John Boling, Education Division, SAS Institute Inc.

This past year has been an exciting one in the Education Division. More than ten thousand products have been installed in the United States, and over thirteen thousand products have been installed worldwide. This equates to countless SAS users like yourself expecting to receive quality instruction from the Institute.

We continue to receive requests to provide instruction for new software products, such as SAS/FSP and SAS/OR; for new minicomputers we support such as the Digital Equipment, Data General, and Prime computer machines; for different audiences, such as the experienced SAS user or the user in the information center. We also get requests to provide this instruction in different media forms, such as video, computer-based training, and lecture with and without workshops.

This past year we taught approximately 30 courses per month at the Institute, and an additional 250 courses were taught at customer locations. Over 250 sites have licensed our video courses. So it is understandable that you continue to recognize us as the experts uniquely qualified to deliver performance-based SAS training. We value your educational needs very much and want to continue to earn your confidence through our performance.

Let me share with you several exciting education projects that we have been working on. You may want to ask questions about these projects after the panel's opening remarks.

Recently we announced several new training courses. The SAS Macro Language course has been extremely well received. The course covers the syntax and facilities of the macro language and helps you develop the skills to design, write, and debug macro systems. The course moves from the simple invocation of automatic macro variables to the more complex macro-controlled, user-defined SAS programs. There are two versions of this course. One version is the three-day lecture format. The second version taught only at the Institute or at a customer's location, combines the lectures with computer workshops.

The SAS Basics course continues to be very popular. A new version of this course is now available called SAS Basics for Minicomputers. This three-day course stresses the fundamentals of the SAS System for minicomputers.

The Introduction to Data Processing course is now called SAS Programming for New Computer Users. This new version includes additional information on operating systems and on the text editor. There are two versions of this course; one for OS environments and one for VNI/CMS environments.

I am pleased to announce at this conference a new course: the SAS Report Writing course. This two-day course explores the power of the base SAS product to generate tables, graphs, spreadsheets, calendars, repetitive forms, and listings of the data using the full range of SAS formatting capabilities. This course was designed for those of you who have completed the SAS Basics course or have used SAS software extensively for six months. The first public course offering is scheduled for August. Course descriptions are available in the Education booth.

Creating Maps with SAS/GRAPH Procedures is a new video training course. This course discusses how to create an, control the appearance of SAS/GRAPH maps to better illustrate your reports and analyses. The video also discusses how to digitize your own map and how to use the SAS/GRAPH product to display it. Excerpts from this course can be reviewed in the Education booth.

We are also extremely excited about the SAS Statistical Lecture Series, a series of seminars that focuses on practical applications of statistical theory. These seminars are taught by nationally- and internationally-known statisticians. The lectures include workshops on the use of SAS statistical procedures and interpretation of computer output; you can even bring a subset of your own data to analyze. Several of the lectures scheduled this year include Dr. Shayle Searle discussing interpreting GLM and VARCOMP Output for Analysis of Variance; Drs. Dave Dickey and John Brocklebank discussing ARIMA, State Space Model Building, and Forecasting; Dr. Ray Myers and myself discussing Collinearity and Biased Estimation Techniques in regression; and Dr. Robert Steele teaching an Introduction to Statistics. A schedule of all the seminars in the Statistical Lecture Series is available in the Education booth.

This time last year we announced the courses we would be teaching in our own training facility at the Institute. Teaching the courses at the Institute made it possible to incorporate computer workshops into several of the courses, something we cannot do when the course is offered as a public course in a hotel. You can even choose which operating system to work on during the exercises.

The evaluations of those courses that include workshops have been extremely positive. Consequently, we plan to incorporate workshops into most of our courses and expand the Institute's training facility, so we can teach the courses more frequently.

In January we began awarding continuing education units, or CEUs, for participation in SAS Institute training courses. If you want to learn more about our education services, examine the training materials, meet with the instructors...
and course designers, and consider attending the SAS Services Workshop. This free, one-day workshop acquaints you with the Institute's products and services provided by the Education Division, the Publications Division, and the Technical Support Department. An overview of our software products is also given, and you can see product demonstrations.

If you do not receive SAS Training and SAS Communications, you might want to add your name to the mailing list. SAS Training is a biannual publication that provides information on all Institute courses, including the intended audience, course prerequisites, course descriptions, dates, and locations. SAS Communications is published quarterly by the Institute and provides information of interest to all SAS users. A section of this publication is devoted to announcing new training products and so forth.

As you can see, the year has been a very busy one. Next year promises to be no different. We are developing many new and exciting projects. As the software changes, we will continue to examine existing courses for revisions. The Institute is planning a series of video courses introducing the SAS System to the information center user. We intend to task analyze several of our newer IPPs, which is the critical first step in our methodology for delivering quality training to you. There are many other exciting projects under way that will be announced later this year.

If I can leave you with one message, it is this: those of us in the Education Division truly enjoy designing and teaching quality SAS training courses. Our goal is to ensure that the training we provide is effective and meets your interest. We now have a department within the division, the Education Sales Department, whose responsibility it is to market all educational products including on-site, public, and video courses, and to work with you in assessing your educational needs. The feedback they provide us is very helpful when we plan new courses and the ways these courses are to be delivered to you.

We are keenly interested in your specific needs and will do everything within our power to make sure they are met. For example, at SUGI last year, many users requested that we offer training courses on the days preceding this year's SUGI meeting. Nine different courses were attended by nearly four hundred of you. Several of the courses required additional sections. We plan to offer our courses next year in Reno, Nevada prior to SUGI '85.

I invite you to stop by the Education booth and visit with us, and I look forward to your questions during this panel discussion.

Kathryn Council, Publications Division, SAS Institute Inc.

We feel that the Publications Division at SAS Institute provides you with a very useful product: all the documentation you use with the SAS System. An important element in the production of all SAS documentation is user feedback. That is why we come to SUGI and why we have panel discussions like this one.

Before we take questions, I want to mention a few things we have done in Publications this year that we think have provided you with more complete documentation more quickly and earlier in the life of a new release.

First, we have increased the staff size of the division by 70 percent since last year. Each of the four departments in the Division has shared in the growth:

- Corporate Communications, documents our products in advertising and marketing literature and publishes SAS Communications, the news magazine. That department grew from 4 to 7 people.
- Technical Writing almost doubled in size, from 11 to 21 people.
- Graphic Arts creates the final product from each written manuscript. That group went from 6 to 10 people.
- Publications Sales processes book orders from beginning to end. That department grew from 8 to 12 people.

The second change we've made this year is to involve the technical writing staff at an earlier stage in the development of a new product, allowing us to document test releases more completely.

We have recently upgraded our typesetting equipment and now have a more fully-automated production process that reduces the time it takes to complete each book. This also makes it possible for us to work on more manuals at the same time.

It is at meetings like SUGI that we have the opportunity to get your feedback and answer your questions about our publications. But our participation here at SUGI is only one of the ways you can communicate with us throughout the year.

The SASware ballot is another way that users can show their interest in documentation. Your ballot is a perfect opportunity to vote on changes that you would like implemented. And, of course, you can write the Publications Division at any time with suggestions related to our manuals. The back of each Institute manual includes a Your Turn page, blank and waiting for your comments.

We also participate in trade shows to find out what you want, as well as to promote SAS System
products. When you call the Publications Sales staff to place your order, they are also happy to hear your comments. If you attend a SAS training course, let your instructor know how you feel about our documentation. And while you’re here at the Diplomat, please join us at the Publications booth. We have a questionnaire about our manuals that we’d like you to fill out. You can express your likes and dislikes on the questionnaire more specifically than you’ll be able to here today, and we encourage you to give us your feedback.

Now I’d like to mention some of the documentation that we’ll be producing in the Publications Division this year. First, we want to work toward completing a three-tier line of documentation for the SAS System:

- complete reference manuals for each product
- companions for each operating system under which the SAS System runs
- manuals for specialized audiences, including primers for each product for first-level users.

The following are some of the new manuals that will appear soon. They were announced in the spring issue of SAS Communications:

- Creating Maps with SAS/GRAPH Procedures Student Workbook
- Creating Maps with SAS/GRAPH Procedures Course Coordinator’s Guide
- Merrill’s Expanded Guide to CPE

We’re also very happy to be able to tell you that a book that has always ranked high on the SASware Ballot will become a reality this summer: The SAS Companion for OS Operating Systems and TSO.

We plan to continue to publish works by authors outside SAS Institute when we feel that there is a need. For example, three professors from N. C. State University are writing a book entitled, The SAS System for the Social Sciences.

We will continue to try to add the books to our list that we think you most want. Again, let us know what your thoughts are, today, and please fill out the questionnaire at the Publications booth. We do appreciate your feedback; knowing what you want makes our jobs much easier. Thank you.

Mason Nichols, Technical Support Department, SAS Institute Inc.

As the number of SAS users increases, the support you require from the SAS consultants at your site and from the Technical Support Department at the Institute also grows. In order to meet the ever-changing needs of the SAS user base for technical support, a number of changes have been made since SUGI ’83. Within the Institute, the Technical Support Department has been reorganized. Installations are now allowed to designate a SAS consultant, HELP facilities have been implemented within the software, and we have established a system to log and track all technical support phone calls.

Let me first share with you what has happened within the Technical Support Department. Past experience suggested that a large percentage of the phone calls we received daily were from relatively inexperienced users. Therefore, we reorganizes the Technical Support Department to support two tiers, or levels, of consulting. First-level or associate-level consultants were hired to handle all initial phone calls you make to us. Their responsibilities are to provide answers to questions relating to the base SAS product, as well as to assist you with circumventions for outstanding problems. If the associate consultant cannot answer your question, it is referred to a second-level consultant, known as a technical support representative.

Although each technical support representative is knowledgeable of the SAS System, each specializes in a given area. For example, one area of specialization might be an operating environment such as VM/CMS, DOS/VSE, or AOS/VS; another area might be a SAS program product such as SAS/FSP, SAS/OR, or SAS/GRAPH; or a representative might have a field of expertise, such as operations research.

There are three unique groups within the second level: Operating System Interfaces, Graphics and Non-Statistical Procedures, and Statistical Procedures. Although each group has specialists whose primary responsibility is to support a given area, we plan to cross-train individuals within each group, so more than one individual can respond to your needs.

The technical support representative also provides assistance in testing new procedures and products, as well as preparing and reviewing new documentation. Consequently, the second-level consultants have been freed to pursue the more difficult problems that you have and provide you with answers and services more quickly.

This year, we plan to add a third level to the organization. The third-level consultant will specialize as a systems technical support representative. Technical questions that cannot be answered by the second-level group will be referred to this group. Their other responsibilities will include examining SAS source code to resolve problems, coding zaps to correct the problems, and so on. With this type of
expertise within the Technical Support Department, your needs can be met faster.

With the establishment of information centers, many installations have requested the need to designate two individuals at each installation to support the SAS System. The Institute has recognized this need and now allows each installation to designate a SAS consultant in addition to the SAS installation representative. The primary responsibility of the representative is to install the SAS System on your computer system, whereas the consultant is an experienced SAS user appointed to assist other users with their programming problems.

Within the next several months, you will receive a packet of information asking you to designate a SAS consultant at your company. That person will periodically receive the same tools used by the Technical Support staff, including SAS Communications, SAS Training, documentation, notices concerning support and product availability, and other helpful information.

These consultants can further their training by attending the Enhancing SAS Technical Support Skills course offered by the Institute. This two-day course covers the detection and interpretation of errors, the role of the Institute in supporting products in the field, proper installation techniques, and setting up local technical support resources.

Programming tools such as the HELP facility have proven to be very helpful as well. Users can identify who are their SAS consultant and SAS installation representative and learn which SAS program products have been installed by issuing the SAS statement HELP SITEINFO.

Another change is the tracking system that was designed and implemented to monitor all phone calls and to record the information being reported. With the tracking system, we can monitor where problems are occurring and address these problems in future documentation, SAS Communications articles, or through sample programs.

Additional enhancements to the tracking system will include the ability to access the installation database at the Institute. Thus, when you receive your call, we can cross-reference that data base and learn more information about your site, your current release, what products you have licensed, and who supports the SAS System at your installation.

We believe that these changes are only a step toward meeting SAS users' needs, and we have been very pleased with the results of the changes so far. Since the reorganization of the department and the implementation of the tracking system, approximately 40 percent of all incoming calls have been resolved by the first-level consultants during the initial phone call.

We appreciate your cooperation and support for these changes. It has enabled us to address your questions more quickly and effectively.

Our goal is to be as responsive as we can in meeting your needs. We believe that our software is only as good as the training, technical support, and publications you receive with it. We need and encourage your feedback to help us deliver quality products and services to you.

Open Discussion

The session moderator was Terry Fain, Rand Corporation. Three panelists answered questions from the audience. The three panelists were SAS Institute staff - Kathy Council, Director of Publications; John Boling, Director of Video Training; and Mason Nichols, Manager of Technical Support.

Bob Laymon
Gearhart Industries
Earlier you briefly mentioned the word computer-based training. Are there any plans by SAS Institute to develop any computer-based training courses?

John Boling
We are very excited about the potential for computer-based training, but we do not have any courses to announce at the present time. When we are ready to make announcements, they will be made through SAS Communications or SAS Course magazines. I'm curious to know which of you here has an interest in CBT. We would enjoy hearing from you at this session or talking with you at the education booth regarding your CBT needs. Obviously, the media in the Information Center are accessible today, so let us hear from you. We are quite excited about the potential for CBT.

Jeanne Owens
Southern Company
I would like to know if there is any marketing of the User Reference Card. For those of us that have dog-eared Reference Cards, can new ones be ordered without ordering the book?

Kathy Council
Many of you have expressed an interest in purchasing the Reference Card separately. When we originally developed the Reference Card with the SAS User's Guide, we decided that it would be like getting a benefit when you bought the book, and it would not be available for sale separately. We have this request very often, but currently the Reference Card cannot be purchased without a manual.

Joseph Hershman
Girard Bank
Earlier you mentioned something about a statistical procedure seminar. Could you elaborate on that please?

John Boling
The statistical lecture series is a new format for delivering seminars at the Institute. We are working very, very closely with distinguished statisticians in particular disciplines and preparing course notes and annotating statistical output produced by SAS procedures. We plan to
teach the seminar only at the Institute. Dr. Shayle Searle will be giving a lecture near the end of this month, I think, on the use of GLM and the variance component procedure for working with unbalanced designs. Dr. Robert Steele is teaching an introductory course in statistics later in the year. All the seminars present state-of-the-art techniques in software, as well as discuss where the literature is today in many of those statistical disciplines. It is a lecture series.

Joseph Hershman
Is there any sort of survey course that goes over all the procedures, or do you really have to pick one area of statistics and cover that and then pick up another course?

John Boling
Dr. Steele's course is going to be an introduction to statistics, and I suspect it would survey many of the procedures in the SAS system in terms of performing nominal scale data analysis, or ordinal scale data analysis, or whatever. The remaining courses that are scheduled right now are very, very specialized, for example, biased estimation techniques, autoregressive integrated moving average models, and so forth. There is a listing of the courses currently scheduled this year in the Education booth at the conference, so I invite you to stop by and pick up a copy.

Pete Pallo
MASS Merchandisers
One of my assignments in coming to SUGI is to learn how to be a good SAS teacher because when I go back home, I will have to teach the SAS System. Are there any materials available as a guide for an in-house teacher other than the basic SAS manuals or do you have to teach yourself?

John Boling
If you attend any of our public training courses or if we teach an on-site course for you, you receive a copy of lecture notes that the instructor uses. In most of our courses, you can buy those lecture notes without attending the course. If you license one of our video products, there is a course administrator's guide that provides information on how we think the course can best be administered. The training materials for all of our courses are on display at the conference.

Pete Pallo
Is there any place we can meet with people who write training courses and make suggestions so that we can input our own suggestions?

John Boling
Absolutely. We are available during the entire conference, so please stop by and talk with us.

Russ Poulin
North Dakota State University
I was wondering if there is any place where you can get a list of the current Technical Reports with an abstract for each of them.

Kathy Council
We have a list of the current Technical Reports in the Publications booth in the demonstration area. The list does not include an abstract, but we did bring a copy of every Technical Report. So after you look at the list, if you have questions or want further details, the Technical Reports are there for you to look through.

Russ Poulin
I brought that up because somebody asked me about certain Technical Reports, and I couldn't tell just from the title what was in each one.

Kathy Council
Currently we don't have any more descriptive information about Technical Reports.

Russ Poulin
Is there any further word about updating the graphics manual?

Kathy Council
We will be updating User's Guides for several Institute products with the next release of the SAS System.

Russ Poulin
I get asked quite a bit if there is a list of error codes. I've asked this before, and they tell me no, but I wonder if that wouldn't be something to put into a HELP facility, for instance. Then if someone were to get an error, they could type HELP and the error number, and they would get an explanation of how to fix that error.

Mason Nichols
We have been looking into providing that type of facility on a future release. Nothing like that has been implemented. We did start work on it a while back, but it has not really progressed. I, too, would like to see that in the HELP facility, so maybe we will have that on a future release.

Grant Blank
Independent Consultant
I wanted to ask a question about the SAS manuals, the User's Guides. The reference manuals have been very useful, but with the 1982 release, the SAS system has become vastly more complex. The size of your reference manuals in the basics and statistics more than doubled from 1979 to 1982. It becomes a very long step for people to take when they start out reading the Introductory Guide and then have to shift to the current Introductory Guide and the reference manuals that are available for the system? And, if there is such a plan, could you tell me what will be included in the manual and to what level of proficiency it will be geared?

Kathy Council
Current plans in that direction are for a Primer series. What we hope to accomplish with that is for someone to be able to sit down, and in a short period of time, to be able to implement something on their terminal. Primers will be
directed at first-level users. Primers are in the planning stage, and we urge you to go by the Publications booth where we have a questionnaire that we'd like you to fill out for us. In the process of researching where the needs really are, you can be very helpful to us by responding to that questionnaire. We do see a need for a different level of documentation from what we are currently offering.

Grant Blank
Yes, thank you. As you probably know, there are problems with the macro language (learning how to use it) with the DATA step in general, and most notably, with explaining how the MERGE statements work. In the SAS '79 manual, for example, you had a little seven-step explanation of exactly how the MERGE statement operated; this is missing from the '82 manual. And through my experience in teaching new users, I have discovered that it's very difficult for them to figure out how the MERGE statement will operate under different circumstances.

Kathy Council
Well, in the example of the MERGE statement, the SAS Basics Course has a very good step-by-step explanation of how the process works. In the planned Primer series, we may have a primer on the macro language, for example. We are thinking about offering documentation on small aspects of the SAS language.

John Boling
Thank you. Don't forget the on-line help that the SAS Display Manager offers. This presents a whole new look to the SAS product. We are obviously looking at ways within the SAS System to make it more palatable and conversational.

Howard Schreier
U. S. Department of Commerce
I have a suggestion for the gentleman who will be developing his own course. My suggestion is to look at the papers that have been presented at previous SUGI conferences. I've found those to be very helpful in that area.

Dianne Walker
Manville Corporation
Is there an enhancing technical support skills course for the DOS/VSE operating system?

Mason Nichols
No, there is not. There are two courses right now. One for OS and one for VM/CMS.

Robert Floyd
Blue Bell
The Usage Notes are very helpful and are very nice to have. However, every Usage Note that has been put in since the Usage Note system was established still appears. At least four copies of some usage notes appear, and, in some cases, they reference two or three zaps that are really the same zap. Are there any plans to clean up the usage notes so that you will eliminate duplications, redundancies, that kind of thing?

Mason Nichols
I think the duplication that you are finding within the Usage Notes is because of rules that we have established when a Usage Note references a zap. For every zap that we reference, there is one Usage Note per release. So, if the release field says 82.2, the zap that is referenced is only for that release, and you will find another usage note with the same text for 82.3. We handle it this way because the zaps for the two different releases may be different. We want to make sure people aren't trying to apply the wrong zap.

Robert Floyd
Okay. Are there plans, in the near future, to publish the notes that come with the Macro Course?

John Boling
There are no plans at the present time to publish those notes. They can be acquired for a nominal fee. You can even buy the notes without attending the course. We try to discourage that, but you do have that option.

Robert Floyd
One of our people called about that last week and they were told they were not available.

John Boling
The Macro Course notes are still in a preliminary edition form. We do not make those notes available until they have been typeset.

Jan Schwartz
Security Pacific National Bank
As a site representative and an old-time user of the SAS System, I find it very difficult at times to keep up with the upgrades. Simple examples of the $INCLUDE instead of the CMS GETSAS or the ENDSAS instead of the /*. Are there any notes or technical papers that would help me keep up-to-date on the current changes between upgrade versions?

Mason Nichols
We have had numerous requests to send out the changes and cite the problems that have been fixed with every installation tape. With the 82.4 Delta tape, we did include a listing of what problems had been corrected with that release. In a future release, along with each tape, we plan to provide documentation of the major enhancements that are available with that tape and the differences between that release and a prior release.

Rose Anderson
Southland Corporation
I've been learning the SAS System on the job for just three months, and I've been trying to determine which of these meetings is going to help me. I just came from a statistics seminar that was way over my head. Is there any way that I could get some help? Since I know very little about the SAS System, I'd like to make the best use of my time while I'm here.

John Boling
I would suggest that you attend the tutorial section. Some of the topics being discussed may be too specialized. The tutorials were originally designed to provide more details and explanations about specific statistical topics.
Ed Christian
Stuart Pharmaceuticals
I am a SAS representative, not a systems programmer, and at times it is difficult to figure out what to install and what not to install. For example, under TSO there is the SASCP. One of the problems we are having is whether we have to reinstall this. Also, do we have to reinstall the SASWTR every time? It would be very, very helpful to the SAS representatives who are not systems programmers to have a list of what to install and what not to install. Thank you.

Mason Nichols
I'll take that suggestion back to SAS Institute. I know a lot of the things are sometimes foreign to me because I'm not a systems programmer. I think that what we might be able to do is put additional information in our installation instructions for installers who are not systems programmers.

Betty Semon
Santa Fe Railway Company
It was mentioned earlier that a new version of the Merrill's CPE was going to be released sometime this summer. Can you give me a date, and is the guide compatible with XA?

Kathy Council
The project is currently planned for second quarter. The book is on schedule. Merrill's Expanded Guide to CPE is compatible with XA. Let me also say that there is an early release program offered through Merrill's Consultants, and there is literature at this conference about that.

Diane Mitchell
University of Toronto
I was wondering when items would have to submitted for inclusion in the next SASware Ballot.

Mason Nichols
Announcements to send in your suggestions for the SASware Ballot will appear in SAS Communications probably sometime in June. However, you don't have to wait for that. If you have a suggestion that you want to tell us, you can send it anytime.

Kevin Donahue
Ohio State University
Two things. Why aren't you bringing out softback or notebook style Basics and Statistics manuals? These manuals need better covers on them. Mine are wearing out. They are so big and so cumbersome; they would be much better in a looseleaf style notebook.

Kathy Council
Sometimes a looseleaf notebook means that you want the Institute to provide updates to pages. I'm not sure what everybody really does want.

Kevin Donahue
Just your current book in looseleaf with three holes punched in it.

Kathy Council
At the Institute we have discussed the possibility of offering people a choice of the current cover or a different cover with three holes punched. However, there are some problems with implementing this procedure within the Publications Division, but I will take the suggestion back.

Priscilla Lange
IBM Corporation
I have a lot of questions. About eight months ago we purchased the SAS System, and nobody at the installation really knows the SAS System very well. I am the site representative, and I've just learned it. I just started with IBM myself. We have SAS/IMS-DL/I and we've had some problems figuring out how it works. When is the next issue of the SAS/IMS-DL/I manual coming out?

Kathy Council
That manual is scheduled for release this spring.

Priscilla Lange
Do you have any training or plans for training in SAS/IMS-DL/I?

John Boling
Not at the present time. There is no development work underway with regard to providing training courses on the SAS/IMS-DL/I product.

Priscilla Lange
Okay. I would just like to say that we've called Technical Support numerous times, and we've always found them very helpful. We really appreciate your help. I have another comment. Your manuals that we use have been very helpful once you know the product, but when you're beginning, it is very hard to learn from them. I was wondering when these manuals for beginners were going to be coming out, or if you had any. I thought I heard something about that.

Kathy Council
I assume that you are familiar with the Introductory Guide.

Priscilla Lange
Yes, but I didn't think the Introductory Guide was adequate. We taught a beginning course and used the Introductory Guide, and it wasn't adequate at all. Once a student had the course they looked at the book and realized they needed something more in-depth. So, we went to a self-made set of foils, and, in the future, I think we are going to be trying to teach from the training manual that you use, SAS VIEWS: SAS BASICS. But that isn't good for someone who sits down and tries to learn it. A computer-based training program would be good. Is there anything for an introductory guide?

Kathy Council
Currently there is not. But as I said, we are in the process of developing or planning and just trying to decide exactly what direction in which
to go with these primers. Of course, the training programs offered by the Institute are probably the best solution.

Priscilla Lange
What I'm talking about is something like the guide for macro language and SAS/IMS-DLI. There really wasn't adequate documentation for those people who were trying to figure out how it works for the first time. We're really interested in the Display Manager, and we'd like to know when it is going to be coming out on the IBM?

Kathy Council
It's available now in the SAS System for minicomputer users, and it will be available in the next IBM release.

John Boling
With regard to your question about the documentation, I might add that in many of the courses we teach, we do discuss how to use the different documentation and suggest which documents are more useful for that particular topic than others.

Priscilla Lange
One last thing. Are you planning on supporting any more IBM graphics output devices? We don't have anything that works yet.

John Boling
That's really a hardware question, which is outside the scope of this panel discussion. Graphics hardware is being demonstrated in the demonstration area, and we will have staff there that can answer that question.

Etan Markowitz
Hughes Aircraft Company
First a suggestion for people who want to make the SAS User's Guide looseleaf. I work for a company that has its own printing and reproduction department. If you have a printing department, you might be able to get them to punch holes for you and put your guide in the notebook. Secondly, when you say the Display Manager will be in the next IBM release, I assume that does not mean 82.4 because that's already out. Right?

Mason Nichols
Display Manager will be in the next production release. 82.4 was a maintenance release.

Etan Markowitz
Is there a new SAS/GRAPH manual coming?

Kathy Council
The SAS/GRAPH manual will be updated with the next release of the SAS System. We are working on a new SAS/GRAPH User's Guide right now. It will probably be available sometime at the end of 1984.

Etan Markowitz
So, I gather the manual you are working on has some things that have not yet been released with the software.

John Boling
There are some enhancements to the SAS/GRAPH product that are in the SAS System for minicomputers.

Val Matthews
Automated Sciences Group
We run the SAS System for minicomputers on the VAX system, and we are finding that the difficulty of learning the SAS System from the User's Guide is aggravated by having to flip back and forth between the manual and the technical reports. Are there any plans to issue User's Guides that will incorporate information on the SAS System for minicomputers information?

Kathy Council
Yes. The next version of the SAS System will be compatible with all operating systems using one set of documentation that will apply to everyone. And I do apologize for that frustration because I'm sure that it is there.

Val Matthews
There are bound to be a few tiny differences between the versions. Are you going to highlight them in some way?

Kathy Council
Absolutely, yes.

Ray Barnes
Upjohn Company
There are a couple of things that I want to talk about. As the SAS consultant, it is a problem to know what errata are available for a manual. I know that I have reported errata before in both the User's Guide and also in the SAS Video Basics Workbook. It is also clear that future publications of that same manual do have corrections. Since it probably isn't feasible to send corrections to everybody, perhaps on some kind of a timely basis, you could send corrections to the SAS consultants and the SAS technical representatives of errata that are in their manuals. Then if we needed to disseminate it, we could. At least I would have something that's up-to-date, and I would have corrected examples to replace those that were incorrect. The second thing that I want to talk about is technical support. I think the tracking number for me has really improved how I feel about coming into the system in terms of my own tracking of a particular problem and my own file management of the problem at my site. It is sometimes frustrating, though, to come into level one and go through the extra work to explain the problem to them knowing that you are going to get passed on to level two. So you know I experience some frustration, but I will continue to use that method. I sometimes have difficulty on level two. I don't get calls back within what I consider a half-day timeframe. Sometimes it has taken over two days to really get return calls, and I think that is a little bit out of line.

Mason Nichols
I'll address the timeframe first. We're trying to get back to the caller within 24 hours, and that timeframe will vary depending on what is happening at the Institute. If we have a
production release in a given area being shipped to X number of sites, we send out a hundred tapes a day. So, we've got a hundred sites all at once trying to install the same product and then trying to call and talk to one consultant. Under these types of circumstances, the time lag will be greatly increased. We are planning to add more individuals to our second level staff. We have quite a few openings at this time. When we get these positions filled, we hope to reach our goal of 24 hours.

Ray Barnes
Do you recommend calling first level and asking what is going on if I don't get called back within 24 hours?

Mason Nichols
No. At this point, it would be better if you would give us maybe 48 hours. If everybody called back within 24 hours, we would be sitting on the phone telling everybody we didn't have time to investigate their problems. A lot of our time is spent talking to people who call back to see if we have resolved the problem. Some people do call back within 2 hours asking if we have resolved the problem. And, in some cases, we haven't even had the chance to look at it.

Ray Barnes
I guess an example of the harder case for me is when a user is having a problem with an option on a procedure with which I'm not very familiar. He's really trying to get a job done and would like to have it done in a couple of hours. I try my best to be able to figure it out, but sometimes I still have to call you to verify that my circumvention is correct or something like that. That situation was one of my really long waits, and that is why I brought that up.

Mason Nichols
We understand the frustration that people have. If we can get every installation to cooperate and set up in-house consulting, we will be able to better serve the installations that are doing what we recommend.

John Boling
As the on-line help documentation facility in SAS Display Manager grows, that user should be able to resolve a question very conveniently.

Anonymous
Also, if you belong to a SAS user group, that is a resource for you in this capacity as well.

Ray Barnes
When I look in the front of the book, how do I know what edition of the manual I have? I've looked at those numbers, especially with the workbook, and tried to figure out what edition my current class has and whether the errata sheet that I get really goes with that book.

Kathy Council
If you look on the bottom of the copyright page, you will see the current year followed by several numbers in ascending order, say 4 3 2 1. The way to tell what printing you have is by the number. The last number to the right of that list of numbers is the printing of that manual. So, if yours says 4 3, then you've got the third printing. If it says 4 3 2 1, then you've got the first printing. Each time the book is printed, the last number is left off, and the last number listed is the printing of that book. Now, about providing an errata sheet. I think it is a good idea for us to talk about when we get back to SAS Institute. One possible way to do that would be in the HELP facility. If we did that we would refer to a printing number.

Ray Barnes
Well, if you did it in a HELP facility, are you suggesting that the additional information for HELP facility would be updated in the Usage Notes tapes? Because if it's not, that's not getting updates very often since the HELP facility really only gets updated at each major release or each maintenance release.

Mason Nichols
Well, we might have to do is provide the site with the information, and they might have to put it in their own HELP facility.

Ray Barnes
Are you considering making the errata available in electronic form and mailing it to us, then we load it.

Kathy Council
I'm not sure how we would provide it. I'm just saying that it's a good idea to make that information available. I would really rather not say how we will implement that, but it is a good suggestion.

Ramesh Chaudhari
Illinois State University
I always thought it would be nice to have some way of tracking the use of different procedures in the SAS System. For example, how often is FSEDIT used, or the OR procedures, or ETS procedures? There is probably always one person out of 2000 to 3000 employees who warrants a particular software product. Unless we have some sort of justification on usage, it is going to be hard to pay for all of these products separately. Are there any plans to do that?

Mason Nichols
I think the SAS System is capable of that, but you have to provide it by writing your own user exit routine. There is a Technical Report available, but it is only available to the SAS installation representative. If there are any systems people out there who have done this, correct me if I am wrong. But, I think you can do that through a user exit by writing your own routine. I believe the Technical Report is mailed with the installation tape when you license the SAS System for the first time.

Cathy Roberts
Phillips Petroleum Company
Do you have any workshops or courses available on SAS/FSP, SAS/OR, or any of these special products?
John Boling
Those are fairly new products within the SAS System. We are receiving requests from users to provide training in that area. For example, with SAS/FSP you can probably think of at least ten courses quite easily. We would certainly like to talk with you in more detail in terms of what specific courses within the SAS/FSP product you think would be most useful for the people at your site.

Cathy Roberts
I'd like to comment on the computer-based training. We bought a course from Crwth on the SAS System and it's inadequate for the average user. I surveyed the people who took the course. I asked them how effective they were as SAS programmers after completing the course. I found that the non-data processing personnel didn't get anything out of the course, and they usually sign up for a stand-up class as soon as they complete the computer-based training. Just a comment.

John Boling
Obviously, CBT is being endorsed quite heavily today. I think we would all agree that within the last ten years the revolution in data processing has occurred on the hardware side. A number of us believe that in the next ten years the revolution will probably occur on the training side. Perhaps five years from now every future learning station will involve some type of CBT support or video disc support that will be tied into a terminal providing self-paced instruction for that user. We are quite excited about CBT, too, and would certainly enjoy hearing your comments.

Etan Markowitz
Hughes Aircraft
I think if just the installation representatives could get a written list of errata, that would certainly be a good first step. It would be really helpful if we could get the list electronically so it would be available to our users. I have another question, too. If you run out of a SAS manual and have to reprint it before any changes are necessary, will the printing number of the reprints change?

Kathy Council
Yes. The change in printing numbers does not imply that there are differences from an earlier printing. Our goal is obviously not to have any errors.

Etan Markowitz
So, it is conceivable that we could do a page-by-page comparison when we see a new printing number and find no difference.

Kathy Council
Yes. It would be difficult to do that, but you could.

Etan Markowitz
I have a problem regarding the consulting because I am in the Pacific time zone. It is very frustrating to be away from my desk and get a message that I got a callback, and it is now 5:01 in Cary, and, of course, no one will answer when I call... When I get in the next morning and call, everyone is out to lunch or something. Are you planning anything to remedy that, maybe a secret confidential phone number that we can use if the consultants haven't gone home?

Mason Nichols
We are aware of the problem, but there are no plans right now to extend the hours. Someday we may have other facilities available for obtaining technical support from SAS Institute. We will take your suggestions back to the Institute.

Etan Markowitz
The frustration is knowing that someone is still there. We call after 5:00, and we just can't get through the switchboard.

Mason Nichols
Yes, but the consultants are involved in doing other things and need time to complete their projects. That is one of the reasons we close the switchboard at a given hour.

Tom Ikard
CONOCO
I teach an Introductory SAS course. From my experience, the most helpful material for beginning SAS users is the Introductory Guide sent out as prework. I get a lot of questions (like what is a DD statement) for about two weeks before the course, but when the participants get there they know a little bit about how to use the system. After I get into the course, a part of it is stand up, but the rest of it is workshop with case studies similar to the ones in the SAS video. And, again, it is worthless without the workshop part of it. After that, I always make sure that the people I am teaching have the SAS Applications Guide. They can get a lot more out of the SAS Applications Guide, and the Introductory Workbook. I tell them if they are absolutely bent on it, go ahead and get a copy of the SAS User's Guide: Basics. But that should be their last resort. Everything that you wanted to know but were afraid to ask is in there. That's been relatively successful. We are very fortunate to have a consulting office at CONOCO that is open during normal business hours, and most of the analysts in the consulting office who take phone calls from users are very well-versed in the SAS System. They are able to answer a lot of our beginning users' questions very quickly. But, I think the materials I have mentioned are the most useful for the beginning user and the unsophisticated user in particular.

Satenik Ambarian
Pacific Gas and Electric Company
I install the new releases of the SAS System and I was wondering if you plan to provide a summary of new features to accompany each new release.

Mason Nichols
Yes, we do. With future releases we plan to outline the new features.
Satenik Ambarian
Do you have any estimates as to when those summaries will become available? I ask this because it is very difficult to know what the new features are in a new product so that we can tell the users.

Mason Nichols
We do hope to have that available with the next production release of the SAS System.

Satenik Ambarian
I have another question regarding training. We have a SAS video course in-house, and I was wondering if you have any video courses in other areas of the SAS System?

John Boling
The Basics Video Course has been available for the last two-and-a-half years. There is also an introductory course in SAS/GRAPH. We are announcing at this conference a video course that discusses the mapping capabilities of SAS/GRAPH, including how to digitize your own map and use SAS/GRAPH to produce it. As I indicated in the opening remarks, we are working on a number of video courses that will introduce the information center user to the SAS System, and so forth. Let me comment on your earlier question about receiving information regarding changes in the SAS System. We are considering offering training courses on changes in the new versions of the system. During that one- or two-day seminar, we would provide very detailed instruction on the changes between your current version and the version you just received.

Isabel Chang
Transport Canada
Due to our peculiar organizational structure, we have system support and applications reporting to different bosses. In this case, I was just wondering if you will request that we provide one individual as a SAS representative and one individual as a SAS consultant from each group. Would we get better results by assuming one from each group? Some of the information might sound trivial to one of the groups and actually be important to the other. I would just like to get some suggestions from there.

Mason Nichols
We are going to allow each installation to designate one SAS representative for each Institute-supported site. But, we will allow each installation to designate one SAS consultant for each Institute Program Product licensed. Installation material will be mailed to the SAS representative and manuals will be sent to the SAS consultant supporting the base system. If you have more than one person at an installation providing the services, you will have to be responsible for getting the information that we send the appointed representative to the other individuals who are supporting the SAS System.

Isabel Chang
In other words, do you suggest we select the two individuals from the same group or from different groups? How do we get the best combination?

Mason Nichols
Anyway you want to do it would be fine. What I would recommend is having one person from one of the groups be the representative (system support group) and designating somebody from the other group to be the SAS consultant. Then each group would actually be receiving the material appropriate for their function. I'm assuming the system support group installs the products, while the applications group uses the SAS software. If you keep the two groups separate, you will probably get the needed information to both groups.

Larry Goering
Washington University
I've got a follow-up to the previous question regarding the SAS consultant. In the university environment, we find things tend to be decentralized; we have similar kinds of problems. I would like you to address the question in two ways. First, could you elaborate your perception of the qualifications needed as well as the duties of the on-site SAS consultant. And secondly, could you describe the kinds of incentives the institute intends to use to encourage sites to appoint a local SAS consultant.

Mason Nichols
The SAS representative is responsible for installing the products on your system. The SAS consultant will be the individual to whom the users at your installation come for assistance with problems that they are incurring on the SAS System.

Larry Goering
What do you expect in terms of the person's qualifications? Do you expect the SAS consultant essentially to weed out all but the most technical, most difficult problems before they come to the Institute?

Mason Nichols
Yes. But even with this approach we realize that we will still have a lot of new installations that are just getting the SAS System. Therefore, we are always going to be getting questions dealing with missing semicolons or general syntax errors. But one thing that is very helpful and keeps us at ease is that once we tell the representatives how the SAS System works, they can take that information and pass it on to all their users. We will only have to address a particular problem or answer a question one time for any given installation. We feel that this will reduce the number of calls coming into the Institute.

Larry Goering
At the university we have very broad-based support for the users of the SAS System, both through student consultants, as well as staff consultants. What incentives do you offer the university, particularly the Computing Facilities Department, to appoint a SAS consultant? I realize appointing a SAS consultant will save the Institute some unnecessary phone calls, but what will the consultant and the university gain?
Mason Nichols
If people set up the in-house consulting, everybody will benefit. We provide the SAS consultant faster turnaround on questions that come into the Institute. We service our consultants and representatives before we service the actual user community. We also believe that the users will benefit because the SAS consultant will be familiar with the type of data they are analyzing as well as with your computer, and we're not. A lot of the questions that we get are system-dependent, and we don’t know what systems modifications are on your system. The SAS consultant will be able to assist the users a lot better in those areas. Also, if we do have the installations cooperating with us, the specialists will be able to spend more of their time actually working on facilities that will give you better tools to work with your users. We’ll be able to write more sample programs to put on the installation tape. We’ll also be able to write articles and address problems that are coming into the Institute. If we work together as a team, I think we can provide better support for the users.

Larry Goering
I’m sympathetic to your remarks. As an informational point, our organization is moving towards an arrangement of what we call product managers. We will have product managers for some of the different kinds of services. I guess part of my thinking is motivated by the question of whether we should appoint a SAS product manager or somehow lump that into another category like a statistics product manager or something like that. I appreciate your comments.

Mason Nichols
No one person can be an expert in every field. At SAS Institute we have individuals specializing in different areas. This works well, therefore, I guess I would recommend a statistical product manager. Bob Laymon
Gearhart Industries
Do you have a demonstration of the video courses here at the conference?

John Boling
We did bring excerpts of all the video courses. There are two monitors set up in the Education booth for that purpose.

Bob Laymon
We are currently trying the DELTAC course with the Penick system for SAS computer-based training. It's a new product and we're not totally satisfied with it, but we have four people who have gone through the course so far, and two of them are end users. Two of the people are using other products out of our information center, so they have experience with other products, and the other two people are in the data processing organization. They were using Crwth and they said their results were zero. From our standpoint, the people feel they can go out and program using the SAS System now. Some of them had already done it before they even took the course. But we are somewhat excited about using computer-based training; however, we're a little less than satisfied with the product that we have in-house right now.

John Boling
We have spent the last nine months or so rather rigorously examining a number of different authoring systems. We have been examining authoring systems on the PC side, on the minicomputer side, and on the mainframe side. Obviously, one major problem with any authoring system today is that if you decide to go this route, you're locking yourself out of features or routes that may be available through another authoring system. One of the biggest complaints that we continue to receive from users about the authoring systems that are available and those that are providing SAS training, is that the system or author had to simulate how the SAS System would behave given a statement or set of code. How nice it would be to actually let the SAS System execute the code the user prepared and examine the diagnostics, notes, any errors, and messages that the SAS System would produce in that case. There appears to be a misconception that I would like to address just briefly. In no way do we work with or endorse SAS training products that other vendors may be offering. Many people assume that we have worked with Crwth, Deltac, and ASI. That has not been the case.

Dave Tomkins
Hudson's Bay Company
What would your reaction be if a company decided not to appoint SAS consultants? From a contractual point of view, you’re creating two types of customers: one that is willing to appoint SAS consultants and one that is not. That is hypothetical.

Mason Nichols
We still realize that a lot of installations don’t have SAS consultants. Someday we might require that every installation set up in-house consulting, so we can be equally fair to all installations. Right now we are not requiring that. Users can hire the Institute, but we really encourage them not to. We also encourage every installation to set up some type of consulting. We will assist the user, but, remember, it is lower priority, and we do have to service the consultants first. Therefore, it may be three or four days on some problems before we can get back to the user.

Dave Tomkins
The SAS consultants are paid by the companies that buy the product. Therefore, if a company decides not to hire consultants, you are treating these two companies differently. They are paying the same price but are receiving two different products, that is, a lower priority of support. How do you intend to address that? Because, as you say, if you don’t have a SAS consultant, you’re getting lower priority on support.

Terry Fain
I think you've asked a difficult question.
Ed Christian
Stuart Pharmaceuticals
Just a little sidelight for the people that have just gotten the SAS System and are starting to learn it. One of the easiest ways to learn is to look at the SAS samples that are sent with the installation tapes. They all have examples that show the little things that the SAS System can do for you. I was very disappointed with the new SAS 82 manuals. I often go back to my SAS 76 manual because it's alphabetical, and I don't have to look at the index first and figure out where to find a certain procedure to look up some of the options. Does SAS Institute plan to put out an alphabetical listing, not with all the examples, and all the references, and all the details, but simply an alphabetical list of the options with short explanations?

Kathy Council
I assume you mean something other than the Reference Card.

Ed Christian
That's right.

Kathy Council
Rather than answer that question specifically, let me say that we found that when we rearranged the User's Guides and put the procedures together by topic, we were making it easier for new SAS users to find the procedure they needed.

Ed Christian
But those of us who already knew what procedure we wanted to use had a terrible time trying to find it.

Kathy Council
We are aware of that problem. I'm not absolutely sure how to deal with it, but we have looked at several different options including putting an index on the outside of the manual.

Ed Christian
That is where a looseleaf with tabs would come in very handy. I'd also like to ask what kind of Institute and customer support will be available to multi-site facilities in which the sites are geographically far apart. Are we allowed to to have a SAS consultant at another site, in addition to a SAS consultant and a SAS representative at our own site?

Mason Nichols
I expected that question, so we discussed it before we came to SUGI this year. Customer-supported sites, as your contract says, will not be able to designate a SAS representative. If you are physically at two different locations, then we feel that you are going to need to be able to designate multiple SAS consultants, and we are going to allow this. The consultant at the customer-supported site will be allowed to call the Institute and get the same priority as the consultant at the Institute-supported site. We will not provide the consultant at the customer-supported site with the manuals and other information; that's part of why you get a lower contract. We suggest that the other sites get the manuals and other information through the subscription service so that they will get all of our documentation, and they can keep abreast of what is going on.

Ed Christian
Just clarify one point. Except for the inclusion of the SAS tapes, do the SAS representatives receive the same documentation as the SAS consultants? Are the tapes the only difference between the two?

Mason Nichols
No. The SAS representative receives the installation tapes and any documentation pertaining to installing the SAS IPPs. The consultant who supports the SAS base product will be the only one who receives the SAS manuals, unless they pertain to installation processes.

Dave Northrup
IBM Corporation
When we've been talking about the SAS users, we've been expressly talking about the output side, getting program errors, and so forth. On the input side, using SAS/FSP or whatever means, we run into a variety of individuals of different educational levels and many of them are intimidated to begin with. Is there any explanation of how the SAS System works that is tailored to that type of individual so that they will know what happens to it? They don't necessarily need to know how to write a SAS program, but they need to know where it goes, what they are doing. Otherwise, they're just punching buttons, and they are in the dark.

John Boling
We do design specific courses in our curriculum for different entry-level personnel. Obviously, an experienced data professional needs to receive different instruction from that given to someone new to computers. Each training course has specific prerequisites. In some courses, I think we have the responsibility to discuss what happens during the compilation and execution of the SAS code. We have found that if someone understands the basic structure permeating the SAS System, it is very easy to explore new products within the SAS System and understand exactly why the system behaved the way it did when that set of code was compiled and executed. When you design a computer-based training course, you present different paths through the course material. An experienced data processing professional would see a different set of material from that seen by someone new to data processing. That is one reason why well-designed computer-based training courses are being strongly endorsed today.

Dave Northrup
Okay. If I understand you correctly, we do have computer-based training. But to the person new to data processing, the SAS System is a magical, mystical world out there, and they have no conception of what it entails.
If you currently have computer-based training that teaches the SAS System, it is computer-based training that someone else is providing, not us. If you ever took one of our public courses and compared that to a public course offered by an outside vendor, there are major differences between the way we deliver SAS instruction and the way other people do. Our users continue to recognize us as the experts uniquely qualified to provide SAS training.

Maryann D'Antono

Okay, but if he calls the Institute, he is going to get less priority than if I called.

Mason Nichols

That's still true. So, if it's really important, and if it is something that you need answered fast, it's really best that you actually do the calling.

Maryann D'Antono

Okay, let's say I call and I'm considered the consultant, so I'm going to get higher priority. Could you put an alternative name in your tracking system who could be called. Is there some way I could say don't call me back with specific questions, call John Doe because it's really his problem? This would still allow me to get the best priority on it.

Mason Nichols

That's a good suggestion. We do have fields within the tracking system for comments and that would be a good avenue to pursue. I hadn't thought of the idea of the consultant initiating the call and the Institute calling the user back.

John Boling

Another possibility might be to make a conference call if your company has the capability of doing that. I think it depends on the nature of the question. If I were a SAS consultant and I recommended that the call be returned to a colleague of mine, I would want to monitor what the answer was in case I would need to be involved and, also, to prevent future questions of a similar nature being sent to SAS Institute.

Maryann D'Antono

Okay, I understand that. I have another question. I think it was with release 82 you started doing CPU serial number validation checking, and we have a backup site on which we are not licensed to run the SAS System. We are licensed for our New York site, with our two processes there. We have another site in Pennsylvania that is our backup; it's our insurance for disaster. How is SAS Institute going to handle that?

Mason Nichols

I think that is a question you need to address to your software sales representative, and we have people from the Marketing Department here at the conference. So look them up.

Bobbie Freer

Caterpillar Tractor Company

I have heard questions and comments about the current SAS User's Guide. Have you given any thought to creating another manual, possibly a Technical User's Guide, for advanced or consultant users?

Kathy Council

I'm not sure what the nature of that book would be. Could you go into it in a little more detail?
Bobbie Freer
It could be similar to what someone else suggested, with an alphabetical index but not necessarily examples. It could be similar to the Reference Card but with more detail in terms of what the particular options are, something that would make it easier to find what you need in order to answer and/or help someone.

Kathy Council
I think that is a good suggestion, and although I'm not sure that we have thought of it, I would suggest that you put it in writing to be considered at the Institute and on the SASware Ballot.

Ray Danner
National Institutes of Health
Has any thought been given to the way zaps are sent out? Do we see anything coming in the future that's a little bit different? I have been typing in zaps.

Mason Nichols
The zaps are in the Usage Note database, so if you obtain them from that, you should not have to type them in. What kind of changes would you like to see?

Ray Danner
Well, for instance, I asked for the zaps on TABULATE, one procedure. It might have been in a test version, it might have been 82.2; I don't believe it was 82.3. I was sent ten pages of zaps, and I was shocked that they thought I could type all that in.

Mason Nichols
I am, too. You should have been sent a current Usage Note tape. Also, as soon as zaps become available, they do go into our DIAL-A-ZAP facility.

Ray Danner
I'm familiar with that, but how can I get a list of them?

Mason Nichols
I think a lot of people are using the IBM PC to download them to floppy disk. With the PC that's a nice facility to have, but if you don't have one, then, yes, you will have to code them in. We have decided, though, to keep DIAL-A-ZAP to zaps that are short and exclude long ones. I remember the ones we had for TABULATE were quite lengthy.

Ray Danner
What about doing something with the zaps like you do with the system tape? Since you have the information on what system we are running and this type of thing, perhaps you could send out customized zaps, say once every quarter, or twice a year, or even once a year. Another thing, when I get a new installation I get all the zaps. A lot of those zaps I don't want to apply, and it's a lot of work to go through them and look to see which ones I need and which ones I don't need.

Mason Nichols
I'm not sure if you're familiar with one of the things that we incorporated into the Usage Notes at the beginning of this year. We added some Usage Notes that begin with INST. These Usage Notes actually reference the zaps that we feel should be applied to every system, the ones that are really important. That would be a place to start in determining which ones you need to apply. I realize the way we send things out might be a little archaic and could be improved. I, too, would like to see a facility that would actually go in and automatically apply all those zaps that can be applied to every system without adverse effects, at the same time giving you some way of looking at the other ones, also. But, there are not any current plans to make any changes, and we would like to hear any suggestions that you have.

Ray Danner
Another question about documentations. Are we going to see a new Programmer's Guide anytime soon?

Kathy Council
Yes, there are plans to update the Programmer's Guide. It will probably not be in 1984.

Ray Danner
Will it be the same format, or is it going to be improved a great deal? The three that we've seen so far are more or less just the same manual with a few additions, the newer things. I can't find anybody that I work with who can read that thing very well. I thought at first when I started writing procedures that I didn't know how to read the manual, but everybody who tells me about programming procedures has the same questions, and I can't answer most of them because I can't get the answer out of that manual.

Kathy Council
Ray, I'll be honest with you. I think if you could put those questions down on paper that are not answered by the Programmer's Guide and send them to us, it would be very helpful in writing a new manual. I have had some people tell me that it's not terribly clear how to write a procedure using that manual, but we could use some suggestions.

John Boling
For the benefit of those of you not familiar with procedure writing, we do teach a PROC writing seminar that instructs you how to write your own SAS procedures and interface the SAS System to other systems as well.

Gerry Yurko
Zayre Corporation
I have a real problem with the error tracking techniques in the macros. Is this going to be improved? For instance, if I have an error, it shows up at the bottom of the macro, but it doesn't reference where the error is.
John Boling
That is a systems question that is beyond the scope of this panel. There is a macro Tutorial at the conference.

Gerry Yurko
One other question. We don't have a SAS consultant. What's the procedure for getting a SAS consultant?

Mason Nichols
Normally that's just somebody at your installation who has experience on the SAS System. Some installations elect to go out and hire somebody just to perform that job. Other installations actually designate somebody by default, the person to whom everybody goes and asks SAS questions.

Gerry Yurko
That happens to be me.

Mason Nichols
Okay, talk to your SAS representative, and when we mail the packets out, why don't you volunteer to be the SAS consultant?

Gerry Yurko
I don't even know who my SAS representative is.

Mason Nichols
If you're running the 82 Release of the SAS System, there's a member in the HELP facility called SITEINFO. If they updated that member to reflect that they're the Installation Representative and you say HELP SITEINFO, then it will list who that representative is. If they didn't update that member, you can call the Institute and we can provide you with that information.

Tom Finn
Virginia Polytechnic Institute
Regarding the gentleman's question about procedures, I found that the Notes or the Views for the procedure writing course were much more descriptive than the book itself, and I would almost suggest including all the Views right in the procedure writing book. I found the examples were much more descriptive of real situations, and using the sub-routines gave me a better idea of what they did than the descriptions in the procedure writer's manual.

Kathy Council
Thank you for that suggestion. I think it's a good idea to coordinate those two manuals when we do produce a new Programmer's Guide.

John Boling
The notes that Tom alluded to are the ones that are given to the student who takes the PROC Writing course.

Robert Woell
International Harvester
Some miscellaneous comments and questions. As an experienced user, I was disappointed in the Basics manual. It's very comprehensive; if I'm doing programming, there is a lot more information in there than was in the old manual. But, if I need to check something, PROC CHART for example, first of all I've got to figure out which section of the manual CHART is in as opposed to some of the other pieces. It would be nice if the manual could be blocked somehow, on the edge, like some dictionaries are, or on the upper right corners of the pages. If the pages were blocked differently, you could flip through, and you would realize that you were going from section to section. I don't know about tabs; they tend to get in the way and they tear off. I would not like a looseleaf manual. The TELEGRAPH package has a very large manual. It will not fit in a standard three-ring binder, and TELEGRAPH is a nice product to use, but the manual is very difficult to work through. It is hard to find a particular section in the manual, and the looseleaf format makes it very difficult to thumb through. So, I would be opposed to that. I'm not part of our data processing group, and I think that everybody here realizes that there are internal politics in companies concerning various departments' areas of responsibility. Information is not always distributed to the groups that need it. I belong to the SAS subscription group, and they are not always distributed to the groups that need it. Nobody else in the company does. Of course, the installer gets all of the materials that SAS Institute sends out. We do have a designated technical representative. I may be stepping out on a limb on some illegality here, but when I get something in the mail from SAS Institute, particularly SAS Communications II, I would suggest that you distribute some of the technical notes and distribute them to your users. I have sent in other names to be included on the SAS Communications list and they haven't been updated. For what reasons, I don't know. One other thing, the consultant designated in our company was designated because he was the newest person and had the least amount of responsibility. Unfortunately, he is not a SAS user. When I have a problem, he tells me to call SAS Institute. I found out today that I get lower priority which may explain why I'm not getting the service that I think I should be getting. We are going to have to make an internal change in my company on that, or when I call I'm going to have to give his name and my phone number so I can get some response. One last thing, is there anything in the works on a Graphics Programmer manual?

Kathy Council
Graphics Programming manual? Do you mean a manual explaining how to write your own device driver and that sort of thing?

Robert Woell
No, I need to create special graphs, for example, WIBOL plots. Rather than doing it through a map procedure, are we going to be able to do primitive calls? Is there a manual available to assist us with that?

Kathy Council
There is no such manual planned. Once again, I think it would be very helpful if you would put down the suggestion and what your needs are in the area for documentation. I put it in the Publications Division. Although no such manual is planned, there might be another manual planned in which that kind of information would...
be appropriate. Let me say one thing about SAS Communications before you get away. Those magazines are copyrighted, and in some situations, if you need technical notes copied for internal use only, if you put the request in writing to the SAS Communications Editor, some of those requests can be granted. You need to be specific about what you need; we try to avoid putting documentation in that newsletter because of those copyright problems.

Robert Woell
I realize that. I am familiar with the new copyright law because I was working at a university when it went into effect. It was primarily relating to educational facilities at that time. Items could be copied for single copy distribution to students for class notes and things. You could not make two copies for yourself, but you could make copies for distribution to students, and, according to our interpretation, that was acceptable under the copyright law. If it causes a problem for you, or if I need to put it in writing, I will get that to you. It’s a service that I feel is vital to the people I am trying to support. So, I’ll cooperate with you on that and give you whatever is legally required.

Kathy Council
Do put your request in writing, if you will. I’m not a lawyer, so I’m not sure about the clarification on that copyright law, but that is not the way I had interpreted it.

Robert Woell
Yes, we went through this with the public services division of the library with which I was associated at the time because when the new copyright law came out there were a million questions on it. This was something on which our acquisitions and user services people in the library system had gotten clarification. But, I’ll send you a letter on that. Thank you.

Terry Fain
Any other questions? We thank you very much.