BOSTON AREA SAS USERS GROUP

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
421-2927

TO: BASUG Members **DATE:** January 7, 1987

MEETING ANNOUNCEMENT:

The next meeting of the Boston Area SAS Users Group will be hosted by the University of Massachusetts -Boston on **Thursday, January 22, 1987, 8:00-11:30 AM.** It will be held in room 129, on the third floor of the McCormick Building. The UMass-Boston campus is located in the South Boston - Dorchester area, near the Kennedy Library. No security restrictions apply.

By car, take I-93 (the Southeast Expressway) to the UMass exit and follow the many signs to the campus. Parking is available in the G-1 and G-2 parking areas which underlie the UMass buildings.

By public transportation, take the Red Line **(only an Ashmont train, not Braintree or Alewife)** to the JFK/UMass stop. Exit on the station's southern side. A free shuttle bus leaves for the UMass campus at least every 15 minutes.

Enclosed you will find a draft of proposed group bylaws prepared by the steering committee. Your comments and suggestions on this subject will be solicited during the business meeting.

PLANNED AGENDA:

8:00- 8:15	*Coffee & donuts.*
8:15- 9:15	*Group business meeting.* *Topic: Discussion of proposed group bylaws.*
9:15- 9:45	*Fred Pratter, DP manager of Abt Associates will begin a presentation on the various approaches to customizing SAS reports, including PROC Print, PROC Tabulate, and PUT statements.*
9:45-10:00	*Break.*
10:00-10:30	*Fred Pratter concludes "Customizing SAS Reports".*
10:30-11:00	*Concurrent break / problem-solving session.*
11:00-11:30	*Tom Marx, of MSSR Associates, will share and explain SAS techniques that allow users to identify invalid data values, variables, and relationships in their files.*



MINUTES OF PREVIOUS MEETING:

The latest BASUG meeting was held January 22 at the University of Mass - Boston Campus.

Tom Marx opened the business meeting at 8:20 by circulating a list and encouraging members to offer presentation topics for future meetings.

At 8:30 Bruce Green of Medical Information Bureau updated the group on the subject of SAS documentation policies. On November 14, Bruce had prepared a letter, endorsed by BASUG, taking issue with the Institute's practice of publishing individual manuals and technical reports rather than looseleaf binders and update pages. He also presented the letter before the Barry Merrill user group at the CMG Conference (Phoenix - 12/5), sending copies to attendees at their request. On December 19, Kathy Council, SAS VP of Publications sent Bruce a non-committal acknowledgment letter. Further action on the topic by BASUG was not taken. Bruce requested that the issue be raised by SUGI 12 attendees.

This topic lead Ron Liebman to a related question of what leverage, if any, BASUG has with the Institute. He suggested that if SAS felt that license renewals and new-product acquisitions by an organization were dependent on satisfaction with their support, only then would SAS's support improve. Green mentioned that SAS needs an equivalent of what IBM has in SHARE, a well-organized but independent user group.

The draft of proposed BASUG bylaws was discussed by all present from 8:50 to 9:30. The many suggestions have been incorporated into a second draft attached to these minutes. Most discussion centered on membership rules, election of officers, and dues. In summary, there will be eight BASUG meetings per year. Their schedule and agenda will be determined by the group steering committee, which is comprised of the chairperson, treasurer, secretary, previous chairperson, and volunteers. Anyone may become a member by 1) attending a meeting and 2) paying $16 annual dues (or pro-rated portion). Additional funds will be solicited from attendees only when disposition of collected dues has been documented. Officers will be elected to a one-year term from those nominated at the next-to-last meeting of each term.

From 9:30 to 11:00, Dr. Fred Pratter, Abt Associates' Manager of Statistical Computing, astounded the audience by sharing a SAS program that, by using macros, arrays, PUTs, and %INCLUDEs, generates its own SAS code to read an undetermined number of variables and later executes that code.

Lastly at 11:00, Tom Marx of MSSR Associates demonstrated a SAS application used for verifying the validity and consistency of responses in a research survey.

Thanks for attending. Hope to see you at the next meeting.

Sincerely,

Tom Marx

BOSTON AREA SAS USERS GROUP

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
421-2927

DATE: February 6, 1987

MEETING ANNOUNCEMENT:

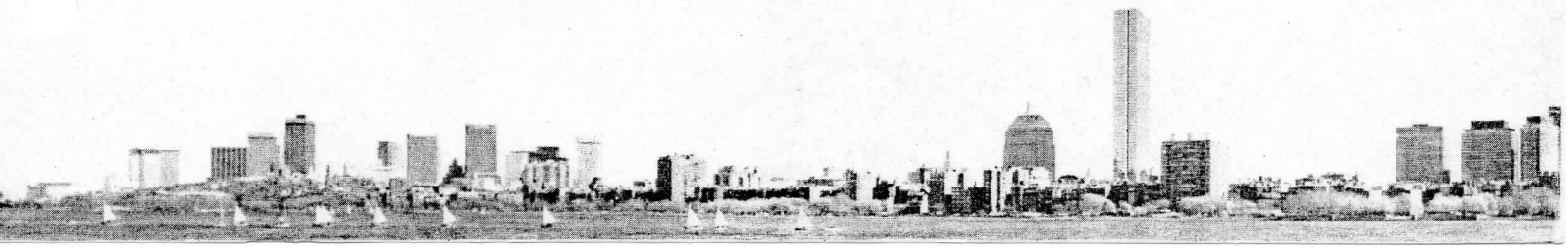
The next meeting of the Boston Area SAS Users Group will be hosted by Arthur D. Little, Inc., 25 Acorn Park, Cambridge MA. It will be held on **Thursday, February 26, 1987, 8:45-11:30 AM** in ADL's Building 25 Auditorium. **Pre-registration is required.** Call Julie Hu at ADL (864-5770 ext 3450) and leave your name and company affiliation with Julie or her secretary.

If you are travelling by car, refer to the attached map. Visitor parking is in front of Building 20. If you are using public transportation, take the Red Line north to the final stop, Alewife. Acorn Park is a 5-10 minute walk along the MBTA access road. Check in at the Building 25 reception area.

Enclosed you will find a second draft of proposed group bylaws for discussion during the meeting.

PLANNED AGENDA:

8:45- 9:00	*Coffee & donuts.*
9:00- 9:30	*Group business meeting. Topic: Discuss revised draft of proposed group bylaws.*
9:30-10:00	*Wendell Refior, of Boston Edison, will lead a presentation of SUGI 12 highlights.*
10:00-10:15	*Employment Issues: a discussion by Ron Liebman, of the Health Data Institute.*
10:15-10:45	*Break / problem-solving session / completion of member questionnaire.*
10:45-11:30	*Bob Virgile, of AVCO/Textron, will deliver a lecture titled "Minimizing Maintenance of SAS Programs.*



BOSTON AREA SAS USERS GROUP

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
421-2927

DATE: March 6, 1987

MINUTES OF PREVIOUS MEETING

The latest BASUG meeting was held February 26 at Arthur D. Little, Inc. in Cambridge.

Tom Marx opened the business portion at 9:05, thanking Julie Hu for her work in scheduling the meeting.

The first topic, the draft of the Group Bylaws mailed with last month's minutes, was discussed. After a few minor changes, those in attendance unanimously accepted this document to be BASUG's bylaws.

The next business topic concerned the suggestion raised by SUGI 12 attendees of exploring alternate meeting times. There was no consensus among those present, only the slight bias of these A.M. types toward continuing morning meetings. Tentative agreement was reached to experiment with an early evening gathering in the Spring or Fall, and to solicit the non-participating majority of our mailing list occupants for their feedback. The subject of imposing interim 1987 dues was tabled until the next session.

At 9:40, Wendell Refior of Boston Edison presented a complete report on the recent SUGI 12 conference in Dallas. Paul Grant of General Dynamics, co-chair of this year's poster section and next year's tutorials, provided insight on the planning that goes into each conference. Several members recommended the published SUGI Proceedings as a helpful reference source.

From 10:15 to 10:35, Ron Liebman of the Health Data Institute spoke to the group about both employment issues and possible directions of BASUG. He referred the group to articles in the February 9 issue of ComputerWorld on user groups and their influence. Ron enumerated action opportunities that we are not exploiting: sharing technical issues and education, publishing a journal, promoting the SASWare Ballot, trading information about our businesses and our relationships with SAS, and exploring affiliations with local employment agencies. Attendees expressed strong interest in continuing the subjects initiated by Ron at the next meeting.

During the break from 10:35 to 11:00, many attendees completed Hal German's BASUG questionnaire. This document will provide input to a base of information on our member companies and users, their products, and the purposes for which they are used.

Lastly from 11:00 to 11:55, Bob Virgile of AVCO/Textron presented a detailed application that exemplified minimizing the maintenance of SAS code.



Boston Area SAS Users Group - Meeting Announcement

Featuring LOTUS DEVELOPMENT CORPORATION

Wednesday, March 25, 1987, 8:30-11:30 AM

John Hancock Financial Services

Room 202 of the John Hancock Conference Ctr, Trinity Place, Boston MA

Please note that this meeting date has been changed from that announced at the last meeting. Via public transportation, take any branch of the Green Line to the Copley stop. If you drive, recommended parking is at the Hancock garage on Clarendon Street (see map). Call Chris Friberg (638-9114) or Mike Murphy (421-2927) for further directions. No security restrictions apply.

8:30-8:45 Coffee & donuts.

8:45-9:30 Group Business Meeting
Tom Marx
Chairperson
BASUG

Future directions of BASUG, continued completion of member questionnaire, presentation of interim survey results, discussion of Boston SASWare ballot.

9:30-10:15 SAS/Graph for Scientific Applications
Bob Kaufmann
GTE Laboratories
Waltham MA

Continuing with the theme of last month's PROC Plot example, Bob will present an example of how to generate an X-Y plot.

10:15-10:30 Break

10:30-11:30 Linking SAS to Other Products
Sharon Stark
Systems Engineer
Lotus Development Corporation
Cambridge MA

Lotus will present "The Application Connection" (T-A-C), a product line of mainframe and micro software to integrate PC applications, communication links, and host applications. T-A-C enables users to exchange information between different applications such as mainframe databases (SAS, FOCUS) and popular PC packages.

BOSTON AREA SAS USERS GROUP

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
421-2927

DATE: April 9, 1987

MINUTES OF PREVIOUS MEETING

The latest BASUG meeting was held March 25 at John Hancock Financial Services, Boston.

Tom Marx opened the business portion at 8:55, thanking Chris Friberg and Hancock User Services for hosting the meeting. Tom reported that the senior officers had met during the month on the subject of group funding. They proposed an amendment which reads: "For 1987, individual dues will be $12, payable by the April meeting. Corporate membership will be $60 per year. This entitles any employee of a corporation or wholly-owned subsidiary to become a member." This amendment was accepted.

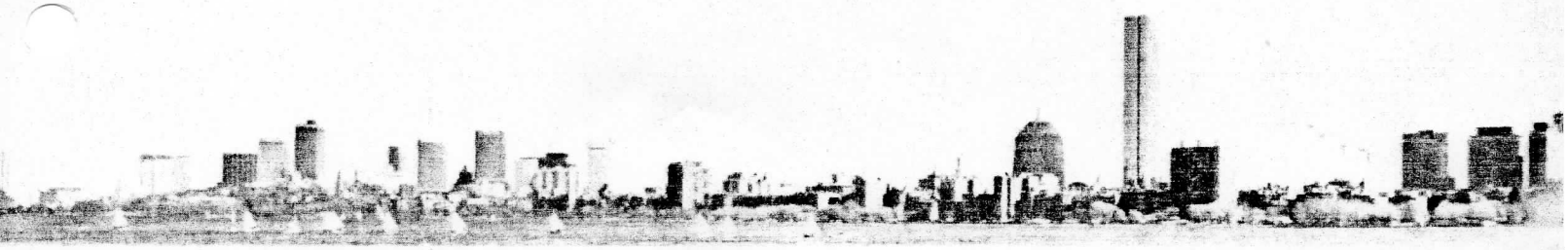
A copy of the official Group bylaws is attached.

Interim results of the member survey were discussed. The greatest response was for macro training. Twenty of those in attendance expressed interest in scheduling an instructor. Lowell Mercier and Wendell Refior will study the feasibility of BASUG sponsoring a one-day macro basics course.

Also prevalent in the survey, was the group's desire for a newsletter-style document containing SAS code examples, efficiency tips, and meeting excerpts. Resolution of this topic was postponed until the May meeting.

From 9:30 to 10:15, Bob Kaufmann of GTE Laboratories, soon to be of Digital Equipment Corp., presented a macro-driven SAS application for generating X-Y plots.

After break, from 10:45 to conclusion, an extension of the business meeting was held. The topic was expansion of group membership. Members suggested contacting other Boston-area businesses, obtaining site names from the SAS Institute, working within our companies to circulate meeting notices to company newsletters, bulletin boards, and electronic mail, and setting meeting dates further in advance.



Boston Area SAS Users Group - Meeting Announcement

Wednesday, May 6, 1987, 8:30-11:30 AM

Boston Edison Company

Room 29-N of the Prudential Center, 29th Floor, 800 Boylston Street, Boston MA

The Pru can be reached using public transportation via any branch of the Green Line (Pru, Copley, or Auditorium stops). If you drive, recommended parking is at the Cheri garage on Dalton Street (across from the Sheraton-Boston main entrance). Call Wendell Refior for further directions (424-3516).

8:30-8:45 Coffee, etc. / Membership Processing

8:45-9:45 An Overview of ISPF Edit Macros
Hal German
GTE Laboratories
Waltham MA

Hal will demonstrate the concepts, uses, and capabilities of automatic editing functions, using ISPF release 2.

REMINDER: Membership dues collected at this meeting. $12 /person or $60/company. Receipts available.

FUTURE MEETING JUNE 18: SAS/Graphics at MITRE CORP., Bedford.

9:45-10:00 Member Questionnaire

10:00-10:30 Linking SAS to Other Products
Sharon Stark
Systems Engineer
Lotus Development Corporation
Cambridge MA

Although we missed connections last month, this time Lotus will definitely present "The Application Connection" (T-A-C), a product line of mainframe and micro software to integrate PC applications, communication links, and host applications. T-A-C enables users to exchange information between different applications such as mainframe databases (SAS, FOCUS) and popular PC packages.

10:30-10:45 Break / Membership Processing / Problem-solving Session

10:45-11:15 Lotus T-A-C Presentation (conclusion)

11:15-11:45 Group Business Meeting

Presentation of resource guide survey results and BASUG treasurer's report

BOSTON AREA SAS USERS GROUP

PO Box 6131 Boston MA 02209

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
(617) 421-2927

DATE: May 20, 1987

MINUTES OF THE MAY MEETING

The latest BASUG meeting was held May 6, 1987 at Boston Edison Company. There were 45 people in attendance.

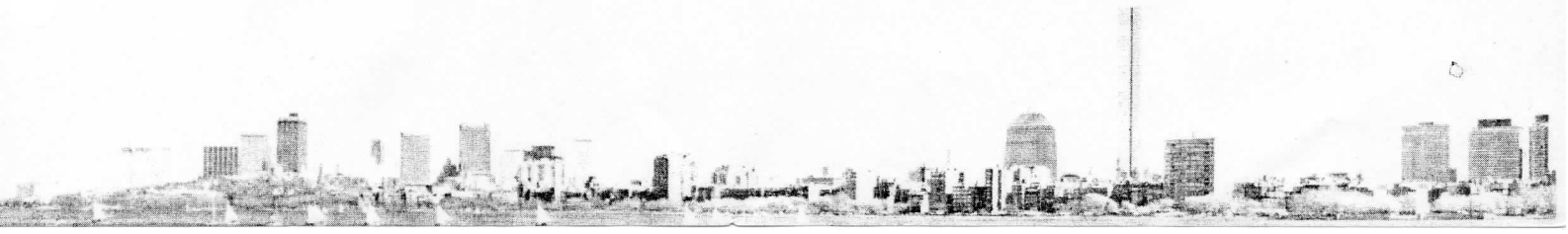
Tom Marx opened the meeting at 8:55, thanking Wendell Refior and BEC for again hosting BASUG. He announced that member survey results were posted and would be distributed at next month's meeting, June 18 at Mitre Corp of Bedford. Tom then introduced BASUG co-founder and past president Hal German of GTE.

Hal gave the group some regional and national news concerning SAS: new documentation, possible DMI/CMS product, and further ties to DEC. Most importantly, he announced interest in (and SAS approval of) a regional *Northeast SAS Users Group (NESUG)* comprised of users in Boston, Hartford, Albany, Pittsburgh, and Hanover NH. This entity may sponsor a local "SUGI" event in the Fall. Hal is looking for three volunteers from BASUG to serve as liaison to NESUG. He is also compiling a book of CLIST tips and techniques. He would any suggestions and contributions.

From 9:10 to 9:45 Hal delivered his scheduled talk on "*An Overview of ISPF Edit Macros*".

Following the break, from 10:10 to 10:45 invited guest Sharon Stark, systems engineer from Lotus Development Corp., presented an overview of their new product The Application Connection (T-A-C).

A business meeting was conducted until 11:05. Following a quick vote, June 6 was chosen as the date for the BASUG-sponsored "*Introduction to Macros*" class to be conducted by Bernie Siryk at Blue Cross, Boston. Finally, individuals volunteered to form a committee exploring the possibility of publishing a group newsletter. Members include Bob Virgile, Nancy Kocher, Tom Marx, Jennifer Wilton, and Mike Murphy.



Boston Area SAS Users Group - Meeting Announcement

Thursday, June 18, 1987, 9:00-11:15 AM

Mitre Corporation

Building "A", Burlington Road (Rte 62), Bedford MA

Mitre is located at the junction of routes 3 and 62. From around Boston, take route 128 to the Burlington Mall area and proceed north on route 3 until the first exit, route 62. At the end of the ramp, go right on 62. Mitre is on the immediate left. Upon entering their complex, bear right to visitor parking, then proceed to the Building A lobby.

Mitre is a secure area. To expedite your entrance, you should give at least one week notice to Loretta Dunn on 271-7866. Foreign-born nationals should state this fact to Loretta.

9:00-9:15 Coffee, etc. / Membership Processing

9:15-9:50 The SAS Toolkit at Mitre
Alan Brooks, Suzanne Shanbaum, & Pat Swallow
Mitre Corporation

This will be a demonstration of SAS code modules which permit novice end-users to solve semi-structured problems in the compensation field. The application permits sophisticated query and analysis capability with the production of on-line and hardcopy graphs and reports.

9:50-10:20 Break / Problem-solving Session

10:20-11:00 The SAS Toolkit at Mitre (continued)

11:00-11:15 Group Business Meeting

Presentation of resource guide survey results.

You are encouraged to bring problems you are encountering with SAS or operating systems to the problem-solving session at this meeting.

REMINDER: Membership dues collected at this meeting: $12 /person or $60/company. Receipts available.

BOSTON AREA SAS USERS GROUP

PO Box 6131 Boston MA 02209

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
(617) 421-2927

DATE: June 18, 1987

MINUTES OF THE JUNE MEETING

The latest BASUG meeting was held June 18, 1987 at Mitre Corporation, Bedford MA. There were 33 people in attendance.

Tom Marx opened the meeting at 9:10, thanking Alan Brooks, Pat Swallow, Elaine Fournier, and the folks at Mitre for hosting BASUG. He announced that enrollment was in progress for the BASUG-sponsored *Introduction to Macros* class on June 20 (later during the meeting a quorum for the class was reached).

At 9:15, Hal German of GTE, BASUG co-founder and past president, presented member copies of the BASUG Resource Guide and survey results. This document will be updated annually. Hal spoke of continuing progress toward the formation of the regional *Northeast SAS Users Group* (NESUG). An announcement to that effect will be made before the next meeting. Hal is looking for three volunteers from BASUG to serve as liaison to NESUG. His book of CLIST tips and techniques will be compiled and presented this Fall.

From 9:20 to 9:45 Alan Brooks delivered the first part of his presentation, "*The SAS Tool Kit at Mitre*", a macro-based utility that allows novice users to analyze, query, graph, and report compensation data.

During the break and problem-solving session from 9:45 to 10:30, Alan conducted an on-line demonstration of the tool kit.

In the second half of his presentation from 10:30 to 11:00, Alan walked the group through much of the utility's SAS code. Mitre's Pat Swallow spoke about SAS metagraphics facility and how it was used to solve communication problems between various hardware at Mitre's offices.

A brief business meeting was held at 11:10. Sandry Hendren of HDI was nominated and approved as the official liaison between BASUG and the SAS Institute.



Boston Area SAS Users Group - Meeting Notice

Career Development Night / Dinner Meeting

Tuesday, August 25, 1987, 6:00 PM

MIT Faculty Club

Sloan School of Management, 6th Floor, 50 Memorial Drive, Cambridge MA

Join BASUG for our first evening / dinner meeting in a long while, on our most requested topic: employment opportunities. Parking is available along Memorial Drive or in the lot behind the Sloan building on Amherst Street. If using public transportation, take the Red Line to Kendall Square.

Admission to the 8:00 PM business meeting is free.

Reservations are required for dinner. Call Tom Marx (876-0962) or Mike Murphy (421-2927) prior to August 20th. The BASUG-subsidized fee will be $12.00, a bargain for a sumptuous Faculty Club feast.

MEETING AGENDA

6:00-7:00 PM Cocktail hour

7:00-8:00 PM Dinner

8:00-9:00 PM Group Business Meeting
Geoffrey W. Eckler
Personnel Consultant

The outline of Geoff's talk includes:

1. "Trends for SAS Usage in the Greater-Boston Area"

2. "The Pros and Cons of: moving away from a technical position toward a management role, pursuing additional technical skills, and independent consulting vs. permanent employment"

3. "Constructive Ideas for: negotiating salary increases, securing the position you want with the company you want, producing a persuasive resume, and improving your interviewing skills"

4. "Salary and Independent Consulting Rate Levels"

9:00-9:45 PM Discussion / Questions
Geoffrey W. Eckler

The Boston Area SAS Users Group (BASUG)

PO Box 6131, Boston MA 02209

BOSTON AREA SAS USERS GROUP

PO Box 6131 Boston MA 02209

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
(617) 421-2927

DATE: September 4, 1987

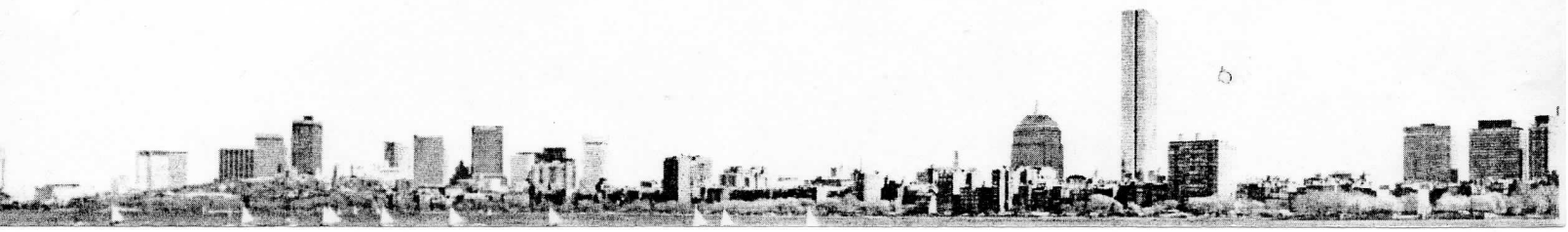
MINUTES OF THE AUGUST MEETING

A dinner meeting was held by BASUG on August 25, 1987 at the MIT Faculty Club, Cambridge MA.

The meal concluded at 8:15, at which time a few important announcements were made by Tom Marx:

- **1. The U. S. Census Bureau's presentation to BASUG scheduled for September 10 has been postponed** due to Judith Cohen's recent illness. Since local businesses had shown a lot of interest, we shall reschedule this topic as soon as possible.
- **2. The SAS Institute will be conducting a public** *SAS Basics for Mainframes* **class in downtown Boston** on October 13-15, 1987 at John Hancock . It will feature on-line sessions using both TSO and CMS operating systems. Space is limited. Registration deadline is 9/15/87; cancellation deadline 9/21. Cost is under $500, depending on the number of people attending. Call Clara Cavaleri (617 375-2351) at Hancock for information and reservations.
- **3.** Our own **Paul Grant** will be Tutorials Section Chair at **SUGI 13, March 27-30, 1988 in Orlando FL.** Paul is looking for a few attendees to assist presenters as part-time session coordinators. If you need an excuse for your company to send you to SUGI, this may be it. Several BASUG members have made plans to attend. Some have already agreed to be presenters or coordinators. Paul Grant may be reached at General Dynamics, Middletown RI (401 841-2403).

The meeting's guest speakers were Geoff Eckler and Ed Gundrum, of Metro Solutions Inc. They informed the gathering from 8:20 to 10:10 on the subject of programmer/analyst career development, the outlook for SAS and other technical skills, and local salary levels.



Boston Area SAS Users Group - Meeting Notice

Tuesday, September 22, 1987, 9:00 AM - 11:15 AM

Bentley College, Waltham MA

Morison Board Room

Third Floor of Morison Hall

The topic of the meeting will be training: for both new and veteran SAS users. See the enclosed map for directions to Bentley.

Admission for first-time attendees is free. One must become a member to attend future meetings ($2/meeting or $12/year individual; $60 corporate membership).

BOSTON AREA SAS USERS GROUP

PO Box 6131 Boston MA 02209

Tom Marx, Chairperson
(617) 876-0962

Mike Murphy, Secretary
(617) 421-2927

DATE: October 9, 1987

MINUTES OF THE SEPTEMBER MEETING

The latest BASUG meeting was held September 22, 1987 at Bentley College, Waltham MA. There were 32 people in attendance.

Tom Marx opened the meeting at 9:05, thanking Jim Zeitler, Paul Lambert, and Bentley for hosting BASUG. The following general announcements were made:

- The next meeting would be at Abt Associates on a date to be announced.
- Nominations of officers for 1988 will be conducted at the October meeting, with elections following in November. At the suggestion of Wendell Refior, each present officer and steering committee member briefly described his/her duties.
- To revive interest in a group newsletter, Tom asked for volunteers to meet this month with the goal of publishing a first edition this Fall. Jennifer Wilton, Nancy Kocher, Bob Petersen, and Mike Murphy will assist Tom. Their first meeting will be October 6.
- A videotape of Geoff Eckler's August speech to BASUG will shortly be available from Lowell Mercier.

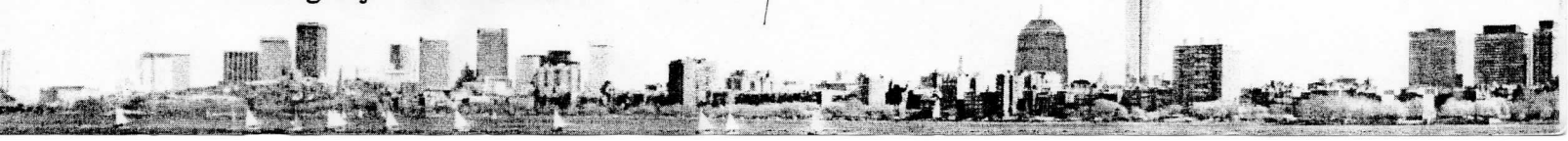
At 9:20, BASUG past-president Hal German of GTE presented the latest news from SAS and the imminent NESUG (Northeast Area SAS Users Group).

- IBM demoed their answer to SAS, A S (Application System), at SHARE/Chicago, software that has statistical and forecasting features.
- The SAS executives Hal encountered at SHARE were not averse to the idea of four or five regional SAS user groups to which The Institute could devote some support (personal appearances, product demos).
- Joy Reel is working on a SUGI 13 paper, a flow-diagram for solving SAS error messages.

At 9:30, Stacy Gill of MIB gave the group a presentation covering "Lag" functions, "By" processing, and passing parameters to SAS from JCL.

Following the break, at 10:50 Sandy Hendren of HDI spoke to the group on the subject of evaluating yourself or others as a SAS programmer; what techniques should be known by entry-level, mid-level, and experts.

The meeting adjourned at 12:05.



Boston Area SAS Users Group - Meeting Announcement

Wednesday, October 21, 1987, 9:00-11:25 AM

Abt Associates

55 Wheeler Street, Cambridge MA

You are asked to bring along items of general interest to swap and share: articles, code, output, product announcements.

Pre-clearance will not be required at Abt Associates. Register at the security booth at the parking lot entrance. The meeting will be in the Ramp Room. Use Abt's main entrance.

Abt is located near Fresh Pond Circle and Route 2 (see map on opposite page). If approaching from the north or west (Rte 128/95), take Route 2 east toward Cambridge to the end of the main highway at the Alewife T station. Turn right at the Alewife light and proceed to the first rotary (Fresh Pond). From the rotary, turn right at the Ground Round (Concord Ave.). Wheeler Street is the first right, before the Shell station. Abt Associates is at the end of the street on the left.

If driving from Boston use Storrow Drive. If approaching via the Mass Pike, take the Cambridge/Allston exit to Storrow Drive. Follow Storrow past the Harvard Square exit to Routes 2/3/16. Take those routes to Fresh Pond, go right at Ground Round, as above.

By public transportation, take the Red Line to Harvard. At street level, board either a #74 or #78 bus. Get off at the first stop after Fresh Pond Circle. The locals advise against walking to Abt directly from the Alewife T stop as the roads are not designed for pedestrians.

NEXT MEETING: Product demos at John Hancock. Live demos of SAS/OR, SAS/AF, SAS/Graph, and SPSS-PC+.

9:00-9:15 Coffee, etc. / General Announcements

9:15-9:30 NESUG News
Hal German
GTE Laboratories

Hal will discuss survey results of the Northeast Area SAS Users Group (NESUG) and plans for a regional SUGI-like conference.

9:30-10:00 The SAS Forms Procedure
Wendell Refior
Boston Edison Company

Wendell will demonstrate how to use SAS-based data for envelopes, mailing labels, tape labels, file cards, etc.

10:00-10:20 Break

10:20-10:40 Group Business Meeting
Tom Marx
Nomination of group officers for 1988.

10:40-11:25 The Telltale Signs of an Advanced SAS Programmer
Bob Virgile
AVCO Systems / Textron

Bob is a SAS instructor, corporate technical support for SAS (as well as other products), and a frequent and most respected BASUG contributor.

Admission is free to first-time attendees. Individual annual membership dues $16 (or $2/meeting). Corporate annual membership dues $60.

Set BASUG;

A Publication of the Boston Area SAS Users Group (BASUG) November, 1987

SUGI 13

The annual meeting of the *SAS Users Group International* will take place in Orlando Florida from March 27 - 30, 1988, Sunday evening through Wednesday morning.

If you are undecided about attending SUGI, bear in mind that a high percentage of the 3000 users are first-time attendees. The three-and-a-half-days consist of product demos, hands-on sessions, user presentations, tutorial sessions, and special-interest group meetings. There are always from five to ten different sessions running concurrently all day and into the night. You are free to attend any session at any time. If you don't see something you like you can initiate your own SIG meeting in a hotel function room.

Several people from the Boston area will be attending. Paul Grant is co-chair of the Tutorials Section. Craig Dickstein, Hal German, Sandy Hendren, and others will be giving presentations. The rest of us are going for the learning experience, user contacts, relaxation, Mousketeer ears, and to be among the first in the office next year with a tan.

Registration begins in December. Materials will be available at the first available BASUG meeting.

Regional SAS Users Group for Northeast is Up and Running!

NESUG (Northeast SAS Users Group) is the first SAS regional users group representing ten local SAS users groups. Its purpose is to serve as a centralized information resource for all Northeast SAS users groups. Current activities include:

- Produce a Resource Guide that contains a listing of all SAS resources (groups, consultants, trainers, and vendors) in the region.
- Create a proceedings that contains the best of the local user group papers.
- Begin to organize consortium training.
- Have a proposal discussed at the next SUGI getting official recognition and support for NESUG.
- 5. Sponsor a one-day SUGI-like conference at a host user group site.

If the above activities sound like something that you would like to work on, please call me at (617) 466-2290.

Hal German

BASUG Special Interest Group Corner

Marketing Research Subgroup

Last Fall, a group of BASUG members formed a special-interest group. Their purpose was to use each other as resources to learn more about the technical aspects of marketing studies. At each meeting, one or two persons presented a topic of interest to all.

Subjects explored ranged from psychology and sociology through statistics to selecting demographic system vendors. We learned how John Hancock was able to measure its customers' satisfaction with Hancock's service, how Boston Edison was able to develop lifestyle profiles of its customers, and how the Boston Globe identifies the readership type that is prevalent in any of our local zip codes.

We learned something about the statistical techniques of multiple regression, analysis of variance and factor analysis and studied SAS procedures that applied the statistical techniques to marketing analyses undertaken by subgroup members. We also saw how a SAS program can pinpoint errors in the survey forms that marketers often employ to gather information from customers and prospects.

We welcome any BASUG member with an interest in this subject to attend meetings. We meet from 9:00 to 10:30 AM on mutually-agreed dates. Contact Mike Murphy, or Wendell Refior for details.

Tom Marx

Capacity Planning Subgroup

SAS, with its statistical and graphics capability as well as its date and time logic, is a natural favorite of computer performance evaluators. Both *Barry Merrill's Guide* and Morino Associates' MICS product are industry standards rooted in the SAS System. The Boston-area capacity planning subgroup of BASUG has met periodically during the last 18 months to share problems and ideas.

Craig Andree is the founder of not only the subgroup but BASUG as well. He is now looking to see if there is continued interest in this SIG and if others are willing to share in the planning. It does not require much work: a few phone calls to pick a site. The BASUG secretary is happy to include meeting announcements in the regular group mailing.

Give Craig a call at 973-0952 if you're interested in the subject.

SAS Product Corner:

SAS/AF

SAS Application Facility (AF) allows a SAS programmer or trainer to create menu-driven front ends to SAS products for easy user access. It can also be especially useful as the foundation of a specialized computer-based training application.

A lot of what you can accomplish with AF could be written via a series of macros invoking other macros, etc. as explained in SAS documentation. If you have written such a system you know what a horror-show they can be to debug (apparent macro invocation unresolved, indeed). SAS/AF is well worth its price in the speed with which you can assemble a complete, sound, end-user application.

As with other Version 5 products, you build SAS/AF in a catalog, similar to those used in FSP and Graph. A catalog is a type of SAS file that contains something other than data (screens, forms, letters, graph output) and can be grouped in a common library, just like SAS data-type files. A SAS/AF application consists simply of a collection of screens in a catalog.

Differing types of screens accomplish your application's objective:

- MENU SCREENS offer choices to users and then point to other menu screens or...
- PROGRAM SCREENS contain the SAS code to be executed (in their lower sections). Optionally, one can have an upper section, a fill-in-the-blanks area that the user views and keys into. These entered parameters are then passed to the code in the lower section allowing for conditional execution of instructions. Sounds like macros again (%PUT %INPUT), but simpler and faster to code.
- HELP SCREENS display information to assist users: documentation for an entire application or context-sensitive hints to help fill those blanks.
- LIST SCREENS contain values to validate user entry fields
- CBT SCREENS present interactive instructions, questions, and answers as part of a computer-based training course.

Here is a brief example to fit in this corner. If you want to see more complete applications, join the next BASUG meeting at Hancock for a live show.

EXAMPLE: An Info Center SAS support person wants to reduce some of the syntactical inconsistencies that SAS has conveniently built in to their descriptive statistical PROCs. The object is to allow a user to get PROC FREQ, UNIVARIATE, and TABULATE output from an existing SAS dataset without worrying about syntax.

1. Create the new catalog and edit it: From the display manager, type PROC BUILD C=SASCAT.DESCST; RUN; The empty catalog appears.

2. Create the first menu: EDIT MAIN.MENU The empty menu screen is shown. Write out the menu freeform as you want it to appear, e.g.:

SELECT ONE OF THESE:
1 . FREQUENCY DISTRIBUTION
2. UNIVARIATE STATISTICS
3. TABULAR REPORT
4. EXIT

SAS/AF has an underlying attribute area that corresponds with the menu screen. Type ATTR and that area is shown:

	NAME	TYPE
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

Type the names of the four program screens to be executed upon selection of the appropriate menu option:

	NAME	TYPE
1.	FREQ	PROGRAM
2.	UNIVAR	PROGRAM
3.	TABULATE	PROGRAM
4.	QUIT	PROGRAM

3. Create the first program screen. PF3 back to the catalog and enter EDIT UNIVAR.PROGRAM. In the interest of space, we'll skip the other programs. QUIT.PROGRAM will be the ENDSAS call. In the upper half, allow the user to define the report. See the screen contents below. The macro-like variables appear as data-entry fields when displayed. The program code preceded by # will only be executed if the user entered a value in the corresponding input field (-# means execute if blank).

```
Dataset Name: &DSN__
List the variables to be analyzed (leave blank for all
numerics):
        &VAR1__  &VAR2__  &VAR3__
For Other Options check X:
        & frequency distribution
        & stem and leaf plot
Title: &TITLE1_____
Hit PF3 to execute or type CANCEL to abort
-------------------------------------------------------------------
PROC UNIVARIATE
#field5          FREQ
#field6          PLOT
                  DATA=SASDATA.&dsn;
#var1      VAR  &var1  &var2 &var3;
TITLE1     ' &title1 ' ;
RUN;
PROC DISPLAY C=SASCAT.DESCST.MAIN.MENU;
RUN;
```

4. Finally, to make it friendly to access, set up a CLIST or EXEC that a user can run from the operating system. The EXEC will kick off a sasexec that allocates the catalog SASCAT.DESCST and shows the first screen (PROC DISPLAY C=SASCAT.DESCST.MAIN.MENU;RUN;). The AF menus control everything else.

Mike Murphy

Minutes of the October Meeting

The latest BASUG meeting was held October 21, 1987 at Abt Associates, Cambridge MA. There were 24 people in attendance.

Tom Marx opened the meeting at 9:20, thanking Dr. Fred Pratter and Abt for hosting the group.

At 9:25, Hal German of GTE presented the latest news from SAS and the NESUG (Northeast Area SAS Users Group).

- Postscript printers will be supported in the next release of the SAS System.
- The Institute is working on a pamphlet convering concerns on migrating from different operating systems.
- Interest and volunteers are being solicited for the proposed Northeast SAS Users Conference next Fall in Boston. Your help will be needed for speakers, coordinators, advertising, registration, and treasury.

At 9:45, Wendell Refior of Boston Edison conducted an overview of the newly-documented SAS Forms Procedure.

Following the break, at 10:30 nomination of officers was conducted. Those nominated were:

- President: Alan Dickson, Bob Virgile
- Secretary: Mike Murphy, Stacy Gill
- Treasurer: Lowell Mercier

At 10:40 Bob Virgile of AVCO/Textron delivered a presentation titled "The Tell-tale Signs of an Advanced SAS Programmer".

In closing remarks, Tom Marx brought up the subject of continuing education for local programmers. Members spoke of the success of the recent Intro and Macros courses held in Boston. It was agreed to quickly survey the membership by the next meeting to decide upon further action. The meeting adjourned at 11:35.

M^2

Problem Corner

The following program illustrates a standard application of the LAG function:

```
DATA   NEW;
SET    OLD;
VAR2 = LAG(VAR1);
```

Can you rewrite this program to achieve the same result without using the LAG function?

There are a number of ways to do this. Can you find a way that will use less CPU time than the original? (If it makes a difference, assume that VAR1 is numeric, with a length of 8).

Answer in next issue.

Robert Virgile

CLIST Corner

New and Improved TSO/E

With the announcement of TSO/E Release 4 (for MVS/XA only), clists are more powerful than ever. Some of the product enhancements include:

- three new DO statements for different situations.
- a SELECT..WHEN..OTHERWISE..DO to code exceptions.
- Subprocedure support. This will allow for easier maintenance and development. Each subprocedure has its own variable pool and can be easily referred to in the main procedure.
- Double byte character support to read more types of data.

Further information on TSO/E Release 4 can be found in the pamphlet introducing TSO Extensions Release 4 (GC28-1293).

Hal German.

End-of-Year Thank Yous

The position of BASUG chairperson has been (and will be) a shared function. For the past year, however, Tom Marx has had to do it alone. During this time, the quality of the meetings and presentations has improved steadily. Tom, you've done a damn good job and we'll miss you. Please keep coming to the meetings next year.

The following companies have generously donated their facilities and/or products during the past twelve months. Our meetings have been made possible by:

Boston Edison Company, University of Mass / Boston, Arthur D. Little, John Hancock, Lotus Development Corporation, Mitre Corporation, M I T, Bentley College, Abt Associates.

Special thanks to those individuals who have enlightened us with presentations during meetings this year:

Tom Marx
Bob Virgile (three times)
Wendell Refior (three times)
Dr. Fred Pratter
Ron Liebman
Bob Kaufmann
Hal German
Sharon Stark
Alan Brooks
Pat Swallow
Geoff Eckler
Bernie Siryk
Stacy Gill
Sandy Hendren

PROC of the Month

An Alternative to Sorting and Merging Large Files Using PROC Format

The SAS Format procedure does so much more than label data values. It has enough uses to keep this newsletter going for years. What follows is an old trick, but it may help to be reminded now and again.

Situation: You need to match/merge a small transaction file to a humungous master file, which is not sorted by the common variable. SAS manuals instruct you to first sort each file by that common field, then merge them together. Obviously, this incurs a lot of time and expense as the master file is passed multiple times.

Solution: In a traditional programming language such as COBOL, you might load the transaction records into a look-up table and search it while reading the master file. The same technique can be done within SAS, without a lot of code:

1. Use the FORMAT procedure to create a table,
2. Use the PUT function to retrieve table entries.

The code shown below is a CMS alternative to sort/merge. Substitute ALLOCs for FILEDEFs in MVS. The transaction file is read into a SAS dataset, then written back out to a temporary sequential file, formatted to appear as a SAS Format procedure. The common variable is both the search value of the table and the table entry.

The %INCLUDE statement reads back the temporary file, creating a SAS format on the fly. A conditional read of the master file follows. The common variable is checked via the PUT statement. If it finds no match in the table, the read is not continued and the next record is retrieved.

```
CMS FILEDEF INTRAN  DISK TRANSACT DATA A;
CMS FILEDEF INMAST  DISK MASTER   DATA A;
CMS FILEDEF TEMPFIL DISK TEMP     DATA A;

DATA TRANS;
INFILE INTRAN;
INPUT @1 COMMON  $CHAR5.;
RETURN;

PROC SORT DATA=TRANS;
BY COMMON;

*write the trans file out to tempfil*
*as the meat of a format proc*;
DATA _NULL_;
SET TRANS END=EOF;
FILE TEMPFIL;
IF _N_=1 THEN PUT @2 'VALUE $TRFMT';
PUT @14 COMMON @19 '=' @21 COMMON @26'';
IF EOF THEN PUT @2 ';'

*create a format of the data in tempfil*;
PROC FORMAT;
%INCLUDE TEMPFIL;
*read the master file.*
*match to trans file via the trfmt format*;
DATA DB.ONE;
INFILE INMAST;
INPUT @15 COMMON  $CHAR5.  @;
IF COMMON=PUT(COMMON,TRFMT.)
     THEN INPUT @1  (continue with update, delete, whatever)
```

The only real trick employed here is how to fool SAS into generating a format from its own data. Formats can only be created from SAS instructions, not data. By bouncing the information in and out of a temp file, you can create and use a format within a single job. The technique of using formats to glue SAS datasets together is often more efficient that merging, especially when permanent, reference-type files are used and their content is not updated frequently.

M^2

VAX Users

will be happy to learn that the SAS Institute will come to Boston with a SAS-VAX product demonstration. The Institute is making plans to go on the road to several major cities (including Boston) in early Spring and Fall, 1988. Watch for details.

A Brief Guide to Debugging

Solving a SAS problem can be a potentially frustrating experience, but there are several things you can do to resolve problems faster.

First, try to pinpoint the type of problem -- syntax, logic, or interface with other products. This can be done by reading the SASLOG and looking for IBM and SAS error messages, numbers and warnings. Notice what is underlined. What does and does not appear on your output is also a clue.

If you have used this program before, try to determine what changes you have made recently, then examine these changes for potential problems.

You have many resources available to help solve your SAS problems. This includes SAS documentation (especially helpful are the basics books, applications guides, companion series, specialized guides, master index to SAS documentation, and SUGI proceedings). The sample library lists sample program code for all SAS procedures. On-line help is available for interactive SAS users by typing HELP once in SAS. On rare occasions, errors may be due to SAS program limits or bugs. Of course, your SAS technical support rep is always available.

If you would like to see a workshop given, expanding on the information presented here, contact me at 466-2290.

Hal German

Boston Area SAS Users Group - Meeting Announcement

Wednesday, December 2, 1987, 8:15-11:45 AM

John Hancock Financial Services

Room 402 of the John Hancock Conference Center, Trinity Place, Boston MA

By car, Hancock is best approached via the Mass Pike eastbound to the Copley Square exit, which empties onto Stuart Street. Parking is scarce after 8:00 AM. From the north, try Memorial Drive to Mass Ave to Boylston Street.

By public transportation: from the west take the Green Line to Copley; from other points connect to the Orange Line and exit at the new Back Bay Station.

Pre-clearance is not required.

8:15-8:30 Coffee, etc. / General Announcements

8:30-9:00 Group Business Meeting
Tom Marx

Acknowledgment of group officers for 1988, completion of member survey.

9:00-10:00 An Introduction to Expert Systems
Robert Keller
President
Renaissance International Corp

An overview by Mr. Keller, a most respected local consultant and lecturer on the subject.

10:00-10:15 Break

10:15-10:45 Expert Systems (continued)

10:45-11:45 SAS Walkaround
Alan Dickson, Tom Marx, Mike Murphy, Bob Virgile

A Room-Full-of-SAS, featuring problem-solving booth, as well as concurrent on-line product demonstrations starring SAS/AF, SAS/FSP, and SAS/OR.

Admission is free to first-time attendees. Dues will be collected in January, 1988. Individual annual membership is $16 (or $2/meeting). Corporate annual membership dues $60.

Boston Area SAS Users Group

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