SOFTWARE AG

CONNECTIONS

WINTER ISSUE

Vol. 11, No. 1, FEBRUARY 1986

INDUSTRY INSIGHTS

A frequent criticism of my freshman English themes was the word "bones" scribbled in red alongside a laboriously crafted paragraph. My professor insisted that any worthwhile work always required a strong skeleton and a final product with flesh artfully molded over that skeleton. That word in red indicated that I had left part of the skeleton exposed and ran the risk of losing my audience.
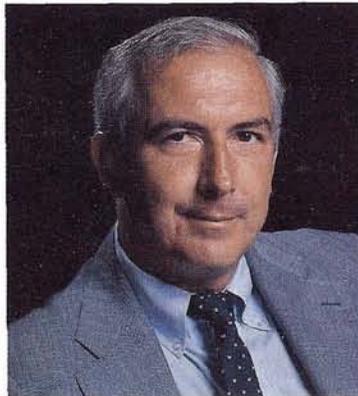
I have often thought of that criticism as I have watched how we in the data processing industry have begun to assimilate the PC into comprehensive data processing solutions for the end-user. We have more bones than the prehistoric wing of a museum and sorely need sculptors for the skillful fleshing out of that powerful skeleton.

To do this properly, we at Software AG are proceeding in the following manner.

In any solution we will always emphasize the power of the PC rather than the PC itself.

We will seamlessly compensate for capabilities lacking on the PC. Examples of this are integrated access to corporate data and the corporate communications network. We must also keep our solutions open so that we can smoothly incorporate capabilities from other vendors. An example of this would be the integration of a PC-based word processing system.

We will continue to take fuller advantage of the new capabilities that the PC adds. Its

Edward J. Forman
Senior Vice President
Software AG of North America

decisecond response time, scratch pad, spread sheet and word processing capabilities are currently useful, but they become much more powerful when they are an integral part of the business solution making effective use of the mainframe resources.

We will continue the trend from bones to flesh by treating our products as modules in a solution. We feel that no end-user should be aware of CON-NECT, COMPOSE, SUPER NATURAL, or the NATURAL/CONNECTION. These products provide needed functions to the PC user but he will always see an integrated menu with functions that are an appropriate logical subset of his company's entire data processing capability.

We are just as worried about "bones" between COM-POSE and CON-NECT as we are between NATURAL/CONNECTION and SUPER NATURAL. To our target PC user, a bone is a bone is a bone.

This trend towards integration is probably most obvious to you at present in comparing NATURAL CONNECTION Version 1 with NATURAL CONNECTION Version 2. But you will also begin seeing the same fleshing out in future releases of SUPER NATURAL, CON-NECT and our decision support products. Our objective is to make both ourselves and our data processing customers look more like sculptors than paleontologists to our mutual end-users. In this effort, we feel many of you have the experience we need and we will be looking for your feedback more than ever.

CUSTOMER SUCCESSES

ADABAS, NATURAL HELP TASTYBIRD STREAMLINE DP OPERATIONS WHILE IMPROVING SERVICE

At Tastybird Foods in Russellville, Arkansas, chickens come and go at the rate of nearly 4 million a week — from over 1,000 local growers to a growing worldwide customer base served by Tastybird.

Developing new online systems to control these operations looked like a monumental undertaking when the company first tackled it. But using Software AG's ADABAS and NATURAL, Tastybird was able to implement new order processing and management reporting systems that ensured "100% clean data" while eliminating the need for centralized data entry operators within the data processing department.

Saving Time and Money

According to MIS Director Theron Walker, the new systems met a longstanding need that was growing more urgent on a daily basis. "With our old system, 75-80% of our time was spent on maintenance and recovery from system crashes. Today, we've finally reached the point where we spend most of our time solving user problems.

We're also saving money through the change in data entry. We used to have 10 keypunch operators; now we have none — the users enter all their own data. And by the time that data's on the system, it really is just about 100% clean."

Tastybird's involvement with Software AG didn't actually begin until the new system concept had been developed and approved, and implementation was underway. "When we first saw a demonstration of ADABAS and NATURAL, we were already starting to use another data base system," says Walker. "And while things weren't going very smoothly, we really weren't planning to switch.

"But the issue of data base flexibility started us thinking. We didn't want to be building data bases with only one particular use in mind — we needed to stay flexible. And the more we got bogged down, the better ADABAS and NATURAL looked — until finally, we made the switch.

"Now, with a few years of experience under our belt, I'd say we made the right move. And while ADABAS gave us the data base flexibility, NATURAL has been a big help in terms of programmer productivity. It's allowed us to get our work done faster, with fewer people, and in a more creative way. Instead of dragging 80% of our old system along with us, we've been able to develop an entire approach that gives our users exactly what they need."

Online Order Processing

The first milestone in Tastybird's conversion was the development of its order processing system.

From the moment a customer calls in, a single online system handles everything from initial order to final invoice. The system automatically audits all incoming data, then places internal production orders, issues related paperwork, generates bills of lading, and sends invoices. And the status and cost of every item in an order are immediately available to the customer at the time of the call.

According to chief systems analyst and DBA Alan Chronister, Tastybird's order processing system is one of the most advanced — and most sought-after — in the industry. "I know of several other companies that would love to have this system for their own use. But the fact is, it's a major competitive edge for us. And NATURAL and ADABAS played an essential role in helping us get the system up the way we did.

We worked very hard, six days a week and sometimes seven, for eighteen months. But in that time, we did a job that would have taken four years otherwise, and with one less programmer than we originally intended to hire. What's more, the system we developed also gives us a lot more flexibility to make further changes in the future."

Graphics Gives Management the "Big Picture"

Order processing is only one of a wide range of functions Tastybird has implemented using NATURAL and ADABAS. In addition to traditional operations such as general ledger, inventory, and payroll/personnel accounting, the system also provides improvements in sales analysis, customer relations, grower accounting, and vehicle management.

One of the most striking aspects of the company's switch to Software AG has been the growing use of NATURAL/ GRAPHICS as a management

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PRESIDENT'S MESSAGE

Richard Wolverton
Commercial Union Insurance

As SAGGROUP continues to grow, we will be faced with new challenges and problems. One of the most immediate will be finding adequate facilities for holding the annual International Software AG Users' Conference. To that end, a proposal is being discussed to rotate the location between several cities that have appropriate hotel and meeting rooms.

Another more difficult and subtle challenge, will be to continue the kind of personal contact and interchange that makes SAGGROUP such an exciting and valuable organization. As the group passes the time when it is possible to know everyone, we must foster new ways to interact that continue to be beneficial and accessible to the majority. Obviously, the Special Interest Groups and the Business/Industry Groups are attempts to maximize and channel the possibilities for contribution and participation. If anyone has other suggestions for ways to focus time and energy to the benefit of the group as a whole, I would love to hear them.

We must guard against size and success becoming an obstacle. People should not feel that because the group is large, someone else will think of it or do it. It takes involvement from everyone to make an organization like this work. □

CHANGE/ENHANCEMENT STATUS

Martin Henderson
Marathon Oil

I regret having to write that the responses from Software AG for the Change/Enhancements (C/E) submitted between September 1984 through June 1985, were not mailed in November 1985 as I said they would be. Software AG has given their responses so they should be mailed in December. Software AG has the Change/Enhancements for July 1985 through October 1985 and I am waiting for the responses to those Change/Enhancements. The C/E's for the 4th quarter of 1985 will be mailed to Software AG in January 1986.

I attended the SAGGROUP Executive Committee meeting in October 1985. No major changes were made to the C/E system. We discussed, in length, the problems we are having changing over to the quarterly processing of the C/E's. The main problem has been receiving responses from Software AG for the C/E's. I am hoping that this time lag will be reduced in the near future.

I am still recruiting a replacement for me as the Change/Enhancement Coordinator. I already have one excellent candidate, but if there are any others, please contact me. □

NEW DBA TOOLS TAPE ARRIVES

Galen Hansen
State of Alaska

The latest version of the DBA Tools Tape has been sent off to Software AG in Reston, and in fact some of you may already be using it at this time.

The following is a listing of those tools that have been added or changed on this version of the DBA Tools tape. In the interest of keeping this newsletter to a reasonable weight, I have not listed all tools that are currently on the tape.

NAME	FUNCTION
DBA001	These routines are used for billing by using SMF type 150 records and maintaining dual command and protection logs. Assembler routines as well as jobstreams and procs are included. All of this works with ADABAS Version 4.1.1 SM08 and Channel-to-Channel Version 3.1.
DBA004	This is an Assembler routine which will print an ADABAS file (generalized print program) controlled by control cards.
DBA013	A system for dynamically determining ADABAS file users under MVS. This was originally obtained from The University of Texas at Austin. The series of three ALC programs, which are executed from the MVS operator console, have been substantially modified and enhanced. Also, the COBOL program, which runs under COM-PLETE, has been virtually rewritten. This last COM-PLETE program calls/loads and executes two of the modified ALC programs. For all of these programs, the documentation is contained in the programs themselves.
DBA014	The tool is a program which reads a SIBA tape and prints a report. It is written in Assembler Language. All non-standard macros used by this program have been included in the source.
DBA015	The NATURAL dis-assemble and cross reference function is performed by an assembler program which processes a NATURAL module passed to it by a NATURAL program. The program is called in a batch NATURAL session and writes to two print files.
DBA016	This sub-system enables a user to edit NATURAL source using the SPF full screen editor during a TSO NATURAL session. This provides the editing facility of CMPEXIT but leaves the source on the NATURAL system file.

I have 3 or 4 new tools that have arrived and I am currently preparing them for inclusion on the next tape. I anticipate that the next version of the DBA tools will be sent off to Reston by April of 1986. In order to obtain more tools for the tape, I am beginning a new policy for the returning of tapes to DBA Tools contributors. All tools contributors will have their tapes returned with the new version of the DBA Tools on it. They will receive their tapes back at the same time that the new version is sent to Software AG. I hope that this will prompt some of you that are hesitant to make contributions, to document them and send them in.

Once again, I feel that I must make the appeal to have those tools that are contributed be better documented. Please include a member on the tape that you send, containing information about each of the members as well as a general description of what each specific tools does. This will be most helpful in speeding up the tools tape update process and will ensure that I can send an updated tape to Reston more frequently throughout the year. □

NORTH AMERICAN REGION RE-ALIGNMENT

Colete Farabaugh
Dole Processed Foods

SAGGROUP, the Software AG Users' Group, is in the process of evaluating the current alignment of the North American regions. Although users may attend meetings in any of the regions, a number of users are not attending meetings at all. If this is due to the distance to travel to the meetings then some new boundaries may need to be established so that all users will be able to attend regional meetings.

A questionnaire was distributed to all North American users to survey their attendance at the Regional meetings and to determine if boundary re-alignment and/or establishment of new regions is in order.

The results of the evaluation will be announced at the International Users' Conference in San Diego next May. □

EUROPEAN USERS' CONFERENCE PLANNED

Lydia Mueger
Software AG, Darmstadt

A users' conference has been scheduled for October 26-30, 1986 to be held in Strasbourg. Historically, a European conference has been held every four years starting with the 1978 conference in Munich, West Germany. In 1982, the next one was held in Paris, France. The Strasbourg conference will be titled the 16th International Software AG European Users' Conference. More details will follow in the next newsletter. □

SAN DIEGO USERS' CONFERENCE UPDATE

Larry Jayne
Software AG

What will the future bring to the world of data processing and information management? What new applications — never before dreamed of — will be developed? What new needs — of current users and new end users — will be articulated in the months and years to come?

You and your colleagues are invited to consider these and other compelling ideas that await us "Beyond the Horizon."

The annual 15th International Software AG Users' Conference will be held May 11-15, 1986, in San Diego, California. More than 1,400 conferees from across the country and around the world will meet with one another at the Sheraton Harbor Island-East hotel on San Diego Bay.

This annual gathering of the industry's largest and most involved users' group offers attendees nonstop opportunities to share with each other their experiences with Software AG products, describe interesting applications, and discuss ideas about data processing and data administration. You will have a chance to see demonstrations of new products and to discuss with Software AG technical experts how the newest products —and new enhancements to Software AG's core products — will address your software needs "beyond the horizon."

The week will also feature guest speakers, user presentations, educational sessions, and Software AG presentations of product status and future directions.

Register now for this opportunity to meet your fellow Software AG users from all over the world to explore together the software solutions that will address your concerns both today the "beyond the horizon."

Daily Schedule

The daily schedule agenda offers conferees numerous opportunities — both formal and informal — to learn more about Software AG products and to exchange information and ideas with Software AG staff and hundreds of other users.

Here's the schedule for a typical day:

7:30 a.m. - 8:45 a.m.	Breakfast
9:00 a.m. - 10:30 a.m.	General Session
10:30 a.m. - 11:00 a.m.	Break
11:00 a.m. - 12:30 p.m.	Concurrent Sessions
12:30 p.m. - 2:00 p.m.	Lunch
2:00 p.m. - 3:30 p.m.	Concurrent Sessions
3:30 p.m. - 4:00 p.m.	Break
4:00 p.m. - 5:30 p.m.	Concurrent Sessions
5:30 p.m.	Various Evening Activities

Technical sessions are scheduled concurrently throughout each day. They include:

- User Presentations - Users relate their own experiences with various types of installations.

- Workshops - Users conduct sessions with a shirt sleeves approach covering various areas of concern.

- Software AG Presentations - Software AG representatives provide up-to-the-minute information about the products and services you use.

- Classes/Tutorials - Technical experts conduct in-depth, interactive classes to improve your technical skills.

Registration Information

How To Register
Please fill out the conference registration form enclosed in this newsletter. Complete one form for each attendee (use photo copies if necessary). Be sure to type or print. Simply tear out the form, insert it in an envelope, and drop it in the mail. Upon receipt of your registration form, you will be mailed a registration confirmation packet.

What The Fee Includes
The registration fee for conference attendees includes admission to all sessions, the President's Reception on Sunday night, breakfast and lunch from Monday through Thursday, dinner on Monday, the banquet on Wednesday, wine and cheese on Thursday, a copy of all conference proceedings, and conference mementos.

Register Early
The deadline for registering for the 15th International Software AG Users' Conference is April 9, 1986. All registrations postmarked before that date will save the $100 late registration fee.

SAUDI ARABIAN REGION

Fin Park
Ministry of Planning

The ADABAS Riyadh Users Group met "semi-officially" for the first time in November, hosted be Software AG, Middle East (SAGME) in their newly established offices in Riyadh, Saudi Arabia. For the past year, Riyadh ADABAS users had been meeting periodically at individual user sites in an unofficial status. Prior to that, a Saudi Arabian users group had met regularly but had ceased to function due to personnel turnover. However, with the arrival of Software AG, Middle East in Riyadh, and the increased number of ADABAS users in the kingdom it is hoped that this new group will be able to sustain the momentum to keep it going.

The meeting was chaired by Steve Hayden, Sysorex/Department of Customs, and attended by nineteen people representing Customs, the General Organization for Social Insurance, the General Presidency for Youth Welfare, the Ministry of Defense and Aviation, the Ministry of Planning, the Royal Saudi Navy, and Saudi Medical Services, as well as representatives from Software AG, Middle East. The major purpose of the group in the past had been to function as a mutual support network while Software AG, Middle East got established in Riyadh. Continuation of this mutual support concept appears to be the major goal of this group as well. Additionally, since some users are either new to Software AG or have newly acquired their products, the group felt that it would be beneficial to meet on a regular basis to share knowledge.

Talib Shaman, Managing Director of Software AG Middle East, presented a brief overview of his company's goals, touching on the areas of support, training, marketing and territories, and Arabization of NATURAL. Software AG Middle East's main goal will be to provide good support to current users. In addition to technical problem support, Talib stated that coordinating local and overseas training, providing meeting and training sites, and serving as an information distribution point for the user group were some of the services he was offering. In the area of marketing and territory, Talib added that a number of VAX sites in the kingdom were potential ADABAS customers and that Bahrain, Kuwait, Oman and United Arab Emirates had sites for possible membership in a Middle East users group. Talib concluded with a discussion on an Arabic version of NATURAL which he hoped to obtain from Software AG in the near future. Andy Parrett and Mike Lynch who provide the Software AG Middle East technical support also made brief comments on their areas of support.

The group then held an open discussion on what might be topics of interest and a suitable format for future meetings. The group is presently undecided as to how formal to make its organization but wishes to keep it simple. The probable format will be quarterly half-day meetings with a few user presentations or round-table topics plus an open discussion on problems and new ideas. Some areas of general interest to the entire group such as bilingual and Arabic application system techniques, use of PREDICT, and production/test environment methodology were suggested by Steve Hayden for future topics. Also, because of the wide range of Software AG product usage, from a site with ADABAS and direct-call COBOL only, to a site with ADABAS, NATURAL, PREDICT and NATURAL/VSAM, it was felt smaller, special-interest meetings might occasionally be of interest to some users.

The meeting concluded with each organization submitting an installation profile which will be distributed to users for reference. A list of possible topics for discussion was drawn up and will be mailed to users for the next meeting which will take place in approximately three months. □

THE 17TH COM-PLETE USERS' GROUP MEETING

Yuzo Fukumoto
Isetan Data Center

The 17th COM-PLETE Special Interest Group meeting was held with 12 attendees from 8 companies at Yamatane Systems Science, Inc. after the Users' Conference on August 29, 1985.

- Mr. Sano of Yamatane System Science, Inc. gave an outline of the company, and Mr. Sasaki of Yamatane System Science, Inc. introduced their way of using COM-PLETE and gave a demonstration.

- COM-PLETE group plans to hold a seminar related to data communications.

- COM-PLETE group plans to visit two makers out of the following organizations;
  - IBM Yamato Laboratory
  - NEC Cooteration Abiko Plant
  - Fujitsu Buildings in Marunouchi
  - Burroughs Corp.
  - Toshiba buildings in Hamamatsucho.

- A new member, Mr. Usui of Nissho Iwai Computer Systems, Inc., which is a trading company, introduced himself to the members.

- They asked Software AG of Far East to provide them with a user interface to ZEDIT. □

REGIONAL REPORTS

FAR EAST REGION ASSIGN

Mayumi Tazawa
Software AG of Far East, Inc.

The 44th Far East Region ASSIGN (ADABAS Special Interest Group of Nippon) was held in Tokyo on September 27, 1985. There were 54 attendees from 29 installations.

- I reported on activities of each study group.

- Mr. Takashi Takemurs, Fujitsu Social Science Laboratory Ltd., introduced ADABAS translator (TORNADO) which was developed for Kokusai Denshin Denwa Co., Ltd. Now, it is on the market.

- Ms Noriko Yoshiki, Software AG of Far East, gave an explanation of the functions and a demonstration of SUPER NATURAL. □

EASTERN CANADA REGION

Jan Warren
Consumers' Gas Company Ltd.

The September 24 meeting was hosted by Robert Nickel at the new Software AG of Canada office in Cambridge, Ontario.

The meeting began with a presentation given by Ted Hillis of Consumers' Gas about file management. Ted discussed the reasons for file management including file growth, new applications, purging and so on. He also displayed the various reports produced by his file management application which he uses for space forecasting.

Following Ted's presentation, the regional representative led a discussion of comments and concerns to be brought before the SAGGROUP Executive Committee.

After a coffee break, John Katilie from Software AG of North America discussed their product REVIEW and its uses. He also described the features of the newest version, Version 2.

Lunch was followed by a presentation given by Mike Bernat from Software AG of North America, on DB/DC Integration. Mike described the Software AG products involved in complete data base/data communications integration. This included taking NATURAL out of CICS, TSO and CMS and installing it under COM-PLETE. The various TP monitors can talk through COM-PLETE to get to ADABAS. □

Sue Karlin, Software AG, discussing ADABAS V5 at the recent Eastern Great Lakes meeting in Rochester, New York, a sub-group of the North Eastern Region

Jim Yashinski, Software AG, giving a NATURAL V2 presentation at a recent North Eastern Region meeting in New York city.

A large turnout for a recent North Eastern Region meeting hosted by Kathy Schacht, Inco, Inc. in New York City.

NEW ENGLAND REGION

Irene Chigas
Marshall's Inc.

The first meeting of the 1985-1986 season of the New England users took place on September 19 at Massachusetts Institute of Technology in Cambridge, Massachusetts. Mr. Robert (Buck) Shaw, Regional Representative, opened the session be introducing the new Regional Officers, Jim Wisdom, Irene Chigas and Bobbi Croci.

The attendees welcomed an ADABAS user from New Zealand's Metropolitan Life Insurance. Indeed, a long way to come to visit a users' group meeting.

QIP's (questions, issues, problems) were next on the agenda and several were discussed. Jim Wisdom requested that anyone having problems with error messages, that are not well documented, contact him. He wants to produce a list of "All you wanted to know about error messages and couldn't find out."

The first speaker of the day was Alan Bernier from Arthur D. Little, on the use of SUPER NATURAL. Topics covered were: relating the interface of mainframe and PC's with regard to file design, AD HOC reporting, data extraction user considerations in the use of multiple files and usability of PE and MU groupings.

The second speaker was Pat Swingle, Commercial Union Insurance, on Software AG's office automation product CON-NECT. Pat's discussion was based on a study she has undertaken between Software AG's CON-NECT and IBM's PROFS. Topics covered: system administration via default profiles, electronic mail/text storage, text formatting (i.e. table of contents, index, some graphics), calendar/scheduling processing. Commercial Union Insurance is an alpha text site for CON-NECT. Rafael Reisz, Boston University, carried on with this subject covering the advantages and disadvantages of office automation. Topics covered included screen problems, no cross reference capability, user profiles and macros.

The afternoon session began with Bob Meyers, CADBASE Software. He spoke on NATURAL interfacing with COBOL programs to avoid abuse of system resources; specifically in a COM-PLETE environment. Topics covered: NATURAL linkage, use of COLOAD, CODELETE, COLINK, use of global variables, NATURAL region size. A brainstorming session concluded this discussion.

The last session of the day included a joint presentation with Rafael Reisz and Jacalyn Hamada of Boston University on "An Autonomous End User Community in an ADABAS/ NATURAL Environment." Boston University has established a customized training schedule at different levels for programmers and end users to create a capable staff who are able to satisfy their query requirements in an ADABAS/ NATURAL world. □

PACIFIC SOUTHWEST REGION

Ed Simon
Management Applied Programming, Inc.

The September 27 meeting was hosted by The Capital Group, Los Angeles. Gary Hart, CCH Computax, Inc., the Regional Representative reported that he had talked to Bill Chapman, Software AG, about PREDICT. Bill said the next release of PREDICT will have more documentation including record layouts. Gary also reported that the ADABAS Internals class, to be held at the Aerospace Corp. had an enrollment of 17 so far. A location for the DBA Skills class is being worked on.

Mark Ambrose, TICOR, offered a warning for those who use ADAMUP. After converting from 3350's to 3380's, the LWP parameter will probably need to be changed. Otherwise, ADAMUP will generate error code 44.

The October 25 meeting was hosted by Metropolitan Water District, Los Angeles.

Gary Hart reported that he had received the Kendrick Utilities tape and information from Lope Auxillos, Asian Development Bank, Philippines. Source listings of the utilities were distributed, as were several copies of the tape. Gary talked about his limited success at getting some of the utilities to work.

Ron Kennedy, Metropolitan Water District, gave an overview of the ADABAS and NATURAL environment at his organization. Topics covered included:

- using NATURAL and ADABAS to introduce data management into their office automation plan;
- their transition from a batch to an interactive environment and allowing users to help develop the interactive system;
- the use of NATURAL as an ad hoc query system for non-DP users;
- how NATURAL was used to interface with pre-existing FORTRAN programs in an engineering simulation of a hydraulic system. □

Larry Jayne, Software AG, discussing the newsletter at a meeting of the Rocky Mountain-East Region in the new Software AG Training Center in Denver, Colorado.

John Martin, Software AG, giving a demonstration of CON-NECT during the recent meeting of the Rocky Mountain-East Region in the new Software AG Training Center.

ROCKY MOUNTAIN-WEST REGION

Gordon Wood
Utah Retirement Systems

The November 8 meeting was hosted by the Idaho State Auditor's Office in Boise, Idaho.

The meeting opened with introductions and a general discussion. Members were encouraged to run for Regional Representative, with elections to be held at the next meeting, and also to run for one of the SAGGROUP Executive Committee positions. Business/Industry Groups (BIG's) were discussed to make users aware of other avenues available to them to exchange ideas and information outside of the regional group. The BIG's are delineated by business and industry type rather than geographical location.
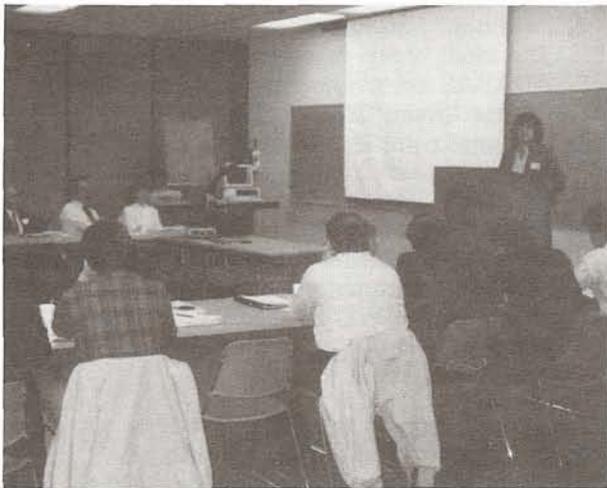
The next item on the agenda was a demonstration of CON-NECT, Software AG's newest office automation product, given by John Martin, Software AG. Larry Jayne, Software AG, stated that CON-NECT was very heavily used within Software AG and gave very positive remarks, speaking as a user of CON-NECT.

Sandra Neal from the State of Utah gave a user presentation on SUPER NATURAL titled, "A SUPERNATURAL Experience in the State of Utah." Sandra said that for several years, the Division of Data Processing of the State of Utah had been attempting to place a tool in the hands of their non-technical community which would permit easy access to information stored in ADABAS files. Despite an extensive training program in NATURAL aimed specifically at non-technical customers, a reasonably high failure rate was experienced. Despite some concerns about performance, SUPER NATURAL was acquired by the State of Utah. It was installed under NATURAL Security. A mandatory training program was developed and implemented. Approximately 40 people have been trained under this program. SUPER NATURAL is currently being used by this group for online query to production data bases. Batch capability will be added later. In conclusion, Sandra stated that SUPER NATURAL has been received positively by the non-technical community and with some skepticism by the technical community in state government. From a "features" standpoint, it is a success. The necessity for learning syntax has been greatly reduced. Its ultimate success will depend on the product's ability to provide reasonable performance, and on the construction of future data bases which lend themselves to end-user query.

The first time the regional meeting was held in Boise, Idaho

Following lunch, Bill Chapman, Software AG gave a tutorial titled, "PREDICT Extensibility." Bill showed the hierarchy of the various modules within PREDICT and indicated some initial setup procedures that must be done in order to utilize the individual modules from your own programs. Depending on the module you are using, there are certain global variables that must be initialized and some modules that may need to be stacked in front of, or behind the module you are attempting to use. He provided the group with a diagram of the hierarchy of the PREDICT modules, their use, and a list of some key global variables that PREDICT uses. He emphasized, however, that he could not guarantee that the modules and variables will always be used the same in future releases. □

Sandra Neal, State of Utah, presenting "A SUPER NATURAL Experience in the State of Utah"

SIERRA PACIFIC REGION

Bob Irvine
Wickland Oil

The September 10 meeting was hosted by Dole Processed Foods of San Jose, California.

Larry Jayne, Software AG, opened the meeting with an update on the next Users' Conference and discussion of the newsletter and DBA Tools tape. This was followed by an information session led by Cathy Lonsdale, Software AG, concerning new education offerings and locations, product updates and other general information.

As part of a plan to enhance the value of the regional meetings, Regional Representative, Bob Irvine, distributed an information survey for meeting attendees to complete. After the surveys were completed, Bruce Fox of ISI gave a presentation on ADABAS Debugging Techniques and provided a copy of a handout to the group which he received at the Nashville conference.

After lunch the results of the morning survey were presented and a discussion followed concerning future meeting formats. The group decided that they would continue to have member companies host the regional meetings at their facilities throughout the region. They also agreed that the theme concept would not preclude other topics from being presented. It was decided that the theme for the December 3 meeting, which will be hosted by the County of Sacramento, will be Data Dictionary.

The next presenter was John Lowe, University of California, spoke about optical disk technology and its use with data bases. Following this, the meeting was opened to a round table discussion and idea exchange. This proved to be extremely valuable to all with the range of topics varying broadly as many new ideas and experiences were shared by many different users. The new "What's Happening" papers that were distributed by the organizations attending were well received and everyone agreed that these one-page activity updates from each organization should be continued.   □

Attendees at the Sierra Pacific meeting in San Jose

SOUTHEAST REGION

Ralph Kindred
R. J. Reynolds Tobacco

The September 11 meeting was held in Charlotte, North Carolina and it began with the election of new officers. Mr. Ralph Kindred, R. J. Reynolds Tobacco, was elected Regional Representative. Jim Obenschain, Environmental Protection Agency, was elected Regional Vice President and Clayton Clendinen, Orlando Utilities Commission was elected Regional Secretary.

John Osteen, Database Design & Management presented the topic Database Administration and the Data Dictionary Function, and used PREDICT in his discussion.

Doug Martin, Price Waterhouse, gave a presentation on Resource Management in an End User Environment, which he discussed the topics of access management, performance management and capacity planning.

Dennis Gandy, Software AG talked about CON-NECT, one of Software AG's newest products.

ADABAS PRODUCT REP'S REPORT

A. C. Roda
Planning Research Corporation

Sometimes we need to get back to basics. We all encounter performance problems from time to time and frequently overlook some of the basic factors contributing to these problems. I offer you the following very sound suggestions for improving performance. They were contributed by Steve Carter of DBUG, Inc.

1. *Minimize calls to ADABAS*
   Eliminating unnecessary calls to ADABAS from applications is by far the most helpful kind of change any organization can make to improve performance. Although this requires some additional programming resources to revise program logic, gross improvements are often possible; reducing online response times from many minutes to under one minute are commonly reported. The ways in which "extra" calls creep into application logic are legion. Education and constant vigilance by the DBA are in order.

2. *Minimize physical I/O*
   With unnecessary calls gone, then the number of physical I/Os by ADABAS is the major controllable factor in batch elapsed time or online response time. The DBA can single-handedly make some changes in this area; the LBP ADARUN parameter can be increased; search logic/criteria can be refined; new superdescriptors can be defined for search/sort purposes; unused descriptors can be released; the WORK blocksize can be increased; data can be reordered. Here again, some adjustments to application logic may be necessary, but noticeable improvements are usually possible.

3. *Minimize CPU Usage*
   CPU usage by ADABAS is usually a lesser issue, and much less can be done to change this aspect of performance. However, references to excessive ranges of periodic group or multiple value fields can cause severe CPU utilization problems on slower machines. The most significant factor in this area is the dynamics of space usage within the Internal Format Pool as ADABAS processes the format buffers supplied by the users. The keys to improvement are to lower the number and/or length of format buffers that ADABAS must translate.

4. *Eliminate Bottlenecks*
   The most likely causes of bottlenecks within ADABAS are overloading of the ADABAS update thread (thread 1) and delays in starting "complex" searches. Some changes one can make include eliminating extra OP, CL and ET commands, reschedule update runs to smooth the overall load, consider use of multiple MPM's, tuning of the LWP and LS ADARUN parameters, increase the size of area 2 of the WORK (see ADABAS Installation Manual - page 73 of OS version), and simply add more threads.

I also urge you to take Steve's advice to "take every shortcut you can in gaining a sound understanding of ADABAS performance factors. Help in this area includes ... presentations from international and regional user group meetings, newsletter articles, performance and tuning classes, technical support contacts, and services of qualified consultants. A concerted effort to learn from others will be repaid many times over in time and aggravation saved as you apply the knowledge gained.

Finally, in addition to the standard monitoring facilities available with ADABAS, one should make use, if possible, of an automated tool for capturing and analyzing performance data. I know of three commercially available products available from Software AG and other vendors for this purpose, and as with any software product, one should measure and match carefully the requirements of the installation with the capabilities and features of the product.

Happy tuning!

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INSITU PROGRAM LOGIC

Dan Nolan
Heuristic Developments

Some months ago John Maguire, Chairman and Founder of Software AG of North America, observed that there were significant advances yet to be made in application programming as a result of Relational Data Base Management System technology. The basis for this is well founded and in fact such practical applications are well overdue. The latest innovation (Simplex) does not affect general applications and the one prior to that (Sort) was made decades ago. Where tremendous advances have been made in hardware and software, the coding techniques have remained much the same since the earliest days of the commercial computer. The result is that programmers tend to use old techniques with new tools, in much the same way an ignorant lumberjack might attempt to hammer down a tree with a chainsaw.

As John was speaking, I was aware that such an innovation had been made but came to the realization that we, as an industry, have omitted the most important fourth step in the scientific method: We have been too busy to publish.

Program Logic

"Canned Update Logic" has been replaced. The method of maintaining records that has been used for the past three decades is now obsolete.

We thought and taught in terms of "Add", "Change" and "Delete." In an environment where all transactions can be mixed together and there is no way of telling what would be required of a program from one minute to the next, this has been the standard method.

"INSITU" logic replaces the three-step maintenance with a single function: Change. This is a result of Relational Data Base Management Systems that allow the computer to recognize States of Data, where before the record had to be compared to the request before action could be determined. The three States of Data are: Present, Not Present and Incorrect.

The canned update functions have been replaced by these Relational States in the following manner:
"Add" is a change of state from Not Present to Present;
"Delete" changes the state from Present to Not Present;
"Change" affects fields within the Present state.

This simple NATURAL program illustrates INSITU.

```
0010  MAP #SSN (N9)
0020  FIND NUMBER PERSONNEL WITH SSN = #SSN
0030  IF *NUMBER (0020) LT 1 STORE PERSONNEL WITH SSN = #SSN
0040  FIND PERSONNEL WITH SSN = #SSN
0050  MAP (AD=M) FIRST-NAME LAST-NAME SSN ...
0060  UPDATE (0040) WITH SAME RECORD
0070  END
```

The above program is overly simplified to illustrate the structure. As we can see from a more elaborate example, procedural details and efficiency considerations tend to obscure the underlying principles that make INSITU so effective.

```
0010  REPEAT
0020    MAP 'DESCRIBE THE RECORD TO BE PROCESSED:'
0011    / #SSN      (N9) (AD=M) 'THRU' #THRU-SSN (N9)
0012    / #LAST-NAME (A25) (AD=M) 'THRU' #THRU-NAME (A25)
0013    'LEAVE BLANK TO QUIT'
0014    IF #SSN = 0 AND #LAST-NAME = ' ' ESCAPE /* (0006)
0015    IF #THRU-SSN = 0   ASSIGN #THRU-SSN = #SSN
0016    IF #THRU-SSN = 0   ASSIGN #THRU-SSN = 999999999
0017    IF #THRU-NAME = ' ' ASSIGN #THRU-NAME = #LAST-NAME
0018    IF #THRU-NAME = ' ' MOVE ALL 'Z' TO #THRU-NAME
0020  FIND NUMBER PERSONNEL WITH SSN = #SSN THRU #THRU-SSN
0021       AND LAST-NAME = #LAST-NAME THRU #THRU-NAME
0022    RETAIN AS 'SET
0030  IF *NUMBER (0020) LT 1 DO
0031    IF #SSN = 0 REINPUT
          'SSN MUST BE SUPPLIED FOR NEW PERSON'
0032    IF #LAST-NAME =
0033    REINPUT 'NAME MUST BE SUPPLIED FOR NEW PERSON'
        MARK 3
```

```
0034 STORE PERSONNEL WITH SSN = #SSN LAST-NAME = #LAST-NAME
0035  FIND FIRST PERSONNEL WITH SSN = #SSN
0036            AND LAST-NAME = #LAST-NAME
0037  RETAIN AS 'SET
0038 DOEND /* (0030)

0040 FIND PERSONNEL WITH 'SET
0050  MAP (AD=M) 'UPDATE?' #CHG (A3)
0051  / FIRST-NAME  LAST-NAME  SSN
0052 *
0053 * ... MAP ALL FIELDS IN RECORD THAT CAN BE CHANGED
0054 *
0055 IF #CHG = 'YES' OR = 'NO' OR = 'DEL' IGNORE
0056 ELSE REINPUT 'ENTER YES, NO OR DEL, PLEASE.'
0057 IF #CHG = 'NO' AND *ISN (0034) NE 0 BACKOUT
            TRANSACTION
0058 IF #CHG = 'DEL' DO
0059  ADD 1 TO #DELETE (N1)
0060  IF #DELETE = 1 REINPUT 'REPEAT TO CONFIRM DELETE'
0061  ELSE DELETE /* (0040)
0062  DOEND /* (0055)
0063 IF #CHG = 'YES' DO
0064  IF FIRST-NAME = ' ' REINPUT 'ENTER FIRST NAME' MARK 2
0065  IF LAST-NAME = ' ' REINPUT 'ENTER LAST NAME' MARK 3
0066  IF SSN = 0 REINPUT 'ENTER SSN' MARK 4
0067 *
0068 * REMAINING LOGICAL FIELD VERIFICATIONS ARE CODED HERE
0069 *
0070  UPDATE (0040) WITH SAME RECORD
0071  DOEND /* (0063)
0072 END TRANSACTION /* (0061) OR (0070)
0073 CLOSE LOOP (0040)
0074 END
```

INSITU programs hold significant benefits over equivalent ADD/CHANGE/DELETE programs in a number of areas:

1. INSITU is simpler. All actions are controlled by the same logical transaction, a Change of State.

2. Logical and legal edits exist in only one place and are accessed through only one path. There are no elaborate controls for what is a relatively simple function of making certain that data is correct. Add and Change transactions pass through the same update path in all instances.

3. Field names are used directly from the file. There is no need to define temporary variables to hold transaction values and all fields are defined by the Data Dictionary. Errors caused by mismatching variables and fields are eliminated.

4. As every transaction is a Change, there are no long-term "flags" or "switches" in the program defining the nature of processing.

5. INSITU programs have fewer lines of code and less logic. Simpler programs speed development and improve accuracy.

6. Maintenance is simplified for all the above reasons.

Interestingly, after we developed this, we found it embodies the fundamental Structured Programming principle of "Data Driven Code" in the first absolute, tangible way since this concept was proposed as being mathematically correct in the late 1960's.

This is perhaps borne out best by experience. We have not encountered a single maintenance application where a basis of INSITU has not proved superior to any other coding, strategy. □

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COM-PLETE PRODUCT REP'S REPORT

Ron Hoover
Penn State University

The SAGGROUP Executive Committee met at Reston in early October. One of the issues discussed at the meeting dealt with some complaints that the COM-PLETE workshops at the Users' Conference were held mostly late in the week. Larry Jayne has agreed to work on spreading them throughout the week at the next conference which will be held in San Diego. Larry has a tough job trying to juggle all the meetings and presentations and will do his best to keep things in balance.

There is some bad news for those of you who are waiting for COM-PLETE V4.4. Originally it was expected to be in beta test by late 1985. However, due to the need to keep COM-PLETE compatible with some recent IBM changes to their DOS-VSE systems, it is not expected to be in beta test until the second quarter of 1986. Release will probably not occur until the second half of 1986. An SM release of COM-PLETE is expected in the near future.

For those of you who use the COM-PLETE Tools tape, there is going to be a change in the cost of the tape. Software AG indicated the price of $15 per tape was not sufficient to cover their costs. The new costs will be $50 for tapes shipped within the U.S. and $75 for tapes shipped outside the U.S.

How much patience do you have? I think it will be hard to top a user I recently heard about who waited 4 1/2 hours before inquiring as to why he hadn't received a response at his terminal. Hmmm, I wonder if he'd be interested in a ticket to watch continental drift.

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COM-PLETE NEWS

Software AG Appoints New Executive Vice President

December 24, 1985—Software AG Systems, Inc. announced today the appointment of E. Linwood Pearce as Executive Vice President, Sales and Marketing. Mr. Pearce will be responsible for all North American operations for the Sales and Marketing Divisions as well as the newly formed Cooperative Marketing Programs recently announced. He will also be a key member of the company's Executive Committee. Mr. Pearce has spent the last 18 years at Applied Data Research, which was recently acquired by Ameritech. Since 1980, Mr. Pearce was Vice President of North American Operations. Under Mr. Pearce's leadership, ADR's North American revenues expanded significantly.

"Pearce has a proven track record in our industry," Stuart Miller, President of Software AG of North America said. "His former company has been very successful in the past couple of years. We think he will bring well established experience and will add to the success of this company."

Reporting to Mr. Pearce will be Tom Blondi, Vice President of Marketing, Dave Eaves, Vice President, Western Area Sales; Grant Osasa, Vice President, Central Area Sales; Howard Winer, Vice President, Northeast Area Sales; and their respective organizations.

Lin Pearce, his wife Mary, and their 2 children have lived in the Washington Metropolitan area for a number of years and currently reside in Potomac, Maryland. □

Lin Pearce
Executive Vice President
Sales and Marketing

On-Site Service

Paul Peterson
Software AG

Get a spring tuneup on your database from On-Site Service. Call your local account representative to schedule a date. □

Custom Solutions Announced

Jon Kluger
Software AG

Software AG is pleased to announce the creation of the Custom Solutions Group whose charter is the development of application systems using Software AG's advanced application development tools.

Whether you are a long-term Software AG customer with application development needs which exceed your resources, or a new Software AG customer with a staff as yet untrained, Custom Solutions may be your answer. By specializing in NATURAL, ADABAS, COM-PLETE, and related tools, and by calling on the world-wide resources of Software AG, we can provide the highest quality application systems on a timely basis.

Unlike other data processing consulting organizations, we specialize in Software AG products only, thus removing the need to be expert in all forms of software. This concentration, combined with the use of our own data center in Reston allows us to provide the type of service in building application systems that you would expect from the leading world-wide supplier of application development tools. □

NEW VP AND CHIEF FINANCIAL OFFICER NAMED

Larry Jayne
Software AG

November 13,1985 ... Stuart J. Miller, President and Chief Executive Officer of Software AG of North America, Inc., Reston, Virginia, announced the appointment of Carlton B. Crenshaw as the company's Vice President of Finance and Administration, Chief Financial Officer. Crenshaw's appointment is viewed as a strategic development in Sofftware AG's future. As Vice President of Finance and Administration, Chief Financial Officer, Crenshaw's responsibilities at Software AG will encompass several areas. He will oversee all of Software AG's financial activities, including: Profit Planning, Controls, Tax Auditing, Treasury, Accounts Payable, and company interface with the outside financial community. Crenshaw will also be responsible for Personnel, and all legal matters. Additionally, he will have the responsibility for the company's strategic planning efforts.

Carlton B. Crenshaw
Vice President of Finance and Administration
Chief Financial Officer.

Crenshaw's background prepared him well for the responsibilities of his new position. His business career began at Sperry Corporation 15 years ago when he joined them as a financial analyst in the Treasury Department. It was on a high growth path to begin with which provided an opportunity to run the investor relations program for the corporation. There he gained a lot of high level visibility in the company's strategies, products and management from 1972 through 1979. Crenshaw subsequently became the focal point for acquisition and competitor analysis and was the financial back-up for the Chief Financial Officer. In 1974, he was elected the youngest officer in the history of the company as Assistant Treasurer. In 1979, he became Treasurer of the company and remained there through early 1982. As Treasurer, he was responsible for a wide range of financial assignments, beyond what most people see as the normal treasury functions. This included managing the world-wide cash flow, foreign exchange exposures, all of the public financing and appropriations and was heavily involved in financial policy re-evaluation, as well as acquisition focus. In April 1983, Crenshaw left that function to become Vice President for Business Planning and subsequently Vice President for Strategic Planning for the largest division within Sperry Information Systems, which is a $3 billion company. These new responsibilities included evaluation and formulation of all business and financial strategies and the strategic direction of the company.

As a result, Crenshaw has many creative ideas and is exceptionally well prepared for his responsibilities as the Chief Financial Officer of Software AG of North America, Inc.

Crenshaw, 40, earned a dual MBA degree, in Finance as well as Economics, from New York University Graduate School of Business. His undergraduate work was at SMU where he earned a BBA in economics. Crenshaw also has a background in the military as an infantry and artillery officer in the United States Marines. He left the marines in 1969 after a 3-year tour of duty as a captain.

Crenshaw, his wife Andrea and their three daughters, Cathy, 7, Christine, 12, and Colette, 16, plan to move to the Reston area at the end of the school year. They currently reside in Berwyn, Pennsylvania, which is south of Valley Forge, a suburb of Philadelphia.

In a related development, former Software AG Treasurer and Controller, Gil Markbein has been elevated to the post of Vice President and Controller. Markbein's principal responsibility is the finance department. He is also involved in Software AG's long range strategic planning.

Crenshaw's appointment to Software AG along with Markbein's elevation occur at a time when the company is moving to the forefront of the mainframe software industry. Both appointments are indicative of the strengthening posture of the management team. □

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Conference Registration Form

15th International Software AG Users' Conference   May 11-15, 1986 San Diego
Registrations must be received prior to April 9, 1986
Please Fill Out Form Completely

Print:

Conferee Name _____

Title _____

Company _____

Address_____

City/State/Zip _____

Country_____Telephone Number (_____) _____

Companion Name _____

Check one:
☐ User ☐ Consultant ☐ Guest
☐ Distributor ☐SAGNA Employee ☐SAGD
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Fees:

	Before April 9 Save $100!	After April 9
Conferee:	$750	$850
Companion:	$250	$350
Consultant:	$1150	$1250

☐ Payment Enclosed ☐ Please Invoice

☐ P.O. Number_____

(Be sure to mail your Hotel Registration Form separately.)

Send Invoice To:

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Attention _____

Note: An additional $100 will be added to registrations which are received postmarked after April 9, 1986. A $100 fee will be charges for those who cancel after May 1, 1986. A $300 no-show fee will be charged to those who register, fail to cancel and do not attend.

We sometimes take pictures of meetings for inclusion in Software AG publications. If you have any objections to this policy, please inform us before the meeting.

For Software AG Use Only

Invoice Number _____Date Invoice _____

Amount Paid_____Date Paid_____

Check Number _____

Complete this form and mail to:
Software AG Users' Conference Registrar,
11800 Sunrise Valley Drive, Reston, Virginia 22091.

Hotel Registration Form

Sheraton on Harbor Island
(619) 692-2265

Headquarters Hotel:
Sheraton Harbor Island-East
1380 Harbor Island Drive
San Diego, CA 92101-1092

Sheraton Harbor Island would like to welcome you in advance as a participant in
"BEYOND THE HORIZON"—15th International Software AG Users' Conference, May 11-15, 1986

To assure a confirmed room, send this form prior to April 9, 1986.

Please mark the appropriate accommodation and requested rate, which will be confirmed if still available.

☐ Single $85
☐ Double (1 Bed) $85
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(Check in time is 2:00 p.m. and check out time is noon.)

This reservation will be held only until 3:00 p.m. on the day of arrival unless guaranteed by one of the following credit cards:

(CHECK ONE)
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Exp. Date _____

Credit Card number_____

Enclose a deposit equal to one night's rate plus 6% tax. A confirmation will be mailed to your address as given above.

Complete this form and mail to Sheraton Harbor Island-East, 1380 Harbor Island Drive, San Diego, CA 92101-1092

CHANGE/ENHANCEMENT FORM

ADABAS

_____ ADABOMP	_____ MPM/NUCLEUS	_____ SECURITY
_____ CTCS	_____ NET-WORK	_____ UTILITIES
_____ DOCUMENTATION	_____ ONLINE SERVICES	_____ VM
_____ INTERFACES	_____ PERFORM. & ACCTG	_____ ADABAS (VMS)
		_____ OTHER

COM-PLETE

_____ COM-PASS	_____ NUCLEUS	_____ TERM. SUPPORT
_____ DOCUMENTATION	_____ PERFORM. & ACCTG	_____ UTILITIES
_____ FILE I/O	_____ SECURITY	_____ USER EXITS
_____ INTERFACES		_____ OTHER

NATURAL

_____ DDM & DB	_____ LANG. FUNCTIONS	_____ SYSTEM FUNCTION
_____ DOMUMENTATION	_____ LANG. INTERFACE	_____ TP & OS INTERFACE
_____ EDITOR	_____ CON-NECT	_____ SECURITY
_____ EDUCATION	_____ PERFORM. & ACCTG	_____ 'SYS' FUNCTIONS
_____ GRAPHICS	_____ SYSTEM PARAM.	_____ SUPER NATURAL
_____ I/O	_____ NATURAL/CONNECTION	_____ NATURAL (VMS)
		_____ OTHER

PREDICT

_____ CROSS REFERENCE	_____ INTERFACES	_____ USER SUPPORT
_____ DOCUMENTATION	_____ MODELING	_____ UTILITIES
_____ EDITOR	_____ PERFORM. & ACCTG	_____ OTHER
_____ FILE STRUCTURE	_____ SECURITY	

Request Title: _____

Request Description: _____

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_____

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Request Benefits: _____

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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
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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.

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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-PLETE 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-PLETE 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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Organization _____

Address _____

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Zip _____ Country _____ P.O.# _____

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)

Name _____

Organization _____

Address _____

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City _____ State _____

Zip _____ Country _____ P.O.# _____

- -

Change of Address Form

Check One:

□ Change of Address (attach old label)
□ Add New Name
□ Delete Current Name (attach old label)

U.S. Users Send to:
Users' Group Liaison
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		Middle Initial	Sur- name	
Your Title				
Company Name				
Division				
Street 1				
Street 2				
Street 3				
City		State	Zip	
Country				
Tele- phone				

Future Newsletter Issues

May 1986 Newsletter
  copy due February 21, 1986
August 1986 Newsletter
  copy due June 20, 1986
November 1986 Newsletter
  copy due September 5, 1986
February 1987 Newsletter
  copy due November 21, 1986   □

Tools Tapes

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-PLETE Tools Tape Version 8306   □

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EDP Division
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Honolulu, HI 96810
(808) 548-7443

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R.R. Donnelly & Sons Company
MIS 3-3 Department
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New England Region
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Massachusetts Institute of Technology
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Northwestern Region
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Los Angeles, CA 90009
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DIRECTIONS

SOFTWARE AG'S NEWEST OFFERING FOR THE INFORMATION CENTER: SUPER NATURAL

For many years business professionals have been faced with the dilemma of requests waiting to be processed. In many instances the business need for these requests would have changed before the requests could be satisfied.

In order to provide these professionals with timely access to the information they needed, many companies offered their users a subset of NATURAL to develop their own inquiries and reports. This solution was very useful for individuals that had some software experience and needed to solve simple requests.

SUPER NATURAL was developed to offer extensive reporting facilities to those professionals that need complex as well as simple reporting capabilities and have no previous experience with software solutions.

Many currently available end user products offer facilities to generate complex and simple inquiries and reports. However, most lack sufficient security and control measures, integration with current software facilities that allow for functional extensions, and the ability to truly offload the reporting requirements from data processing professionals to the end users. SUPER NATURAL has addressed these issues by providing extensive integration with Software AG products such as: PREDICT and NATURAL Security for security and control, NATURAL/CONNECTION for PC integration and NATURAL/ GRAPHICS for graphical display.

SUPER NATURAL was released in April, 1985 and has gained tremendous acceptance in our user base. The product is being used in Information Centers, in all types of industry segments and as an application development aid. □

reporting tool. "The marketing department doesn't always need the details," says Chronister. "Sometimes all they want are the trends and the bottom lines —and that's what NATURAL/ GRAPHICS helps us give them, on very little notice.

"Very often, we can take a 50-page sales analysis report and cut it down to a single sheet of graphics that conveys all the essential information. And because the graphics are integrated with the data base, we can give them the information any way they want — by customer, by product, by sales region, or whatever."

All in all, says Chronister, the choice of Software AG has played an important role in enabling Tastybird Foods to implement the systems needed in today's business environment.

"There's no way we could ever have done what we've done without the flexible tools we have. And we're happy to spread the gospel. I even teach a course on ADABAS at Arkansas Tech University."

Theron Walker shares Chronister's enthusiasm. "We're using the same data as before, but we've got a completely different system — more efficient, more responsive to our users, and better than it would ever have been without ADABAS and NATURAL." □

QUARTERLY RESULTS

Software AG Systems, Inc. Comparative Operating Results
(In thousands except per share amounts.)

	Three Months Ended November 30		Six Months Ended November 30	
	1985	1984	**1985**	1984
Revenues	$ 16,353	$ 12,232	$ 32,390	$ 25,964
Expenses	12,327	9,017	22,931	17,655
Income Before Income Taxes and Cumulative Effect of Change in Accounting	$ 4,026	$ 3,215	$ 9,459	$ 8,309
Net Income	$ 2,134	$ 1,687	$ 5,014	$ 2,819
Income per Share Before Cumulative Effect of Change in Accounting	$ .36	$ .28	$ .85	.72
Net Income per Share	$ .36	$ .28	$ .85	.46
Number of Shares Used to Compute Net Income per Common Share	5,862	6,153	5,858	6,134

SOFTWARE AG

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Chicago
Cleveland
Dallas
Denver
Detroit
Houston
Kansas City
Los Angeles
Minneapolis
New York
Northern New Jersey
Orlando
Philadelphia
Pittsburgh
St. Louis
San Francisco
Seattle
Washington, D.C.

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International Sales

Argentina
Australia
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Canada
Israel
Japan
Mexico
Panama
Singapore
South Africa
Venezuela

European Sales

Denmark
France
Italy
Netherlands
Spain
United Kingdom
West Germany