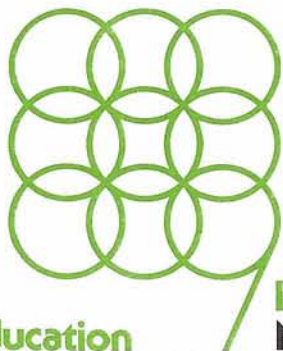


Software AG International Users' Group Newsletter

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Users' Group News



The Olympics of Education

**Innisbrook 81
Ninth International**

Software AG
Users' Conference
May 10-14, 1981
Innisbrook, Florida

Innisbrook '81 —The Olympics of Education

**Users Opt for Conference
Agenda Changes**

Education, with special attention to a more thorough awareness of SAG product implementation and user problems, will be the prime focus of the Ninth International Software AG Users' Conference, scheduled May

(Continued)

10—14, 1981. To be held at Innisbrook, a conference facility on the west coast of Florida, the annual Users' Conference will offer a wide range of general sessions, seminars and dialogues on many industry—related topics with a high priority on a systematic approach to the exchange of user information.

The agenda promises to be an innovative combination of:

- Nationally known data processing speakers who will present state-of-the-art technology;
- In-depth technical workshops, highly tailored to specific user needs;
- Specially designed tutorials which will offer a variety of means to address technical proficiency;
- User presentations which will focus on unique user applications.

The enriched agenda is largely a result of increased user involvement in setting their Conference priorities. Attendees at the Eighth International Users' Conference in Houston, Texas responded actively and positively to the Conference evaluation request. While some questionnaire topics evoked a variety of conflicting personal preferences, other responses were remarkably homogeneous.

Two major areas for possible change were highlighted. Attendees consistently valued sessions where Software AG personnel participated actively, volunteering that these sessions provided a high level of technical information. Users requested that more Software AG workshops and presentations be included in future conference agenda. In addition, many attendees suggested papers be reviewed to en-

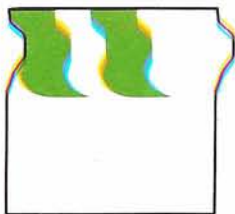
sure that presentations represent a variety of timely technical interests and unique user applications.

Innisbrook, the site of the 1981 Conference is a thousand-acre resort on Florida's Gulf of Mexico coast. South of the Greek fishing community of Tarpon Springs and just north of Tampa International Airport, Innisbrook is the winner of Mobil Oil Corporation's coveted 4 Star

Award and was recently named the most preferred conference resort in America by professional corporate meeting planners from all over the country. Innisbrook is widely known for its luxurious self-contained setting and unique accommodations as well as its extensive conference meeting facilities. Innisbrook is a perfect setting for Software AG's "sunshine university".

Table of Contents

Users' Group News	1
Innisbrook '81 — The Olympics of Education	1
President's Message	3
Technical Support Committee Formed	3
Watch for Call for Papers	3
Change/Enhancement Process Reviewed	4
Change/Enhancement Request Form	5
Future Conference Site Survey Evaluated	7
Current Boundaries for United States Users' Group Regions	8
Regional Reports	9
ADABAS News	15
ADABAS Source Code Sought by Russians	15
ADABAS/VM Being Developed	15
ADABAS Runs on 3370s	15
ADABAS Technical Notes	16
Testing V4.1 While Running V3.2 Production	16
A User's Experience in Converting TOTAL to ADABAS and Dynamically Loading	18
ADAMINT Access Modules	18
ADABAS Special Interest Group Reports	21
ADABAS Special Interest Group Chairpersons	21
ADABAS Product Rep's Report	22
COM-LETE News	23
COM-LETE Technical Notes	23
COM-LETE Interface with JES	23
Instant On-Site Support	25
COM-LETE Special Interest Group Reports	26
COM-LETE Product Rep's Report	29
COM-LETE Special Interest Group Chairpersons	29
NATURAL News	30
NATURAL Is International	30
NATURAL Features	30
NATURAL Technical Notes	31
NATURAL User Exit to Save Programs on an OS PDS	31
NATURAL Tips and Techniques	33
User's Dialogue on NATURAL	35
Tips on Using NATURAL	36
Letters to the Editor	37
NATURAL Product Rep's Report	38
NATURAL Special Interest Group Chairperson	38
Software AG News	39
Software AG Announces The Data Base Machine	39
ADABAS-M Available	41
New Leadership Announced	41
Software AG Class Schedule	42
Software AG Expands Consulting and Education Services	44
Reston Education Center	44
Software AG Introduces	45
Publications Report	45
Current Release Levels	46
Regional Representatives	47
International Software AG Users' Group Executive Committee	48
Dates to Remember	48



President's Message

President's Message

The annual Software AG Executive Committee Meeting will be held October 21 in Reston, Virginia. At this meeting we will be discussing the Technical Agenda for the 1981 Conference, results from the future conference sites survey and status of the working committees. In my next Newsletter article I will report to you on the highlights of this meeting.

I am very pleased to report that the Technical Support Working Committee has gotten off to a good start, and that Bob Taylor of Evans Products Company has

been appointed Chairman of this Committee. Bob has distributed a "Technical Support Incident Log" to all Regional Representatives; each Representative will then appoint a local Coordinator to distribute the form to all local installations and forward completed forms to Bob.

At the last Conference each attendee received a copy of the research paper prepared by Software AG on NET-WORK, and a number of individuals received advance copies of NATURAL documentation (Version 2+). A major reason for distributing this information was to get user response to these planned products. There has been very little user response and I hope that all

users who have an interest in these areas respond as soon as possible.

Each Software AG user has been sent a Change/Enhancement form. The schedule and another form can be found in this Newsletter. Since this is a significant Users' Group activity, a special effort should be made to indicate your ideas for product enhancements. Please remember the December 12th deadline.

Within the next few weeks you will be receiving a "Call for Papers" for the 1981 Conference. Please consider contributing to the Conference technical agenda by sharing your interesting applications and techniques.

Technical Support Committee Formed

*Bob Taylor
Evans Products*

One of the positive steps resulting from the Houston Conference is the formation of a Technical Support Review Committee. Both Software AG and the Users' Group will be active participants in this joint venture. The functions of this Committee are:

- To establish and maintain dialogue with Technical Support (via direct communication with Edward J. Forman, Vice President of Technical Operations);
- To determine if there is a problem in the area of technical support;
 - To define this problem;
 - To work with Software AG

to resolve these difficulties or bottlenecks in support.

To this end, each Regional Representative has been contacted and asked to gather information for the Committee on a local basis. We expect the collection and analysis of this information to take three to six months. If you have any problems that you wish to have reviewed, please contact your local Regional Representative or a Committee member. Without your input we can only conclude that there are no problems with technical support and will dissolve the Committee.

I am confident that by working with Software AG Technical Support we can pinpoint and eliminate any problem that exists.

I have been asked to direct this effort and will be assisted by David Antes (Ray-O-Vac), Cleburne Fritz (Pioneer Corporation), William Thornton (Superior Oil Company), and Beth Bailey (Chicago Bridge and Iron).

Watch for Call for Papers

An official "Call for Papers" will be distributed to each Software AG user. The request for user participation at the Innisbrook Conference will define categories of user contributions, the deadline for paper submission, and other requirements for papers.

Please consider how you might respond to this "Call for Papers" by selecting your presentation topic.

Change/ Enhancement Process Reviewed

*Peter MacRoberts
Pennzoil Company*

Any user of a Software AG product can submit a Change/Enhancement Request.

This year with four separate products to be voted on and a major release of ADABAS, the number of requests is expected to be much greater. In order to have time to process your requests, for the Product Representatives to consolidate them, to allow the ballots to be counted, and for Software AG to have the time to respond, the following schedule has been set:

12 December 1980

Last day Change/Enhancement requests will be accepted.

12 January 1981

Consolidation of like requests completed by Product Representative.

27 January 1981

Requests and ballots distributed to all users.

6 March 1981

Last day ballots will be accepted.

24 April, 1981

Results of vote and Software AG's responses distributed to all users.

I know it's hard to begin thinking now of the Conference in May, but the sooner the requests are received, the better. The direction taken by ADABAS, COM-LETE and NATURAL can be influenced by your participation.

The only change in the system this year is an acknowledgement that voting by groups, which has existed de facto for several years, will become an official method of voting for Change/Enhancements. Details will accompany your voting package this January.

Each user has already received a Change/Enhancement Request form in the mail; another copy of this form is in this Newsletter. Although these forms have not changed, this is a good opportunity to review this process for new users. Here is a brief overview of the information requested:

1. (Product Name) - ADABAS, COM-LETE, NATURAL, and/or ADABAS-M.

2. (Title of Request) - A very short title that describes request; e.g., "AT BREAK" Processing, UTIL09 generation of DDM, etc.
3. (Category) - The general area in which this request can be classified; e.g., MPM, Performance, ADAMINT, Mapping, etc.
4. A succinct description of the request giving enough detail to fully describe it; emphasize major goals for the product rather than solutions or short-range fixes.
5. List benefits expected from the request.
6. Supply date, name, company, address, and telephone number.

Send all completed Change/Enhancement Requests to:

Peter R. MacRoberts
Change/Enhancement Coordinator
Pennzoil Company
P.O. Box 2967
Houston, TX 77001
(713) 236-7774

CHANGE/ENHANCEMENT REQUEST FORM

Please forward completed requests to:

Product _____

Category _____

Title of Request _____

Mr. Peter R. MacRoberts
Pennzoil Company
Pennzoil Place
P.O. Box 2967
Houston, Texas 77001

Complete Description of Change/Enhancement (please type):

Identify Benefits:

Date: _____

Submitted by: _____

Name: _____

Company: _____

Address: _____

Telephone: _____

For Users' Group Use Only:

Request Number: _____

Date Received: _____

Received by: _____

Consolidated with Request Number: _____

FOLD



PLACE
STAMP
HERE

**Peter R. MacRoberts
Pennzoil Company
P.O. Box 2967
Houston, TX 77001**



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Future Conference Site Survey Evaluated

Over ten percent of SAG-GROUP user sites responded to the Future Conference Site Survey, published in the July issue of the Software AG Users' Group Newsletter, and the responses were as varied as the installations themselves. Replies were received from all over the United States and Canada. The largest number of returns came from the more concentrated installation areas, with the Western Regions replying in slightly higher numbers. European responses were less than 2%.

Designed primarily as an informal survey to ascertain the advisability of conferences scheduled outside the continental United States, the survey also asked for previous conference attendance, internal corporate policies or guidelines that would affect at-

tendance at conferences, and estimates of future attendance at a variety of sites, both in and outside of North America.

Several major areas emerged as the most important considerations for attendance: geographical proximity, air transportation costs, departmental or board approval for travel outside the continental United States.

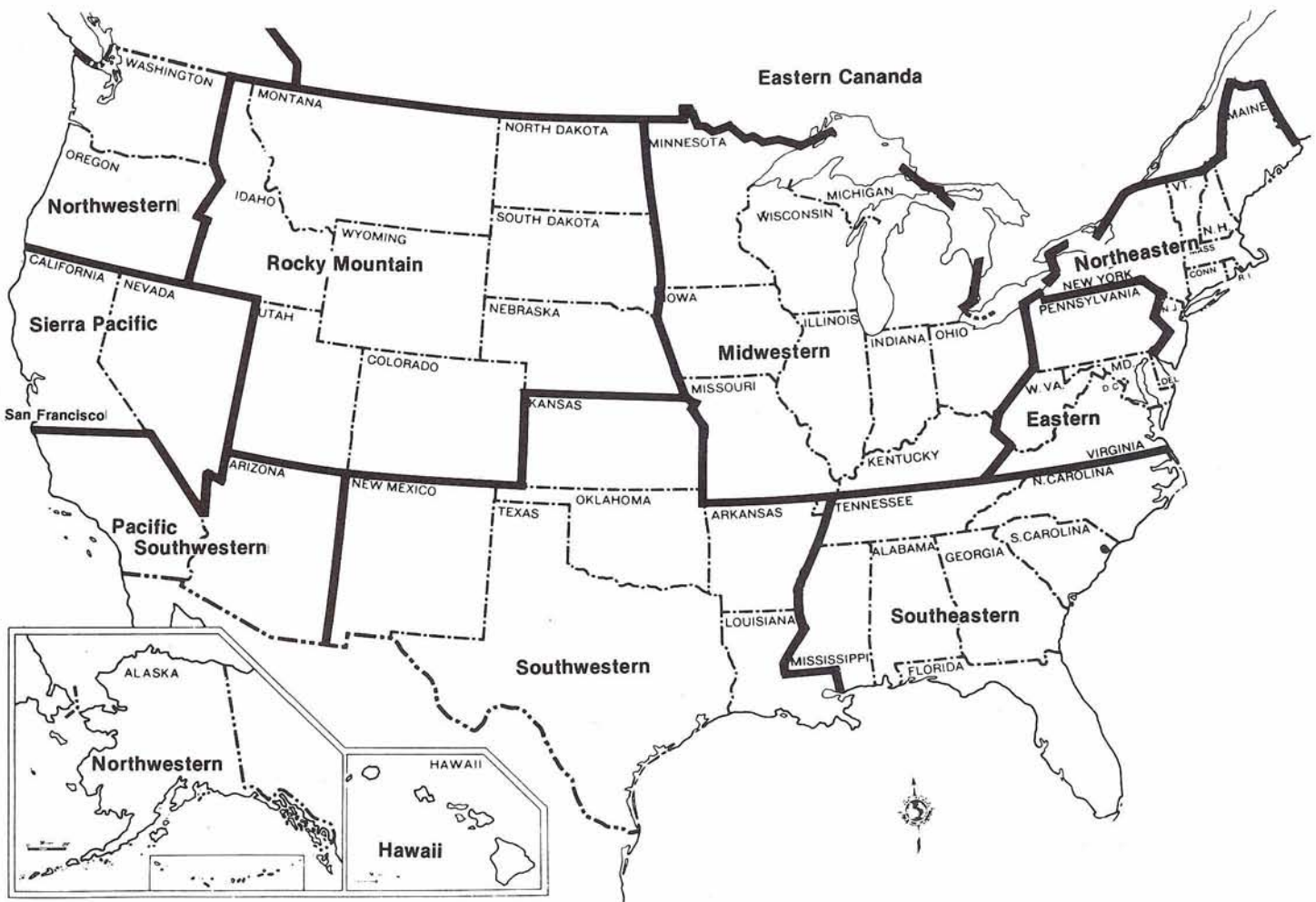
While Hawaii is viable for many West Coast users, East Coast sites indicate costs would be prohibitive. Canada is attractive to users in the states bordering major Canadian conference centers, and Puerto Rico is attractive to installations in the southeast. But generally, sites "close to home" were viewed as the most feasible. Survey responses indicated overwhelmingly that the number of attendees per installation increases with the geographical proximity of the conference site selected; air transportation costs were cited as the major factor in conference attendance. Software AG's policy of selecting sites on a rotating geographical basis

was positive, but rapidly increasing fuel costs always affect a significant portion of decisions regarding conference attendance.

A large percentage of users could not travel outside the continental United States and the reasons were two: internal policy regulations and transportation costs. Several respondents indicated disapproval of "exotic" sites while many users encouraged the selection of sites that provided "glamorous" social possibilities or that allowed for pre and/or post vacation possibilities.

As you know, Software AG is actively involved in a long range site selection process; our goals are to provide a conference which will offer a high level of technical exchange to the greatest number of users possible. While the site survey wasn't definitive, the valuable input we received from you will allow us to make valid decisions in this regard. Software AG appreciates the time and effort involved in responding to the questionnaire.

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.



Regional Reports

Pacific Southwestern Region

*David Berg
Hughes Aircraft Company*

Our June meeting was hosted by Information Handling Services. The principal discussion centered around the Houston Conference with a review of the Executive Committee meetings and the general Conference sessions. Information about the 1981 Conference was discussed as were the potential sites for 1982. Of course, the release of ADABAS V4.1 was announced, and users wanted to hear all about it.

The July meeting was hosted by Hughes Aircraft. David Berg reviewed the process by which Hughes moves a Data Definition Module from one file to another and from one data base to another. Hughes Aircraft maintains a Data Dictionary as file 8 on its production data base for storage of file definitions for systems in development. Once a system has been released to production, the file definitions are moved from file 8 to file 6 which contains all released production Dictionary file descriptions. The standard file (file 8) also temporarily stores the DDM's generated by UTIL09. However, Hughes Aircraft has reserved file 7 as the NATURAL System file, so the DDMs are moved to file 7 on the test data base and made available for NATURAL program development.

When ready for release to production, the NATURAL programs are cataloged (on the test

base) and both the DDMs and NATURAL modules are moved over to file 7 on the production base.

Esther Friedmann presented the Product Definition Information System being implemented at Hughes Aircraft. Hughes is utilizing 7 data base files to store comprehensive product data. The multiphase project will integrate all impounded data, including graphics, specifications, structure data of assembly parts, and configuration management information on the central node of the product definition data base.

The August meeting was hosted by the Aerospace Corporation, our region's newest user. David Berg announced that the SAGGROUP Executive Committee Meeting will be held October 20-21 and requested any user who has a specific item to be included on the agenda to please contact him. He also put out a call for papers for the next International Users' Conference, suggesting the monthly user meeting be utilized as a trial run for presentations.

Bernice Bjerke gave an overview of the Aerospace Corporation organization. Aerospace has both a CDC CYBER 172/6400/7600 and an IBM 3033. ADABAS is installed on the IBM 3033 with a TSO capability. Aerospace is divided into four groups that encompass development, engineering, federal programs, and administration. The engineering group contains the Administrative Data Systems Department which will initially utilize ADABAS. The sole customer of ADS is the administration group, which will house the Data Administration function and maintain the Data Dictionary under the

supervision of Joe Ward. Aerospace plans to install a small system that will access ADABAS by the end of the year. Longer range systems implementation will be accomplished within a two year time frame.

Ken Ng opened the meeting to a discussion of the role of the DBA. Most organizations have established the need for an expanded data base staff to handle the integration of data base activities. Functions assigned to the data base group include data administration, data base design, systems software maintenance, and data base maintenance. In fact, it was felt that the performance of systems programming functions by the DBA was a reasonable assignment in view of the reliance of those activities upon data base knowledge and skill.

It was agreed that Change/Enhancements would be discussed as a group at the October meeting. The deadline for the submission of Change/Enhancements is December 12. The October meeting will include discussion of Version 4.1 installation.

Sierra Pacific

*Bill Belisle
Department of Youth Authority*

The first meeting of the newly independent regional Users' Group representing the Northern California and Nevada area was held August 22, 1980 at the California State Health and Welfare Data Center in Sacramento. Among other items of business, the group selected Sierra Pacific as its regional name.

(Continued)

The major presentation of the meeting was a group discussion of the merits and shortcomings of the various data base management systems available, in addition to ADABAS, at the State's two major data centers, which include IDMS, IMS, and RAMIS. The software specialist, responsible for the generation and maintenance of each DBMS, related his experiences with the product and told of the various user projects which utilize them.

A regular feature of the group's meetings has become a NATURAL information and program exchange. Sacramento County and CALTRANS offered and discussed listings of some interesting applications.

Members of the group expressed concern relating to Software AG's "release on request" of Version 4.1. It was the general feeling that if 4.1 is really in production it should be released to all users just as any other product would be.*

The group's next quarterly meeting is scheduled for early November and will be hosted by Sacramento County.

***Editor's Note:**

Software AG's policy of "release on request" applies to all product releases.

Rocky Mountain Region

*Ellen Kasun
Hewlett-Packard*

A meeting of the Rocky Mountain Users' Group was held in Denver on June 26; it was chaired by our new President,

Ms. Ellen Kasun. Seventeen ADABAS users attended the meeting. During the business meeting we decided to have one meeting per year geared toward end user and programmer education and participation. At this meeting, users at many installations will present and discuss programming techniques used in their shops. Tentatively this workshop/meeting is scheduled for December. Furthermore, we decided to limit attendance at our meetings to four people per Software AG product license.

After the business meeting, Leon Miller of the State of Utah summarized several of the ADABAS presentations at the 1980 Users' Conference. During his discussion he suggested that Software AG publish and distribute Conference papers to users prior to our arrival. This would be a great help to determine which sessions would be most meaningful. It was suggested that one page abstracts would accomplish the same end and would be more feasible than publishing and distributing each paper in its entirety. If abstracts are provided, regional groups could schedule members for specific sessions, asking for a detailed review of these sessions at the regional meeting following the Conference. This "divide and conquer" approach would give our group maximum coverage of the Conference and would help minimize the problem of one person wanting to attend two sessions scheduled at the same time.

The Software AG update included the following items:

- Peter Harris has moved to the Denver technical support center and will be the DOS expert there;

- The ADABAS DOS 4.1 task force is currently preparing this system for release;
- Software AG's consulting efforts are focusing on the following intentions: design assistance and development of model systems (especially under NATURAL).

Jerry Schade of the General Government Computer Center gave the last presentation. He summarized several of the NATURAL presentations given at the Users' Conference in Houston. Among Jerry's comments were:

- NATURAL is an outstanding product;
- All the presentations Jerry attended showed users were quite satisfied with the product;
- Peter Page enumerated a long list of Change/Enhancements which show that this outstanding product will get even better;
- One of the most fascinating uses of NATURAL presented at the Conference was that of code generation, or programs that write programs. Jerry felt these could be extremely useful and great time-savers.

Northeastern Region

*Jack Meth
American Electric Power*

The second Northeastern Users' Group met on August 27, 1980 at the New York Princeton Club.

Michael Berman, President of the International Users' Group, summarized the Houston Conference.

Tom Durkin described the use of user exits at INCO. Exits are useful for individual logs even in MPM mode, dynamic changing of file numbers and passwords. He described how to write user exits and that some are available from INCO.

Bob Taylor of Evans Products (Bluebell, Pennsylvania) and Restart/Recovery SIG Chairman gave his impressions of Restart/Recovery under V4.1.

Walter Kapica of Johnson and Johnson presented a report entitled "NATURAL User Exit for Source/Object Programs". The report deals with maintaining and modifying NATURAL source programs on non-ADABAS files.

Southwestern Region

*Bob Holub
Superior Oil Company*

The Southwestern Region met in San Antonio, Texas on July 18, 1980. The meeting was characterized by a high level of user interaction and information ex-

change. Each user organization had the opportunity to address the group on the status of their installations.

1. Ken Gregory of the University of Texas discussed the installation at the University of Texas and any problems, solutions, and accomplishments which the University of Texas has been involved in. In December, 1979, the University of Texas acquired ADABAS, COM-LETE, and NATURAL. They have interfaced COM-LETE to TOTAL for conversion purposes.

The University of Texas currently has about 30 files on ADABAS, two of which are in production. They are using NATURAL to satisfy complex needs, doing many FINDS in one program and accessing many files. They report slow response time, observing that NATURAL is about three times slower than COM-LETE. Currently ADABAS runs at a higher priority than COM-LETE. Houston Oil and Minerals suggested that they would receive better response time if ADABAS were at a lower priority than COM-LETE.

Bill Wagner of the University of Texas asked for suggestions on how to achieve file security under NATURAL. Pennzoil uses ACF, looks up the logon, and does the logon for the user. They use it with a generalized TSO interface. University of Texas also asked if installations put NATURAL source code in a PDS or in the Dictionary or what. Pennzoil puts their NATURAL code in

a PDS.

In the discussion that followed, someone questioned if most installations code ADAMINT modules for an application area (and so opened all files for that area) or if they code ADAMINT for a particular application program (and so opened the files which were needed by that program). Most user organizations present code ADAMINT for a particular application program.

Another user wanted to know if ADABAS Control Block information can be obtained. This would allow them to find out "who" is really using "what" files. We learned that this information is not distributed by Software AG.

2. Roger Van Wagner of Superior Oil briefly described the software environment at Superior Oil. This environment includes COM-LETE, ADABAS, NATURAL, CICS, and TAPS. Roger expressed Superior's desire to be able to CALL a NATURAL program. Superior has been working with Terry Jones in getting NATURAL to work on a TTY. Currently there are line feed and carriage return problems.

Superior Oil has disabled the UPDATE commands in NATURAL. Other companies (in particular Dow Chemical) have taken other approaches to this problem by having several NATURAL versions, some of which update, and some of which do not.

(Continued)

Bob Holub talked about recent experiences he has had in using ADAMINT under CICS. One of the major considerations is the DYNsize parameter which must be as large as the sum of all ADAMINT modules which the particular ONEP module calls.

3. Marvin Bechtold of Dallas Community College discussed the recent activities at Dallas County Community College concerning conversions from COBOL to COMPLETE and APL to COMPLETE. Dallas County Community College has tried ADAMINT, but finds direct calls are more efficient.
4. Gary Darby of Pennzoil indicated that he has experienced some delays in making contact with a TSOP representative. However, he did state that once TSOP is contacted, the support is excellent. Tom Berrisford will suggest TSOP adopt a follow-up procedure which will eliminate this problem.

Ron Martin told of a problem Pennzoil has had recently with an Associator Main Index extent. This led to a discussion of procedures for dumping and restoring the data base. Pennzoil reported difficulties with NATURAL and ADAFIX running at the same time. They found that ADAFIX (slow copy) was failing because some users never did a CLOSE and were still in the queue. Care should be taken when ADABAS data is on one pack and the Associator is on another

when doing a restore. If any updates are done in between the dumps of the packs, the subsequent restore will cause the data base to be out of sync. It was stated that a fast dump and restore could be used to restore a single file. Tom Berrisford says care should be taken when doing this.

Hardcopy support for NATURAL was discussed. Computer Language Resources said that they have hardcopy support for NATURAL under CICS.

An ADAScript + histogram command which does not specify a starting value will default to blanks; therefore, any descriptor values of binary zeros will not be picked up.

Pennzoil said they are having problems bringing down the data base gracefully. They are currently trying to allocate a data set with DISP = OLD to prevent new people from getting on. It was also suggested that batch jobs could be run in certain initiators, and the initiators could be shut down before ADABAS was to be brought down.

5. Ira Dobrow of the Texas Highway Department said that they use different copies of ADAHOOK on different libraries so that different logging requirements can be maintained.
6. Sal Dipaola of Shell Oil Company said that they use ADAMINT mainly in a batch environment. They also have an interface between

RAMIS and ADABAS.

Mark Siebert of Shell Oil said he has been using IMS-DC with ADABAS. He reports that the FIND-COUPLED command dropped a block of ISNs. When they switched their data base to 3350s, the problem went away.

7. Walt Mathews of Getty Oil reported that they installed NATURAL a few weeks ago and are still evaluating it. They have reported poor response time. Houston Oil and Minerals suggested that they mark ADABAS as non-swappable in the program property table; this will lower the paging rate.
8. San Antonio City Water Board reported no problems with ADABAS. They are an online shop mainly using ADABAS and CICS. In the past they have gotten ADABAS response codes 132 and 133 which say that a field in the data disagrees with the Associator. The solution to this is to go to SM-10. Currently they are on SM-7. They have gotten an I/O error on a backup and because of the nature of the file (police file), they cannot take the file down. They used IEHATLAS to zap the block to binary zeros in order to be able to take a backup. They then printed the block back out from an ADAFIX run and then keyed it back in. They find that this usually happens when something comes down in the middle of a transaction.

(Continued)

9. Cathy Delgado of the Ethyl Corporation reports that they are a relatively new user. They currently have a small test data base and are getting ready to install a few online inquiry systems.
10. Bill Bliss reported that Houston Oil and Minerals has been getting a response code 52 on FINDSETs. This results from the command ID being binary zeros. There is no solution yet. Rerunning the job corrects the problems.

Houston Oil and Minerals will be getting IBM 3278's MOD 5 (132 x 27) CRTs by September 1. They will be a beta test for support of this. A special VTAM macro is needed to support the 132 x 27 matrix. Paul Nugent has talked with Software AG about support of the 3278, asking for bi-sync mode first, and later on the SNA mode. Houston Oil and Minerals is expecting complete replacement of existing terminals by the end of the year.

They have also asked for support of 3380 disks.

All users are advised that when they plan to install new hardware, Software AG should be informed and included in the planning so that software can be prepared. Please document the plans and the environment in writing and forward to TSOP.

11. Trish Biedermann of Computer Language Resources says that they are doing ex-

tensive development of application programs using NATURAL.

They are going to be getting a second Amdahl V-8 and will use only one ADABAS data base. Tom Berrisford reports that this will be accomplished by a channel to channel connection between CPUs, a planned ADABAS enhancement.

12. Gary Darby and Ron Marin gave an in-depth presentation on the use of NATURAL at Pennzoil for the presentation portion of the meeting. Thanks go to both for their fine preparation and presentation.

All attendees were advised that a schedule and description of education courses offered by Steve Robinson was available on request.

United Kingdom

*Peter Spooner
ICI Organics*

The Users' Group met on September 18, 1980 in Nottingham with the British Railways Board acting as host. Darrell West of B.U.P.A. took the chair at the meeting attended by 24 users from 17 installations. Jeff Thomas of Talbot UK retired from the Executive Committee and was replaced by Jim Nixon of Prudential Assurance.

Roger Gatford of Yardley gave a presentation on a successful implementation of a NATURAL/ADABAS project for Purchasing Administration. The project was completed in half the time that a conventional COBOL system

would have taken.

Len Jenkinson of ADABAS Software Ltd. presented the SAGNA research paper on NETWORK. At the previous meeting a resolution was passed requesting a nine month period of support for ADABAS V.3.2.1/3.2.2. ADABAS Software Ltd. accepted this period for V3.2.1 but stated that V3.2.2 support would cease at the end of the year. As this latter point is unacceptable to us, we will pursue this further with SAG.

Users expressed dissatisfaction with the delayed release of V4.1 due to the nonavailability of manuals from SAG in Germany.

ADABAS Software Ltd. announced that they were prepared to contribute to the Users' Group chairman's attendance at the International Conference. The UK users had asked SAG/ASL to investigate the possibility of a European users' meeting. Software AG is unable to support this because of the low attendance of American users at the previous Conference in Munich in 1978, the language problems and the cost of an additional major conference.

Users were concerned that Software AG had not replied to previous correspondence on an escrow agreement. The Executive Committee is to continue to press for an agreement.

Special Interest Group meetings have been arranged for NATURAL and V4.1 Restart/Recovery. Any input from American users would be appreciated by the two SIG Chairmen, Gerry Gough, Allied Breweries, and Barry Ery, London and Manchester Assurance. The next meeting will be hosted by the Greater London Council on January 15, 1981.

Australia

John Palmer

Australian Bureau of Statistics

The July meeting of the Australian SAGGROUP was held in Melbourne where it was hosted by ACI. Fifteen users attended the meeting and SPL, the agent for Software AG products in Australia, was represented by Geoff Holloway and Bob Warburton. The total number of ADABAS installations in the Region has now grown to 12. Some of these users also have NATURAL installed; however, there are as yet no users of COM-LETE in Australia.

The first item on the agenda at the July meeting was consideration of a draft constitution for the Australian SAGGROUP. After considerable debate and some amendment, the constitution was adopted. The group is, therefore, now formally established and hopes to play as active a role as our location permits in the total community of users of SAG products.

Users in this country are widely scattered being located in Sydney, Melbourne, Perth and Canberra. The constitution allows an Executive Committee with representatives from each locality. The following were elected to the committee:

John Palmer — Australian Bureau of Statistics (Canberra)

Peter Kazacos — Overseas Containers Ltd (Sydney)

Fred Burns — Dun and Bradstreet (Melbourne)

Steve Maxwell — West Australian TAB (Perth)

The meeting passed a vote of thanks to John Lord for his great work in establishing the Group and acting as Chairman of an interim committee. Unfortunately, John is unable to participate further in the activities of the Group as he has left the employ of an ADABAS user. Software AG, represented by Geoff Holloway of SPL, made a presentation to John as a mark of appreciation.

After completing the general business the meeting turned its attention to an account by Bob Warburton of the International Conference which he attended

as a representative of SPL. This was followed by a brief description of ACI's data processing activities and a tour of their installation. After lunch the meeting was provided with a most enthusiastic account of the use of NATURAL in the West Australian TAB. This was given by Steve Maxwell whose praise of the product was such that at times we wondered whether he was employed by SPL rather than the TAB! Steve did note that, being a new product, NATURAL does have a number of rough edges and bugs; however, none of the problems encountered are considered serious enough to detract from a policy of using NATURAL as a programming language wherever possible.

The next meeting of the group will be in November when it will be hosted by Overseas Containers Ltd. Users are also hoping to have an opportunity to meet John Maguire during his visit to attend the IFIP Congress in Melbourne in October.

ADABAS News

ADABAS Source Code Sought by Russians

The business and data processing communities watched a final chapter unfold in an attempt to acquire ADABAS source code, allegedly for Russian use.

The story begins in December 1978 when Marc DeGeyter established contact with Software AG. His stated purpose was to acquire ADABAS source code for Techmashimport, a Soviet trading company. He offered \$150,000. John Maguire assumed the role as primary Software AG contact in the preliminary negotiations with DeGeyter. Mr. Maguire was soon replaced by an FBI agent posing as a Software AG employee.

Dialogue between DeGeyter and Software AG continued; the offering price was raised to \$500,000 and the deal was set. Contrary to his initial requests, DeGeyter agreed to complete the transaction in the United States. On his arrival at Kennedy International Airport, Mr. DeGeyter was arrested and charged with eight counts of commercial bribery. Newspaper reports indicate that DeGeyter carried documents implicating

him in similar "acquisition deals" with another high technology company.

Because evidence indicating that DeGeyter is involved in commercial espionage for the Russians is "circumstantial," charges against him have been dramatically reduced. He is currently serving a 4-month sentence.

ADABAS/VM Being Developed

With the availability and growing acceptance of the 4300 processors, use of the VM has become more prevalent. This has resulted in an increased interest in a generalized ADABAS/VM product. ADABAS/VM, which is currently under development, will respond to this requirement.

This product allows applications resident in a virtual machine to send ADABAS commands to an MPM residing in another virtual machine and to receive back the results of those commands.

Multiple users, MPMs and virtual machines will be supported in any combination. Intermachine

communication is highly localized and easily activated.

ADABAS/VM will be available in January 1981. Contact your sales representative for details and pricing.

ADABAS Runs on 3370s

At present, ADABAS is installed at a 4331 site which uses the 3370 disk storage medium. The site is running the current release of DOS/VSE and was interested in the distributed processing capabilities of the 4300 series.

Compatibility with the 3370 disks was expected since ADABAS has been running on a 4331 processor with 3310 disks for six months.

Manufactured by IBM, the 4300 series is designed for users who are interested in achieving the benefits of interactive and DB/DC applications. So, it is of natural interest to ADABAS users.

The 4300 series uses 3310s and 3370s as storage media. These fixed block architecture (FBA) disks do not support the BDAM access method; instead, all ADABAS I/O is done at the EXCP level.

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ADABAS

Technical Notes

Testing V4.1 while Running V3.2 Production

Dian Odell
Evans Products

ADABAS Version 4.1 was specially requested and received early August. The documentation for the installation and the use of V4.1 is much improved over the V3.2.1 set - thorough and detailed. Generally, the 'between the lines' knowledge and assumptions now are explained; operational requirements and expected results are documented. (I still have some difficulty remembering what information is in which manual since the manuals are written from different perspectives - DBA, programmer, operations, installation, etc.) The installation went smoothly and easily.

If you were starting from scratch, implementing V4.1 as your 'shop DBMS' would be a snap. However, we (and most of you) already have files and programs running under V3. The documentation does discuss somewhat, in several places, what to do if you wish to have all V3 programs begin accessing V4 without any changes or efforts by programmers. But that will not do, either. The functions and facilities of V4 must be tested and experimented with, interactions and implications must be understood. Then production systems and processes can be orderly migrated to use the new version (and tested again).

Details and suggestions for this environment are subtle for batch access and nonexistent for online access.

We needed to leave our V3 production environment untouched while providing V4 for trial whenever a user wished. V3 will continue to be our default version and users will have to do something different to get to V4. What follows are the steps taken at Evans to accomplish this and develop the desired environment and procedures.

First, install V4 ADABAS per the instructions and run all the test phases (our shop components and characteristics are MVS, COM-LETE, MPM, ADAMINT, NATURAL). Then, do the following steps:

General

1. Zap the chosen system defaults (most commonly chosen values) into ADARUN, ADALNK, ADALCMP, and other interface modules to allow the users to run most jobs without specifying control cards. (NOTE: The VER Values on page 34 of the *ADABAS Installation Manual* are incorrect—should be VER 0080 00 and VER 0084 0A00.)
2. Relink ADAUSER in ADALOAD with an alias of ADAHOOK (or copy ADAUSER and name the copy ADAHOOK) to facilitate the hard-coded linkedit control cards generated by our source library maintenance system for ADAMINT Modules, both V3 and V4. (Once we totally convert to

3. Watch the default data base IDs in the various components—it is inconsistent (01 for ADARUN, 240 for COM-LETE, 249 for ADA-SCRIPT + , etc.). To be safe, specify it for the generation of each component and do not let it default.
4. Arrange with operations personnel to run the V4 MPM in addition to the standard V3 MPM.
5. Apply all applicable early warnings.

Batch

Application programs (COBOL, etc., with ADAMINT)

Set up a V4 procedure for assembling ADAMINT. It will differ from the V3 one only in the STEPLIB pointing to the new version of ADAMINT macros and load libraries. In order to use the V4 DBMS with a specific batch program, the user must reassemble the associated ADAMINT (and link them with the program if they are not dynamically called). New V4 features will not be present, of course, but at least you can test to see if all the old functions still work.

At execution time of the batch program, a STEPLIB must point to the V4 ADALOAD so that ADARUN can be dynamically loaded. AMPM and AENQ DD cards do not do anything and can be left in the JCL to minimize changes for a test. The parameters for ADARUN (DDCARD) may be omitted if ADARUN has been set for defaults properly.

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NATURAL

Set up a V4 equivalent for all the V3 batch NATURAL procedures. The V4 ones should point to the V4 ADALOAD on the STEPLIB (the NATURAL load library in the STEPLIB should be the same in V3 and V4 since NATURAL does not change), and do not include the AENQ and AMPM DD cards in the V4 version.

Include ADAUSER in the linkedit instead of ADHOOK.

The user then either executes the V3 or the V4 procedure to access whichever version of the data base and MPM is wanted.

ADASCRIP +

Like NATURAL above, set up a V4 equivalent of the V3 ADASCRIP + batch procedure. The STEPLIB must reference the V4 ADALOAD, and the AMPM and AENQ cards may be removed.

The user then executes the procedure for whichever version is wanted.

Online Via COM-PLETE

As a supplement to the ADABAS V4.1 installation materials, users of COM-PLETE also received a mini-tape and instruction (2 pages) for installing a new version of the ADABAS/COM-PLETE interface module (TLOPADAB). This information says that this new module will "allow the use of both V3.2.1 and V4.1 with the same copy of COM-PLETE" but it does not tell you how to indicate which version you wish to access at any particular time. It tells you to re-link COM-PLETE but the linkedit INCLUDE statements given are not identified as to which level of COM-PLETE they are applicable for—they may not be right for

your level. You will have to ask Software AG to provide a 'modification number' for this TLOPADAB installation to keep your maintenance documentation up-to-date. And you will need EW026 and EW028.

The interface module will look at the first byte of the Control Block to determine which version of ADABAS you are requesting—X'03' or X'04'. If neither of these values is present, the interface will use the value specified in TLOPADAB as the default version. (We specified Version 3 as the default so unaware users would continue to use V3 as they did before.) Users of NATURAL, ADASCRIP +, and online programs using ADAMINT do not have access to the Control Block so the following was done for these components:

1. Modify the source of ADALCMP in ADASRCE by adding two statements right after the 'start' card:

```
L 15,0(1) Point to Control
          Block
MVI 0(15),X'04' Set V4 as
                requested DBMS
```

Assemble this modified ADALCMP and link it as re-entrant (rent).

2. Install ADASCRIP + as you normally would (default changes, assemblies, etc.) except that when it is linked, include the modified ADALCMP as the COM-PLETE interface module. Name this version of ADASCRIP + different from the V3 online ADASCRIP + and catalog it to COM-PLETE. The user can then execute whichever version he wants to use.

3. Generate NATURAL as you normally would, except when linkediting, insert the following two control cards ahead for the INCLUDES for NATCOMP:

```
INCLUDE ADALOAD(ADALCMP$)
Bring in modified ADALCMP
REPLACE ADABAS
```

If you split NATURAL into a resident portion and a thread portion, you will have to change the linkedit as indicated above for both portions. Link this version with a name different from the V3 online NATURAL and catalog it to COM-PLETE.

The user then can execute whichever version he wishes.

4. Online Applications Programs. The ADAMINT modules must be assembled using the V4 ADAMINT macros and load libraries. Include the modified ADALCMP when linkediting the final program CSECTS.

Dictionary Handling

It is our intention to unload the dictionaries we now have on V3 and reload them on V4. This will enable NATURAL to work and parallel testing to proceed.

Miscellaneous Unsolved Problems and ERRATA

1. No guidelines are given as to region size required for utility runs.
2. Page 138 of the *ADABAS Utilities Manual* says DSDEV need not be specified on ADALD1 if it was defined when the data base was established. Seems to be required anyway — ERROR 23 in

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- ADALD1 without it.
3. Page 3 of the *ADABAS V4.1 Conversion Guide* says "files unloaded from a V3 data base using the V3 UNLOAD utility may be loaded into a V4 data base." Using the V3 UNLOAD and the V4 ADALD1 and ADALD2 gives an unending message loop of "I/O ERROR—ASSOCIATOR BLOCK 2."

In Summary:

Yes, there are some problems, as there are with anything new when first given to users who immediately do the things which everybody said "nobody will try that"! The documentation for the interface via COM-LETE was weak (at best); but the documentation for the ADABAS components is excellent—telling "why to do" as well as "how to do". It is written from the real-

world perspective of the user. Many of the new functions, formats, and controls of V4 address the daily needs and problems of the user. I hope this emphasis will continue and expand into all areas of support from Software AG.

Editor's Note:

Revised documentation will incorporate changes suggested by Ms. Odell.

A User's Experience in Converting from TOTAL to ADABAS and Dynamically Loading ADAMINT Access Modules

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The University of Texas at Austin purchased ADABAS, COM-LETE, and NATURAL in January 1980 in order to handle an online card catalog and circulation system we are developing for the General Libraries of the University. As a result of many of the nice features available with ADABAS, management decided to convert all data base applications in our shop to ADABAS. We currently have the TOTAL data base management system installed and have used it quite successfully and adequately since 1972. So, the project for me as analyst in charge of the data base management system was to prepare for the conversion from TOTAL to ADABAS.

We have 253 files under TOTAL in production. These 253 files represent 29 areas or appli-

cation systems, and 1200-1500 COBOL programs that access TOTAL. There are roughly 2000 EASYTRIEVE programs accessing TOTAL. All COBOL programs that access TOTAL do so through I/O subroutines. The magnitude of COBOL programs in use made the conversion of each one of them prohibitively difficult. Consequently, we decided to modify the I/O subroutines so that the application program "thought" it would be accessing TOTAL, but upon making a call to the new I/O subroutines (i.e., simulators), it would go to the ADABAS files.

The TOTAL data base management system has "master" (or owner) files and "variable" (or member) files. TOTAL requires a unique key for each master record in a master file. Variable file records can have multiple non-unique keys. This is used to associate a variable record with records in other master files.

In order to simulate TOTAL and to make the initial conversion as easy as possible, we made a one-to-one conversion of TOTAL files to ADABAS files. That is, each TOTAL master file became an ADABAS file and each TOTAL variable file that was not for cross-reference only became an ADABAS file.

After some ADABAS files were loaded, we began to modify the TOTAL I/O subroutines to form the I/O Simulators. Application programs accessing TOTAL containing the "TOTAL-call logic" were modified to make calls to the Simulator required to perform the function desired. The only changes required in the application programs were the PROGRAM-ID and the CALL statements.

We also decided that dynamic loading of ADAMINT modules was very desirable. Because we had to simulate TOTAL, the use

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of the MULT modules, one-entry-point modules, and the access modules which were to be linked together was very large for some areas (over 100K). The approach we decided to take was to not use the MULT modules and the one-entry-point modules and to dynamically load only those ADAMINT access modules that a particular application program would need. To accomplish this, all calls for an ADAMINT function were done to a small ASSEMBLER program called UTONEP which was linkedited with each Simulator/application program. UTONEP dynamically loaded another program called ADAONEP. ADAONEP performed the actual dynamic loading of the individual ADAMINT access modules.

The ADAMINT access modules were named ABxxxP, where xxx is the file number, and P is an ADAMINT sequence number. This naming convention allows for multiple ADAMINT access modules per file (up to 36 providing 324 logical views of the data in any one file). The functions in each ADAMINT module are named FFxxxPSN, where FF is an abbreviation of the function to be performed (FI for FINDSET, RD for READSET, UP for UP-DATER, etc.), xxx is the file number, P is the ADAMINT sequence number, and SN is a sequence number for this function (allowing multiple FINDSETs, READSETs, etc. in each ADAMINT).

So, the Simulator would issue

```
MOVE 'F1041001' TO FUNCTION.
CALL 'UTONEP' USING FUNCTION
  PARM-LIST.
```

UTONEP, which is linkedited with the Simulator, would load ADAONEP (if it is not already

loaded) and pass control to it. ADAONEP would look at bytes 3 - 6 of the function and load the ADAMINT access module whose name is AB0410. ADAONEP then saves the name and address of the ADAMINT module in an internal table, issues an 'OP041001' to AB0410, and then passes control to AB0410 to perform the 'F1041001' function. This brings us to two problems that we encountered. The first problem was the fact that passing control to a dynamically loaded module results in the module receiving control at the entry point of the module. Since each function is a different CSECT in the ADAMINT module, the control was not being passed to the correct location in the ADAMINT. So, we modified each ADAMINT access module to contain "one-entry-point" logic. That is, we passed control to a new entry point of the ADAMINT which contained logic to perform a table look-up of functions that this ADAMINT module could perform, and then passed control to the address of that function.

The Simulator could issue as many calls to this ADAMINT as desired. Each time ADAONEP received control, it determined if the required ADAMINT was already loaded. If so, control was passed to it. If not, the desired ADAMINT was loaded, an OPEN was issued, and then control was passed to that ADAMINT to perform the required function. Hence, problem number two.

ADABAS Version 3.2.1 required as a design constraint that only one OPEN be issued per user or program. We found this out only when we were testing under COM-LETE. In TSO or BATCH, the user or program was allowed to sign on as

many times as desired, but you are signed on as a different user each time! Thus, using this method, a program accessing three files through three ADAMINT access modules signed on as three different jobs! Since we are not production status (only running parallel testing with TOTAL), and ADABAS 4.1 did not have this design constraint, we are going to continue with this approach.

In the meantime, for programs accessing ADABAS under COM-LETE, I wrote a special version of UTONEP and ADAONEP and require that the first call to UTONEP be an OPEN specifying what files will be accessed and/or updated. This new ADAONEP then loads the appropriate ADAMINT access module, issues a direct call to ADABAS to perform the sign on, issues an OPEN to the ADAMINT to set the first time switches, and finally passes control to the ADAMINT to perform the requested function.

One other shop-tailored program was written. The program is UTHOOK. UTHOOK, CMNDID, ADERC321, and ENVUDUMP are linkedited with each ADAMINT access module. UTHOOK has a CSECT name of ADABAS, so that when an ADAMINT module issues a call to ADABAS, UTHOOK receives control. UTHOOK determines if the job-name is COM-LETE (i.e., the program is running under the control of COM-LETE) or not (i.e., running as a BATCH or TSO job/user). If the jobname is COM-LETE, then UTHOOK dynamically loads ADALCMP. If not, then UTHOOK dynamically loads ADAHOOK. This allows for not requiring different linkedit pro-

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