

Supporting SAS* in an Academic Environment
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Introduction

In the times of budget cuts, it is hard to find ways to support people, making them fully aware of the capabilities of application development tools such as SAS. I will attempt to outline some steps which can help the application developer, the end user and the SAS consultant to use their time more efficiently.

The resources, correctly mixed, which determine if the experience of using SAS on your campus will be satisfying or confusing follow:

- Public Relations
- User Group Involvement
- Access to Educational Material
- Access to Training
- Networks

Public Relations

The first step in making people more self sufficient is to make sure they are well informed. In order to do this one must publicize the opportunities available, make use of department newsletters, the campus newsletter and student newspapers. Post announcements for training sessions, system upgrades, and new features in every type of free publication available to you. If you only reach one person for a posting you still may have helped many. That person can inform and train peers, students in their area or office co-workers. How did you find out about this conference? Make sure people know about available training, user group meetings or other events.

User Group Involvement

Form a local in-house users group. This does take effort but will pay off in the long run, think of it as a SAS support resource. Try to get all areas on campus involved not just academics or management. Don't overlook the students. Remember students are potential future faculty, graduate assistance and staff. Make sure you include people from the Graduate School and the research area. These people are potential heavy users of SAS.

A user group is a good place for application exchange, problem solving, and people networking. Contact Sally Roberson at SAS Institute for more information on becoming a recognized local in-house or special interest group. She will also supply a SAS Users Group Starter's Guide. SAS will help groups with external speakers through their speakers bureau, do initial mailings, give user group

referrals and send news releases. Members can demonstrate applications, talk about various solutions to problems, or discuss changes, training sessions available, or publicize events. You can also make sure people know about funding opportunities such as research grants, or scholarship available. If you are a recognized SAS user group, you will receive a copy of the SAS User News videotape each quarter.

Make a member list available including such information as products used, operation system, expertise level (beginner, intermediate, and advanced) , type of member (end-user, application programmer, systems, consultant) along with the interest area. Don't forget to note PC, Mainframe, or both usage. Note who is available for consulting assistance and in what products.

A list of area SAS users groups should also be available for members to find contacts off campus for advice about various applications or projects. Become involved at various levels such as local group, area group, and regional group. You might find groups willing to exchange speakers at meetings. Rotate meeting sites on campus to give a feeling of equals, this also encourages everyone to become involved, making it easier for people to attend. The SAS consultant should not control the group but instead advise them. This encourages every level of user to become involved.

The typical agenda might include problems/issues, suggestions to encourage efficient use of SAS, new changes or releases, demonstrations and the SAS News video. Writing a on-campus SAS user guide is a good project for the group. It should include information not available in SAS manuals such as how to access their system, how to access SAS, where to get assistance, what a SASLOG is, accessing help files and training available. You may wish to consider standards and include tips or hints.

Access to Educational Material

Make the SAS manuals available in an easy access library. This should include copies of the Master Index, the error message manual, SAS Communications* (pointing them to the technical support question and answer section, and the tips & techniques section), and don't forget the SUGI and Regional Group Proceedings. The user group can develop a list of manuals available through members for viewing along with a brief description of the manual, order number and price. It is also a good idea to keep a copy of the publications catalog where everyone has easy access. Include the SAS NEWS videos along with the new release feature videos.

Before you can use SAS you need to know site dependent information. For example, on the mainframe, where do you get a logon, how do you logon, how do you invoke SAS, etc. Knowing how to access on-line help files, the usage notes, or temporary disk space is important for solving problems. The use of prototypes can reduce the number of problems of this type. SAS release 5.18 has prototypes for SAS/OR*, SAS/ETS*, and Report Writing. For SAS 6.06 that you

install PROJMAN and use it not only for Operation Research but use the tutorial for helping people to get started with SAS. It has some good help files and mentions some manuals to use for further research on various parts of SAS. Make sure you keep up-to-date on your usage notes so when problems arise you can see if it is a known problem with a fix. The sas on-line help facility with technical support at SAS Institute is also available for consulting.

It is also a good idea to keep copies of training materials, the workshop schedules, example handouts, lists of helpful books available in the campus library and of course your user group SAS Users Guide, in your SAS library.

Access to Training

Don't forget about training. Members of the user group could assist with training. Copies of training documents, along with user guides for various parts of the operating system should also be included in the SAS library. Offer SAS courses 3 times a year to match various needs. Try to cover different levels, such as beginners (data step, basic procs, and simple graphs), advanced course (covering efficiency techniques), SAS/GRAPH*, and SAS/FSP* if available.

When setting up courses keep in mind Monday morning, Friday afternoon, 8:00 AM, 1:00 PM and 4:00 PM are not good times to schedule workshops. The basic course should cover use of the help files, SASLOG, and mention prototypes which are available. Information on all the workshops offered should be mentioned, if you can't use the operating system you will not enjoy working with SAS. Make sure people know about such aids as PROC CONTENTS, PROC SUMMARY, and PROC TAPELABEL. People need to know how to check the SAS default options and how to change them. The DROP and KEEP commands are good examples of a way to help the user with little effort.

Computer Based Training courses can be developed with the SAS/AF* software, or purchase SAS developed CBT courses. Video tapes are available on various topics. Another option is to use the Audio Visual Department on-campus to tape the workshops held at different user group meetings to be used for independent study.

Networks

Make use of bulletin board systems both on campus and off to post hardware questions, looking for SAS applications, training, how to questions, and connecting other software to SAS type questions. If an on campus bulletin board system does not exist (or even if it does) look to ones such as ISAAC (Information System for Advanced Academic Computing). ISAAC is free, can be accessed through BITNET, dial-in on a 800 number 24 hours a day, or telnet into through INTERNET. Also look for special bulletin board systems. For example, our university is a member of KCRCHE (Kansas City

Regional Council for Higher Education) which has it's own bulletin board system.

If available, make use of special networks such as BITNET, INTERNET and state networks. These networks have discussion groups which you can subscribe to and use for information gathering, question/answer activity, comparing the use of applications or products taking place at other institutions in class, course work and similar departments/positions. Questions can be sent to the lists for opinions on products, known problems, performance, or correct usage. Useful groups on BITNET include (but not limited to) are SAS-L (for SAS on all operating systems and equipment), STAT-L (for statistical consulting), and PSTAT-L (statistics and programming). There is a statistic library STATLIB, GRANTS-L (NSF Grants & Contracts Bulletin Board), the RESEARCH group out of TERMPLEVM, ERL-L (Educational Research List), GRANT-L (OSP Funding alert list) and many other areas are available on INTERNET and other networks. Networks are a great place to hear about special funds available or research projects which could benefit you. Sometimes grants include funds for training which could supplement SAS training.

Currently some states have networks available such as Missouri's MORENET (Missouri Research and Educational Network) tying the state university and research center computers together then going out to major networks. This project was partially funded by a NSF grant. Other state type networks include Ohio served by OARNET (Ohio Academic and Research Network, Minnesota has MRNET (Minnesota Regional network) and, Michigan is served by MICHNET. Midnet, a regional network serves Iowa, Kansas, Nebraska, and South Dakota. North Dakota is served by Northwestnet and Wisconsin is served by both Northwestnet and USAN.

Don't forget people networking is one of the most important kinds of networks. By using other networks to communicate, people can be pointed the correct direction to find information fast. Some academic institutions do not have a Department of Research, a faculty/staff support center supporting SAS, or the money for large SAS libraries. The end user usually knows about bugs in SAS before the computer support group because they use it. Keep the support people well informed of abnormal problems occurring. Give them hard copies of the source code, listing, and SASLOG before having them contact SAS Technical Support so they can fully explain your problem. There is the On-line Customer Support Facility (OCSF) and the telephone support for problem resolution. Develop an in-house method of tracking problems being handled by SAS with the solutions to the problems and make it available to all users of SAS. This would be a good SAS/FSEDIT along with SAS/AF application. Use the features of SAS to tailor the system to include site dependent information such as who is the SAS consultant and how to contact them.

Summary

Don't forget, everyone is a beginner sometime. With the proper resources, experienced people to help us take our first steps and the cooperation of the local computer support, SAS can be supported with little extra funding. By using computer networks, user groups, and many of the resources already available on campus, such as training centers, the SAS experience can be a pleasant one.

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