully, opened another chapter in the history of *VIEWS*, where the Hints & Tips Special Interest Group was jointly chaired by SAS UK and *VIEWS*. More news about the conferences, can be found in the News, PhUSE News and Diary sections below.

In this issue of *VIEWS* News I'd like to welcome back the Amadeus Software Consultancy Team who have submitted 2 articles, and introduce a new *VIEWS* News SAS Consultant, Graham Ritchie, with his article about reading files on FTP servers. You will also find my regular Formats, Options, and Functions section. I hope you will find them all interesting.

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

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.

Did You Know?

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

Annotating the Horizontal Bar Chart

From Issue 28 of *VIEWS* News, below is a bar chart alternative to the pie chart. Code to create it was also presented at the end of that article.

Here is the code used to create this chart:

```
PROC SUMMARY DATA = sashelp.shoes
    (KEEP = Region Subsidiary Sales);
WHERE INDEX(Region, 'Europe') NE 0;
CLASS Subsidiary;
VAR Sales;
OUTPUT SUM = Sales
OUT = work.Summary
    (RENAME = (Subsidiary = City)
     DROP = _FREQ_);
FORMAT Sales COMMA10.;
LABEL Sales = 'Sales';
RUN;

DATA work.ToChart;
    DROP _TYPE_;
    SET work.Summary;
    IF _TYPE_ = 1 THEN OUTPUT;
    ELSE DO;
        CALL SYMPUT('Total',Sales);
        CALL SYMPUT('TotalForTitle',
            TRIM(LEFT(PUT(Sales, comma10.))));
    END;
RUN;

DATA work.ForAnnotation(DROP = City Sales);
    LENGTH text $14
           style $40
           function color $8
           position xsys ysys hsys when $1
           size 3;
    RETAIN style "'Verdana'" function 'label'
           color 'CX000000' position '6'
           xsys ysys '2' hsys '4' when 'a'
           size 1;
    SET work.ToChart;
    yc = City;
    x = Sales;
    text = ' '
    || TRIM(LEFT(PUT(Sales,comma7.)))
    || ' - '
    || TRIM(LEFT(PUT(((Sales/&Total)*100),2.)))
    || '%';
RUN;

GOPTIONS RESET = ALL;
GOPTIONS NOBORDER
    DEVICE = PNG GSFNAME = anyname
    VPOS = 20 YMAX = 3 IN
    VSIZE = 3 IN YPIXELS = 900
    HPOS = 34 XMAX = 3.25 IN
    HSIZE = 3.25 IN XPIXELS = 975
    HTEXT = 1.0 FTEXT = 'Verdana'
    CTEXT = 'CX000000';

TITLE1 H = 0.5 F = NONE ' ' ;
TITLE2 H = 1.0 F = 'Georgia' J = C C = CX000000
    'Shoe Sales in Europe by City';
TITLE3 H = 1.0 F = 'Georgia' J = C C = CX000000
    "Total Sales = &TotalForTitle";

PATTERN1 V = solid C = CXCCCCC R = 99;

AXIS1 LABEL = NONE MAJOR = NONE MINOR = NONE
    STYLE = 0 VALUE = (J = R);
AXIS2 LABEL = NONE MAJOR = NONE MINOR = NONE
    STYLE = 0 VALUE = NONE;

FOOTNOTE1 A = +90 H = 0.8 IN ' ' ;
FILENAME anyname "c:\Fig_02.PNG";
```

```
PROC GCHART DATA = work.ToChart
    ANNO = work.ForAnnotation;
HBAR City / SUMVAR = Sales
    NOSTATS
    WIDTH = 0.6
    SPACE = 0.6
    MAXIS = axis1
    RAXIS = axis2
    DESCENDING;

RUN;
QUIT;

FILENAME anyname CLEAR;
```

LeRoy Bessler, Assurant Health

Ask The Consultant

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

Removing “Variable x is uninitialized” NOTE messages

Q: How can I remove the “Variable x is uninitialized” messages from my SAS Log?

A: When creating a new SAS table containing the definitions of new columns, which do not contain any actual data, the following NOTE messages are produced in the log window:

```
NOTE: Variable st_date is uninitialized.
```

These NOTE messages can be removed by adding a RETAIN statement after your column definitions which will initialise all of your columns to missing.

```
DATA create_new_vars;
    ATTRIB st_date LENGTH = 8 FORMAT = date9.
           INFORMAT = date9. LABEL = 'Start date';
    ATTRIB en_date LENGTH = 8 FORMAT = date9.
           INFORMAT = date9. LABEL = 'End date';
    ATTRIB var_one LENGTH = $8 FORMAT = $8.
           INFORMAT = $8. LABEL = 'Variable one';
    ATTRIB var_two LENGTH = $8 FORMAT = $8.
           INFORMAT = $8. LABEL = 'Variable two';
    RETAIN _NUMERIC_ . _CHARACTER_ ' ';
RUN;
```

Amadeus Software Consultancy Team

Downloading Flat Files Using FTP

Q: I can easily go to my web browser and download a flat file from an external web site, but how can I automate this to run every week? The file is on a password-protected FTP server, and my company's firewall prevents me from accessing external FTP servers directly with FTP.

A: [SAS 9] If you know how to schedule SAS jobs, you can do this from SAS. Use a FILENAME statement with the URL access method. Instead of specifying a web page in the 'external file' using '**http:**', identify the file that you want to get from the FTP server, using '**ftp:**'. This is what is happening when you download by hand in your web browser.

Give the URL of your company's proxy web server, as this is needed to get to external web sites. The FILENAME statement

also needs a userid and password to get through your own company's security. But how do you give the userid and password that the FTP server requires? Put them into the 'external file' itself, before the ftp server name, using the syntax below. Maybe this feature is only supported by certain FTP servers - you'll need to try it.

The DEBUG parameter gives some extra information in the SAS Log.

```
/* Your company's proxy server.*/
%LET myproxy = http://local-proxy/;
/* Userid and password to get to the
   external internet, probably your usual
   Windows domain credentials.*/
%LET myuid = jones;
%LET mypwd = pear65;
/* Userid and password for the external
   FTP server.*/
%LET uid = jones;
%LET pwd = apple1;
FILENAME foo URL
"ftp://&uid:&pwd@ftp.foo.com/path/data.dat"
PROXY = "&myproxy" USER = "&myuid"
PASS = "&mypwd" DEBUG;
LIBNAME bloggs 'c:\foo\data';
DATA bloggs.widgets;
  INFILE foo;
  INPUT col1 $12. col2 $20.;
RUN;
```

Graham Ritchie

Replacing with Missing Values using UPDATE

Q: How do you update existing data with missing values?

A: [SAS 8] If we need to update a master table with a transaction table using an UPDATE statement, the default behaviour of the UPDATE statement is to ignore any of the missing values in the transaction table. If we want to change this behaviour, and replace existing values with missing values, we need to specify the NOMISSINGCHECK option:

```
DATA master;
  UPDATE master
    transaction
    UPDATEMODE = NOMISSINGCHECK;
  BY key_var;
RUN;
```

Amadeus Software Consultancy Team

Formats, Options, and Functions

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

I'm sure those of you who write statistical code already know this, but the PVALUEw.d format follows the rules for the w.d format, except that:

- If the value x is such that $0 \leq x < 10^{-d}$, x prints as "< 0...01" with d-1 zeroes.

- Missing values print as "." unless you specify a different character by using the MISSING= system option.

[SAS 9] The VALIDFMTNAME= system option carries out the same function for SAS Formats and Informats that the VALIDVARNAME= System Option does for SAS variable names. The default of VALIDFMTNAME=LONG allows SAS Format and Informat names to be up to 32 alphanumeric characters long. If you need to develop SAS code for use in SAS versions prior to version 9 and want to limit SAS Format and Informat names to 8 alphanumeric characters, then add Error messages to the SAS Log with VALIDFMTNAME=FAIL, or Warning messages with VALIDFMTNAME=WARN.

[SAS 9] The CALL MISSING() subroutine sets all of its arguments to missing. The particularly interesting feature of this subroutine is that the arguments can be a mixture of numeric and character variables.

News

IEWS at the SAS Forum UK

The SAS Forum UK 2005 was held in the Hilton Metropole Hotel in Birmingham on 2-3 November 2005. The 2-day conference included a wide range of Special Interest Groups (SIGs) on the 1st day, including the Hints & Tips SIG, which was jointly chaired by Rob Hillier for SAS UK, and myself for *IEWS*. During the 3.5 hour session we listened to 5 presentations on transferring data to and from external applications, hashing techniques, macros, Enterprise Guide and the web, and ODS. In total there were 36 delegates at the SIG, which was the largest on the day. Talking to delegates after the SIG I heard only positive responses and requests for another similar SIG next year.

After an evening celebrating "25 Years of SAS in Europe", we settled down for a day of SAS demonstrations in the Knowledge Zone, and presentations in the 3 streams: Business Intelligence, Data Integration and Business Analytics. All the 2nd day was focused on SAS 9 architecture, with "improved capabilities, ease of use, and performance".

I'm already looking forward to next year's SAS Forum, and hope that more of the *IEWS* readers can contribute to another successful SIG.

Philip R Holland (Newsletter Editor)

PhUSE News

1st PhUSE Conference Closes Successfully

The first-ever Pharmaceutical Users Software Exchange (PhUSE) held between October 10-12, 2005 in Heidelberg, Germany closed successfully. Over 270 participants from 12 countries attended and made this the premier programming event for the pharmaceutical industry in Europe. Over 100 companies attended and over 60 presentations were given with the purpose of facilitating the exchange of new information and ideas relating to SAS software and its usage in the Pharmaceutical R&D arena. Highlights included the CDISC stream, application development stream and poster session.

PhUSE 2005 was a resounding success. Feedback from the attending companies was that they were impressed about the

event itself and the content. We now are looking forward to PhUSE 2006 that will take place in Dublin between October 9-11 2006.

The PhUSE committee comprises of across industry companies such as: Accovion, Amadeus, Amgen, AstraZeneca, Biogen Idec, Covance, GlaxoSmithKline, Novartis, OPS, Pfizer, PPD, Quintiles and Roche, and PhUSE is a non-profit organization run by volunteers chaired by Stephen Bamford, Associate Director of the Statistical Analysis and Reporting Group for Pfizer. For more information, see: www.phuse.info.

PhUSE Committee

In Brief

- Back issues of *VIEWS News* are available from the *VIEWS* web site.
- Phil Mason now has a SAS tips newsletter, which can be requested by going to www.woodstreet.org.uk and then clicking on Tips. Previous tips can also be found on the web site.
- More SAS hints and tips can be found on the SAS FAQ pages at www.hollandnumerics.com/sasfaq.

Diary

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

March 2006

21 Tricks of the Trade, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

26-29 SUGI, San Francisco, USA

The SAS User Group International (SUGI) Conference is held each year and focuses on the technical aspects of SAS software.

April 2006

5 Changes and Enhancements in SAS9 for the Applied Statistician, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

20 Tricks of the Trade, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

May 2006

16-18 SAS Forum International, Geneva, Switzerland

The SAS Forum International is held each year and focuses on the more commercial aspects of SAS software.

23 Changes and Enhancements in SAS9 for the Applied Statistician, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

June 2006

1 Changes and Enhancements in SAS9, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

July 2006

11 Tricks of the Trade, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

27 Changes and Enhancements in SAS9, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

August 2006

10 Tricks of the Trade, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

September 2006

14 Changes and Enhancements in SAS9 for the Applied Statistician, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

October 2006

19 Tricks of the Trade, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

November 2006

9-11 PhUSE, Dublin

The Pharmaceutical Users Software Exchange (PhUSE) conference is the premier programming event for the pharmaceutical industry in Europe.

21 Changes and Enhancements in SAS9 for the Applied Statistician, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

28 Changes and Enhancements in SAS9, Oxfordshire

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

December 2006

5 Changes and Enhancements in SAS9, Edinburgh

See the Amadeus Software web site, www.amadeus.co.uk, for further details.

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

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