



The SESUG Informant

SouthEast SAS Users
Group

Volume 5, Issue 1
Spring 2004

A Word From the Prez

Dan Bruns here. I took over the Presidential role from F. Joe Kelley in Fall of 2002, having been elected by the SESUG Executive Council (EC) at the conference in Savannah, GA. Since then, it's been busy. I've had the opportunity to present SESUG to a



lot of the local and regional user groups in the Southeast, held academic chairs at SESUG, and chaired the site selection committee for SESUG. (So, if you don't like where we've been holding the SESUG conferences—I guess you get to tell me about it.)

Oh yes—there's also the minor detail of having to go to my office for the TVA in Chattanooga, Tennessee. I live there, yet it's taken 12 years to bring the annual SESUG conference to Tennessee.

Then Gary reminded me—The Prez is supposed to open each newsletter with a few choice words. While I'm at it, I think I'll invent the 37-hour day and the 9-day week...

Anyway, welcome back to the SESUG Informant. We've been on hiatus for a year, as we prepared for what turned out to be our second-biggest conference ever, in St. Pete Beach, Florida, and our first one-day miniconference in Knoxville, TN last summer. At the same time, we were planning our

future conferences in Nashville this coming Fall chaired by Imelda (Mel) Go of South Carolina Department of Education and Neil Howard of i3 Data Services; the Tidewater area in Virginia in 2005, chaired by Deb Cassidy of Cardinal Health and Jenine Eason of AutoTrader.com; preliminary planning for 2006, which will be chaired by Marje Fecht of Prowerk Consulting and Gary McQuown of Data and Analytic Solutions; and site visits for 2007, 2008—and beyond.

Back to the now, I think we've got a great start on the next generation of the Informant, though we'll miss former editor Randy Finch. Long-time EC member and SAS book author Frank Dilorio provides us with some good utilities; Larry Altmayer gives us an overview of SAS/SHARE; Kirk Lafler provides us a quick tip; and of course, a lot of information on the upcoming SESUG conference in Nashville.

Finally, let me thank not just the people who made the newsletter a success; but all the folks who have done so much to make this organization, and the conferences, work. Presenters, authors, volunteers, EC members, sponsors, and of course SAS Institute; it takes a lot to make all this work. Without so many people volunteering so much of their time and talents, it just couldn't happen.

Thank you all—and welcome to SESUG!

- Dan Bruns

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Special points of interest:

- Why should you attend a SESUG conference? Take a look at 2003, and what 2004 has to offer!
- Sharing is a nice way to play; SAS/SHARE shows you how.
- If the macro you want doesn't exist (yet) - Frank Dilorio shows you how to build your own!
- Teach your datasets to "get it together" with Proc Append!
- What the heck IS SAS-L, anyway?



SESUG at SUGI—We Take Pride In Our Presenters!

SESUG is well represented at SUGI this year, serving in many capacities. We weren't able to list everyone, but on the next page is a list of a few of the SESUG faces that are easy to spot at SUGI as well as SESUG.

SESUG Executive Council members serving as SUGI 29 Section Chairs are Debbie Buck, Deb Cassidy, Maribeth Johnson, Joe Kelley, Andy Kuligowski, and Greg Nelson. Greg is also on the SUGI Executive Committee, as is SESUG '04 Co-chair Neil Howard. Several SESUG Executive Council members and 2004 conference section chairs are also presenting/co-authoring at SUGI

29. If you miss the presentations at SUGI, you can find them on the SUGI 29 website after the conference. Many of these presenters will also be presenting papers at SESUG '04 giving you another opportunity to learn from this experienced group. Come hear our presenters—and ask us about SESUG!



- Deb Cassidy



“Back to the Beach” a Success in 2003!

The annual SESUG conference for 2003 was held at a beautiful venue; the TradeWinds Island Grand Resort in St. Pete Beach, Florida. You'd think it would be tough to keep people from wanting to be outside, enjoying sunny Florida in balmy September; however, the SESUG team gave 370+ attendees good reason to come in out of the sun, with over 125 presentations, papers, and academic offerings.

The 2-1/2 day conference launched with an informal reception on Sunday night, and Opening Session, complete with beach music. On Monday morning, hosts and co-chairs Steve Noga and Gary Schlegelmilch, along with SAS Liaison Lorraine Rizzon, SESUG President Dan Bruns, and SAS Keynote speaker David Shamlin got the energy going; and it kept going all the way through Steven First's closing keynote address on Wednesday afternoon. Imelda “Mel” Go and Neil Howard, co-chairs of the 2004 conference in Nashville, closed the session out with the information on this year's trip to the home of country/western music.

Of course, there were the activities outside the conference to enjoy as well as the wide assortment of educational opportunities. Attendees toured the Salvador Dali museum, watched the New York Yankees whip the home-town Tampa Bay Devil Rays 6-0, and participated in the first SESUG Yard Sale, where participants could purchase SAS and SESUG merchandise. The donated items came from past SESUG and other regional conferences, SUGI conferences, and the generosity of SAS and sponsors in the demo room. The proceeds were counted, and SESUG was pleased to make a \$320 donation to HARC, a local charity supporting the physically and mentally challenged.

Much thanks to all the presenters, staff, and attendees for SESUG 2003; it was a great conference, and we couldn't have done it without you.

- ges



Back to the Beach—the St. Pete Beach Gulf coastline, one of the many attractions for the 2003 attendees.

SESUG at SUGI—We Take Pride In Our Presenters!

Larry Altmayer	An Introduction to SAS/SHARE, By Example
Dan Bruns	The Utter “Simplicity?” of the TABULATE Procedure - The Final Chapter?
Dan Bruns (with Ray Pass)	To REPORT or To TABULATE? - That is the Question!
Deb Cassidy	An Introduction to SAS Function-ality
Kevin Delaney	Pure Evil, or just misunderstood? An interview with PROC TEMPLATE
Kevin Delaney (with Art Carpenter)	SAS Macro: Symbols of Frustration? %Let us help! A Guide to Debugging Macros
Frank Dilorio (with Jeffrey Martin Abolafia)	Dictionary Tables and Views: Essential Tools for Serious Applications
Jenine Eason	Assessing SAS Skill Level During the Interviewing Process
Jenine Eason (with Jerry Johansen)	Creating Meaningful Data from Web Logs Using Base SAS
Marje Fecht	Version 9 Programming Enhancements – Vive la difference?
Marje Fecht (with Linda Mitterling)	Improve Your Queries: Hints and Tips for Using SQL
Marje Fecht (with Larry Stewart)	Don't Be a Slave to Your SAS® Programs
John C Gober	Creating an Intranet Toolbox of Selective Oracle Metadata
Neil Howard	How SAS Thinks OR Why the DATA Step Does What It Does
Joe Kelley	Behind the Scenes at SAS-L
Andrew T. Kuligowski	How to Incorporate Old SAS Data into a New DATA Step, or “What is S-M-U?”
Gary M. McQuown	SAS Macros are the Cure for Quality Control Pains
Gary M. McQuown	SAS Consultants: Sheep in Wolf's Clothing
Greg Nelson	Real Time Decision Support: Creating a Flexible Architecture for Real Time Analytics
Greg Nelson (with Julian Anderson, Jeff Wright)	A Day in the Life of an Analytical Warehouse
Greg Nelson (with Jeff Wright)	Automated Testing and Real-time Event Management: An Enterprise Notification System

Inside SAS



Larry Altmayer is currently serving with the U. S. Census Bureau in Washington DC. He has been a regular contributor to SUGI, SESUG, NESUG, and DCSUG (the Washington DC SAS Users Group). He will be presenting an extended paper on the use of SAS/SHARE at the 2004 SESUG conference.

It's easy to edit a SAS data set. But what happens when several people want to edit it at the same time?

So, What Is SAS/SHARE... and How Do I Use It?

One of the basic components of SAS software is the SAS Data Set, and we often need to edit the data in individual cells. Although we can do this with a traditional DATA step, sometimes it is easier to edit the values directly in the cells themselves. We can do this by accessing the Data Set directly through the explorer window when using SAS in a display manager environment. However, this all assumes one person is trying to edit the Data Set at a time. What happens when a second person (and a third?) want to edit at the same time?

Assuming all users can access the Data Set on a common network, normally, only one can edit the Data Set at a time. If another person tries to edit, some type of system message will indicate the Data Set is locked by the first user. SAS/SHARE enables several users to simultaneously edit the Data Set, as long as each is editing a different observation.

How do we use SAS/SHARE to allow simultaneous edits of a Data Set? It takes just a few simple steps. First, we change the Data Set's attributes from the default Browse Mode, to Row Level Edit Mode. Then, we add SAS/SHARE.

To add SAS/SHARE, first, we must determine a communications access method (or CAM), which depends on the local (client) operating system we are using, and host (server) operating system the users are accessing the Data Set from. If they are both UNIX, we must use a TCP/IP method. We must configure the server in the SERVICES file, with an entry line for the server.

Next, we use SAS program code to start (and stop the server). The SAS code consists of some typical BASE SAS statements, including the OPTIONS and LIBNAME statements, with options pertaining to SAS/SHARE software. SAS/SHARE also has its own set of procedures, including SERVER, used to start the server, and OPERATE, to stop the server. If we specify a server= option on the LIBNAME statement for the directory containing the Data Set we want to allow simultaneous editing on after starting the server, SAS/SHARE then allows concurrent row level edits.

As with other SAS programs, program operation is summarized in the SAS log. The log gives such information as when the server starts and stops, and when a user connects to the server. It also tells when the Data Set is opened for input by a user, and an attempt is made to change an observation in use in another user session.

As with several other areas within SAS, pre-defined macros are available for more simple management of the SAS/SHARE server, while users are accessing the Data Set.

This type of concurrent editing is also easily applied in a simple SAS/AF application. All that is required is to use a table viewer/SAS Data Set Model, containing the Data Set we want users to be able to simultaneously edit.

SESUG
Nashville '04



**October 31 –
November 2, 2004
Loews Vanderbilt
Hotel**

Visit us at www.sesug.org for more information about the conference, how to participate as a presenter, and links to everything you need to plan your trip to Nashville in October.

Online registration for the **12th** annual SouthEast SAS Users Group (**SESUG**) Conference in **Nashville, TN** begins on **June 14!**

You will have the best SAS training and learning opportunities in a prime conference location!

Entertainment in *Music City USA...*



Photo by Barry M. Winkler

Arts & culture in the *Athens of the South...*



Photo by Gary Layda

Sports in the *Home of the Titans...*



Photo by Gary Layda



Photo by Gary Layda

We'll see you there!

From the Inside



F. Joseph Kelley is currently with the University of Georgia. He is a former SESUG EC president, and regular contributor to local, regional and SUGI conferences.

SAS-L is a free on-line forum for users of SAS software—and you can join!

SAS-L: The Discussion That Never Stops

In the fall of 1986, on the old Bitnet mail list LIASON (a user-services list), a suggestion was made that a mail list devoted to SAS software be created. Following this, at about the same time, both A. Harry Williams of Marist University, and Harold Pritchett of the University of Georgia, created just such lists: SAS-L. They were very shortly linked together (in list parlance “peered”), and the discussions that began in 1986 have not stopped. Indeed, they have grown: other sites established their own SAS-Ls and linked them to Marist and UGA.

In the early 1990’s, the Usenet newsgroup comp.soft-sys.sas was established and it too was connected to the mail lists. “Remailing” lists are also used in many organizations to accommodate SAS-L participation: a single subscription to SAS-L may be distributed to any number of readers within the organization. The combined readership is estimated to be in the thousands, though it is impossible to know. Although many SAS-L has been the topic of presentations at many user group meetings and conferences, there are always quite a few – often very experienced SAS users – for whom this is very new. I’ll start with the most basic issue: how to have access to SAS-L

If you just wish to read posts to the group, SAS-L is gated to the newsgroup **comp.soft-sys.sas** and a post to one should end up on the other. You can access it via any newsreader. But if you wish to subscribe, then you should know that four listservers host SAS-L: University of Georgia (UGA) - **listserv@listserv.uga.edu**; Marist University (Marist) - **listserv@vm.marist.edu**; Virginia Polytechnic (VaTech) - **listserv@listserv.vt.edu**; and University of Vienna (AKH-Wien) - **listserv@akh-wien.ac.at**. Both UGA and Marist provide a web interface to the Listserv (and SAS-L). To subscribe via email, send email to the Listserv (I’ll use UGA for my examples). Send mail to **listserv@listserv.uga.edu** (“subject:” is ignored). In the body of the message, put **subscribe sas-l <your name>**. You will receive email from the Listserv asking you to confirm your subscription request - just follow the instructions.

The listserv will send you email telling you that you are subscribed and will include information on resetting your subscription parameters. This includes the instructions on unsubscribing.

You can also subscribe via the web (again, using UGA for the examples). Just go to <http://listserv.uga.edu/>, select **Browse, Subscribe, Post, Search...**, then select **SAS-L**. To subscribe, select **Join or leave the list (or change settings)**. For the most part, the defaults are fine and all you need to do is provide your name and email address.

Once you have filled out the form, press **Join the List**. As with the email method of subscribing, you will receive a message from the Listserv asking you to confirm your subscription request.

Once your subscription has been confirmed, you will be added to the list and you will receive email from one of the list owner addresses (the “generic” address of **SAS-L-request@LISTSERV.UGA.EDU** is mapped to the actual address that belongs to the owner). This email contains a good deal of useful information, including how to leave the list. I gather it is usually discarded immediately, judging from the “unsubscribe” requests occasionally distributed by SAS-L. But it is easy to leave; just send mail to **listserv@listserv.uga.edu** (“subject:” is ignored). The body of the message should be **signoff sas-l**.

Occasionally, the Listserv will not recognize the address you are sending from. Sometimes email addresses change: me@corp.com becomes me@bigcorp.com as mail systems migrate, names change, etc. Unfortunately, while the mail is still forwarded by the old mail server, your old address is the one with posting privileges, so posts sent from the new address will not be accepted. It is usually not such a good idea to change the email address; a resubscription is often better. Contact the list owner with problems.

You can receive SAS-L in “digest” form (approximately 1000 lines), by sending a message to the Listserv with the subject **set sas-l digest**. And for more help of the Listserv options, send to the listserv: **info refcard**.

UGA Listserv site <http://listserv.uga.edu/> also has a section Manuals and References that includes complete documentation on LSoft® Listserv.

Feature Article



Frank DiIorio is CEO of CodeCrafters, Inc. He is an emeritus member of the SESUG EC, and has co-chaired two SESUG conferences. He is the author of two books on SAS, and is a frequent contributor to SUGI and regional conferences.

Need a macro to do something that your current version of SAS doesn't provide? Well, you can always write your own...

Design and Coding Simple Utility Macros

A SAS programmer with even a modest amount of experience will eventually have one or both of the following internal dialogues. "Why didn't they provide a [bizzare and somewhat convoluted operation] function in Version 9? Maybe I should have sent it in as a SASware ballot item ..." Another perennial favorite: "Why on earth does %put _all_ display variables in such a peculiar and unreadable format?" Both are good questions, and in both cases it's probably better to create your own solution than search for an answer.

This article describes two utility macros that address some simple needs. The first, `QuoteList`, takes a macro variable with one or more unquoted tokens and returns a variable with the tokens quoted and optionally upper-cased. The second macro, `AllMacVars`, prints the beginning of each global macro variable, listing them in alphabetical order. The intent of the article is twofold. First, the code is intended to be useful in and of itself. Second, as the code is explained, we demonstrate some underlying good programming practices.

QuoteList

Here's another internal dialog: "The calling program handed me a macro variable with a list of values that I'll have to use later in a DATA step array [notice that truly obsessive programmers capitalize even when no one's looking]. I could borrow some quoting code from another program, but maybe it's time to write something generalized."

Right. The impetus for general-purpose programs is, sometimes, a predefined need. More often, though, it is from the realization that the activity has been done before. Maybe it was not *exactly* the same, but it is close enough that a well-chosen set of parameters can be used to generalize the program. One possible result of our immediate need to insert quotes is the macro shown below:

```
%macro QuoteList(macin=, macout=, upcase=no, print=no); {1}
%let continue = yes; {2}
%if &macin. = %then %do; {2}
  %put QuoteList-> MacIn was not specified. Execution terminating. ;
  %let continue = no;
%end;
%if &macout. = %then %do; {2}
  %put QuoteList-> MacOut was not specified. Execution terminating. ;
  %let continue = no;
%end;
%if &continue. = yes %then %do; {2}
  %global &MacOut.;
  %if %upcase(&print.) = YES %then %put QuoteList-> Input variable &MacIn.
  [&&&macin.] ; {3}
  %let &MacOut. = %sysfunc(compbl(&&&MacIn.)); {4}
  %let &MacOut. = "%sysfunc(tranwrd(&&&MacOut., %str( ), " ")); {5}
  %if %upcase(&UpCase.) = YES %then %let &MacOut. = %upcase(&&&MacOut.);
  %if %upcase(&print.) = YES %then %put QuoteList-> Output variable &macout.
  [&&&macout.] ; {3}
%end;
%mend;
```

(Continued on page 8)

(Continued from page 7)

Let's look at what `QuoteList` does, following the highlighted items in `{braces}`

- {1} Always use keyword parameters to avoid confusion. Likewise, when you develop other utilities requiring similar sorts of parameters – uppercasing, printing, etc. – try to keep the parameter names and values identical; `print=no` in this utility and `prt=n` in another only serve to confuse the user, and the user will often be you!

Parameters:

`macin` → name of input (unquoted) macro variable. Required.

`macout` → name of output (quoted) macro variable. May be identical to `macin`. Required.

`upcase` → 'yes' (without quotes) to uppercase `macout`. Default is to leave case as-is.

`print` → 'yes' (without quotes) to write input and output values to the SAS Log. Default is no printing.

- {2} Accumulate error messages, setting a flag – macro variable `continue` – to indicate whether we can continue. This method lets us alert the user to multiple specification problems at once (i.e., both `MacIn` and `MacOut` were missing).
- {3} Print on the basis of the upper-cased parameter value. Show where the message came from by prefixing all messages with `QuoteList->`. This is especially helpful in lengthy Logs and programs with many macro calls.
- {4} Prepare the macro variable by removing extraneous blanks.
- {5} Enclose the entire input macro variable in quotes, then use the `TRANWRD` function to convert each blank () to what amounts to a quote ending one word and starting another (“”).

Let's look at an example of `QuoteList`'s use. Assume macro variable `idlist` has the value `ms183 ms198 va122`

We can use `QuoteList` as follows:

```
%QuoteList(macin=idlist, macout=Qidlist, upcase=yes)
```

```
data subset;
  set master(where=(ptid in (&Qidlist.)));
```

The DATA step code executed by SAS looks like:

```
data subset;
  set master(where=(ptid in ("MS183" "MS198" "VA122")));
```

An obvious extension to such a macro is to return the number of tokens that were quoted. This would allow the programmer to prevent situations where `macin` is null and the chaos that would result when errant / unusable values of `macout` were referenced. The number of tokens requirement could be satisfied by some extra code in the macro. Even better, we could call a utility macro that counts tokens, thus allowing us to share the counting capability among multiple programs.

AllMacVars

This macro utilizes SAS's metadata (aka "dictionary tables") to produce a clean, simple to read listing of global macro variables. For an in-depth discussion of dictionary tables, see the SouthEast SAS User Group (SESUG) 2003 Proceedings paper "Dictionary Tables: Essential Tools for Serious Applications" (it is also in the SUGI 29 Proceedings). The paper is also available at <http://www.CodeCraftersInc.com>.

```
%macro AllMacVars(dest=log, StartWith=); {1}
%local _mprint;
%let _mprint = %sysfunc(getoption(mprint)); {2}
options nomprint nonotes; {2}
```

(Continued on page 9)

(Continued from page 8)

```

proc sql noprint;
  create table _macvars_ as
  select *
  from dictionary.macros
  where offset=0 and scope='GLOBAL' {3}
  %if &StartWith. ^= %then & name like ("%supcase(&StartWith.)%") ;
  order by name
  ;
quit;
%if &SQLobs. = 0 %then %do; {4}
  %if &StartWith. ^= %then %put AllMacVars-> No global macro variables began with [&StartWith.];
  %else %put AllMacVars-> No global macro variables were defined. ;
  %goto bottom;
%end;

data _null_;
  set _macvars_ end=eof;
  file &dest. notitles;
  if _n_ = 1 then
    put / 'Macro Variable' @34 'First 65 Characters' /
        32*'=' +1 65*'=' ;
  put name $33. value $char65.;
  if eof then put 32*'=' +1 65*'='
                / "# of variables = " _n_
                / 98*'='
                ;

run;

proc delete data=_macvars_; {5}
run;

%bottom: options &_mprint. notes ; {2}
%mend;

```

Let's look at what AllMacVars does, following the highlighted items in {braces}

{1} Refer to the QuoteList discussion, above, for comments about parameter naming and values.

Parameters:

dest → Location of output. Default is the SAS Log. The value could be print or even an external file, enclosed in quotes.

StartWith → Restrict the listing to those variables whose name begins with this value. Enter in mixed case; the value will be compared in upper case. Default is all global macro variables.

{2} To reduce clutter in the SAS Log, save the value of the MPRINT option, then turn off NOTES and MPRINT. Re-set them at the bottom of the macro, just before terminating.

{3} Restrict OFFSET to 0 to avoid duplication of names. Variables with values longer than 200 characters are split into multiple observations, with OFFSET values of 200, 400, etc.

{4} If no metadata met the subsetting criteria, print a message and exit.

{5} Clean up after ourselves before exiting. Remember the DELETE procedure? Simple to use, with less overhead than PROC DATASETS.

Let's look at the macro in action. Suppose we defined two global macro variables, **global1** and **testmacvar**. A call to AllMacVars would produce the following output:

(Continued on page 10)

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```

Macro Variable          First 65 Characters
=====
GLOBAL1                G1
TESTMACVAR             tmv
=====
# of variables = 2
=====

```

The display is easy to read, clearly labeled. The alphabetical ordering of the variable names doesn't present a huge advantage in our simple test case, but it doesn't take much imagination to see how this presentation would be helpful when dozens of variables are involved..

Closing Comments

There are, I'm sure, many different ways to attack the problems that gave rise to the macros described in this article. This is the non-standardized charm of SAS programming – there are always many different and valid ways to skin even the simplest cat. The macros shown here are simply presented to show Real World examples of sound utility design. Look at them as much for *how* they work as *what* they do.

New On-Line Registration Makes it Easier to Register for SESUG!

In 2003, SESUG began using an online registration services provider, Regonline, for conference registrations. The feedback from our attendees was overwhelmingly positive. In 2004, we are proud to announce that we will be continuing our relationship with them so that we can provide our attendees with even easier conference registration.

If you have registered before using snail mail or fax, we hope that you will consider using our online system this year. Fax and snail mail registrations will both be available, but we think you will find online to be the most convenient way to register.



Starting on June 14, 2004, you will be able to go to the SESUG web site at www.sesug.org and click on the conference registration link for the fall conference to be held October 31 – November 2 in Nashville. Online registration offers several advantages and features for our attendees:

- o It is available 24 hours a day, 7 days a week. If you are stumped over a SAS programming problem at 2am and decide it would be a good idea to attend SESUG, you can register for the conference on the spot.
- o The registration system maintains a secure link to the credit card processor. You can enter

your credit card information in confidence that it is secure.

- o You will receive immediate email confirmation of your registration when you complete the registration process. It will include a link that you can use to review your registration information. If you have chosen to pay by check instead of credit card, it will also include an invoice that you can use to send payment of the registration fees.
- o After you register, you can make changes to your conference registration online. We will allow you to cancel, add workshops, and change your personal information anytime up to the date where we no longer allow refunds for changes.
- o You can send your co-workers and friends a link to the conference information with the "invite-a-friend" option.
- o As you register, you can ask questions or provide comments to the SESUG registrar using the "notes" section of the registration system.

The SESUG 2004 conference registrar, Maribeth Johnson, is also available to assist you with any conference registration problems you might encounter. Please contact Maribeth directly at sesug_reg@hotmail.com if you need any assistance with conference registration.

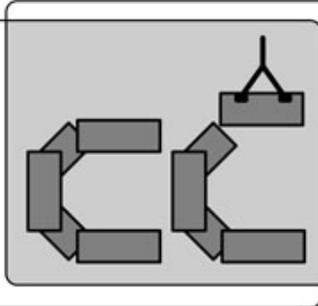
- Deborah Skinner

Frank DiIorio and CodeCrafters, Inc.

Congratulate SESUG for 11 Years of Thoughtful Service to the SAS User Community

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Quick and Simple Tip



Kirk Paul Lafler is with Software Intelligence Corporation. He is a published author on SAS, a frequent contributor to the SAS Informant, and is has presented and taught workshops at local, regional, and SUGI conferences.



Concatenating SAS Data Sets With The APPEND Procedure

The APPEND procedure is an efficient method for concatenating observations from a smaller data set to a larger data set. The BASE= data set option is reserved for the larger of the two data sets with the DATA= option for the smaller data set. Essentially, the APPEND procedure avoids reading any observations in the BASE= data set by positioning the record pointer at the end of the BASE= data set. Each observation from the smaller data set is then applied one at a time to the end of the BASE= data set. In the next example, the BASE= data set identifies a larger data set called MASTER and the DATA= data set identifies the smaller TXN data set. Note: When one or more variables in the input data set (DATA=) are not present in the BASE= data set, an optional FORCE option can be specified as an option with the PROC APPEND statement to prevent a syntax error.

Code:

```
PROC APPEND
    BASE=master
    DATA=txn;
RUN;
```

When two or more data sets need to be concatenated, multiple APPEND procedures are issued. In the next example, two separate PROC APPEND steps are specified to concatenate the two smaller data sets (txn1 and txn2) at the end of the larger BASE= data set.

Code:

```
PROC APPEND
    BASE=master
    DATA=txn1;
RUN;
PROC APPEND
    BASE=master
    DATA=txn2;
RUN;
```

If you would like more information or have any questions about this tip, please contact: Kirk Lafler, Software Intelligence Corporation at KirkLafler@cs.com. Kirk's new book, Power SAS: A Survival Guide is published by Apress and provides SAS users with the largest and most comprehensive collection of SAS tips and techniques ever offered. Power SAS can be purchased on Amazon.com and BarnesandNoble.com.



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Conference Update— SESUG 2004



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October 31 – November 2, 2004
Loews Vanderbilt Hotel
Visit us at www.sesug.org



Imelda "Mel" Go (L), Neil Howard

The twelfth annual SESUG conference promises to be an outstanding educational opportunity for SAS users of every level. Join this opportunity to share your knowledge with other users in the southeast region. We'll be at the Loews Vanderbilt Hotel in Nashville, TN from Sunday, October 31 through Tuesday, November 2, 2004. We are looking forward to seeing you in Nashville!

Conference Highlights:

- Sunday night Halloween party
- Costume contest
- SAS demo area and reception
- Monday night party with line dancing and music
- Pyramid Game
- Great food
- Hands-On Workshops
- Tutorials
- Posters
- Serendipity
- Intro to SAS
- Data Presentation
- Applications Development
- Coder's Corner
- Data Management
- Statistics and Data Analysis



Photo by Gary Layda

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The fountain outside the Lowe's Vanderbilt Hotel in downtown Nashville, the home of Country Music, welcomes you to SESUG 2004!

Featuring:

- Pre-Conference Workshops
- Nashville sightseeing – guide to cool stuff to do...
- Vendor and exhibitor area
- GIVEAWAYS
- Meet-the-presenters opportunity
- SAS Institute Keynote Address
- Presidential Election



**Your vote
counts in the
2004 elections**

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SESUG conferences are an all-volunteer effort. Contact Deborah Skinner at deborah.skinner@assurant.com about how you can become a volunteer. We owe the success of our conferences to the hundreds of volunteers who have helped us throughout the years.

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The SESUG Informant is a publication of the SouthEast SAS Users Group, Inc. It is published twice a year; a Spring edition to be distributed before the SAS Users Group International (SUGI) conference, and in the Fall prior to the SESUG regional conference.

If you would like to be a part of the next Informant, we always welcome articles, perspectives, and new ideas. Contact the editor, Gary E. Schlegelmilch, via e-mail at sesug03@juno.com. Advertising information is also available upon request.



It's been a while—but we're back.

Former editor, publisher, and All Around Great Guy Randy Finch last put out the Informant in Fall of 2002. In it were tips for programmers, and nice things about the upcoming SESUG conference in Savannah GA.

Randy has since become an emeritus member of the SESUG EC; he still gives us the benefit of his wisdom and experience, but is no longer active in conference activities and organization business.

Or the newsletter. *sigh*

After a year's hiatus, there's a new Sheriff in town. I'm Gary Schlegelmilch, Program Chair of SESUG 2003 in St. Pete Beach, FL. Occasional writer and photographer. And now, editor of the Informant.

My goal is the same as Randy's; to provide a newsletter twice a year that will hopefully interest, educate, and periodically amuse.

Let me know how we're doing at sesug03@juno.com.

- ges

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