

S O F T W A R E A G CONNECTIONS SUMMER ISSUE

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SAN DIEGO CONFERENCE— A GREAT SUCCESS!

The 15th International Software AG Users' Conference was held May 11-15, 1986, in San Diego, California. The theme was "Beyond The Horizon", emphasizing the continuing growth and development of Software AG. The conference was a huge success, as measured by the verbal reactions and the evaluation forms received from most of the nearly 1400 conference attendees. The users of Software AG products attended product presentations and demonstrations, intensive classes and tutorials on product applications and usage, workshop hosted by Special Interest Group Chairpersons, and numerous user presentations.

In a special presentation, the SAGGROUP Executive Committee honored Larry Jayne, Software AG Manager, Customer Relations, for four years of outstanding service. He was presented with a three-foot high regulator clock made of oak, with a gold pendulum, cathedral chimes, and a dial that tells the day of the month. Richard Wolverton, SAGGROUP President, cited Larry for intelligence, energy, persistence, patience, sensitivity, and humor. Richard emphasized that the clock represented the gratitude of



(L to R) Richard Wolverton, SAGGROUP President, presents a pendulum clock to Larry Jayne, Software AG Manager, Customer Relations as Carlo Scagnelli SAGGROUP Secretary looks on.

the entire membership, as well as the Executive Committee.

After a welcoming speech from John Maguire, conference attendees had an opportunity to hear from Peter Schnell, President, and Peter Page', Executive Vice President, Software AG Darmstadt, and from Stuart Miller, President and CEO of Software AG of North America. The speeches highlighted ways in which Software AG is moving "Beyond the Horizon" of its own accomplishments. *continued on inside of back cover*

CUSTOMER SUCCESSSES

State of Colorado Gets Help From Software AG's On-Site Service Team

Shortly after the State of Colorado's Department of Labor and Employment converted to IBM hardware and purchased Software AG's ADABAS data base management system, their DP staff hired a consulting firm to help design the data base for their first large development project: an Unemployment Insurance Tax System.

Not long after the consultants went to work, Jean Booth, Data Administrator from the Department of Labor and Employment, realized there was not enough in-house experience with Software AG products to know if the consultants were on-track or not. Booth's Software AG Account Representative, Jim Beavers of the Denver Sales Region, advised her to seek the help of Software AG's On-Site Service by explaining that they not only help users with performance and tuning and file design, but also assist users in other ways to maximize software productivity.

Booth set up a meeting with Paul Peterson, Manager of On-Site Service. They had a long "what if" conversation, and Booth decided the State of Colorado could definitely take advantage of some additional outside help. Consequently, she issued an RFP and received three bids: one from Software AG, another that was open-ended, and a third that would cost twice as much money as Software AG's. Booth hired Software AG!

Work began a few days later when Dave Tipler of Software AG's

Reston, Virginia office arrived at the Department of Labor and Employment. According to Booth, she was "immediately impressed by Tipler's professionalism, helpfulness, and — most of all — his knowledge. He quickly grasped the situation and began dissolving many myths that had developed over the right or wrong way to proceed with the Unemployment Insurance Tax System. He worked a solid 10 hours his first day on the job. On subsequent days, he would get started working and just not stop!"

What Tipler found was a mistake commonly made by consultants. They had not grasped the big picture; rather, they had worked from the bottom up on one small facet of one division. Tipler's approach was just the opposite. He first conducted a logical walk-

through with Department of Labor and Employment's DP staff: DBA Bernie Williams, Analyst Rich Bogacz, Booth, and the consultants. Tipler used this time to gather all of the information he needed to have a clear overview of the business he was dealing with and how all of the entities related.

Once Tipler had all of the data he needed, his time was spent working on his recommendations, which he presented verbally while still onsite. After leaving the Department of Labor and Employment, he followed up with a written report detailing each recommendation.

The logical walkthrough was followed one month later by a physical walk-through. That involved three days Booth remembers well. She says "Those were grueling days. Tempers flared and everyone was hot and tired, except for Tipler. He never seemed riled and tirelessly kept going in spite of us all!" Again, Tipler presented his recommendations verbally while still onsite, then later put them into a report and sent it to everyone involved.

According to Booth: "The result of having hired On-Site Service has been very beneficial and the data base design work can now proceed smoothly. Tipler addressed discrepancies found between the conceptual and physical designs and between what manage-
continued on inside back cover



Left to right: Jean Booth discusses project status with Bernie Williams and Rick Bogacy

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PRESIDENT'S MESSAGE

*Carlo Scagnelli
Central Hudson Gas & Electric Corporation*

In reviewing the "President's Message" articles for the past few years, I find myself slightly apprehensive and at a loss for words, although those who know me would find this hard to believe. All the topics have been covered, all the points made and reinforced leaving little opportunity for anything but redundancy, the farthest thing from a DBA's mind. However, our environment has changed dramatically in the recent past and promises to continue to evolve at an ever increasing rate in the foreseeable future. The key to effectiveness both individually and as a users group seems to remain the same: PARTICIPATION.

The annual users' conference provides the opportunity for each of us to meet, exchange ideas, elaborate on problems, gripes, cures and solutions near to our hearts and wallets. We form new friendships, re-establish old ones, talk and listen, sometimes more of the former than the latter or so it seems. After the demos, tutorials, classes, workshops, lectures and presentations, we return to work to find we've retained far more than we'd ever expected. For some, the end of the conference is a return to regional, SIG or Executive Committee activities. For most, the end of the conference is the end of all user group activity for another year.

This is the user we must reach if SAGGROUP is to remain viable and effective. SAGGROUP IS communication, interaction and sharing of ideas and abilities. There are several ways of encouraging this involvement. First, there must be understanding as to who we are, what we do and what it takes to get the job done. To provide a better focus on SAGGROUP, it's structure will be identified and explained in future newsletter issues, beginning with the Executive Committee through the Special Interest Groups, Standing Committees, Regions, etc. Further, a handbook will be developed to fully explain each position and what's involved so that when you're contacted by the Nominations Chairperson (and you will be called), both you and your employer will know the degree of involvement required.

Of a more immediate nature, we have more of an opportunity today to directly affect our tomorrows than ever before. As you read through the minutes of the Executive Committee session, you'll see the term 'user panel' referred to time

and again. Having provided a high degree of success with PREDICT and CON-NECT, similar representative groups are needed in several areas including the following:

- Review of new documentation for each new product release. As a result of your replies to our annual Technical Support Survey, a dedicated staff has been established within Software AG to rewrite all support material. Your input and review is needed. Contact the Education/Documentation SIG Chairman or the SAGGROUP Product Representatives to offer your support.
- Specification review for the Denver on line access system as clarified in the minutes. An answer to our requests for the past several years, the opportunity to make a direct impact is here. Contact the North American Area Representative if you want to offer your 2 cents.
- Developing the concept of an Administration Control Facility would provide centralized control of profile information for every Software AG product which currently maintains separate information thereby increasing the maintenance burden. Of strategic importance, here's a change to really impact us all.

These and other product specific panels will be established with your help. Over the years, we have asked for involvement in product direction and now we have the opportunity. You should understand, that these panels are neither personal gripe nor change enhancement sessions. These are strategic development discussions to provide acceptable global direction for the product or topic under scrutiny. To not avail ourselves of the opportunity to exert our influence should preclude our tendency to bemoan the results when they are not to our liking. It is only through communication on these and other issues confronting SAGGROUP that we can benefit. The burden of the creation and continued activity of these panels will rest with the individual SAGGROUP product representatives and especially the individual SIG chairpersons. The solicitation of panel members, organization of a functioning structure, scheduling and follow up will require effort. But the results can be more than worthwhile. We'll all get out what we're willing to put in.

Finally, I want to thank all the people who have already participated at all levels of the organization and whose involvement was evident in the excellent presentations and workshops at the San Diego conference. They are an example for the rest of us and a credit to themselves and their companies. □



Peter Schnell, President, Software AG Darmstadt, during his ADABAS V5 Features and Performance presentation.



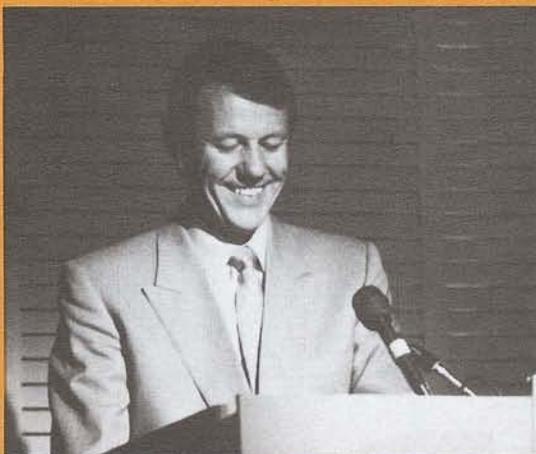
Mr. Ishii, President, Software AG, Far East.



John Maguire, Chairman of the Board, greets an attendee before the program begins.

15th International Software AG Users' Conference

Tom Dimock, Cornell University, (l) sharing his views with Roel Pieper, Software AG Darmstadt.



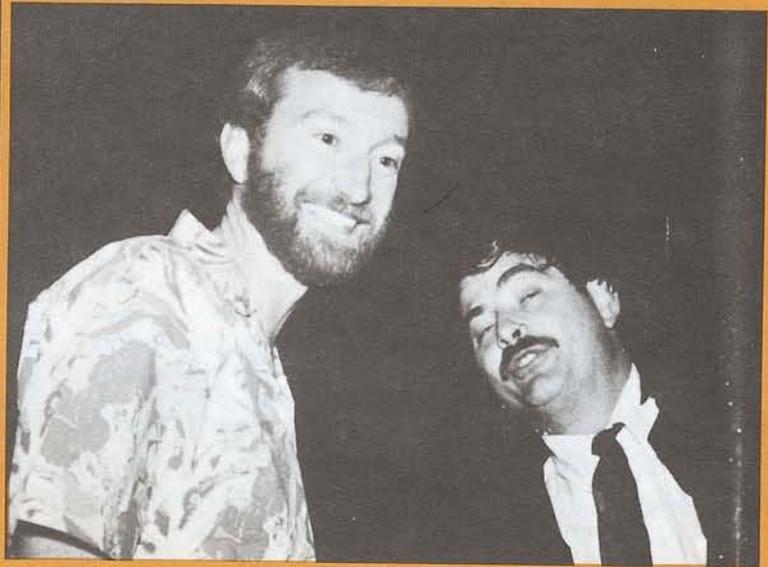
Peter Page', Executive Vice President, Software AG Darmstadt speaking at the opening general session.





Stuart J. Miller, President and CEO, Software AG presents Richard Wolverson (l), out-going SAGGROU P President with a plaque in recognition of his achievements and accomplishments.

Richard Wolverson, SAGGROU P President, (l) smiles as Tom Blondi, VP, Marketing, rises from his first of many dunkings in the dunk tank at Sunday night's Presidents reception.



Lin Pearce, Executive Vice President, Software AG presenting Industry Trends and Software AG.



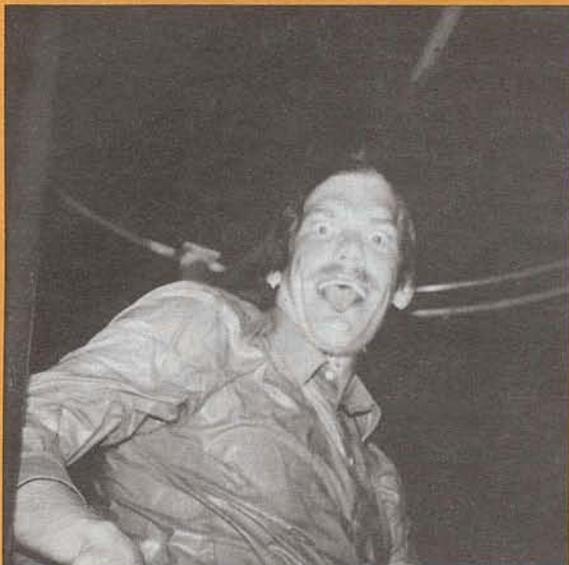
15th International Software AG Users' Conference



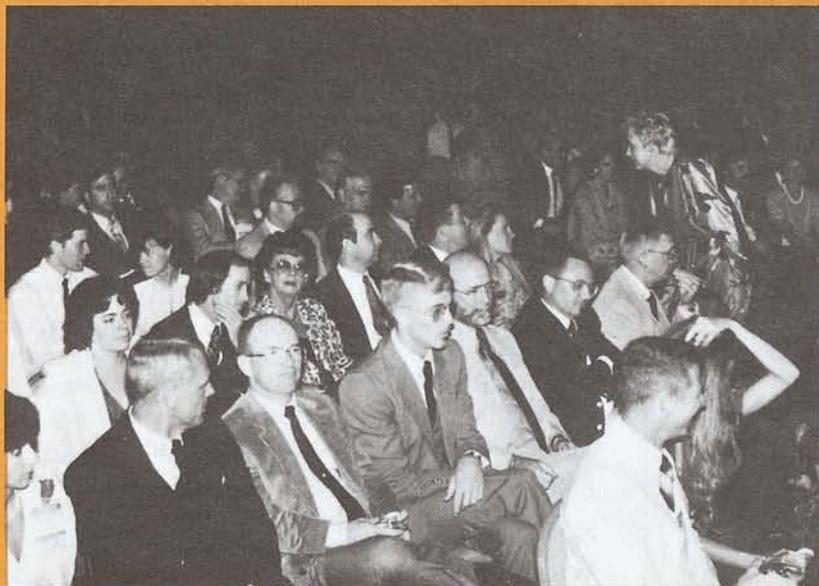
(R to L) Wes Jenkins, U. S. Congressional Budget Office with Anne Jenkins.

Bill Speaks, ANR Freight, the new SAGGROU P NATURAL Product Representative and Steven Bradley, Weyerhaeuser Company, the new SAGGROU P Secretary.

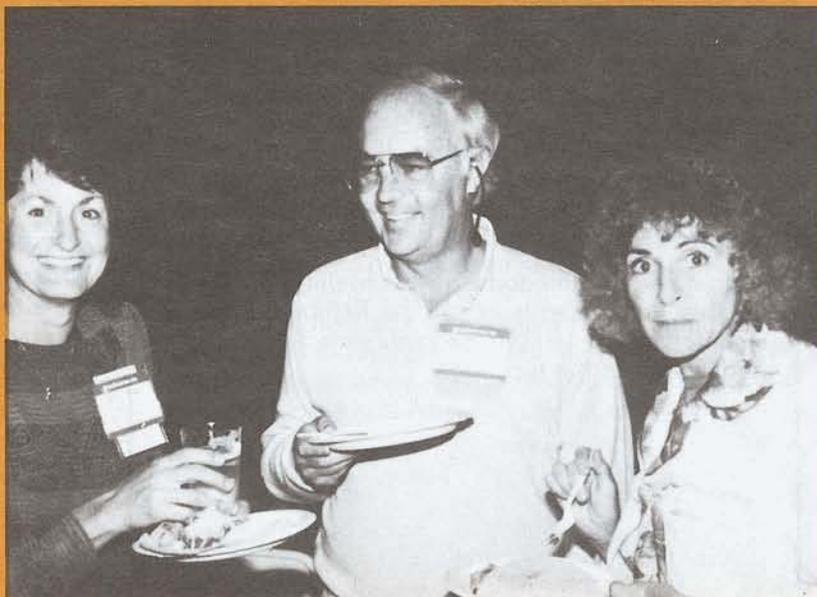
Is Roel Pieper, Software AG Darmstadt, trying to drink the dunk tank dry?



Robert Rieckoff, Inland Steel, presenting "Computer Integrated Manufacturing—How ADABAS/NATURAL Linked Our IBM and DEC Environments."



A few of the over 1,400 attendees at the opening general session.



(L to R) Hettie Steyn, Software AG South Africa, Len Israelstam, Software AG Israel and Rozie Israelstam.

REGIONAL REALIGNMENT RESULTS

Colette Farabaugh
Dole Processed Foods
North American Area Representative

The responses to the Regional Realignment survey that went out in December stopped trickling in about March. When all of the numbers were added up, the response turned out to be very good - over 40% of the licensed sites in North America returned questionnaires.

The results, based in part on the numbers, but most especially on the comments, are listed below. I took into consideration comments about travel distance to meetings and made a rough estimate on mileage between user sites and the current region and user sites and the proposed region. I could not factor in such variables as actual location of the meetings, since in most cases they move around, or in air transportation availability. And, to help make several decisions, I contacted a few users and asked some "Would you be able to go to ..." and "Which would be easier for you..." questions.

The recommended changes were approved by both the Regional Representatives and the Executive Committee at the annual Conference, but before the SAGGROUP Constitution appendix is updated the Executive Committee would like to be sure that the newly formed regions will have support from the user community. The users who have volunteered to host the first meetings will be responsible for announcing the meetings, setting an agenda and starting the process of getting a Regional Representative elected. After several meetings, the Representatives will report to the Executive Committee on the attendance and support by users in the Region. Only after it has been shown that the users are supporting the region by attending and participating in the meetings will the change be official and the Constitution updated.

Before I list the new Regional configuration, I'd like to remind you of one very important thing. Any Software AG license holder can attend any Regional meeting, regardless of whether that meeting falls within his regional boundaries. These boundaries are not fences. If a user finds it more expedient to attend the user meetings in a neighboring region, he should do so.

If you would like to be on the mailing list for another Region, write or call the Regional Representative and tell him/her you would like notification of the meetings.

THE RESULTS

- * EASTERN REGION - consists of Virginia, West Virginia, Maryland and Washington, D.C.
- ** DELAWARE VALLEY REGION - consists of Delaware, New Jersey south of Interstate 195, and Pennsylvania (with the exception of Erie).
- * EASTERN GREAT LAKES REGION - consists of New York State (with the exception of the Metropolitan New York Area) and Erie, PA.
- EASTERN CANADA REGION - unchanged.
- HAWAIIAN REGION - unchanged.
- * MIDWESTERN REGION - consists of Minnesota, North Dakota, South Dakota, Nebraska, Wisconsin, Iowa, Illinois, Missouri and Kansas.
- ** EASTERN MIDWESTERN REGION - consists of Michigan, Indiana, Ohio and Kentucky.
- NEW ENGLAND REGION - unchanged.
- * NORTHEASTERN REGION - consists of the Metropolitan New York Area and New Jersey north of Interstate 195.
- NORTHWESTERN REGION - unchanged.
- PACIFIC SOUTHWESTERN REGION - unchanged.
- * ROCKY MOUNTAIN EAST REGION - consists of Montana, Wyoming and Colorado.
- ROCKY MOUNTAIN WEST REGION - unchanged.
- SIERRA PACIFIC REGION - unchanged.
- SOUTHEASTERN REGION - unchanged.
- SOUTHWESTERN REGION - unchanged.
- WESTERN CANADA REGION - unchanged.

Those of you who fall within the new regions should be receiving a notification of the first meeting, to take place in June or July. If you so not receive any notice, contact the appropriate person, listed below.

- * - Existing Region change
- ** - New Region formed

DELAWARE VALLEY REGION

John Tomashunas
Merck & Company
W38M-1
West Point, PA 19486
(215) 661-7096

EASTERN GREAT LAKES REGION

Bonnie Sale
Rochester City School District
131 W. Broad Street
Rochester, NY 14608
(716) 325-4560 ext 2497

EASTERN MIDWESTERN REGION

Kelly Jones
Leaseway Transportation
3700 Park East Drive
Beachwood, OH 44122
(216) 464-3300 ext 2368

If you have any comments, questions or concerns about these new boundaries, please contact either your Regional Representative or myself. □

THIRD ANNUAL UNIVERSITY/COLLEGE MEETING

R.E. Ebeling
Conference Chairman

All university and college users are invited to attend the Third Annual University/SOFTWARE AG User's Group Conference to be held November 2-5, 1986, in Austin, Texas.

This year's conference is being hosted by The University of Texas at Austin and will be headquartered in the recently completed Capitol Marriot Hotel near downtown Austin. The conference committee feels very excited about a program that offers a "little bit of everything" for anyone involved with SOFTWARE AG products from the new beginning to the long time user.

Great care has been taken to structure the sessions to allow ample time for continuing session discussions and for exploring the city of Austin and the surrounding area. Do plan to join us and be a part of the continuing Texas Sesquicentennial celebration!

Mark your calendar now! This will be a great opportunity for you to share ideas and experiences about ADABAS, COM-LETE, and related products/applications, with friends and colleagues.

SAGGROUP SECRETARY POSITION

Carlo Scagnelli
Central Hudson Gas & Electric Corporation

Over the years, many users have asked about the duties and responsibilities of the various SAGGROUP Executive Committee positions. In an attempt to clarify and define these duties and responsibilities, I have outlined a description of the position of SAGGROUP Secretary. Look for articles outlining the other SAGGROUP Executive Committee positions in future issues of this newsletter.

The SAGGROUP By-Laws define the position and duties of the Executive Committee Secretary as follows:

The Secretary of SAGGROUP shall issue advance notice and keep the minutes of Executive Committee meetings. The Secretary shall be responsible for timely response to written correspondence sent to SAGGROUP and for sending minutes of Executive Meetings to the Executive Committee and all Regional Representatives. The Secretary shall also issue a summary of all Executive Committee Meetings to the Newsletter Editor for publication in the next Newsletter.

The key element of the Secretary's position is the accurate recording of discussions at Executive Committee meetings. The annual meeting is held during the international conference with at least one interim meeting held 6 months later at either Software AG's Reston headquarters or Denver. During the meetings, the Secretary may be required to read back portions of prior discussions, motions, etc. Some former secretaries have developed preliminary drafts of the days events each evening so as to be prepared for the following day. This is a personal judgement on the quality of the minutes taken and the individual's personal retention span.

Immediately following the close of an Executive Committee meeting, the Secretary must prepare a complete draft version of the minutes for distribution and review by all members of the Committee. Distribution within Software AG is handled by the Software AG User Group Liaison. Accompanying the draft, the Secretary prepares 2 Action Lists, one each for Software AG personnel and Executive Committee members. These lists identify by individual the 'to do' items cited during the meetings which need to be completed by the next meeting or immediately thereafter. After revisions based on the review, a final corrected version is issued to all original recipients.

A summary version of the minutes is prepared for the Area Representatives who in turn distributes copies to the regional representatives. This change from the duties as described in the By-Laws reduces the mailings required of the Secretary and provides continuity through the appropriate Executive Committee position. This summary may also be forwarded to the User Group Liaison for inclusion in the next issue of the newsletter or further summarized as required. The intent of the newsletter version is to provide all the data necessary for the edification of SAGGROUP members while eliminating the verbiage necessary within the formal minutes to clarify issues for future Executive Committee meetings.

The time involved in preparing and correcting the minutes and related summaries depends primarily on the meeting's length and content. A good rule of thumb is 3 development hours for each meeting hour. Preparation of the conference meeting minutes and summaries can take up to 50 hours. Depending on the accuracy of the first draft, subsequent revisions and final issue usually involve a minimal amount of time. Minutes for the interim meeting take half as much time or approximately 25 hours. (These estimates are based on having some typing ability and using a good word processing system. A totally manual effort would substantially increase the involved time.)

In addition to the minutes, the Secretary prepares required correspondence for Executive Committee members and retains a record of all correspondence received and transmitted. As most Committee members prepare their own letters, this effort is usually minimal and may account for only several hours over the course of a year.

The position of Secretary can be one of the most informative and rewarding on the Executive Committee depending on the individual's degree of involvement. Intense activity surrounds the Committee meetings when concentrated effort is required to expeditiously deliver the minutes. However, the insight one can obtain into the organization of Software AG and SAGGROUP based on the discussions and all correspondence can be significant. □

SAGGROUP EXECUTIVE COMMITTEE UPDATE

Carlo Scagnelli

Central Hudson Gas & Electric Corporation

The Executive Committee's annual meeting was held during the International Conference on May 10-15, 1986 in San Diego. Meeting highlights are included for your information. Should you require more information or clarification on these or other topics, please write me at the address in the rear of the *NEWSLETTER* and a detailed answer will be provided either directly or in future issues.

ANNUAL INTERNATIONAL USERS' CONFERENCE

A new session was added on Monday and Wednesday evenings to provide current users with the chance to communicate directly with Software AG management, product developers and technical staff. The "Open Forum" seemed to be a success based on comments from attendees. Further feedback would be appreciated.

General comments indicated the conference was well received and informative. Although space was a little tight, our growth as a group is a primary factor. This year's attendance of about 1,450 is expected to increase to over 1,700 in 1987.

EXECUTIVE COMMITTEE

Although each open office had at least 2 candidates, it has become evident that more data about the function, tasks, time requirements etc. of each position may help generate interest among potential candidates. It's difficult to justify a candidacy to management without knowing what will be involved. Within the next several months, Buck Shaw will compile an "Executive Committee Handbook" including this information to supplement the descriptions contained in the Constitution. Excerpts will appear in future *NEWSLETTER* issues.

In an immediate effort to further this same understanding, an invitation was extended to the regional representatives to attend this year's luncheon sessions. Several individuals availed themselves of the opportunity and the process will be continued at future international conferences.

SOFTWARE AG

Stu Miller announced several organizational changes within Software AG including the addition of Carlton Crenshaw as Treasurer and Chief Financial Officer, Lin Pearce as Executive Vice-President Sales and Marketing, Bruce Mancinelli as Vice-President Market Development and Hillary Reilly as Executive Director of Information Services.

Ms. Reilly will be responsible for Data Base Administration, Data Administration, MIS and Office Systems within Software AG which are to function as 'end users'. The goal is to use Software AG products in a corporate production environment as do the members of SAGGROUP.

COM-PLETE development and support groups have been merged to provide stronger end user support for the product. In addition, VMS products will be supported by a separate organization given the basic differences from the IBM world. This will be merged into the normal sales organization to provide continuity of service and regional support.

PRODUCT PLANNING AND IMPLEMENTATION GUIDES

New planning and related implementation guides will be issued with release of the products. An amendment may be issued to the recently issued NATURAL Planning Guide if changes are required as a result of the testing process.

PRODUCT SUPPORT

Users receiving 'optional' zaps should remember that these must be reapplied to each new SM or release. The warning message supplied with the zaps will be made more conspicuous in the future.

A new phone system installed in Denver will provide better control of customer calls and reduce in-busy signals. Improved service should also result from organizational changes and increased staff in all product support areas.

Online Service Connection

In order to provide a higher service level and in answer to SAGGROUP requests, Denver has prototyped the 'Service Connection' system to enable Software AG users to dial into Denver. It will contain a User Profile System updated on a voluntary basis by individual users. Down loading of zaps to the user site will be possible. A bulletin board may be available plus data on outstanding fixes, early warnings, 'fair warnings' about known problems, education schedules, SAGTIPS and SAGUTIL data. Access to Technical Support will not be provided. A user panel will be created to review final technical requirements and options. SIG chairpersons and users will be contacted to make up this group and provide up front input into its direction.

Product FIX TAPES Process

The ADABAS post SM release FIX TAPE was part of a pilot project to determine its value to the user. If final feedback is favorable, the concept will be expanded to all product lines. Initial response is highly favorable. FIX TAPES will contain all available zaps to enable users to keep current in the easiest way possible while the purpose of SM releases is to provide a synchronization process to bring ALL uses to one consistent level of product implementation.

Tracking COM-PLETE Temporary Fixes

Distribution fixes for COM-PLETE to individual users and not across the board is part of Software AG's attempt to isolate the problem to one user site. High impact fixes will be distributed to all sites as they become available.

NATURAL 2 Character Name Conversion Utility

A utility will not be developed unless absolutely necessary. Investigation revealed more potential problems could be created than solved including long line generation which would require manual review and could cause significant difficulties. Feedback is needed to determine the effect of the decision.

Currently, compiled programs using 2 character names will continue to work in NATURAL 2, with recompilation necessary to take advantage of new functions, at which time the 2 character names would have to be eliminated.

VM Userid Truncation

This has been corrected and a zap is available.

Storage of ET Data by Batch Name

A user exit will be available in Version 2 to permit users to change the userid to make it unique at execution time. This process will make the procedure consistent with RACF and NATURAL SECURITY.

Centralized Administration Control Facility

If and when developed, the facility will be incorporated into PREDICT. Profile information will either be used directly by subsidiary products via an active dictionary link or down loaded to the systems' profile structures during initialization. A user panel is highly desirable for this item because of its global impact and the need for smooth integration and product interfacing.

Product and Pricing Policy

Stu Miller said the Executive Committee should take credit for the change to the pricing policy for PREDICT ACM. This could have been very detrimental to the Software AG/SAGGROUP relationship but was handled in a professional manner by the Executive Committee who monitored the situation both carefully and completely. The results were truly appreciated by Software AG.



Scheduled Periodic Product Releases

The plan is for smaller, incremental changes rather than major, high impact releases every several years. The intent to accelerate releases is not always possible. There is a trade off between the acceptable degree of change and the resulting effect. One very important aspect of more frequent releases is the absolute necessity that ALL users get up to speed by implementing releases as quickly as possible at their sites.

Marketing Policy

Five new products were announced in San Diego. For these products, a 90 day period will exist when a 20% discount will be available. Since these new products were announced approximately 90 days before release, users will have 180 days in which to work out purchase proposals, obtain funding etc. and still avail themselves of the discount.

On the subject of account representatives, some users have complained of never being contacted. Lin Pearce stated that the ARs MUST be supportive of the users, call on a consistent basis and record gripes as well as 'attaboys'. If problems occur, users should contact the regional manager and escalate to Lin Pearce directly if necessary.

Future Software AG support strategy is to make regional sales offices as self sufficient as possible. Fully 80% of the Denver calls reflect information that is available and these could be handled locally, thereby releasing the Denver support staff to concentrate on the 20% which represent true user problems.

PRODUCT REPRESENTATIVES

ADABAS

ADASCRIP+ users may have to acquire NATURAL to retain the same level of functionality. Currently only 31 U.S. ADABAS customers do not have NATURAL. While ADASCRIP+ will work in Version 5.1, there will be no support nor enhancements to the product so functionality within the product will fall further and further behind NATURAL.

NATURAL

Because of the continuing misunderstanding of the use of the CMP-EXIT, it was explained that use of the feature will cause users to lock themselves out of future facilities. However, Software AG will continue to support the current level but will not provide future enhancements. Many users are shifting away from the feature. A new letter on the CMP-EXIT and Software AG's policy for it will be distributed in the near future.

PREDICT

The PREDICT User Panel has been restructured and will meet with Software AG representatives in the near future.

CHANGE/ENHANCEMENTS

All C/Es through December 1985 were included in the Conference Proceedings. Marty Henderson and Kelly Jones are to be commended for their efforts. The shorter time frame will be retained to let it mature and should reduce the number of items processed once the initial conversion problems are overcome.

Voting will be changed to eliminate the High-Medium-Low categories. Rejected items will be reviewed and the "why" of the rejection taken into account (single user need, Software AG direction, global interest, etc.) before a request is eliminated from the voting process.

TECHNICAL SUPPORT COMMITTEE REPORT

1985 Survey Report Review

Fewer surveys were received than previous years possibly caused by the confusion registered by many users who discarded copies thought to be extra which actually referred to other products. In the next survey, the cover sheet will contain a banner title identifying the individual product to be reviewed.

Overall, SMs were found to be better than in previous years for products other than PREDICT. Technical calls in the "Never Resolved" category were up for ADABAS but down for NATURAL and COM-LETE. Items resolved within 1 week were also up indicating a significant service improvement.

Two additional product surveys will be added for NATURAL and ADABAS (VMS).

Post Conference Distribution

As soon as corrections are made to the preliminary report, a final copy will be released for general distribution in late June or early July.

SAGGROUP INPUT TO PRODUCT DEVELOPMENT

Current and Future Product User Panels

There is a highly acknowledged need and benefit to continue user panels for an expanded field of products in the future. The following progression will be followed to develop and maintain these panels when desired or required.

Individual Software AG Product and Project Managers will contact the specific SAGGROUP Product Representative defining the product, time frame, user base desired etc.



- The SAGGROUP Product Representatives will contact related SIG chairpersons to solicit users willing to devote the needed time and effort.
- Software AG will retain the right to define the operating environment which the user panel must represent.
- SAGGROUP Product Representatives will retain the right to select specific users to fulfill those requirements.

Users who wish to be involved must understand that together with the opportunity to input their ideas comes the responsibility to be active, meeting at least once every 6 months, come prepared and ready to work. This is not to be viewed as a personal C/E session but as a chance to assist in developing the global product directions.

EDUCATION/DOCUMENTATION

Regional Education Capabilities

A regional training facility is opening in the Irvine - Los Angeles area during September 1986. Software AG intent is to have regional training facilities in each of its 20 regional sales locations. Expansion will continue towards this goal over the next several years.

Status of Documentation Rewrite

Progress is being made with new documentation for the VSAM BRIDGE recently issued. The first draft of the NATURAL V2 and ADABAS V5 documentation will be ready for review by July 1986 by a selected user panel.

The documentation group, now staffed by 6 employees, represents Software AG's response to Executive Committee efforts and results of the annual Technical Survey. Given this effort, Software AG feedback as to the results perceived by the user community is essential. The recent PLANNING GUIDE for NATURAL Version 2 was a product of this group.

SM documentation is not very user friendly and reflects its technical origin. This may be developed by the documentation staff after more critical documentation is completed.

The current practice of intermingling DBA oriented and technical material geared more toward the technical staff will be reviewed. It should be separated where possible to eliminate the need to edit out detail to which non data base staff should not have access as well as facilitating the update of manuals. This is possible though some information may have to be repeated.

Within the products themselves, more online help references will be included which may eliminate the need to refer to written documentation in many cases.

Schedule for New Documentation Distribution

PREDICT V2.2 will have new documentation which will be less technical and more user oriented. Documentation for ADABAS and NATURAL will be released with the products. The intent is to have new documentation ready for each product at the point of a major new release with core products coming first.

NATURAL Internals and Tuning Guides

These are in progress and will reflect the NATURAL V2 environment. CICS relationships to NATURAL performance parameters should be included plus which areas should be investigated along with timing improvement suggestions.

General Course Development Status

VMS courses will be announced in June 1986. VAX equipment will be installed to provide hands on training for related products.

NATURAL/ELITE has been introduced with introductory courses including NATURAL FOR THE BUSINESS PROFESSIONAL, INTRODUCTION TO ADABAS and INTRODUCTION TO NATURAL. Additional courses will be added including NATURAL V2 ENHANCEMENTS, NATURAL V2 PROGRAMMING, SUPER NATURAL and CON-NECT.

The NATURAL ADMINISTRATION and PREDICT and DATA DICTIONARY courses have been introduced and have been well received. The PREDICT course was restructured to include a 1 day concepts review and student comments have favorably improved.

All core courses for ADABAS and NATURAL are being rewritten to reflect the new product releases. Project teams have been assigned and development is under way. These will reflect the dramatic differences in product content and may have to be retaken by current users. Courses will relate to various skill levels including BEGINNER, SURVIVAL (necessary skills), INTERMEDIATE (function based) and ADVANCED (problem definition, analysis and performance).

An advanced level DBA SKILLS course is planned to be offered once a year, every year to bring current DBAs up to speed on new features and enhancements to the products. This will deal with very current topics and will be changed at least on an annual basis if not semiannually.

The basic DBA SKILLS WORKSHOP may be expanded to 2 weeks to provide a cookbook oriented "how to" if not "why" training atmosphere. The format met Executive Committee misgivings in that 2 weeks is too long to be away

from one's job. In addition, the exact opposite is needed; a 'crash' course to provide basic skills quickly to the new DBA who hasn't much time to devote to things other than day to day survival. The possibility of developing a 'fast track' course with advanced topics covered later will be reviewed.

CONVERSION WORKSHOPS addressing the new features of both ADABAS V5 and NATURAL V2 will be available about the time the products are released.

NATURAL Administration and Internals Course

The NATURAL PERFORMANCE and TUNING course must be developed to achieve performance in the NATURAL environment before systems are coded, not after, when the task becomes immensely more difficult. The NATURAL ADMINISTRATION course is good but does not address the issues of performance directly.

REGIONAL REALIGNMENT PROJECT

U.S. regional alignments will be permanent pending the formal organization of each of the newly defined or modified regions. Should these fail to become active and viable, regional alignments affected would revert back to their original boundary definitions. Each affected region will be contacted for the results of their election of officers, meeting programs etc.

FUTURE CONFERENCES

In order to maintain the same kind of format and still keep the number of concurrent sessions manageable (the 1986 conference had instances of 7 concurrent sessions in several time slots), alternative arrangements, permanent sites or the use of conference centers will be reviewed.

The 1987 conference is scheduled for October 4-8 in Miami at the Fontainebleu Hotel. The shift to October was necessitated by the impossibility of finding a site with sufficient size during the late spring and early summer months when numerous smaller groups meet thereby reducing the availability of the large contiguous space required for SAGGROUP.

Executive Committee Interim Meeting Schedule and Location

Due to the rescheduling of the international conference to October, the Executive Committee will hold 2 interim meetings. The 1986 fall session will be held at Reston on November 13 and 14, 1986. The 1987 spring session will be held at Denver, April 23 and 24, 1987.

BUSINESS INDUSTRY GROUPS

BIGs will elect one representative to review their need for Executive Committee representation and provide a formal report at the November meeting at which time a course of action as to representation will be decided.

AREA REPRESENTATIVES

Reston as well as Denver personnel can be requested to attend regional meetings including product managers and staff personnel. However, at least 2 to 3 weeks notice is required for scheduling. Regions giving only a few days notice should not get upset if their request is denied.

Customer lists are not available for regional representatives review for contact of users in their region as the information is privileged. Standard procedure is for new users to be sent a package introducing them to SAGGROUP and the individual to contact for further information. The user then initiates the contact to the region. In this way, those users wishing to remain anonymous are protected. ARs could handle this as well as follow up with new customers to insure that they wish to remain confidential and have not just forgotten. Once identified, the regions should handle their own mailings.

ADDITIONAL TOPICS

VMS Product Representative

A request was for direct representation of VMS product users on the Executive Committee. An AD HOC committee was appointed, chaired by John Kaye, Foremost Insurance, to include both the ADABAS and NATURAL product representatives, Buck Shaw, MIT, and Chip Gilbert, Martin Marietta. They will decide on the best form of representation for VMS users and they would report to the Executive Committee in November. Should a final solution not be available by then, Buck will temporarily represent the VMS user base.

Education/Documentation SIG

This SIG has not been active for a long time and a request was received to add an Executive Committee position which could develop user panels as required to review education and documentation requirements. The suggested alternative was to dissolve the SIG. With the advent of new releases from Software AG's new documentation staff, SIG Chairman Mike Miller will be notified of the need for user panels to review the new documentation. The SIG should work through the product representatives to create user panels to carry out its function after which it can be disbanded. If unable to provide the required support, it will be dissolved per specifications within the SAGGROUP Constitution. No position will be added to the Executive Committee. □

EASTERN CANADA REGION

Jan Warren
Consumers' Gas

Eastern Canada's SAGGROUP met on April 1, 1986 in one of the committee rooms of the City of North York Municipal building. Vern De Guerre of the Information Resources department hosted the meeting which was attended by 32 users from 19 user sites.

The meeting began with a brief discussion led by the User's Rep about the upcoming SAGGROUP Executive Committee Meeting, ADABAS and NATURAL training and the election of a new User's Rep. A user has volunteered for the position and will take over the functions of the Rep when approval has been received from his management. This discussion was followed by an enlightening presentation of NATURAL Version 2 given by Ted Venema of Software AG of Canada. It was interesting to see what new features are expected as well as the improvements made in the language itself - it appears that we have a full blown programming language! We are also pleased to see the array processing.

After Ted finished, Mike Ater from Software AG of North America gave a summary of what he has managed to accomplish at Software AG thus far, what he still plans to accomplish and included a list of the products (version and SM's) and their planned time frames for testing and release. Prior to this presentation, Mike was given one-page list of User Concerns. Most of these were addressed in his presentation, however, he did address them individually after his summary.

Lunch was followed by a presentation by Joan Sochor of Arbiter Systems Inc. on their product Arbiter. Arbiter is a financial decision support Software, an easy to use package with tools provided to monitor and model information and forecast the effect of decisions. Arbiter can provide financial modeling, forecasting and budgeting software for IBM and DEC mainframes and IBM Personal Computers.

The last presentation of the day was given by Bob Davis of Royal Trust who recently installed NATURAL/AF and the ADABAS VSAM Bridge. Bob described the Royal Trust environment to provide some background information and went on to describe the installation of each of the two products concluding with the possibilities of the products.

Por Hau Joo from the Institute of Systems Science was elected as the next South-East-Asia Regional Representative.

The meeting ended successfully with a Chinese dinner hosted by SPL for all attendees and some other invited guests. □

WESTERN CANADIAN REGION

Dunc Anderson, Jr.
Investors Syndicate Ltd.

Our April 11th user group meeting as hosted by Alberta Wheat Pool in Calgary, Alberta.

Two new users were announced - City of Calgary and SUNCOR.

A presentation on 'What's New in PREDICT II' was given by Kathi Chiavetta of Software AG Denver Support. Kathi took on quite a few questions on the new facilities in this next release.

Presentations of users' experiences followed.

Les McRae of TransCanada Pipelines Resources Ltd. (TCPL) spoke on a tool they have developed using ADABAS, NATURAL and PREDICT which is used in their data modeling process. Known as MODELLER, this is an on-line application and database which automates the storage and analysis of the organization's conceptual and logical data models.

Buddy Kashuba of the Alberta Solicitor General's Department, shared detail experiences of developing and maintaining the large Alberta Motor Vehicles system. This system has over 50 disk packs (3380s) of storage with a total of over 50 million records. This system is accessed throughout Alberta via over 900 terminals. □

REPORT OF THE FIFTH SOUTHEAST ASIA USERS GROUP MEETING

Ms Pearly Lim
Ministry of Finance

The fifth South-East-Asia Users Group Meeting was held on 20-21 March 1986, at the Institute of Systems Science in Singapore. There were 79 attendees. All the 12 Singapore user organizations were represented, also one representative each from Dow Chemical (Hong Kong) and Asian Development Bank (ADB), Philippines. Five Systems Programming Limited (SPL) personnel were also present to address the users group.

The 2-day meeting began with a 'Supplier Review' by David Needham (SPL). He briefed the users on the current users status and the vendor's support. Koh Kim Tian from the Ministry of Education then shared with us how they made use of menus to submit parameters for running ADABAS utilities in an online environment. Ms. Yap Tuan Bin from the Ministry of Finance spoke on 'Using ADABAS for a Rule-based System'. She gave us some innovative ideas of how an ADABAS file could be used to store rules similar to those used by PROLOG. Ms. Law Sai Lan of the Port of Singapore Authority shared how they analyzed ADABAS commands in 'ADABAS Performance and Tuning'. Steve Dolan (SPL) in his talk on 'DBMS in DDP (Distributed Data Processing) Environment' addressed us on the Software AG products available for networking and distributed processing. After the lunch break, Chiang Chee Seng of the Ministry of Education shared with us on some 'NATURAL Utility' they used, including how they tailored the SYSMAIN utility and incorporated into it some security features. Mike Dunkerley (SPL) then addressed us on some new features of the Software AG new product and releases in his talk 'ADABAS V5, NATURAL V2, PREDICT V2, NATURAL Advanced Facilities - Implementation Considerations'. The first day closed with a talk by Kendrick Ong of ADB. He shared with us "The Kendrick Utilities' they developed.

The second day consisted of presentations from SPL. David Needham spoke on 'ADABAS and the Relational Model'. Mike Dunkerley talked about 'NATURAL CONNECTION V2 - Implementation and Technical Review'. This was followed by Steve Dolan speaking on 'ADABAS/NATURAL (VMS)'. Mike Dunkerley and Brian Tan addressed us on 'NATURAL and the Data Dictionary Management System' and 'Active-Cross-Reference Module'. After lunch, Mike Dunkerley shared with us some 'NATURAL Prototyping Techniques'. Ms. Tay Kay Seok briefed us on 'The Office System', CON-NECT. This was followed by Mike Dunkerley giving us an insight of 'NATURAL Internals'. The final presentation was 'ACCESS' by David Needham.

THE THIRD JOINT CONFERENCE

Hideji Inoue
Dainippon Pharmaceutical Co., Ltd

The 3rd Joint Conference of Software AG Far East Users' Group was held in Kyoto from March 13-15, 1986 with 193 attendees from all over Japan.

It has been 9 years since the Far East Region Users' Group was established. Now, the number of registration for the Users' Group increased to 135 organizations with substantial activities year by year.

Especially, we have been working on research since 1983. Users are separated into a number of smaller groups which conduct research on special topics. Holding the Joint Conference in order to present the result of our own one year's research since 1984, we've got great results by a large number of active attendants.

The conference included the following topics:

LECTURE

On the first day of the Conference, Mr. T. Akagi, a news commentator of NHK (Japan Broadcasting Corporation), gave a lecture on "Software and 5th Generation Computer"; the current circumstance and social situation of the 5th Generation Computer.

PRESENTATIONS OF FOUR USERS' APPLICATIONS

The audience was greatly interested in the following four presentations and many asked the presenter questions:

- (1) 'ADABAS On-line Maintenance System in Kinokuniya Bookstore Co., Ltd.', - the explanation of in-house developed software for database maintenance.
- (2) 'The Establishment of Operation by Women Using A-AUTO (Advanced Automatic Computer Operation System sold by SAGFE (Software AG of Far East))'





- (3) 'In-house Developed Application Interface' - User interface to low-level DML handles ADABAS databases, files, fields, and response codes logically.
- (4) 'The Operation and Information Management of DP Department'

A MEETING FOR MANAGERS

We arranged a special meeting for managers because many attendees were managerial officers. They discussed their own problems in the system department from their point of view.

PRESENTATIONS OF STUDY TOPICS BY EACH RESEARCH GROUP

- (1) Data Dictionary Group: An Approach to Data Dictionary Use
- (2) Performance Group: Issuing ADABAS Tuning Guide
- (3) Distributed Database Group: A Configuration of Distributed Databases and Study of Its Problems
- (4) Database Security Group: The Application of ADABAS/NATURAL Security System to Personnel Management
- (5) DBA Group: Issuing DBA Affairs Guide

- (6) Prototyping Method Group: Issuing Prototyping Guide for Application Development
- (7) Database Design Group: Issuing ADABAS Database Design Guide
- (8) NATURAL Group: The Role of NATURAL in future System Development
- (9) Automatic Operation Group: Automatization of Computer Operation
- (10) Schedule Management Group: Dealing with a Guide to Standard Operation and an Unplanned Job
- (11) Resource Management Group: Effective Resource Use
- (12) Library Management Group: A Basic Idea and Functions of Effective Library Management System and a Guideline for Generalizing It.

After the Conference, documents of each group which were not included in the proceedings, were distributed to the persons who wanted them.

ANNOUNCEMENTS FROM SOFTWARE AG

- (1) Corporate Dictionary: Computer use is divided into three functions, operation center, development center and information center. Corporate Dictionary which connects functions of all these centers is the new idea of the nucleus of 4th Generation Technology supported by Software AG Far East.
- (2) The basic idea of A-GATHER: A-GATHER is a data input management system and simplifies input operations
- (3) Explanation of ADABAS V5.

After the meeting, a banquet was held in a congenial atmosphere including a traditional Japanese dance show which is suitable for old town Kyoto. Also, on the last day of the Conference, attendees enjoyed seeing the sights of Kyoto or playing golf together to cultivate friendships □

FAR EAST REGION ASSIGN

Tadaharu Yanai
Taisei Corporation

The 45th Far East Assign (ADABAS Special Interest Group of Nippon) meeting was held in Tokyo on May 7, 1986 with 55 attendees from 36 organizations.

I reported on an outline of the ASSIGN's activities in 1985 and announced the plans for 1986. Software AG explained the new procedures of the Change/Enhancement requests.

In 1986, we, ASSIGN members, made up seven research groups: DBA, Distributed Database, NATURAL (Standardization), NATURAL (Programming), Prototyping Method, Database Security and Tool Groups. All together 80 persons from 36 organizations registered for the research groups. Each group discussed the theme and plans of study for a whole year.

Also, Kansai District made up three research groups: Performance, Database design and NATURAL Groups.

We'll regularly issue "ASSIGN NEWS", which report the details of ASSIGN's activities, to the ASSIGN members. At the same time, we'll, also, issue them to the Non-ASSIGN users in order to let them know our activities. □

20TH COM-LETE USERS GROUP MEETING

Yuzo Fukumoto
Isetan Data Center

The 20th COM-LETE special interest group meeting was held with 25 attendees from 11 organizations at Isetan Data Center on April 15, 1986.

Mr. Suemasu, Software AG of Far East, reported on the results of a questionnaire of the 3rd Joint Users' Conference. More than 190 people from 88 organizations attended at the conference hosted by Far East Region Users' Group and Software AG Far East in Kyoto in March, 1986. In addition, Mr. Suemasu informed a sales plan of Software AG Far East's new product, PFIT (integrated system for system development and maintenance).

Special interest group members agreed upon the plans for 1986 activities as follows:

(1) A meeting will be held quarterly. Presentations at the meeting have been centered around "Usage of COM-LETE", but starting this year, they also will be centered around "Current Status of Computer Usage in Each Company".

(2) The theme of study for a year will be settled by the results of a questionnaire on the group members.

Finally, three new members were introduced to the attendees. □

HAWAII REGION

David C. Smith
United States Marine Corps

In March, the Hawaii Region held it's quarterly meeting. The Management Systems Office of the University of Hawaii hosted the meeting and provided excellent facilities. Regular business was conducted and the group elected new officers. I was elected to hold the Office of President and Henry Ito will continue as Secretary. In the past, this region has functioned without a Vice-President and Treasurer and, because of our size, will continue to do so.

The Hawaii region will have at least three of our members present at the International Conference. We hope that when they return, a full recount of the conference activities will be presented at our region's next meeting. □

NEW ENGLAND REGION

Buck Shaw
MIT

The third meeting of the 1985 - 1986 season of the New England Software AG Users Group took place on January 16, 1986 at the Sheraton Islander in Newport, Rhode Island. Buck Shaw, President, opened the meeting by introducing Mary Ann Furnald, Software AG Technical Support rep, to answer the QIP's from our November meeting. Anyone who was not in attendance and wants an answer to a specific QIP may call Mary Ann.

Mary Ann announced that an up-to-date complete (as in entire) ZAP listing has been sent out to every User. If someone has not received their copy, they are to call her on this as well.

New Software AG Users introduced were:

- (1) Bozzuto's, Cheshire, CT
- (2) Westvasco, U.S. Envelope Division, Springfield, MA

Also in the audience was a new prospect, Blue Cross/Blue Shield.

Buck next introduced Joyce Maroney (that's Mahoney with an R). You all remember Joyce. She used to be Joyce O'Donnell.

Buck introduced our co-hosts for this meeting, Zimmerman Associates. Patrice Gunderson and Terri-Lynn Thayer, from Zimmerman, were extremely helpful in coordinating the effort with the Sheraton Islander.

Our first speaker was Patrice Gunderson who, along with Terri-Lynn Thayer and Dan Faria, presented how PREDICT was implemented and integrated into the applications that Zimmerman Associates developed for TRICCSMA (the Navy). Their philosophy was to utilize structured development in addition to structured programming. The development cycle included:

- Requirement definitions
- Functional walk through
- Structure walk through
- Functional audit
- Physical audit
- Testing and
- Implementation into production

The database team was involved from the Requirement Definitions through the Logical Modeling (Normalization) to the Physical Model and the creation of the DDM's. The Data Dictionary Team, who created the Standard File prior to the definition of the DDM's, has the not-so-enviable position of keeping everyone honest in the establishing of data elements.

Terri-Lynn Thayer gave us an overview of how PREDICT was adapted to the application. The dictionary was not used just as a data depository, but as a data control area, as a documentation area and as a software change monitor. The integrity of the Data Dictionary was the underlying basis of the integrity of the application system.

Dan Faria, from Zimmerman Associates, then gave us an overview of the NATURAL programs developed in PREDICT that support the documentation and are used to automatically retrieve and inquire against it. Users want a copy of each screen with all possible values, high-lighting, input and output fields.

After a coffee break, Buck Shaw began the second part of the morning with his own presentation on his experiences to date with ADABAS/VMS and NATURAL/VMS for VAX computers. His conclusion was "I like it alot". Pure and simple. ADABAS has been well integrated into the VMS arena plus a few added features. Buck listed a few limitations, as well as the added features. He will be happy to share a hardcopy list with anyone who calls and asks for it. Buck feels that networking DEC computers is less difficult than networking IBM's. Because

MIT has a heavy investment in human resources with existing knowledge of ADABAS/NATURAL and with the advent of new VAX systems being added, it was logical to add ADABAS (VMS) to their portfolio of Software AG products. However, they also did benchmark INGRES against ADABAS and also benchmarked IBM against the VAX and found that IBM took two (2) minutes longer to do a load of the identical file. Support from Reston has been most impressive. He feels Software AG "has a winner here!" □

NORTHWEST REGION

Paul Brogger

Western Library Network

The major topic of the March 7, 1986 meeting was NATURAL administration.

The first presentation was given by Ted Venema (Software AG Canada). Ted summarized NATURAL Version 2—its current status and changes to be expected.

Ted's summary of the major advantages of NATURAL Version 2 included:

- Simplified, powerful array processing
- Larger NATURAL programs will be possible
- Enhanced handling of PE and MU fields
- Simplified subroutine usage

Ted's summary of the major impacts of NATURAL Version 2 implementation included:

- Design of NATURAL systems will be changed under Version 2
- Design standards will become more important under Version 2
- Tuning will become more important under Version 2
- Two-character field names will not be supported by Version 2

Next, the Northwest SAGGROUP officers were elected for the coming year. Jim Hill and Bill Anderson were re-elected as Regional Representative and Program Coordinator, respectively. Steve Bradley is in the running for international Secretary, and was replaced as regional Secretary/Treasurer by Paul Brogger, Western Library Network.

Cathy Lonsdale then took the floor for "Software AG Time" and made several announcement related to Software AG products.

After Software AG Time, a panel convened for the discussion of NATURAL Administration. The first speaker was Bill Rammelsberg of Administrative Computing Services at Washington State University. Bill first talked about WSU's early experiences with NATURAL. It was installed with a front-end and a heavily modified driver program. Early NATURAL coding was not done in accordance with any standards.

Later additions included NATURAL Security (under Version 1.2, SM04), NATURAL/CONNECTION (under SM05), PREDICT (while on SM04), and SUPER NATURAL. Currently, WSU runs NATURAL Security SM06 in production and development CICS regions. The non-security version is no longer available at WSU. They've migrated to an almost vanilla version of the CICS driver. The Buffer Pool Manager was removed from the development region, because changed or upgraded programs are not reflected in the Buffer Pool when they're cataloged. That should be fixed by Version 2.

Because of the multiplicity of on-line systems in place at WSU, their current focus is to simplify signon processing from the user's perspective. WSU is developing a centralized, menu oriented signon system which will require only one signon per user. This will provide a list of available applications at signon time and when any application is exited.

Bill summarized WSU's future direction toward end user tools such as SUPER NATURAL and NATURAL/CONNECTION. WSU expects to make NATURAL applications available to users from several environments such as CMS, CICS, and COM-LETE.

Bill finished with the lesson that WSU's early lack of NATURAL coding standards has hurt WSU over the years of its involvement with NATURAL. WSU's work to remedy that will be discussed in the second panel today.

Next, Bob Hartsell of the Washington Data Processing Service Center, talked about the complexities of NATURAL administration in his large organization. Bob began by saying that in his Service Center environment, with 17 agencies using NATURAL, and running seven MPM's the policy has been to delegate as much data administration and security administration as possible to the users themselves. This, however, conflicts with the architecture of NATURAL SECURITY, which is designed in accordance with traditional, centralized administration. Multiple System or Security files are not implemented for several reasons including the overall limit on the number of files in any ADABAS databases.

WDPSC passes ACF/2 logon id's to NATURAL for use as passwords. Name changes needed to be made in order to make NATURAL Security reporting facilities useful in a shared environment. Some users don't want security, yet they must define security elements.

After a break, another panel convened to discuss NATURAL Programming Standards and Techniques. Darrell Davenport of Administrative Computing Services at WSU presented WSU's draft of "NATURAL Standards and Guidelines", a standards manual under development and drawn from several sources. Bill Anderson followed with a NATURAL Standards document from Washington Department of Labor and Industries. Bill is working on the creation of a new application, and wanted workable standards in place early in his development effort. He emphasized the importance of using a business model as the basis for application and database design.

A short Free-for-All followed, with Jennine Brown, from Denver TSOP, in the "hot seat".

The following items have come about subsequent to the March 7th meeting and are listed here for your information.

- The NATURAL Version 2 Planning Guide is out.
- TSOP confirmed NATURAL Version 2 does not require ADABAS Version 5.
- Regional meeting dates for the coming year are September 5, 1986, December 5, 1986, and March 6, 1987. □

SIERRA PACIFIC REGION

*Bob Irvine
Wickland Oil Company*

The December 3, 1985 meeting was hosted by the County of Sacramento at their facility in Sacramento, California with 34 attendees representing 18 organizations.

Cathy Lonsdale, Software AG, opened the meeting with a presentation on CON-NECT. This was followed by a presentation by Jon Hudson, Database Utility Group, of Nat-Express. To decrease program development time and to aid in the standardization of code, Nat-Express provides a series of model program building blocks for all the basic types of program functions. These blocks can then be modified to include special functions. The system includes standard user help features which are included in the model building blocks as well as providing uniform screen design.

After lunch, Bill Chapman, Software AG gave a presentation on how to expand PREDICT to serve various dictionary functions in addition to the traditional ones. Bill showed examples of how to include PREDICT functions in and around NATURAL programs to enhance the uses of the dictionary.

Following Bill's presentation, Jon Hudson returned to present SPACEMAN, an ADABAS file management system. This system alleviates the manual work required to balance file placement based on input/output activity. The system evaluates data storage requirement, indexes, address converter, free space, and file I/O activity to aid in optimizing database performance.

The next presentator was Jayne Voytek, State of California -Cancer Prevention Section, who shared her organizations experiences of converting to ADABAS using PREDICT in a COBOL environment. Through the use of NATURAL programs which interacted with the PREDICT file, they were able to decrease the amount of manual effort required to do the conversion and were able to better control their environment.

Following the Executive Committee update, Susan Beck, Software AG-Denver Customer Support, provided hints on how to help the Support Center help us. She also distributed handouts on some of the most frequently asked questions and problems.

The meeting closed with the selection of ADABAS Problem Workshop' as the theme for the spring meeting at ATAC in Mountain View, California.

The March 4th meeting was hosted by ATAC at their facility in Mountain View, California with 24 attendees representing 14 organizations

Following the morning break, the business meeting was opened for the purpose of electing new regional officer's. By unanimous vote, Ron Johnson of ATAC was elected Regional Representative and Ronna Slobe of State of Nevada was elected Secretary.

Following the business meeting, the group moved into a round-table workshop on ADABAS problems. With the aid of Joan Lewis, Software AG-Denver Support Center, and Ken Torri, Software AG-Mountain View, a tremendous number of problems and questions were discussed and resolved. Everyone seemed to be very pleased with the results of the workshop and felt it had been of benefit to all involved. □

ADABAS PRODUCT REP'S REPORT

A.C. Roda
PRC

For this edition, I am taking excerpts from a paper and presentation given by Brendan McKenna of Computer Sciences Corp at the annual conference in San Diego in May titled "Experiences in Performance and Tuning". It is my observation that with our fast growing user community, there is an abundance of freshman and sophomores out there who need to hear more of the experiences of some of the senior users. The complete paper is in the Conference Proceedings for those of you who want more detail, especially those users having COM-LETE.

The Business DP Center of CSC has been an ADABAS user since 1980 and now is a 75% ADABAS/NATURAL/COM-LETE shop for production systems. Performance problems arose in 1984 necessitating both hardware and software studies. Both IBM and Software AG participated in studying the problem; the result being a reconfigured and upgraded mainframe environment and a more optimum use of the three Software AG products used. The end result was significantly improved performance and a large reduction in on-line response time. The following are some of the improvements which were made to the ADABAS/NATURAL environments.

A. Application Tuning (NATURAL)

1. They replaced the use of complex FIND's and RETAIN AS with READ LOGICAL's wherever possible. In their situation, they found that in most instances where RETAIN sets were being used, the additional overhead involved in processing the ISN lists outweighed any potential benefits.
2. They eliminated the use of SORT as much as possible by creating superdescriptors. This reduced the amount of work performed with the data before it is ready for use by the program, as in most cases a READ LOGICAL by super-descriptor results in less work being done by ADABAS than FINDING or READING the data and then SORTING it.
3. They used the OBTAIN command rather than the GET SAME for retrieving MU or PE fields, as the GET SAME will issue a call to ADABAS to reread the record, while an OBTAIN ensures that the fields are retrieved with the first call.
4. The DBA staff is now involved throughout the entire development life-cycle process, from initial requirements analysis to final acceptance testing. A performance monitoring tool is used to identify both development and production performance problems.

5. The number of screens for on-line applications were reduced by combining their functionality. Also implemented was the option to bypass hierarchical menus by invoking directly the screen desired.

6. A 'buddy system' was established for new hires unfamiliar with NATURAL. This remains in effect for a new hire until everyone involved is comfortable with the way the programmer uses NATURAL. This, also, is a good way to promote and perpetuate good coding habits.

7. A study of descriptors and their usage showed a reduction of the number of descriptors was in order. It was found that replacing several descriptors with one superdescriptor often had a dramatic effect on performance.

8. The FIND SORTED command was outlawed for all on-line applications due to the excessive I/O it caused and the ease in which it can be abused. On the subject of sorting it was also found that performance could be improved by moving the definition of some variables into an AT START OF DATA clause after the SORT command.

B. ADABAS Tuning

1. Logical ADABAS files were distributed rather haphazardly over physical files during development and testing of applications. To avoid contention problems when the applications go into production, they now distribute the logical files with the heaviest on-line use among different physical files.
2. The ASSOCIATOR and WORK datasets were placed on faster devices than the DATA STORAGE datasets (they had a mix of 3330-1 and 3350 drives at the time). Also, contention among the three WORK dataset areas was lessened by splitting the WORK dataset across three volumes.
3. The size of the LS area was reduced due to no need for on-line sorting and the need for additional storage. The size of the LBP area was adjusted up, then down in smaller increments, until an optimum size was reached (minimum paging rate).

Probably the key element in the performance improvement effort was to reduce database I/O wherever possible. For example, the disk drives now in place are 3380's with zapped block sizes to allow for more efficient database related I/O. Corrective measures cannot be taken unless the proper monitoring and status recording takes place; the use of a performance monitoring tool, as well as the recording of SMF data and RMF monitoring, have proven to be of invaluable aid in improving overall performance. □

ADABAS V5.1

Sue Karlin

Software AG, Customer Service Division

Reflecting back to my first Software AG Users' Conference in 1976, which I attended as a prospective user, I remember paying particular attention to the Software AG presentations about the upcoming releases of V3.2.1 and V3.2.2.

At that time, there was considerable apprehension among users—especially considering the fact that both ADABAS and the DBMS software industry were in their infancy. John Maguire listened to the concerns expressed by users and addressed them at the conclusion of the conference when he announced that from that point on, Software AG priorities for new releases of the ADABAS software would be:

- # 1: Stability
- # 2: Performance
- # 3: New Features

and in that order. That is, new features would be added to continually enhance the product, but not at the expense of stability and performance.

First as a prospective user, then as a user of ADABAS, and now as a Software AG employee, I have been impressed with this philosophy. Over the years, I have learned that users have come to depend on this orientation toward new releases of ADABAS. This is because ADABAS is a critical component in strategic information systems, which in turn represents a sizable investment in time, money, and intellectual effort. While concern for stability and performance is on-going in such production environments, it comes into sharper focus when a new software release is on the horizon. Thus, Software AG's commitment to stability and performance takes on even greater relevance as we prepare for ADABAS V5.1.

Peter Schnell, the creator and developer of ADABAS, has demonstrated his commitment to these priorities throughout the development phases of V5.1. Stability of the DBMS software, and the related objectives of high availability and reliability of the database environment, have been the priority of the development effort for V5.1. A lot of attention has been focused lately on the new capabilities for distributed database management and strengthened conformance to the relational model—those capabilities which

certainly put ADABAS at the state-of-the-art. However, Mr. Schnell assured us at the 1985 Software AG Users' Conference in Nashville that the perhaps more mundane but still critical details of a true 24-hour database environment were built in first and foremost. For example, he described the capability to recover from I/O errors automatically, the capability of reclaiming unused space automatically wherever it may exist, the dramatic improvement in both speed and flexibility of the database backup utility, and the refinements of the database repair/regenerate utility, which are all provided to enable the DBA to maximize availability of the database environment.

Likewise, the quality and stability of the V5.1 software itself is a high priority for all Software AG. It is our goal to release V5.1 with the same high quality and stability as the current V4.1.1 SMO9 software. V5.1 software has already been subjected to extensive testing and will continue through several other layers of quality assurance over the coming months. All of us in the ADABAS Product Support Group, both in Reston and Denver, will be heavily involved in this test cycle, as will others in various departments of Software AG.

Users will also play a prominent role as alpha and beta test participants to test numerous other variables, and to ensure that high quality standards are met before release. Once Software AG's Quality Assurance Group officially releases V5.1 of ADABAS, the ADABAS PSG plans to publish an Implementation Guide based on the results of our pre-alpha, alpha, and beta test experiences. The purpose of this guide will be to facilitate the conversion effort by documenting the experiences of others.

Second only to stability is the priority for ADABAS performance. Those of you who have heard Mr. Schnell speak, know he prides himself on the fact that ADABAS is widely recognized as a high-performance DBMS. V5.1 will indeed continue this legacy and will surpass even the high-performance standards set for V4.1.1.

In general terms, there are three basic ways in which the performance of computer software must be improved:

- by reducing the runtime path length (which, in turn, affects both CPU and elapsed times),
- by reducing the number of I/O operations, and
- by minimizing non-productive WAIT conditions.

At this year's Users' Conference in San Diego, Mr. Schnell devoted his keynote address to these issues as they relate to ADABAS V5.1 performance. He observed first of all that 50-65% of the CPU time used for an ADABAS call is used by IBM macros for the move and post processing done by the SVC, whereas only 35-50% is actually used by ADABAS. He indicated frustration that his attempts to optimize could really only affect about half of the total CPU time. Nevertheless, significant reductions of CPU and elapsed times have been achieved by using EXCP instead of BDAM I/O in V5.1. Average CPU for BDAM I/O was found to be 2.2 ms, compared to 1.03 ms. per EXCP, so the CPU required for I/O in V5.1 will be roughly half what was required with V4.1.1.

In addition, all internal algorithms have been optimized (e.g., the format translation algorithm has been improved by a factor of 5) and new algorithms have been introduced (e.g., search algorithm 3). Not only will CPU usage decrease as a result, but V5.1 will make better use of the CPU by becoming totally event driven. Events such as a new entry in the Command Queue or execution of a modify command will activate the ADABAS Nucleus, in addition to the completion of I/O operations. This will allow for optimal overlap between I/O and CPU usage. As a result, V5.1 systems should experience an improvement in performance over V4.1.1, which relied on STIMERs and a single ECB. Systems which run on the faster CPU, in particular, will achieve the greatest performance gain.

Decreasing the number of I/O operations was also a tactic used by Mr. Schnell to improve overall performance. In particular, the number of I/Os to the WORK data set will be significantly reduced in V5.1. These I/Os are the most expensive to the user, as everything must wait for these I/Os to be completed. First of all, I/O to the Protection Area of the WORK data set will be reduced by the Nucleus processing all ET-commands in the Command Queue prior to writing the Protection Buffer. Secondly, I/O to WORK-Part-2 will be reduced through the use of search algorithm 3. And finally, I/O to WORK-Part-3 may be minimized by adjusting the number of ISNs kept in-core for GETNEXT processing. This total reduction of I/O to the WORK data set should significantly improve ADABAS performance.

Other performance bottlenecks in the V4.1.1 software have been analyzed in order to improve further the new V5.1 software. These bottlenecks typically involve the use of resources which are shared by multiple users and, therefore, can potentially create contention. In the Internal Format Buffer Pool within the Nucleus region, there is often great contention for space. With V5.1, format buffers will be translated into internal format buffers in the Work Pool first, where plenty of space is available for the life of a command. After translation, the IFB will be moved into the Internal Format Buffer Pool. As a result, both overwrites and RSPO42 conditions will be eliminated with a resultant savings in both CPU and elapsed times per command. The use of shared Command IDs in V5.1 will allow multiple users to share an IFB, thereby reducing the space requirements for the IFB Pool (LFP parameter), as well.

The ADABAS Buffer Pool is perhaps the most critical component for good overall performance of an ADABAS system. If properly allocated and tuned, the Buffer Pool can indeed be a virtual database in-core requiring only minimal access to external storage devices. This has the potential of significantly reducing both the total CPU and I/O requirements for the ADABAS Nucleus, with a general improvement in response times overall. To accommodate this goal, V5.1 will allow very large Buffer Pools for MVS/XA users who want to take advantage of their expanded addressing capability beyond the traditional 16 meg. In addition, a new parameter will allow users to influence the buffer flush frequency and the Nucleus itself will dynamically tune the buffer flush frequency to optimize performance.

Finally, the V5.1 Nucleus will provide accounting and performance statistics which will eliminate the need for clumsy formulas and the guesswork that goes on today. The ADABAS Nucleus is obviously best equipped to determine such things as CPU times per session, to display high-water marks of its internal queues and pools, and to provide any real-time monitoring necessary to provide insight into ADABAS performance. And, in V5.1, the Nucleus will do so in conjunction with ADABAS Online Services.

In conclusion, then, as V5.1 of ADABAS unfolds in the near future, those of us at Software AG look forward to sharing our excitement about the stability and high-performance of our latest release into the realm of state-of-the-art systems software. □

ADABAS POST-SMO9 FIX TAPE: A PILOT PROJECT

Stan Gowin

Software AG, Customer Service Division

In direct response to requests from you, our customers, Software AG is experimenting with the way in which we supply product fixes.

Our first ever, machine-readable fix tape has been shipped to all of you who are ADABAS customers, enabling you to apply Post-SMO9 fixes easily. In addition to the tape itself, we also shipped fix documentation, sample job-streams for downloading the tape and applying the fixes, and a questionnaire.

Machine-readable tapes mean virtually no chance of error in applying fixes and, of course, you do not have to apply each fix manually. Currently, our most common procedure for supplying a fix is for one of our Customer Support Representatives to read it to you over the telephone. You either key it in then and there, or write it down and key it in later. In either case, this process invites errors and takes time.

Early responses to this first fix tape have been very favorable; however, it will be a while before all responses and comments can be analyzed to determine the future of such tapes. Since this is a pilot project, we are looking for constructive input from you to help guide us in our decisions regarding future fix tapes for ADABAS, as well as for our other products. For that reason, we urge you to complete your fix tape questionnaire and return it to us as quickly as possible. □

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NATURAL VERSION 2.1: A Case of Evolution

*Jon Church
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During the last seven years, Darwin's theory of evolution has been reconfirmed. Despite a fiercely-contested battle for supremacy in the 4th generation world, NATURAL has emerged as the fittest and most adaptable. The release of new Version 2.1 will enable NATURAL users to witness the dawn of a new era in 4th generation technology. With a wide range of features, significant enhancements to existing features, and performance improvements in all aspects of operation, Natural V2.1 promises to be "the one to beat" in the eighties!

At the application development level, a significant number of new tools exist in Version 2 which dramatically reduce program development time. A new MAP generation utility is available which not only simplifies the creation process by allowing fields to be "extracted" from user views and predefined data structures, but allows all data validation rules to be stored in the map, reducing program size considerably.

The ability to "CALL" a NATURAL V2.1 program from another NATURAL program will radically change the way systems will be developed. No longer will programmers be required to place every functional block in one program. No longer will a programmer have to panic when his code exceeds the storage limits of NATURAL and must be broken down. Now system-wide subroutines may be invoked from any program at any time!

In addition, all data structures may be defined before program development begins, enabling a programmer to organize better the data requirements of the application. Both data base fields and user variables may be placed into a Global Data Area, making these values accessible for all programs in the system. In this way, NATURAL V2.1 not only supports the concept of a "top-down" design philosophy, but encourages its use!

Array processing is another major new feature of NATURAL V2.1. The ability to index variables and data base fields in all areas of NATURAL syntax eliminates the need for simulated multi-dimensional data operations. Software AG need no longer be defensive about the "non-user friendliness" of NATURAL's table handling capabilities. In fact, the method of defining and accessing arrays in NATURAL is now easier and more powerful than the very languages with which it used to be contrasted.

The extensions to existing functionality are powerful and diverse. New terminal commands, plus extended I/O and text processing statements, are several of the many new ways the NATURAL language will be improved. With Version 2.1, we introduce concept of "windowing", or using a portion of the terminal as the means for communicating with NATURAL. Using either terminal commands or NATURAL syntax statements, all input and output of data to the screen will be conducted through whatever "window" the user defines. The window defined by the programmer may be any portion of the screen needed to display or input information. With this new feature, it is possible to emulate many PC-based "pop-up" help information screens within mainframe applications, as well as enhance the "concurrent processing" ability of any NATURAL application.

The INPUT statement will be improved so vastly that it alone may replace many lines of existing NATURAL code. Dynamic attribute modification will eliminate the need for multiple maps to allow selective data input and validation. Imbedded attribute characters and use of the EXAMINE and SEPARATE verbs will allow a tremendous range of test manipulation and display operations to be handled by NATURAL in VERSION 2.1.

With all of this new functionality, it should be obvious that the NATURAL processing environment has become considerably more complex than the 1.2 system. Fortunately, significant steps were taken to prevent this increased complexity from having a negative effect on performance in NATURAL Version 2.1. Most apparent will be the reduction in processing time for simple operations in Version 2.1. A new step in the compilation phase of NATURAL will be introduced. This second step may be thought of as an Optimizing Compiler in the sense that it will scan the product of the NATURAL syntax check and replace NATURAL's pseudo code with 370 machine code. The execution of simple operations will now be accomplished with one instruction, instead of what may have been hundreds of instructions in V1.2. This optimizing step has been shown to reduce processing time by as much as 70% for NATURAL programs performing simple arithmetic and move operations.

For users of NATURAL in remote locations, where the efficiency of operation is dependent upon how much data is transmitted down the telephone line, Version 2.1 will deliver nearly unbelievable performance improvements. By improving the way a data stream is constructed, Version 2.1 is able to reduce the average number of characters transmitted by 60% or more! This savings will reduce the amount of data being sent to the remote device, thereby reducing contention for the phone line and for the communication software at either end of the transmission.

The list of improvements and performance enhancements is long and impressive. Suffice it to say that Version 2.1 will create ripples in all aspects of the programming world: from administrators to end-users, from system programmers to application designers.

The power and flexibility of the NATURAL system will be greater than ever before. And isn't that the way it should be? After all, as Darwin might have put it, evolution is the process of NATURAL selection.. □

NATFLOW

Steven R. Cownie
Morgan Stanley & Company

Several years ago, Morgan Stanley & Company, Inc. MIS made a commitment to do virtually all of its programming in NATURAL. We were on the verge of writing a trade processing system which we have since completed and are now in the process of marketing. In addition to being a powerful tool for application development, NATURAL has been very useful to the DBA group. We have written ADOP - a DBA/Operations/Systems Development online facility which performs over 20 separate functions. The purpose of this article is to describe one of the ADOP functions.

Reviewing a NATURAL application program for inefficiencies or debugging purposes can be quite time consuming. In our environment, over 95% of our programs (in excess of 20 thousand) are written in NATURAL and we have a staff of six people who regularly audit and review code. We wanted to provide a tool that would assist in identifying the nesting levels in a program and provide a cross reference facility similar to the one provided by compilers, assemblers, etc. We wanted something that would be useful to both DBA and programmers.

Figure A

Report Syntax

OPXX = (LOOP, DO) CLXX = CLOSE (LOOP, DO) SWTLP CLOSE A LOOP/DO & OPEN A LOOP/DO ON SAME LINE

XXDO = DO LOOP, CLLP = CLOSE ANY LOOP, OPFR = OPEN FOR LOOP, OPFD = OPEN FIND LOOP, OPHT = OPEN HISTOGRAM LOOP, ETC.

```

LIBRY/PROGM/RECORD      0010 RESET #START-CUSIP(A9) #END-CUSIP(A9) #CALL-COUNT(N7) #RETURN(N7)
SUBRT OR FUNC LOOP      0020 RESET #MONTHS(A36) #CURR-MONTH(A3) # VALUE(N15)
FILE ACCESS CODE 10987654321 0030 REDEFINE #MONTHS(#MONTH(A3))
                                0040 MOVE 'JANFEBMARAPRPMAYJUNJULAUGSEPNOVDEC' TO #MONTHS
                                0050 ★
                                0060 DEFINE SUBROUTINE #SET-CUSIP-RANGE
                                0070 INPUT 'ENTER STARTING CUSIP #START-CUSIP /
                                0080 ' ' ' ENDING CUSIP ' #END-CUSIP
                                0090 IF #START-CUSIP > #END-CUSIP
                                0100 REINPUT WITH 'START VALUE MUST BE LESS THAN OR EQUAL TO END VALUE
                                0110 RETURN
SUBRT #SET-CUSIP-RANGE    0120 ★
                                0130 DEFINE SUBROUTINE #READ-SECURITY-FILE
                                0140 READ PRODUCT-SECURITY-FILE WITH-CUSIP = #START-CUSIP
                                0150 IF CUSIP GT #END-CUSIP
                                0160 ESCAPE
SUBRT #READ-SECURITY-FILE 0170 IF CALL-DATE = ★DATE
>FILE ACCESS>OP RD -----R 0180 DO
                                R 0190 ADD 1 TO #CALL-COUNT
                                R 0200 CALL 'INTEREST' CUSIP #RETURN
                                R 0210 FOR X 1 12
                                OP DO -----DR 0220 MOVE INDEXED #MONTH <#X> TO ±CURR-MONTH
                                DR 0230 ±VALUE = RETURN ★ (1 / #X)
                                CALL DR 0240 WRITE #CURR-MONTH #VALUE
2OP FR -----FDR 0250 LOOP
                                FDR 0260 DOEND
                                FDR 0270 LOOP
                                FDR 0280 RETURN
                                FDR 0290 ★
                                CL LP -----FDR 0300 ★ MAINLINE
                                CL DO -----DR 0310 ★
                                CL LP -----DR 0320 PERFROM #SET-CUSIP-RANGE
RTURN #READ-SECURITY-FILE 0330 PERFROM #READ-SECURITY-FILE
                                0340 END

```

Figure B

USER DEFINED VARIABLES	DEFN	REFERENCE			NATURAL RESERVED WORDS	REFERENCE
#CALL-COUNT	0010	0190			{	0220
#CURR-MONTH	0020	0220	0240		★	0230
#END-CUSIP	0010	0080	0090	0150	★DATE	0170
#MONTH	0030	0220			}	0090 0220
#MONTHS	0020	0030	0040		=	0140 0170 0230
#RETURN	0010	0200	0230		ADD	1090
#START-CUSIP	0010	0070	0090	0140	CALL	0200
#VALUE	0020	0230	0240		DEFINE SUBROUTINE	0060 0130
#X	0220	0230			DO	0180
SUBROUTINES	DEFN	PERFORMED			DOEND	0260
#READ-SECURITY-FILE	0330	0130			END	0340
#SET-CUSIP-RANGE	0320	0060			ESCAPE	0160
NATURAL RESERVED WORDS	REFERENCE				FOR	0210
WITH	0100	0140			GT	0150
WRITE	0240				IF	0090 0150 0170
I	0210				INPUT	0070
ADABAS FILES	REFERENCE				LOOP	0250 0270
PRODUCT-SECURITY-FILE	0140				MOVE	0040
ADABAS FILES	REFERENCE				MOVE INDEXED	0220
CALL-DATE	0170				READ	0140
CUSIP	0140	0150	0200		REDEFINE	0030
PERFROM	0320	0330			REINPUT	0100
					RESET	0010 0020
					RETURN	0110 0280
					TO	0040 0190 0220

NATFLOW was developed to meet those needs. It consists of two major components - both written in NATURAL. The first component maps the flow of the program. The output (as seen in Figure A) is a listing of the NATURAL code by line number with a running documentary to the left of the source statements. By scanning the left side of the output, one can follow the nesting levels of the program and quickly identify subroutines, loops, and ADABAS file accesses.

The second component of NATFLOW is a comprehensive cross reference of the NATURAL program. The cross reference (as seen in Figure B) shows the line of definition and line references for user variables, ADABAS fields, ADABAS files, subroutines and NATURAL reserved words. This is extremely helpful when debugging programs.

NATFLOW runs in batch, but we have written an online interface which prompts for the accounting information, the library to NATFLOW from the program(s) to NATFLOW. This online facility then builds the JCL required and submits a job through an internal reader.

The usage of NATFLOW exceeded even our high expectations. The systems development staff has made it a "standard" and have executed it over 100 times a day over the past year. Considering how difficult it is to enforce standard programming practices, NATFLOW's universal acceptance is a welcome change. □

NATURAL/ELITE SOLVES CUSTOMER TRAINING PROBLEMS

Susan Kaplar

Software AG, Customer Service Division

NATURAL/ELITE, Software AG's computer-based training system, was released in late April of this year. Since then, over thirty Software AG customers have purchased it, and more are planning their purchases soon. ELITE was demonstrated to over 300 users at this year's Software AG Users Conference in San Diego, and was well-received by those who saw it.

NATURAL/ELITE is a flexible training tool. It enables you to learn at your own pace and as your own time permits. ELITE courses are designed to be taken in the privacy of your office when it is most convenient for you. The courses are set up so that it is easy to exit a course and practice what has just been explained. It's also easy to resume the course where you left off or, if you need to stop altogether, it's easy to go back to the lesson at a later time.

The four components of NATURAL/ELITE add to its flexibility. The **Administration** component enables the course facilitator to oversee the whole program and to tailor it to the specific needs of the individual. The **Presentation** component is used by the employee to take the course, while the **Courseware** component is the actual course instruction you view via the Presentation component. The **Aux (Authoring)** component allows courses to be modified or changed to suit the needs of your company or personnel, and it also enables new courses to be created through a simple menu-driven process.

Most NATURAL/ELITE customers have purchased the Extended Functions package (including the Authoring component). Until now, one of the biggest training concerns of Software AG customers has been teaching data entry personnel to use the applications they have written in ADABAS and NATURAL. Now, using the ELITE Authoring system, you can write your own courses to meet your own needs. In addition to "computer-related" training, several of our customers have already said they plan to use NATURAL/ELITE to write courses for their own company-wide use — courses such as "How to Fill Out Your Expense Report" and "An Introduction to the Products and Services of ABC Company."

During the next fiscal year, Software AG is planning to write the following new courses for NATURAL/ELITE: SUPER NATURAL V2, NATURAL V2 Upgrade, ADABAS Concepts and Facilities, ADASQL, COM-LETE/COM-POSE, and PREDICT. ELITE course developers will also be re-writing current courseware to reflect new versions of our products (at no additional cost to users). To meet these development schedules, the number of NATURAL/ELITE staff members will soon be increased.

NATURAL/ELITE is a powerful, flexible, mainframe-based learning system that enables you to provide individualized training to any number of employees. It is easily integrated and its programs, written in NATURAL, are easy to install and run.

For more information about NATURAL/ELITE, contact your Account Representative. □

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COM-LETE PRODUCT REP'S REPORT

*Ron Hoover
Penn State University*

The 15th Annual International Software AG User's Conference is now history. I hope everyone returned home safely and is settled in for the long wait for the next conference in the Fall of 1987. I enjoyed meeting many of the people I have talked with throughout the year. It is always nice to put a face with the voice. I hope to hear from many more of you COM-LETE users this coming year.

As usual, there were many announcements made at this year's conference. Distribution of SM3 of COM-LETE should begin in June, 1986. Release 4.4 of COMPLETE is scheduled for release this Fall. With the release of COM-LETE 4.4 and NATURAL V2, Software AG hopes to implement a change enhancement request that will permit thread switching of NATURAL programs. If you are a heavy NATURAL user, this change could provide some significant performance improvements through the reduction of COM-LETE thread queues. We have seen occasions when COM-LETE thread queue time accounted for over half the response time our users were experiencing.

Another announcement made at the conference was for a new product, COM-POSE. COM-POSE is a subset of COM-LETE that provides CICS users the full range of capabilities now available to COM-LETE users. These capabilities include:

1. NATURAL support
2. System and user utilities
3. Integration with RACF, ACF2 and NATURAL

I hope you will all join me in welcoming George Petrowsky of Boston University as chairman of the COM-LETE Performance and Tuning SIG. If you have any interesting information or experience with COM-LETE performance or tuning, let George or myself know about them so we can share them with other COM-LETE users. □

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PREDICT PRODUCT REP'S REPORT

*Thomas R. Bradbury
Hay Computer Services*

The PREDICT SIG held it's meeting during the Workshop at the San Diego Conference. The following members agreed to help as follows: Barbara Knight, Lukens Steel, will be the PREDICT Chairman. Frances Osteen, E.I. DuPont, the Assistant Chairman. Terri-Lynn Thayer, A.M.A., will be the tools tape coordinator, and Bill Gohs, Leo Burnett Advertising, will maintain a current list of members

Bill, also has a list of members who are interested in organizing a committee to discuss with Software AG any problems with PREDICT.

V2.1 of PREDICT including ACM is "in the mail". If you installed Version 2.1 without ACM, be prepared for another conversion.

There are still a large number of users on the Pre PREDICT Dictionary. If anyone has a set of programs that convert this data to V2.1, please get them on our Predict Tools Tape.

I learned the following at the conference. The next version of NATURAL to be released will be SMO7. This version will be a bridge. After its installation, V2.2 of PREDICT will be required (plus new versions of other NATURAL related products). Then, NATURAL V2.1 can be installed.

Copies of the Kendrick Utilities, V2, are available free of charge by sending a blank floppy disk to:

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P.O. Box 3193
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Phone 305/ 236-9645. □

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QUALITY ASSURANCE: A TOP PRIORITY AT SOFTWARE AG

Larry Cook
Software AG, Customer Service Division

At Software AG, quality assurance (QA) procedures are a top priority and an integral part of product design and development.

As Director of Quality Assurance, I oversee a staff whose mission is to "improve the quality of Software AG products and service by effectively and independently reviewing, testing, and certifying all products and their components prior to distribution to Software AG customers."

The QA Group oversees all three stages of product testing:

Alpha:

Internal and selected customer testing of the rough product

Beta:

Software frozen, test to fine-tune the product and its components (documentation and education)

Pre-release:

Final QA test prior to a product's release

These tests involve three areas: the product itself, the documentation, and the education requirements of both Software AG's staff and customers. How does Software AG's QA Group achieve its goal?

1. By testing all products.
2. By testing all product components, including the product itself, documentation, and education. This is an on-going process that includes an in-depth focus on the software product in terms of ease of installation, performance as advertised, and reliability. Documentation tests include a review of organization, completeness, accuracy, and usability. Education testing addresses training of the Denver Customer Support Staff, training for all technical employees in every satellite office, and meeting training requirements for customers.
3. By implementing effective test methods and tools. This is addressed through the continuing restructuring of the customer test processes, as well as by the recent procurement of comparison testing software. It allows the QA Group to automate much of its compatibility testing.
4. By measuring product field performance during all phases of testing. Problems entered in Software AG's TSS system and/or noted on a product report card are investigated and resolved.

We at Software AG strive constantly to ensure that every product we sell continues to set software standards. We know you expect nothing less of us. □

DOCUMENTING OUR PROGRESS TO DATE

Nan Siegel
Software AG, Customer Service Division

Software AG's Documentation Group, which officially came into being six months ago, is working furiously on a wide (you might even call it monstrous) range of projects. Some of the document sets currently "in the works" are the NATURAL PRODUCTIVITY CENTER, COM-POSE, ADABAS/DL1 Bridge, ADASQL, NET-PASS, ADABAS/TOTAL Bridge, CON-NECT, and REVIEW. The group is also working with Rick Josephs and his Software AG Darmstadt Documentation Department to build new and improved NATURAL and ADABAS documentation.

The new group currently has a staff of six, including a coordinator, three writers, and a manager/writer and brings a terrific mixture of enthusiasm and expertise to the task of creating usable, friendly documentation for all of Software AG's products.

Pat Dryden, Documentation Coordinator, is a five-year veteran of Software AG, where she has put in many long hours creating revisions and update packages. Pat deserves a great deal of credit for her unflinching efforts to keep track of the morass of information that is our documentation—especially during the past few years, when the documentation efforts were fragmented, at best. Pat is now in training as the group's system administrator for the new Interleaf publishing workstation.

Susan Elrod, Documentation Specialist, has worked in technical documentation with a variety of software and hardware companies, including Computax Systems, Computer Sciences Corporation, Adsoft (a division of United Telecommunications), and Access Engineering Corporation. She has worked on marketing materials and proposal development as well as user documentation, covering a range of products from alarm monitoring software to data multiplexers.

As an independent contractor Kathy Norvell, Documentation Specialist, developed user documentation for several systems based on the PC as well as documentation for law enforcement software systems for HADRON, Inc. She has done proposal work as well as technical writing and has documented a variety of hardware, including DEC VAX/VMS, Hewlett Packard, and IBM.

Jeff Cleaton, Documentation Specialist, has worked with an audiovisual production company and with a small-town newspaper. He has served as a technical information advisor for ComCorps, located in Washington, D.C. and as a reporter/photographer for the Brunswick Times-Gazette.

Nan Seigel is acting as Manager for the group—with a large dose of writing thrown in just to keep her in practice. Nan was for two years the only technical writer at Software AG. During that time she worked on documentation for NATURAL/CONNECTION Versions 1 and 2 SUPER NATURAL, REVIEW, ADABAS/VSAM Bridge and a few others that have slipped her mind. □

Future Newsletter Issues

November 1986 Newsletter
copy due September 5, 1986

February 1987 Newsletter
copy due November 21, 1986

SOFTWARE AG PRODUCT STATUS REPORT

Bruce Mancinelli
Software AG, Product Marketing

This Product Status Report, to be updated quarterly, is being offered as a regular feature of Connections in order to advise you as to which products Software AG has released recently and which are scheduled for release in the near future.

Software AG's goal is to provide you with products that perform as you expect them to perform, and sometimes that can mean a delay in release while last-minute bugs are fixed or changes are incorporated. It is, therefore, important to note that all target release dates are as accurate as possible at press time, but are subject to change without notice.

Released: January 1 to May 31, 1986

PRODUCTS

NATURAL AF	February 1986
NATURAL/ELITE	April 1986
ADABAS CMS IOR	May 1986
ACCESS	May 1986
COMPOSE	May 1986

VERSIONS

NATURAL/CONNECTION V2	January 1986
PREDICT V2 (OS/DOS)	January 1986
ADABAS VSAM Bridge V2	March 1986

SYSTEM MAINTENANCE RELEASES

ADABAS Fix Tapes	May 1986
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Scheduled for Release:

June 1, 1986 to January 1987

PRODUCTS

TOTAL Bridge
In beta test
Target release date: November 1986

NATURAL DL1
In alpha test
Target release date: October 1986

ADASQL
In alpha test
Target release date: November 1986

NATURAL Productivity Center
In beta test
Target release date: October 1986

NATURAL Modeling
In alpha test internally
Target release date: January 1987

VERSIONS

PREDICT V2.2
In alpha test
Target release date: October 1986

SUPER NATURAL V2
In alpha test
Target release date: October 1986

REVIEW V2
In beta test
Target release date: October 1986

NATURAL V2
In alpha test
Target release date: January 1987

Tools Tape Versions

Tools tapes contain user-written programs and documentation. The material on each tape is not maintained by Software AG: the tapes are distributed as a service to licensed users of Software AG products. Requests for Tools Tapes should be submitted using the Request for Tools Tapes form in this newsletter. Current versions are:

DBA Tools Tape Version 8504
DOS DBA Tools Tape Version 8504
COM-LETE Tools Tape Version 8306 □

SOFTWARE AG USERS' GROUP TOOLS REQUEST FORM

REQUEST

Any licensed user of Software AG products may request a copy of the DBA (for ADABAS & NATURAL) Tools or the COM-LETE Tools.

Complete the information below and send to: Users' Group Liaison, Software AG of North America, Inc.
11800 Sunrise Valley Drive, Reston, VA 22091 USA

Send: DBA Tools Tape (for non-DOS users) DOS DBA Tools Tape (for DOS users) COM-LETE Tools Tape

Note—Both of the above DBA and DOS DBA Tools tape contain the same set of tools. The only difference is the DOS, DBA Tools tape is DOS readable.

Ship to: (Please type or print)

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Bill To: (A cost of \$50.00 U.S. and \$75 International is charges for each of the above tapes that are shipped.)

Send invoice to SHIP TO name above Send invoice to person below (Please type or print)

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- Change of Address (attach old label)
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- Delete Current Name (attach old label)

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Software AG of North America, Inc.
11800 Sunrise Valley Drive
Reston, VA 22091

Users Outside the U.S. Send to:

Your Software AG Distributor or Affiliate

First Name	<input type="text"/>	Middle Initial	<input type="checkbox"/>	Sur-name	<input type="text"/>
Your Title	<input type="text"/>				
Company Name	<input type="text"/>				
Division	<input type="text"/>				
Street 1	<input type="text"/>				
Street 2	<input type="text"/>				
Street 3	<input type="text"/>				
City	<input type="text"/>	State	<input type="text"/>	Zip	<input type="text"/>
Country	<input type="text"/>				
Tele- phone	<input type="text"/>				

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Luxembourg
0352-481414



CHANGE/ENHANCEMENT FORM

ADABAS

- | | | |
|--|---|---------------------------------------|
| <input type="checkbox"/> ADABOMP | <input type="checkbox"/> MPM/NUCLEUS | <input type="checkbox"/> SECURITY |
| <input type="checkbox"/> CTCS | <input type="checkbox"/> NET-WORK | <input type="checkbox"/> UTILITIES |
| <input type="checkbox"/> DOCUMENTATION | <input type="checkbox"/> ONLINE SERVICES | <input type="checkbox"/> VM |
| <input type="checkbox"/> INTERFACES | <input type="checkbox"/> PERFORM. & ACCTG | <input type="checkbox"/> ADABAS (VMS) |
| | | <input type="checkbox"/> OTHER |

COM-PLETE

- | | | |
|--|---|--|
| <input type="checkbox"/> COM-PASS | <input type="checkbox"/> NUCLEUS | <input type="checkbox"/> TERM. SUPPORT |
| <input type="checkbox"/> DOCUMENTATION | <input type="checkbox"/> PERFORM. & ACCTG | <input type="checkbox"/> UTILITIES |
| <input type="checkbox"/> FILE I/O | <input type="checkbox"/> SECURITY | <input type="checkbox"/> USER EXITS |
| <input type="checkbox"/> INTERFACES | | <input type="checkbox"/> OTHER |

NATURAL

- | | | |
|--|---|--|
| <input type="checkbox"/> DDM & DB | <input type="checkbox"/> LANG. FUNCTIONS | <input type="checkbox"/> SYSTEM FUNCTION |
| <input type="checkbox"/> DOMUMENTATION | <input type="checkbox"/> LANG. INTERFACE | <input type="checkbox"/> TP & OS INTERFACE |
| <input type="checkbox"/> EDITOR | <input type="checkbox"/> CON-NECT | <input type="checkbox"/> SECURITY |
| <input type="checkbox"/> EDUCATION | <input type="checkbox"/> PERFORM. & ACCTG | <input type="checkbox"/> 'SYS' FUNCTIONS |
| <input type="checkbox"/> GRAPHICS | <input type="checkbox"/> SYSTEM PARAM. | <input type="checkbox"/> SUPER NATURAL |
| <input type="checkbox"/> I/O | <input type="checkbox"/> NATURAL/CONNECTION | <input type="checkbox"/> NATURAL (VMS) |
| | | <input type="checkbox"/> OTHER |

PREDICT

- | | | |
|--|---|---------------------------------------|
| <input type="checkbox"/> CROSS REFERENCE | <input type="checkbox"/> INTERFACES | <input type="checkbox"/> USER SUPPORT |
| <input type="checkbox"/> DOCUMENTATION | <input type="checkbox"/> MODELING | <input type="checkbox"/> UTILITIES |
| <input type="checkbox"/> EDITOR | <input type="checkbox"/> PERFORM. & ACCTG | <input type="checkbox"/> OTHER |
| <input type="checkbox"/> FILE STRUCTURE | <input type="checkbox"/> SECURITY | |

Request Title: _____

Request Description: _____

Request Benefits: _____

Submitted by- _____ Company: _____

Name: _____ Address: _____

Customer ID Number: _____

Telephone: _____

NOTE: Instructions for completing are on the back of this form.



Instructions for Change/Enhancement Form

1. Place *one* 'X' to the left of a category within *one* product. This indicates which Product this Change/Enhancement is for and what general category the Change/Enhancement belongs. This category groups similar Change/Enhancements together.
2. Enter a Request Title which is a one line description for your Change/Enhancement that is less than 40 characters.
3. Enter a description for your Change/Enhancement. Please be specific when describing your Change/Enhancement.
4. Enter an explanation of the benefits of the Change/Enhancement.
5. Enter information about yourself so someone can contact you if there is some questions about your Change/Enhancement (you must include your telephone number).
6. Mail Form to: Mr. Martin Henderson
Marathon Oil Company
539 South Main Street
Findlay, OH 45840 USA

SOFTWARE AG TO OPEN LOS ANGELES CLASSROOM FACILITY

Stan Maring
Software AG, Customer Service Division

In an on-going effort to ensure Software AG customers have convenient access to one of our classrooms, we are pleased to announce the September opening of our newest facility in Los Angeles.

This classroom, like others in Denver, Washington, D.C., and New York/New Jersey areas, will accommodate up to 20 students with

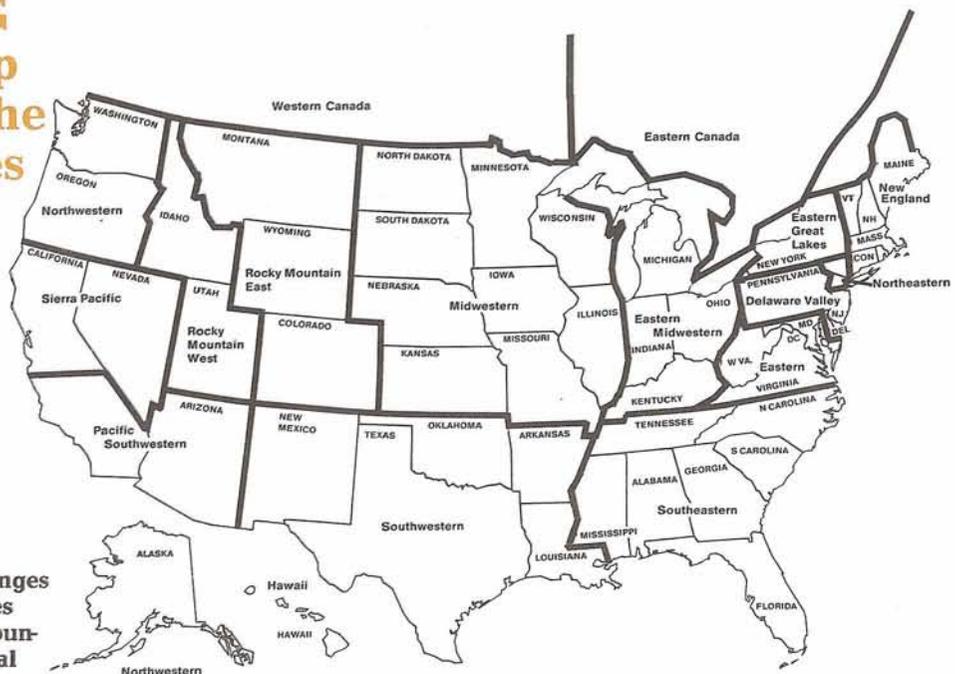
terminals and printer. Each provides an environment that allows you to focus on learning in a comfortable and well-designed setting.

Dozens of Software AG courses are offered at each of our classroom facilities, where course instructors combine lectures with plenty of hands-on workshops interspersed.

Detailed course descriptions and schedules of classes to be offered at each of our classroom facilities will be mailed to all Software AG customers soon.

For additional Software AG course information, call our Registrar at (703) 648-2482. □

Software AG Users' Group Regions in the United States



This map represents changes made in the United States regional Users' Group boundaries at the International Conference.

Continued from front cover

Peter Schnell, the developer of ADABAS, announced the following:

- All of the ADABAS users who installed the system in the early 1970s are still users today.
- Using ADABAS, the city of Munich reduced the time required for a driver to register his car, from two days to less than one hour.
- Using ADABAS, the city of Munich improved its traffic violation ticket system by 60%. This enabled the hardware and software to pay for itself within four months.

Peter Page, the father of NATURAL, gave his audience the following information:

- The NATURAL approach has been copied by many vendors since 1979 and can now be regarded as the established approach in the marketplace.
- NATURAL has already had a dramatic impact on the productivity of thousands of computer installations.
- The approach to office automation will change dramatically over the next three years. NATURAL will play a significant role in this.

Stuart Miller reported as follows:

- Software AG will be supplying the ACM to users as an integral feature of PREDICT V2.
- PREDICT is rapidly evolving into a major strategic product, with much of our future product development to be based on it.
- Software AG is now accomplishing with software what the hardware manufacturers have failed to achieve on their own.
- One of the greatest services Software AG can offer is that of custom applications. To that end, we have now created a custom applications group under the direction of John Kluger.

- Software AG has also created another new group, under Paul Peterson, charged with providing on-site consulting services, such as performance audit, system tuning, and assistance in application design and implementation.

Richard Wolverton announced that in response to the feelings of the user community, Software AG would provide the active cross-reference module free of charge to all PREDICT licensees. Richard thanked the members of the Executive Committee who are part of the user community and introduced the candidates for SAGGROUP office.

The SAGGROUP Executive Committee met prior to the conference and each day during the conference to review items requiring Executive Committee action (see SAGGROUP Executive Committee Update article for details).

A highlight of the conference was Monday and Wednesday night's open forum, at which users introduced their questions and concerns to senior executives, developers, and product managers. Users welcomed the opportunity to interact with the people who make the decisions about product and company development. The open forum was a first for Software AG. With a few modifications, this event should be even more of a success next year.

Another popular area was the product demonstration room. Here users had the opportunity to observe the functions and features of current and new products from Software AG. One participant commented that he liked being able to "pick the brains" of the demonstrators in a discussion of the product.

The areas of greatest interest, according to conference evaluations, included interaction between users, user access to appropriate Software AG personnel, the presentations by Peter Schnell and Peter Page, the classes and tutorials, and education on the use of current products as well as new and upcoming releases.

Other participants praised the conference for its high level of professionalism. "Technical sessions were actually technical," one user wrote. Another liked the opportunity to "share technical information in professional discussions."

We now look forward to Miami Beach, October 4-8, 1987, when the conference will be held at the Fontainebleau Hilton Resort. Attendance for that conference is predicted to exceed 1600. Start planning your papers and presentations now—we're getting ready for another great conference! □

State of Colorado—from page 2

ment wanted and what the users wanted. He also pointed out aspects of the file design that needed to be addressed, provided programming techniques, and optimized file specifications to process those files. Further, Tipler showed us ways to improve interdepartmental communications."

"Tipler also pointed out to all of us what had to be done to make it happen," Booth says. "He explained that data sharing had to begin among the four departments involved and that our system had to be designed with long-term use and integration in mind. Further, he took the extra time and trouble to deliver more than Software AG had promised us. This is the first time I've ever experienced a contractor giving more, rather than less. We have a much better product as a result of that extra effort."

What is Booth's advice to other companies with similar circumstances? "That's easy," she says. "I would advise anyone starting a pilot project that it's money well spent to hire Software AG's On-Site Service. If I had it to do all over again, I would recommend doing our design work in-house, with Software AG's On-Site Service guiding us as we go. For us, this would have resulted in a better learning curve and would have been far less painful! □



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