SAS TOOLS and INTERNET
by Charles E. Shipp, Kirk Paul Lafler, Sunil K. Gupta

ABSTRACT
The Internet continues to grow rapidly in ease-of-use, value of content, and popularity — many new users, both companies and individuals, join every day. Part of its magical attraction is its wide diversity of information and modes of search and display. From e-mail and discussion groups, to downloading text and programs, a wealth of valuable and timely information awaits you on the Internet. Jump in!

SAS Institute and professional SAS programmers and consultants have a strong presence and tradition on the Internet, and new innovations are planned and being implemented.

This poster paper diagrams the areas of main interest to the SAS community: e-mail to other users and SAS Institute; the SAS Institute page on the World Wide Web that directs you to treasures; SAS-L and JMP-L for programmer questions, answers and discussion; TSNews for technical support and problem alerts; <support@sas.com> for your bug analysis; the new exchange library for exchanging SAS code and SAS Toolkit code; and the developing area of SAS documents and training via Internet.

INTRODUCTION
There are plenty of books on Internet, World Wide Web (WWW) and other aspects of electronic interchange and information. This paper specifically addresses SAS users and programmers, and the ways they can and do tap into valuable information.

The important thing about online connections, of course, is the information. If you don’t have access to good information (and people) you should check out SAS-L, the SAS Institute Page, and other valuable locations.

Like many things, the value is there if you know where to get it: hence this paper. The wealth and value to SAS programmers is phenomenal! The WWW Page of SAS Institute is new, growing in excellent content, and also accepting your suggestions. Check it out.

CONNECTING
At your home the situation is different, unless you are supporting a professional home office. There are four or five different levels of connecting to the Internet and World Wide Web, and you should consider all of them: (1) your local user group may support a BBS with a connection to the Internet; (2) a subscription to America Online or CompuServe provides you with Internet connection; (3) you can pay a service provider and they supply you with software such as Netscape, and phone access numbers; (4) ISDN is a new communication method being promoted by phone companies; and (5) new technologies are becoming available, such as T1-lines, to provide higher speed communications, for a price. For those with a lot of resources and needs, you can become your own node on the Internet, at one of four levels. You can count on future developments to push the envelope of technology and methodologies.

TOOLS
Current tools for getting the best information for your effort and time are probably best provided by a service provider. They will have everything you need in one place for one fee. For the brave, you can search and find what you need on the Internet. So one way to go is to get the tools from a provider, to give you time to search online for your self. Also, major computer companies, such as Apple Computer and Microsoft are providing kits.

The best tools for World Wide Web search and select (browsing) are yet to come. Keep your eye on the SAS Institute WWW Page, under Tech Support and Sample Web Tools; also John Wells’ home page <...www.infi.net/~jwellsxxx> for some very good developing ideas using SAS software.
SAS INSTITUTE WWW PAGE

The SAS Institute's World Wide Web page has a lot of good and improving information, such as:
(1) What's new at SAS Institute: the latest news and developments; (2) Corporate Information: An introduction to SAS Institute;
(3) Spotlight on SAS Software users: Profiles of the SAS System in the work place; (4) Software Overview: an introduction to the SAS Institute products; (5) Career Opportunities: current Institute employment openings; (6) Support Services: Technical Support, Training, Documentation, and user groups; (7) How to contact us (at SAS Institute): Mail, FAX, Phone, and E-Mail.

Created in hypertext, you can drill down in the many areas. For example, there are about 20 areas under Technical Support, such as: the 1996 SASWARE ballot; Submit problems to Tech Support; FTP Access; Frequently asked questions; SAS Notes and Usage Notes; Sample Web tools; Electronic Mail Interface to Tech Support (EMIT); and active/archive TSNEWS-L alert messages.

E-MAIL

Electronic messages are a major attraction to many. Being able to send notes to one or several and receive information and answers, ... dialog and discussion. This avoids phone tag, and you are imposing less on the time of very busy people. If they are asking you for information or services, you can research, prepare, and provide what is needed in your answer. There are many advantages. Newer technologies will be even more attracting, such as working group documents, where several people can collaborate on such things as SUGI papers.

SAS-L FOR Q/A AND DISCUSSION

("L" stands for LIST-SERVer and it means a computer/system that receives Internet messages and reflects them back to addresses that are on its distribution list.)

SAS-L is for SAS programmers: we receive answers to advanced questions immediately or very soon, from other Power SAS Programmers. Since it is used 'round the world, it is common to put up your current stumper as you are leaving the office, or just before you go to bed, and have six or more reply-answers in the morning.

To get on the LIST, send a message to <listserv@uga.cc.uga.edu> that says, on one line: subscribe John Smith (substitute the name you would like to appear on messages) and the LISTSERVer will note the incoming address and add it to its distribution list.

In addition to valuable question and answers, there are interesting discussions on topics that are of interest to SAS programmers. There are from 15 to 35 messages each day, and with a service like CompuServe you can select by topic/person which messages you want to download.

JMP-L — USERS/PROGRAMMERS

Identical in operation to SAS-L, this list server is for JMP users and programmers. As everyone knows, JMP now runs under WINDOWS, as well as on the Power Macintosh and earlier Macintoshes. The power of the concept of the List Server is that you can interact with others in work that is important and cherished to you. It is more than receiving critical answers to your important professional programming questions, it is also for answers and discussion about industry directions, including the advanced features of new and coming versions of SAS Software.

TSNEWS-L

TS is Technical Support Department of SAS Institute (and the L means LISTSERVer.) Send a message (here) and your electronic address is recorded. You then will receive each item of NEWS from the Technical Support team at SAS Institute, for free (the cost of your time to logon and read the news.)

HELP LINE — ELECTRONICALLY

The Help Line team at SAS Institute is the best in the world. Traditionally, as many of you know,
when you phone them they first ask for your installation site. There are specialists on the Help Line, and if they cannot answer your question directly, they assign a tracking number to the question and direct it to a specialist in the appropriate department. Direct interaction on the phone is good, but there is also advantages to electronic interchange. Mention what system you are using and the specifics, and the support personnel can research and answer. You can also include a sample of the code in question, with sections of the results, which you can cut and paste into your note. Visit the SUGI demo floor booth for SAS Institute Help Line for more info.

DOCUMENTATION

Online documentation from SAS Institute and others will be coming of age. Watch the SAS Internet/WWW page for developments. Currently, you can research which manuals and books by users are of interest to you, by keyword search or category search. Hypertext authoring is increasing and is valuable in computer areas. These documents will be available on the Internet to read or to download.

EXCHANGE LIBRARY

The concept of the exchange library is similar to the former SAS Supplemental Library of user submitted programs and SAS language procedures. One can find very valuable extensions to the SAS formal modules, and with the advent of the SAS Toolkit, users can more readily create their valuable entries to the library.

Rick Langston is an institution, and a legend! He created the SAS Toolkit and now the exchange library. You, the user, provide the valuable content: do your best job.

CONCLUSIONS

To paraphrase Bill Gates, “the technologies we see now: CD storage, high speed connections, Internet/WWW, are only the beginning pieces of the Information Highway (for lack of a better term.) Progress will happen swiftly due to the popularity, increased content value, and access methods of electronic information.” But in all of it, the main value remains the people, their knowledge and wisdom, and willingness to share and help.

REFERENCES

See the excellent papers of Richard D. Langston and Helen Carey in the 1995 Proceedings of the Western States Users of SAS Software; also “The One-Eyed Guide to the Internet” by Michael Davis (online); and Nancy J. Hill, “Don’t Be Road Kill on the Information Superhighway: Using the Internet to Support SAS Software” SUGI 20 Proceedings.

ACKNOWLEDGMENTS

Our sincere thanks are extended to Paul Grant, Conference Chair, and Frank Fry and David Woo, Poster Session Co-Chairs, for their continued support during the preparation of this poster paper and presentation.

AUTHOR CONTACT INFORMATION

Kirk Paul Lafler
Software Intelligence Corporation
P.O. Box 1390
Spring Valley, California 91979-1390
Telephone: (619) 670-SOFT or 619/670-7638.
Kirk Paul Lafler: <72642.226@compuserve.com>
Charles E. Shipp: <76675.471@compuserve.com>
Charles E. Shipp: <macfamily@aol.com>
Sunil K. Gupta: <SunilGupta@aol.com>

TRADEMARKS

SAS is the registered trademark of SAS Institute Inc., Cary, NC, USA.

CompuServe, America Online, Apple Computer, and Mocrosoft are registered trademarks of their respective companies.
SAS Tools and Internet

**SAS-L**
For the Programmer
- Questions
- Answers
- Discussion
<sas-L@uga.cc.uga.edu>

**JMP-L**
For Visualization
- Questions
- Answers
- Discussion
jmp-L@wubios.wustl.edu

**E-mail**
For contacting others
- Other users
- Researchers
- SAS Institute
<UserID@NodeID>

**SAS Institute WWW Page**
- News & Developments
- Training and Services
- User Group Information
  ... and much more
<http://www.sas.com>

**TSNews-L**
For Tech. Support
- Zaps
- Updates
- Problem Alerts
<http://www.sas.com>

**Documentation**
- Find available docs
- Hypertext
  (in development?)
<sasdoc-L@vm.sas.com>
and on the SAS WWW-Page

**Exchange Library**
For Sharing Pgm's/code
- Abstracts
- Program code
- Program notes
  Rick Langston

**Help Line**
For specific questions
- SAS Tools
- Programming
- Bug Analysis
<support@sas.com>