

SAS-L and Beyond

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ABSTRACT

In the beginning was SAS-L (<http://listserv.uga.edu/archives/sas-l.html>). And it was good, but did not reach far enough. So a Usenet newsgroup was added: comp.soft-sys.sas (<http://groups.google.com/group/comp.soft-sys.sas/topics?hl=en&lnk>). It, too, was good. But more was needed. Now there is a Wiki: **sasCommunity.org** (http://www.sascommunity.org/wiki/Main_Page), and the discussion forums at **support.sas.com** (<http://support.sas.com/forums/index.jspa>). There is also Lex Jansen's site (<http://lexjansen.com/>) and many more. These will give you a good place to start and offer support, code examples, best practices, information, gossip, jokes and arguments. This presentation will go over these and perhaps provide some information on future developments.

Introduction

SAS-L came into being in late 1986. It is a Listserv®-based discussion list, and currently resides at four institutions: Medical University of Vienna, Marist University, Virginia Polytechnic University and the University of Georgia. In the 1990's, a Usenet newsgroup was established: **comp.soft-sys.sas**. A connection was made to SAS-L via a link from Virginia Tech to American University. Eventually, however, the link was moved to the University of Georgia.

SAS® itself hosts discussion groups at **support.sas.com**: over 15 discussion forums, some focused narrowly (e.g. "**SAS/IML and SAS/IML Studio**"), some quite broad ("**ODS and Base Reporting**"), are available. A new entry is **sasCommunity.org** – this was established and is maintained by the SAS Global Users Group Executive Board.

There are also sites set up by individuals; one of the best-known is the site set up by Lex Jansen. Lex has searchable conference proceedings for SUGI/SAS Global Forum, as well as regional user groups (SESUG, NESUG, SCSUG, WUSS, PNWSUG, MWSUG) and other user groups (PharmaSUG, PhUSE). There have been many presentations at both regional conferences (in 2004, Mirjana Stojanovic presented [A Different Approach to Learning SAS® Software](#) at the SESUG Conference in Nashville, TN – still a useful reference) and at national and international conferences (Howard Schreier's several contributions, [Ask This Old Newsgroup: Using SAS-L Effectively](#) being only one – presented at SUGI 29 in Montréal, Canada) that deal with online sources of help and information.

Let's look at some of these more closely.

SAS-L

According to the system administrator who did this at the University of Georgia (Hal Pritchett), one morning in 1986 he was reading a discussion on the old Bitnet User Services Discussion List (LIAISON) and someone stated that it would be nice to have a discussion list devoted to SAS. He thought about it and by that afternoon had started one. At about the same time, Harry Williams at Marist University had the same idea. Within a few days the two lists were linked ("peered"), and the list took off from there. In the 1990's the Usenet newsgroup comp.soft-sys.sas was created for those who did not wish to receive the floods of emails from SAS-L. In the early years, a link between the newsgroup and the List was maintained by American University, but this was later taken over by UGA (currently this link is down).

A description of how to subscribe to SAS-L is in the Appendix.

Online discussion groups such as SAS-L provide an readily-available source of help and information about SAS (although a number of respondents are current or former faculty members, and tend to be suspicious of answering what appear to be "homework" questions).

A great benefit of SAS-L is its archives. These are searchable and many questions asked on SAS-L are answered with a suggestion that the archives be checked for a more thorough answer. The idea of more permanent, more easily searchable storehouse of all things SAS led to the creation of sasCommunity.org.

sasCommunity.org

sasCommunity.org is sponsored by the SAS Global Users Group (they sponsor the SAS Global Forum) and is a Wiki voted to the broader SAS user community. You will find it at:

http://www.sascommunity.org/wiki/Main_Page

The screenshot shows the main page of sasCommunity.org. At the top, there's a navigation bar with tabs for 'page', 'discussion', 'view source', and 'history'. The main heading is 'Main Page'. Below it, a welcome message reads: 'Welcome to sasCommunity.org. A collaborative online community for SAS® users worldwide. sasCommunity.org is an ongoing global community effort—created by SAS users for SAS users. This site is a place to find answers, share technical knowledge, collaborate on ideas and connect with others in the worldwide SAS Community. Get started now by creating a UserID.' To the right, there's a 'Follow us on twitter' button and a link to 'For daily SAS Tips, Web updates & more.' The left sidebar contains sections for 'navigate' (Main Page, Sasopedia, Popular Links, Blogs, Help), 'contribute' (Where to Start, Log in / Create ID, Create an Article, Upload file, Recent changes), 'connect' (Connect with Users, Contact Us), and 'toolbox' (What links here, Related changes, Special pages, Printable version, Permanent link). The main content area features a green header for 'sasCommunity Tip of the Day'. The tip text is: 'I often need to store a 0 value in place of missing when reporting numeric values. I take advantage of the SUM function for this purpose. For each variable I sum itself with 0 as in:'. Below this is a code block:

```
COST=SUM(COST,0);
```

 The tip continues: 'The SUM function ignores missing values. So if COST is not missing, no change occurs. If COST is missing, it is now 0. If only the display of missing values as 0 as needed, use the options statement (which does not change the internal value):'. Below this is another code block:

```
options missing = '0';
```

 At the bottom of the tip, it says: '.....read more Feel free to comment on this tip. Submitted by Terry. Contact me at my Discussion Page.' At the very bottom of the page, there are links for 'Prior tip - Next tip -- Random Tip' and a 'Submit a Tip' button.

In “Navigate” you will find links to blogs, assorted help pages, and the always-expanding “Sasopedia”. If you want to participate, see the sections in “Contribute” (in particular, you’ll want to look over “Where to Start”).

sasCommunity is large and growing, so I'll just go to the Sasopedia:

Sasopedia

Sasopedia is a *place* where users of SAS can provide factual information and tips on using SAS software. There are various ways of organizing the information.

Categories are used to organize this information as discussed in [Organizing Articles](#) which is also found in the *getting started* box.

The **Sasopedia** is intended to serve the needs of what many people refer to as a FAQ (**F**requently **A**sksed **Q**uestions). Just select one of the top-level categories, then click on the **[+]** to expand and see any subcategories. Just click the link text to see both the articles and categories in that Sasopedia category.

[Language Elements](#) | [Procedures](#) | [Products](#) | [Topics](#)

In addition to the Sasopedia articles found here, there are a number of [other sites](#) where you can find technical information on SAS.

Sasopedia is currently undergoing a re-org (e.g., making the category names consistent). If you are interested in helping with that please [email](#) us.

(Several of the sasCommunity.org Advisory Group are currently reorganizing parts of the Sasopedia, so there will be some changes – probably by the time you are reading this)

We'll look at "Topics"

Sasopedia/Topics

[< Sasopedia](#)

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[Language Elements](#) | [Procedures](#) | [Products](#) | **Topics**

- [+] [Analytics and Modeling](#) (14)
- [+] [Application Development](#) (11)
- [+] [Automation](#) (2)
- [+] [Best Practices](#) (28)
- [+] [Data Representation](#) (15)
- [+] [Data Structure and Management](#) (19)
- [+] [Descriptive Statistics](#) (4)
- [+] [Excel](#) (26)
- [+] [Guides](#) (57)
- [+] [User Interfaces](#) (12)
- [+] [Industries and Disciplines](#) (9)
- [+] [Installation Deployment Configuration Support](#) (5)
- [+] [Integration](#) (19)
- [+] [Missing Values](#) (3)
- [+] [Platform Specifics](#) (12)
- [+] [Programming](#) (54)
- [+] [Reading Data](#) (6)
- [+] [Reporting and Output Management](#) (15)
- [+] [Requests For Comments](#) (2)
- [+] [SAS Code](#) (49)
- [+] [SAS Traps](#) (17)
- [+] [Statistical Computing](#) (15)

Microsoft Excel has become a common data storage medium, many SAS users need to transfer data and read and write Excel files.

Although these are all of use, I'll pick "SaviCells"

Category:Excel

Pages in category "Excel"

The following 26 pages are in this category, out of 26 total.

(M cont.	S cont
<ul style="list-style-type: none">▪ (Andrews) SAS to Excel and Back Again	<ul style="list-style-type: none">▪ Moving SAS Data to Excel	<ul style="list-style-type: none">▪ SaviCellsPro▪ SaviCellsPro - SGF 2010
A	O	<ul style="list-style-type: none">▪ Saving Time and Money using SAS▪ Suppress Output of Modified Registered Tables in AMO
<ul style="list-style-type: none">▪ Automatically Separating Data into Excel Sheets	<ul style="list-style-type: none">▪ Out in Left Field	
C	P	T
<ul style="list-style-type: none">▪ Create 10,000 Excel spreadsheets in under 10 minutes▪ Creating Summary and Detail Sections in an Excel Worksheet Using the ExcelXP Tagset	<ul style="list-style-type: none">▪ Pivot table, creating▪ Power User's Guide to SAS Programming▪ Proc Tabulate: Making the result table easier to copy to Excel	<ul style="list-style-type: none">▪ Tips:Automatically opening Excel workbooks created by the ExcelXP tagset▪ Tips:MS Office function references▪ Tips:SAS TableEditor TagSet▪ Trialex Plugin
E	R	U
<ul style="list-style-type: none">▪ Excel	<ul style="list-style-type: none">▪ Reading excel pivot tables▪ Reading in SAS Data In Excel 2007	<ul style="list-style-type: none">▪ Updating an Excel Table Using the Excel Libname Engine
G	S	
<ul style="list-style-type: none">▪ Going From Open Office Calc to SAS	<ul style="list-style-type: none">▪ SAS and Excel via Web Services▪ SaviCells	
H		
<ul style="list-style-type: none">▪ Handling too-big Excel exports		
M		
<ul style="list-style-type: none">▪ MXI Plugin		

Categories: [Integration](#) | [Microsoft](#) | [Topics](#)

Savicells Pro is a product written and distributed for free by Alan Churchill of Savian Utilities. You may download it for free (follow the link in SaviCells Pro. The demo files used in his presentation at SAS Global Forum 2010 – Seattle, WA – are available in a zip file at "SaviCells Pro – SGF 2010"). This is from Paper 032-2010 (see <http://support.sas.com/resources/papers/proceedings10/TOC.html> for the paper in the Conference Proceedings).

sasCommunity has a wealth of information; for focused discussions, you will want the SAS Discussion Forums.

Go to the SAS Community page: <http://support.sas.com/community/>

Select the link for Discussion Forums: <http://support.sas.com/forums/index.jspa>

SAS DISCUSSION FORUMS

COMMUNITY / DISCUSSION FORUMS

Print | Feedback | Share

SAS Discussion Forums

Welcome to the SAS Discussion Forums!

Share your questions and SAS successes with other SAS customers; pitch in and help someone solve a problem; or just read and learn. SAS employees will occasionally respond to your posts. However, you should not use the forums in place of [SAS Technical Support](#).

Keep up with [news from the Forums](#) on the Key Happenings blog.

Search All For:

Forum / Category	Views	Threads / Messages	Last Post
<ul style="list-style-type: none"> SAS Procedures Use this forum to find and offer help on general SAS procedures, such as FORMAT, MEANS, SQL, TABULATE, and so on. 	198,957	2,201 / 8,458	Jul 12, 2010 6:00 PM by: Cynthia@sas >
<ul style="list-style-type: none"> SAS Statistical Procedures Use the SAS Statistical Procedures discussion forum to share your questions, experiences, and thoughts on best practices using the SAS/STAT procedures and other statistical procedures in SAS. For questions regarding SAS software that require immediate technical assistance, please contact SAS Technical Support. 	37,504	377 / 1,036	Jul 12, 2010 10:57 AM by: Silverflute >
<ul style="list-style-type: none"> SAS Macro Facility, Data Step and SAS Language Elements This forum consists of questions or ideas concerning SAS language elements such as the Macro facility, 	124,962	1,320 / 6,433	Jul 12, 2010 5:30 PM by: SASKiwi >

Popular Forums

- SAS Procedures**
 Messages: 8,458
 Last message posted at: Jul 12, 2010 6:00 PM
- JMP Software**
 Messages: 1,957
 Last message posted at: Jul 12, 2010 1:30 PM
- SAS Macro Facility, Data Step...**
 Messages: 6,433
 Last message posted at: Jul 12, 2010 5:30 PM
- ODS and Base Reporting**
 Messages: 5,876
 Last message posted at: Jul 12, 2010 10:24 AM

Current forums include:

- SAS Procedures
- SAS Statistical Procedures
- SAS Macro Facility, Data Step and SAS Language Elements
- ODS and Base Reporting
- SAS/GRAPH and ODS Graphics
- SAS Stored Processes
- SAS Enterprise Guide
- SAS Web Report Studio
- Integration with Microsoft® Office

- JMP Software
- SAS Forecasting
- SAS and Clinical Trials
- SAS in Health Care Related Fields
- SAS Data Mining and Text Mining
- SAS/IML and SAS/IML Studio
- Mathematical Optimization and Operations
- Research with SAS
- SAS and Assistive Technology

Paper PS-05

Some Forums are very active, others less so, but all will tend to be more tightly focused than the sometimes free-wheeling discussions that are on SAS-L.

CONCLUSION

This paper has been presented in an effort to counter the feeling that even long-time SAS users may have that they are very much on their own. This could not be further from the truth: there are many sources of information and assistance. These are only a few. Others include SAS Global Forum (for the 2011 Conference see: <http://support.sas.com/events/sasglobalforum/2011/index.html>), the several Regional User Group Conferences: SESUG, NESUG, MWSUG, SCSUG, WUSS, PNWSUG and the special group PharmaSUG. For the combined proceedings of these and other SAS-related conferences, see Lex Jansen's site: <http://lexjansen.com/>.

REFERENCES

See the links included for relevant

ACKNOWLEDGMENTS

The author wishes to thank the membership of SAS-L for their always interesting commentary. He would also like to acknowledge the work going onto sasCommunity.org by the SAS Global Forum's Executive Board and sasCommunity Advisory Board.

RECOMMENDED READING

Follow the links (and see the Appendix for more on SAS-L). I really do recommend Howard Schreier's paper (see the link on page 1 above).

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Your comments and questions are valued and encouraged. Contact the author at:

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Appendix

Subscribing to SAS-L

Introduction

Subscribing to SAS-L may be done via the web or by email. Both methods are shown.

Subscribing by email

For simplicity, I'll show how to subscribe to SAS-L at the University of Georgia. Other than addresses, much of this is the same if done at Marist (listserv.marist.edu). Neither Virginia Tech nor Medical University of Vienna currently provides web access to SAS-L (but the email methods will work).

Send email to: listserv@listserv.uga.edu

"Subject:" is ignored; use anything you wish (or nothing).

The text should be:

```
subscribe sas-l Jane Doe
```

You will receive email from the Listserv asking you to "confirm" your subscription request; simply follow the instructions (a link is provided, but should that fail, alternatives are provided).

You should then receive a message from the Listserv telling you that you have been added to SAS-L. SAS-L is very active (it has gone over 150 posts/day on occasion). If you will be away and unable to check your email, you may be greeted with a flood of messages upon your return. To avoid this, send this message to the listserv (listserv@listserv.uga.edu):

```
set sas-l nomail
```

(as always, the "Subject:" line is ignored – listserv commands are read from the email body, not the Subject headers.)

This can also be very useful if you opt to read SAS-L via the web (see below), but may wish to post via email. With this, you will not be flooded with messages from SAS-L, but may post to it.

When you wish to resume reading SAS-L via email, send this message:

```
set sas-l mail
```

If you decide to leave SAS-L, send this:

```
signoff sas-l
```

Here are some options you may wish to set:

Repro	-- displays messages you post to the List (this was not the default on many older lists, such as SAS-L) so you will know your message was posted.
Subjecthdr	-- inserts "[SAS-L]" as the first part of the Subject: header. This can be very Helpful if you apply filters to your incoming mail (and even if you leave it all in your Inbox, you can quickly identify messages from SAS-L).

Here is how you might set both:

```
set sas-l repro subjecthdr
```

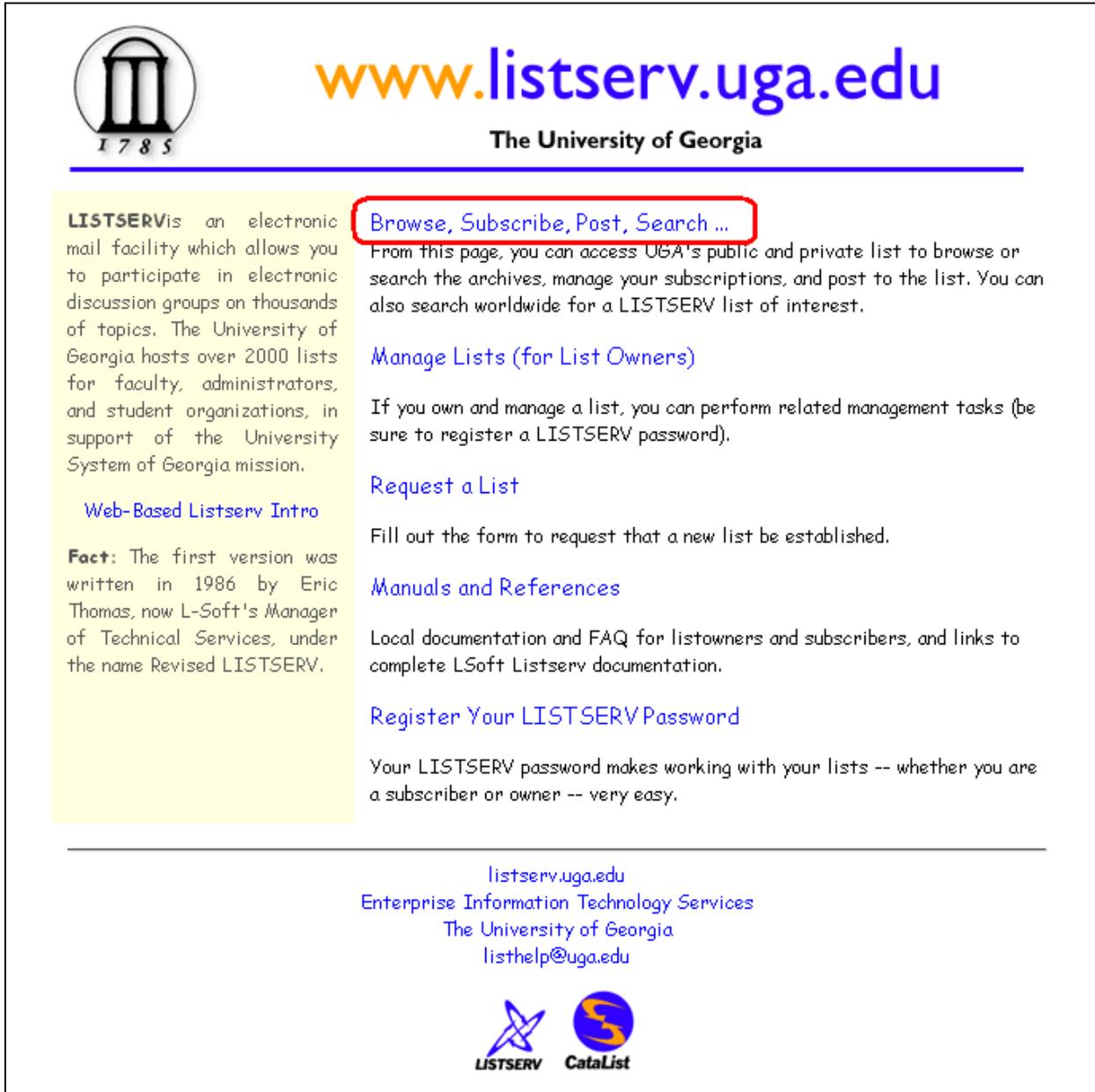
There are a number of options you may wish to set, for an overview, send this message to the listserv:

```
info refcard
```

Subscribing via the Web

Point your browser to: <http://listserv.uga.edu/>

Here is the screen:



The screenshot shows the homepage of the University of Georgia's listserv. At the top left is the University of Georgia logo, a circular emblem with a classical building facade and the year '1785' below it. To the right of the logo is the website address 'www.listserv.uga.edu' in a large, blue, sans-serif font, with 'www.' in orange. Below the address is the text 'The University of Georgia' in a smaller, black, sans-serif font. A horizontal blue line separates the header from the main content area. The main content area is divided into two columns. The left column has a yellow background and contains the following text: 'LISTSERV is an electronic mail facility which allows you to participate in electronic discussion groups on thousands of topics. The University of Georgia hosts over 2000 lists for faculty, administrators, and student organizations, in support of the University System of Georgia mission.' Below this is a blue link 'Web-Based Listserv Intro'. Further down is a 'Fact' section: 'The first version was written in 1986 by Eric Thomas, now L-Soft's Manager of Technical Services, under the name Revised LISTSERV.' The right column features a red-bordered box containing the link 'Browse, Subscribe, Post, Search ...'. Below this is a paragraph: 'From this page, you can access UGA's public and private list to browse or search the archives, manage your subscriptions, and post to the list. You can also search worldwide for a LISTSERV list of interest.' This is followed by a blue link 'Manage Lists (for List Owners)'. Below that is another paragraph: 'If you own and manage a list, you can perform related management tasks (be sure to register a LISTSERV password).' This is followed by a blue link 'Request a List'. Below that is a paragraph: 'Fill out the form to request that a new list be established.' This is followed by a blue link 'Manuals and References'. Below that is a paragraph: 'Local documentation and FAQ for listowners and subscribers, and links to complete LSoft Listserv documentation.' This is followed by a blue link 'Register Your LISTSERV Password'. Below that is a paragraph: 'Your LISTSERV password makes working with your lists -- whether you are a subscriber or owner -- very easy.' At the bottom of the page, centered, is the text: 'listserv.uga.edu', 'Enterprise Information Technology Services', 'The University of Georgia', and 'listhelp@uga.edu'. Below this text are two logos: 'LISTSERV' with a blue starburst icon and 'Catalist' with a blue and yellow circular icon.

Select "Browse, Subscribe, Post, Search ..."

This will bring you to a list of all publicly listed Lists on the University Listserv. There are thousands of them, most not open to the public. Simply type "sas-l" and press "go" (or simply press Return/Enter):

The screenshot shows the website www.listserv.uga.edu for The University of Georgia. The page features a navigation bar with links: Home | Browse | Manage | Request | Manuals | Register. On the left, there is a section titled "Access private lists at LISTSERV.UGA.EDU" with instructions on how to use the site. Below this is a search form with a text input field containing "sas-l" and a "Go!" button. To the right of the search form, there is a section titled "Access lists at LISTSERV.UGA.EDU" which lists several public lists with their subscriber counts:

- [AAPT SACS](#) (148 subscribers)
- [AAUP-L](#) (57 subscribers)
- [ABK08-09](#) (10 subscribers)
- [ABOUT-SCULPTURE](#) (68 subscribers)
- [ACCA-L](#) (1,040 subscribers)

Below the search form, there is a link to "Catalist, the Catalog of LISTSERV Lists" which provides access to over 10,000 public lists.

This brings you to the Archives page. The SAS-L archives at UGA go back to January, 1996. We are interested in "Joining" the List:



 www.listserv.uga.edu
The University of Georgia
[Home](#) | [Browse](#) | [Manage](#) | [Request](#) | [Manuals](#) | [Register](#)

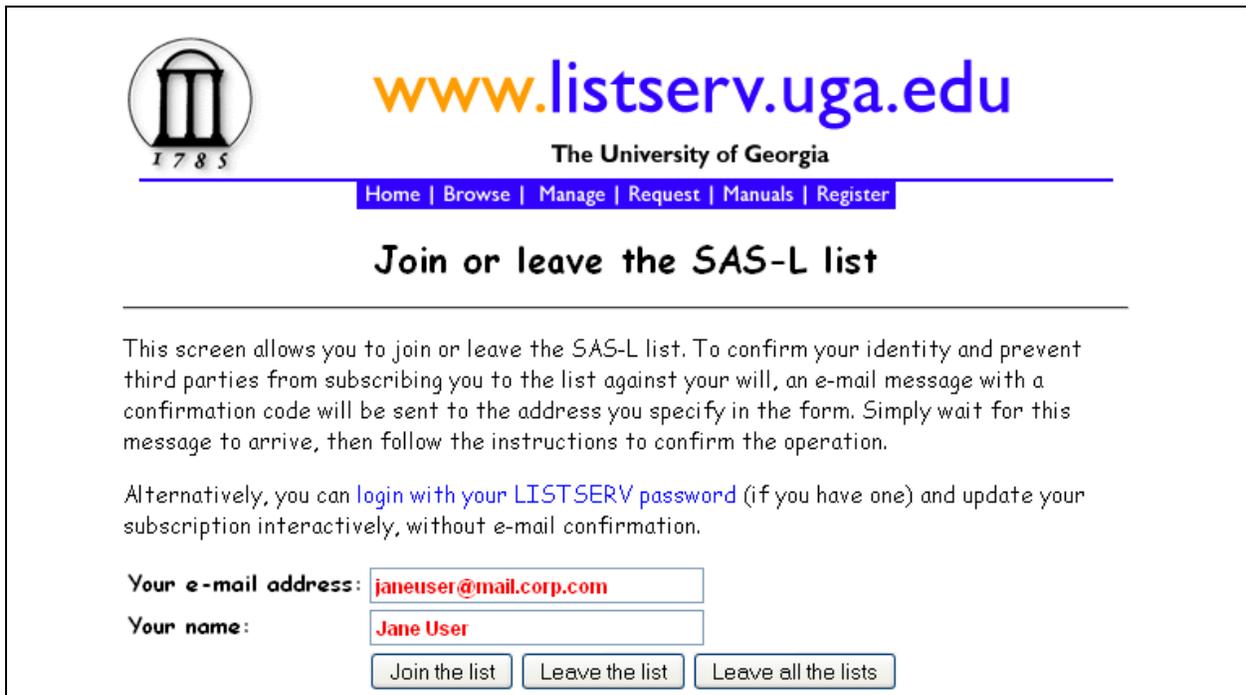
Archives of SAS-L@LISTSERV.UGA.EDU

SAS(r) Discussion

- [Search the archives](#)
- [Post to the list](#)
- [Join or leave the list \(or change settings\)](#)
- [Manage the list](#) (list owners only)

- [July 2010, week 1](#)
- [June 2010, week 5](#)

Here is how Jane User might sign up:



 www.listserv.uga.edu
The University of Georgia
[Home](#) | [Browse](#) | [Manage](#) | [Request](#) | [Manuals](#) | [Register](#)

Join or leave the SAS-L list

This screen allows you to join or leave the SAS-L list. To confirm your identity and prevent third parties from subscribing you to the list against your will, an e-mail message with a confirmation code will be sent to the address you specify in the form. Simply wait for this message to arrive, then follow the instructions to confirm the operation.

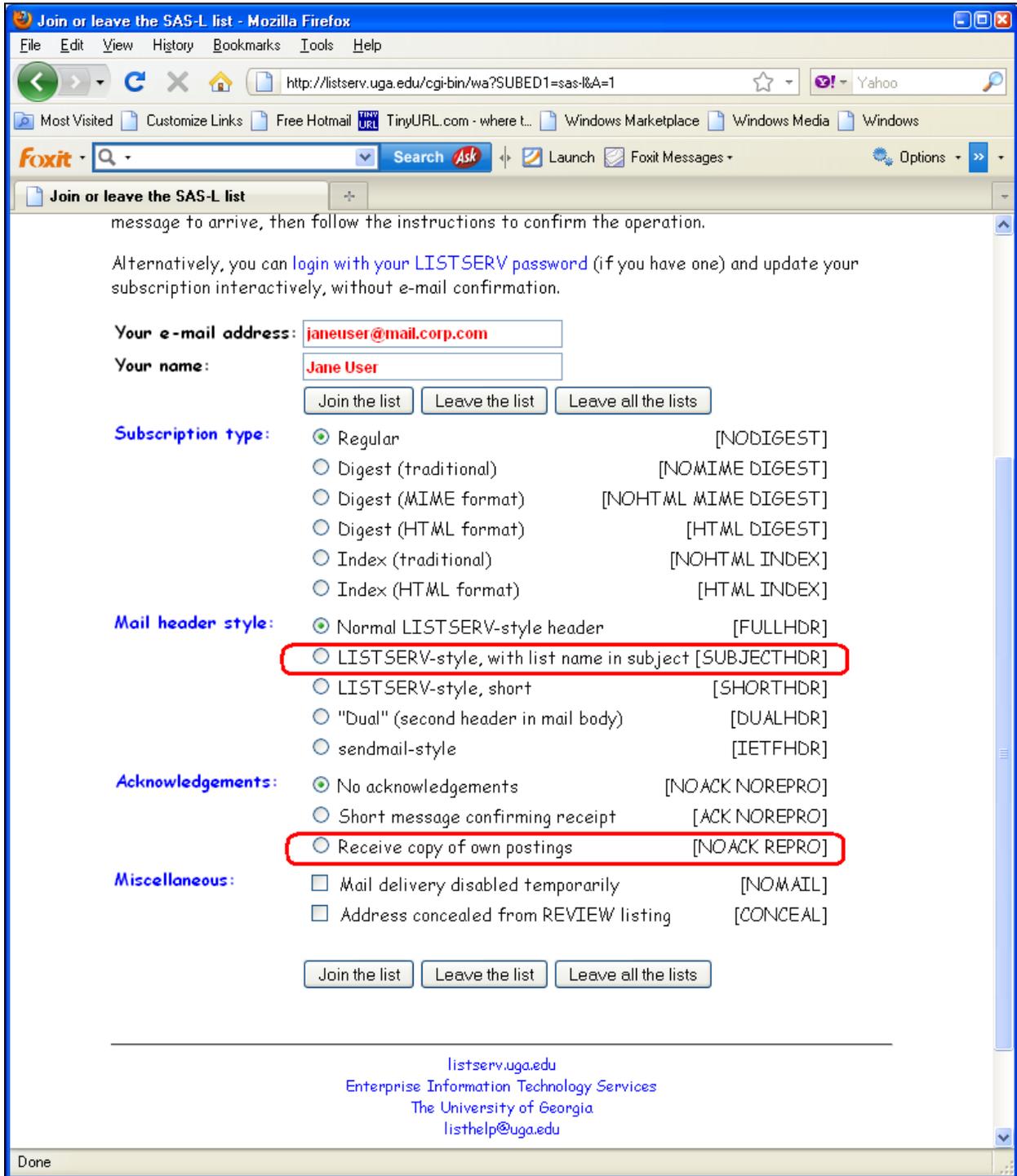
Alternatively, you can [login with your LISTSERV password](#) (if you have one) and update your subscription interactively, without e-mail confirmation.

Your e-mail address:

Your name:

BEFORE pressing “Join the List”, review the options in the fields below:

Some of these options were mentioned in the section above covering “subscribing by email”:



Defaults are shown with the green dot (●), the suggested changes are indicated.

It is not necessary to “set conceal” – SAS-L at UGA allows only the list owner to retrieve the subscription list.

Once the preferred options have been selected, press **Join the list**.

Jane will receive email from the listserver asking she “confirm” her subscription request. This is an effort to reduce bogus subscriptions. A link is included with this; should the link not work, alternatives are provided in the email. Once completed, a follow-up email informs her she has been added to the list and provides some helpful information on maintaining her subscription.

Whether you subscribe by email or via the Web, if your email address changes, you will not be allowed to post. The listserver uses your email as a kind of “userid” for you. So if Jane’s mail administrators update her mail system and her new address is “janeuser@corp.com” it will no longer match the address she subscribed as (“janeuser@mail.corp.com”) and the listserver will not allow her to post (in all likelihood, her mail *from* the list will continue to be delivered without problem). The best solution in such a case is to contact the list owner to have the old subscription deleted and resubscribe.

SEARCHING THE ARCHIVES

Searching the archives via email is somewhat complicated and is less used. By far, the most common way to perform a search is via the web.



The screenshot shows the website for the University of Georgia listserver. At the top left is the University of Georgia logo, a circular emblem with a building and the year 1785. To the right is the URL www.listserv.uga.edu in blue and orange text, with "The University of Georgia" underneath. A horizontal blue bar contains navigation links: Home | Browse | Manage | Request | Manuals | Register. Below this is the title "Archives of SAS-L@LISTSERV.UGA.EDU" and the subtitle "SAS(r) Discussion". A list of links is displayed, with the first link, "Search the archives", enclosed in a red rectangular box. The other links are "Post to the list", "Join or leave the list (or change settings)", "Manage the list (list owners only)", "July 2010, week 2", "July 2010, week 1", "June 2010, week 5", and "June 2010, week 4".

Select the link to “Search the archives”

Let us suppose we want to research considerations when writing to an Oracle DB table:

 **www.listserv.uga.edu**
The University of Georgia

[Home](#) | [Browse](#) | [Manage](#) | [Request](#) | [Manuals](#) | [Register](#)

Search the SAS-L archives

Help! (or click on highlighted fields for specific help)

Search for: apple or pear (green apple) or (red apple)
 Substring search

In messages where:
The [subject](#) is or contains:
The [author's address](#) is or contains:
Since: (date/time) June 1995
Until: (date/time) 2 May 96

ALWAYS specify a date bound -- or your query will search the entire archive (since 1995)

And we get:

 **www.listserv.uga.edu**
The University of Georgia

[Home](#) | [Browse](#) | [Manage](#) | [Request](#) | [Manuals](#) | [Register](#)

Search results - SAS-L

3 matches.

[Search again](#)

Item #	Date	Time Recs	Subject
307409	10/01/08 12:11	39	Maintaining data integrity when reading and writing Oracle encrypted data
307421	10/01/08 11:51	68	Re: Maintaining data integrity when reading and writing Oracle
307473	10/01/11 01:10	62	Re: Maintaining data integrity when reading and writing Oracle encrypted data