

Vol. 7 No. 5 September 1982

# Software AG International Users' Group Newsletter

Published by the Software AG  
International Users' Group and  
Software AG of North America,  
Inc.

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## Las Vegas Conference

The 10th International Software AG Users' Conference was held May 9-13 at the Dunes Hotel in Las Vegas, Nevada. For four days, users of Software AG products attended product presentations, intensive tutorials on product application and usage, workshops hosted by Special Interest Group (SIG) chairpeople, and user presentations.

Highlights of the Conference included guest speakers Capt. Grace Hopper, James Martin and time management expert Dr. Merrill Douglas. Conference attendees also had an opportunity to hear from Software AG of North America's President John Maguire on corporate direction and the need to consolidate the development activities of SAGNA by moving Development from Seattle to headquarters in Reston. Development for North America will be placed in a newly formed Technology Division.

The president of the International Users' Group, Alan Routhier of the County of Sacramento Data Center in California, spoke on the importance of continued user participation and support of SAGGROU. He emphasized that the Users' Group serves to help users share ideas and information. To be a success it requires active support from all.

The Executive Committee of the Users' Group met throughout the Conference to review the activities of the past year and make plans for the coming one. Topics such as product development, maintenance releases, change/enhancements and future product directions were addressed during the week. Among other items addressed by the Executive Committee: The Southeast Asian Region, consisting of Singapore, Hong Kong, and the Philippines, was formally granted regional status. The

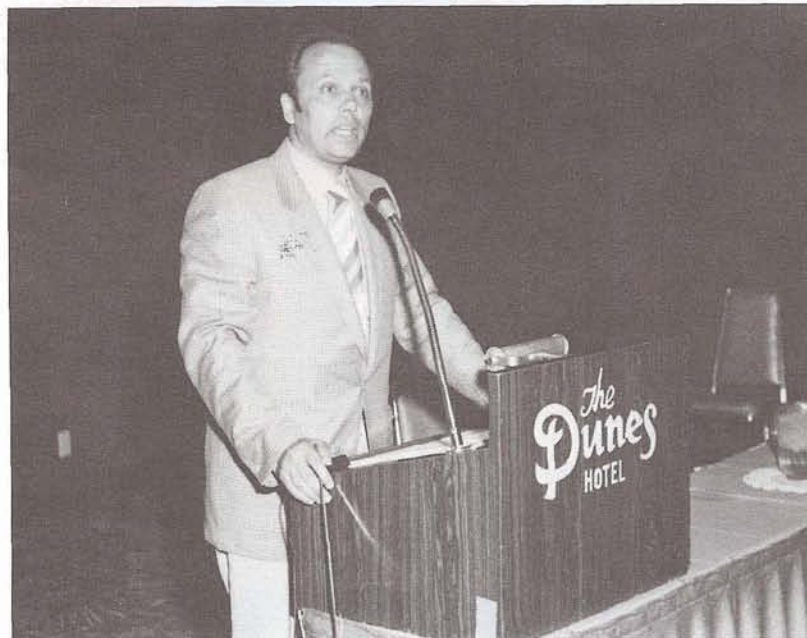
Far East Area's name was changed to the Asian Area, and the Far East Region was changed to the Japan Region. Kansas was moved from the Southwest Region to the Midwest Region. The next Executive Committee meetings will be held the first part of November.

Results of the Conference Evaluation Questionnaire for Las Vegas show clearly that the

Conference was a great success and valuable to those who attended. Conferees agreed that the major highlights at Las Vegas were the keynote speakers, SAGNA tutorials and the Software AG staff from both North America and Germany. Companions praised their program as well. It seems that the "Great Expectations" of the 860 Conference attendees were well-satisfied.



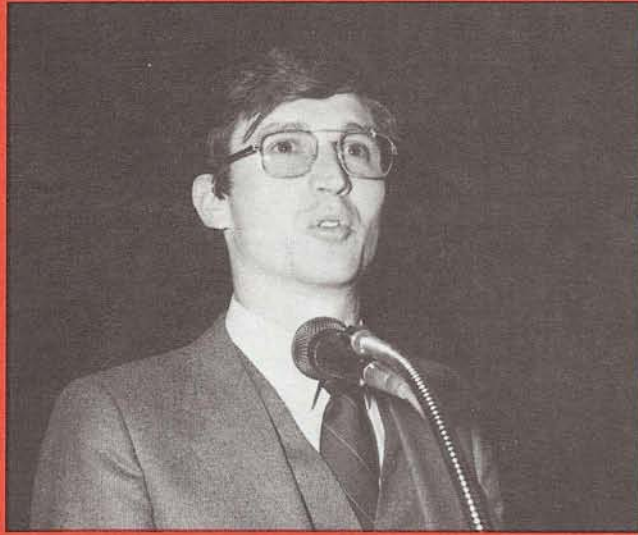
*"The Mayor of Las Vegas presents a key to the city (not the slots) to John Maguire."*



*"Peter Schnell, President of Software AG Darmstadt, speaks on Reflective Data Bases."*

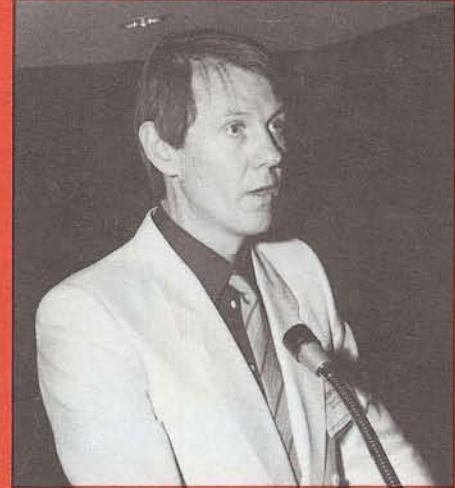
# Users' Group News





*"Alan Routhier, former SAGGROUP President."*

*"Peter Page' of Software AG, Darmstadt, answers questions on NATURAL."*



*"SAGNA's Ed Forman."*



*"Users' Group Liaison Jim Crawford and Corporate Meeting Planner David Schmidt."*

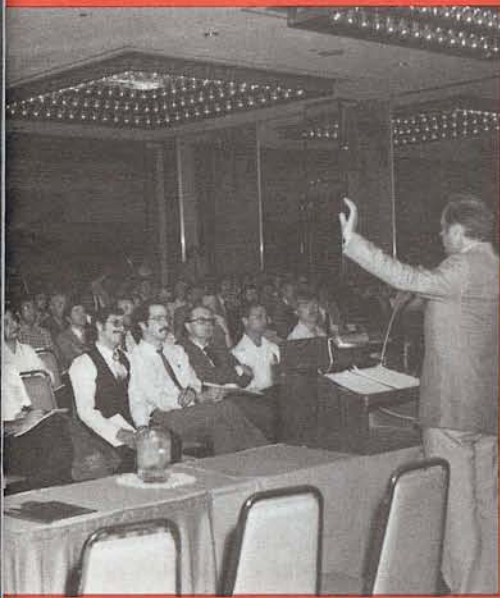


# Great Expectations

*"John Colthar, R. J. Reynolds."*



*"Capt. Grace Hopper."*



*"Va Nga Do teaching a tutorial."*



*"ADABAS Change/ Enhancement Session."*



*"A busy demo room."*

*"SAGNA Conference Staff at opening night." (l. to r. Sharon Chisolm; Ann Todd; Jim Crawford; Lynn Smith; Barbara Kern and Courtney Brooks.)*



*"Bob Becker of Foremost Insurance with SAGNA staff."*



*"Standing room only."*





"Greg Neunaber, University of Texas at Austin."



"User Presentation in progress."



"SAGNA's Grant Osasa leads the Banquet charge."

## Conference Proceedings/Papers Available

Proceedings from the 10th International Users' Conference are available for purchase through Software AG of North America's Publications Department. The Proceedings contain papers presented at the recent Conference. Cost for this publication is \$50.00.

Papers are also now available for the following presentations given at Las Vegas:

- 'Reflective Data Bases' Peter Schnell, Software AG, Darmstadt;
- 'NATURAL as a Relational Model' Peter Pagé, Software AG, Darmstadt;
- 'Dynamic Database Selection and Access Security via COMPLETE' Roger Martin, International Airports Projects, Saudi Arabia.

These are also available through the Publications Department in Reston, Virginia.

## President's Message

Jennifer Lee  
The Aerospace Corporation

I would like to express my gratitude for the support so many of you kindly offered me at the Conference. The Executive Committee hopes to be able to accomplish a number of objectives this year. The Change Enhancement process was reviewed by the Executive Committee and a plan was developed to implement a number of improvements. The Technical Support Survey is being analyzed by a committee chaired by Michael Berman, who will compile the results of the analysis along with the committee's interpretations and recommendations for Software AG's response. A Product Review Committee is being formed to assist Software AG in reviewing product proposals. The procedures for nominating and electing officers and Product Representatives will be refined and a means of ensuring continuity on the Executive Committee is under consideration.

The Executive Committee is very much aware of the need expressed by sub-groups for enhanced visibility within the user group and for improved communications within the user community and with Software AG. One means of obtaining recognition is to form a Special Interest Group. The ADABAS product area recently welcomed the ADABAS VM Special Interest Group, which will be chaired by Timothy McGovern. The most effective means of communication within the user group is through the newsletter. Anyone desiring a forum for issues pertaining to special interests is encouraged to submit an article or letter to the newsletter through one of the editors.

Please contact me should you have user group concerns or suggestions. I may be reached by phone at The Aero-

space Corporation at (213) 615-4521. If I am out of the office, please leave a message for me to return the call. Unfortunately, phone support for my office is unavailable during the lunch hour between 11:30 a.m. -12:30 p.m. PST. I apologize in advance for any inconvenience you may experience in calling me and assure you I will return your call as soon as possible.

## Results of SAGGROUP Officer Election

Dian Odell  
Evans Products

As a result of a constitutional amendment approved last year, the four SAGGROUP officer positions were filled by a membership-wide balloting for the first time this year. The Product Representatives had always been elected by ballot from all the users of the individual products, so this was not a change in this area. The procedure was a little shaky as we initiated the new processes of nominating candidates, getting candidate statements, mailing ballots, and receiving the returns, and it was all made doubly difficult by the international membership of SAGGROUP and resultant communication delays. Of course, you can expect to see some changes in the particulars for next year, especially in improved and earlier time schedules, but the intent of expanding the user involvement in all facets of SAGGROUP will remain very much in the foreground.

So now, the first once-through has been completed and the results are in. In all cases the balloting was very close, but the officers and product representatives for now through the end of the next annual Software AG user conference are:

### President

*Jennifer Lee*, Aerospace Corporation  
Los Angeles, California, USA

### Vice President

*Brett Aubrey*, TransCanada Pipelines  
Calgary, Alberta, Canada

### Secretary

*Dave Hawkins*, City of Portland  
Portland, Oregon, USA

### ADABAS Product Rep

*Bob Galley*, Santa Fe Energy  
Amarillo, Texas, USA

### NATURAL Product Rep

*Richard Judd*, State of Alaska  
Anchorage, Alaska, USA

### COM-LETE Product Rep

*David Little*, The Boston Company  
Boston, Massachusetts, USA

### ADABAS-M Product Rep

*Dick Gemoets*, OMEX  
Santa Clara, California, USA

To each of these persons we say "Congratulations!", and now on with the work of organizing and improving SAGGROUP and its value to the users. To the other candidates and their installations, we say "Thank you for offering to help in this way"—we hope to have your continued support in other ways also. And to all of the others of you who nominated and voted and were a part of the process, we say thanks also because it will not work without you. SAGGROUP is what you make of it—increase your involvement and the value of the group to you and everyone else will also increase.

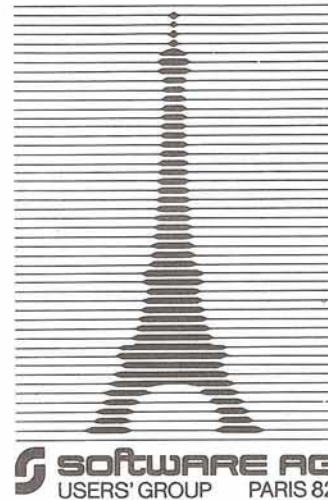
## Registration Opens for Paris Conference

Registration for the 11th International Software AG Users' Conference in Paris has begun. The Conference will be held at the 'Palais des Congres' located in the heart of Paris and runs from October 19 through 22.

The Paris Conference offers a unique opportunity for users to

exchange information and ideas while working closely with each other and Software AG in the spectacular setting of Paris in the fall.

The preliminary agenda for the Conference includes workshops on Restart/Recovery, Performance and Tuning for COM-LETE, and Managing the NATURAL Environment. Tutorials



hosted by Software AG of Darmstadt cover Restart/Recovery, Debugging Tools and Performance and Tuning for ADABAS, NATURAL Techniques for new users and Advanced Techniques for the experienced, and COM-LETE Performance and Tuning. Paris conferees will also be able to attend General Interest Sessions on a wide range of topics including "Reflective Data Bases" by Peter Schnell, "NET-WORK for Distributed Processing" by Peter Pagé, and presentations by other Software AG staff and users from around the world. All in all, some 30 sessions are scheduled along with an evening at 'Lido de Paris' and a 'Le Bistro' banquet



in the finest Software AG tradition.

Software AG of North America has selected a travel agency to assist North American users and North America's affiliates' users in making their travel arrangements and registering for the Conference. Users wishing to register or obtain additional information should contact:

Jim White, Coordinator  
Software AG Paris Conference  
Association Travel  
Coordinators  
3128 M Street, N.W.  
Washington, D.C. 20007-3775  
202-333-1800

European users and affiliates of Software AG of Darmstadt should contact Darmstadt at the following address:

Paris Conference Registration  
c/o Hilpertstrasse 20  
D-6100 Darmstadt  
Attn: Mrs. K. Rames  
Tel.: 06151-84072  
Telex: 4 197 104

Hotel reservations can be made through Association Travel or independently. A block of rooms has been reserved for the Software AG Conference at the following hotel:

Hotel Concorde-La Fayette  
Place de la Porte des Ternes  
F-75017 Paris  
Tel.: 758.12.84  
Telex: 650892

If you prefer another hotel or need assistance in making reservations in Paris, contact either Software AG Darmstadt or Association Travel Coordinators at the above addresses. Early hotel and Conference registrations are strongly encouraged as Paris will be very busy this fall and accommodations may be difficult to obtain. See you in Paris!

## **"ALL THAT JAZZ" Theme for '83 Conference**

Preparations are well underway for "All That Jazz", the 12th International Software AG Users' Conference to be held June 5-9 at the Fairmont Hotel in New Orleans, Louisiana. Keynote speakers are being previewed and plans for Company and user presentations have begun. Both the Conference and Companion Programs are being enhanced based upon feedback from the Las Vegas Conference. The '83 Conference will once again give users the opportunity to meet each other, hear from industry and Company leaders, and work closely with Software AG to share ideas and learn about the products.

Registration materials for New Orleans will be mailed out early this fall, so get your toes tappin' and mark your calendar now to attend another great Software AG Conference—one which promises to be the most informative and enjoyable ever.

## **Call for Papers**

The International Software AG Users' Group (SAGGROUP) invites its members to submit papers for presentation at the 12th International Software AG Users' Conference in New Orleans. The Conference offers a unique opportunity for users of Software AG products to present information on their individual systems and describe their use of the products.

Topics for the papers should focus on one of the major products. Suggested topics include but are not limited to the following:

### **ADABAS, ADABAS-M**

Performance Monitoring and Tuning  
File Design  
Managing the DBMS Environment  
Security  
Data Dictionary  
System Testing  
Auditing  
Multiple Data Bases  
Restart/Recovery Applications

### **COM-PLETE**

Performance Monitoring  
Tuning  
Security  
Applications

### **NATURAL**

Programming Techniques  
Training  
Application Development  
Managing the NATURAL Environment  
Security  
Interfaces  
Case Study

### **Abstracts Due**

A one- to two-page abstract or detailed outline is due for review no later than December 10, 1982. The purpose of the review is to determine the topic you are presenting, the type of audience you are addressing and the level of experience required to understand the materials. This will allow us to ensure variety in the presentations and assist in developing a preliminary agenda. The abstracts should be submitted to:

Users' Group Liaison  
Software AG of North America,  
Inc.  
11800 Sunrise Valley Drive  
Reston, Virginia 22091

### **Important Dates:**

Abstracts Due—  
*December 10, 1982;*  
Notification of Acceptance—  
*January 10, 1983;*  
Papers Due—  
*March 1, 1983;*  
Acknowledgement—  
*March 15, 1983;*



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## CHANGE/ENHANCEMENT REQUEST FORM

Please forward completed requests to:

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

\_\_\_\_\_  
Product

\_\_\_\_\_  
Category

\_\_\_\_\_  
Title of Request

Complete Description of Change/Enhancement (please type):

Identify Benefits:



Date: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Name: \_\_\_\_\_

Company: \_\_\_\_\_

\_\_\_\_\_o

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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## Change/ Enhancement Process Revised

Due to difficulties experienced in the past with the Change/Enhancement process, the SAGGROUPE Executive Committee approved the following revisions:

1. A Change/Enhancement Request Form will appear in each issue of the Newsletter to allow users to submit requests throughout the year;
2. The deadline for requests to be considered for responses at the annual Conference will be November 30;
3. An interim detailed report will be prepared for the fall Executive Committee meeting to give both Software AG and the committee an idea of the nature of the requests coming in.

These changes should alleviate past problems by allowing users to submit C/E requests throughout the year. Also, the interim report will allow Software AG of North America and Darmstadt an opportunity to review the incoming C/Es and assist the Users' Group Product Representatives in consolidating the requests—a difficult and time-consuming effort. Finally, distribution of the ballots for those requests to be responded to at the annual Conference will take place in early December to avoid the mailing difficulties encountered last year.

The Executive Committee also acted on the distribution of the final responses and voting by approving the following:

1. Change/Enhancements and replies are company confidential;
2. Change/Enhancements and replies will not be published in the Proceedings to the annual Conference;
3. Change/Enhancements and replies will be distributed only to authorized licensees of each product.

We hope that the revisions will alleviate previous difficulties.



## Eastern Canada Region

*Gene Miklovich  
Systemhouse*

On March 30th, 26 users met in Toronto hosted by Shell Canada. The meeting began with a presentation and follow-on discussion led by Cliff Wietzel of R. D. Nickel on recovery. Cliff made the following points:

1. In a number of cases recovery is designed, or only appreciated, after a failure occurs.
2. In the development of a system, recovery frequently is not mentioned as an objective but is implied and represents overhead both to the development and operation processes.
3. Most recovery situations can be defined and planned for.
4. Design of a system should include the differences between an online enquiry and an online entry system.
5. Design may also consider separation of static and volatile data items onto separate files, etc.
6. Programs must notify users and/or operators of recovery situations and actions required.
7. An operator can effect a restore/recovery process if precise instructions are available.
8. There should be an identified person in the DB group as a contact for users, applications or operations.
9. When planning for recovery, some of the important points to consider are:
  - how long can each cycle be delayed;
  - identify length/risk of each phase;
  - list possible failures;
  - calculate costs of recovery.
10. ET/BT recovery
  - needs exclusive control of those transaction items;
  - all or none are applied;
  - applicable to small groups of transactions;

- partial transactions are backed out;
  - storage of user data with ET is possible;
  - an ET releases records;
  - must open with userid;
  - if failure is detected by program, a BT may be issued;
  - is automatic (only if the database and work are okay);
  - cannot work with Cluster at same time;
  - cannot backout once ET is issued;
  - inappropriate where holding a large number of records.
11. Cluster recovery
- appropriate for long lists of records;
  - use C2, C3 to identify points of restartability;
  - close must be issued on current users;
  - if 2 or more programs involved they must checkpoint at the same time;
  - checkpoints are automatic by time or number of updates;
  - recovery is automatic only if database is okay;
  - no simultaneous file use is possible by ET/BT and cluster users;
  - there is a risk of backout if program fails because of non-database reasons;
  - if system fails another program may get control before the first;
  - there is no BT command (this is effected by an abend or a forced time out).
12. Exclusive use
- no automatic recovery i.e., manual
  - no hold logic is done/required;
  - ADABAS does not recover.
- In the discussion that ensued, the following points were discussed:
13. NATURAL 1.2
- Some of the features expected in the next release of NATURAL were:
- handling response codes;
  - read and write of ET data;
  - full screen editor;
  - dynamic definition of OPRB parameters.
14. Problems
- Multi User ADAFIX dump of a single file abends when ex-

tended to 2nd reel. Current bypass is to dump in SU mode.

- If a utility receives a response code the step system completion code is still 0.

### 15. Dual Logging

- automatically switches to alternate logging with no control ensuring log has been copied (this must be controlled by the installation).

### 16. Security

- Regenerate of entire database requires rerunning security.
17. The User field/Additions in the Control Block is sometimes being set to binary zeroes or blanks by ADABAS.

The next presentation was by Paul Reino of Shell Canada on their plans to put ADABAS on 3380s. He started by explaining the architecture of the 3380s and their capacity. He indicated they estimated the cost per access on 3380s to be approximately the same as 3350s and it was recommended they be used for online access. Shell also indicated they would be running on a 3081 under SP1.1 and some discussion followed.

- Brian Lee indicated the Assembler/Linkage Editor required a ZAP from IBM.
- Ted Hillis estimated that based on their experience it took 1 hour to unload 1 million records but 6 hours to load and it was advisable to split sort and temp areas. Ted also recommended overestimating size of TEMP, SORT and amount of CPU time. Also consider putting ADALD1 output to tape.

- Brian Lee led a discussion of tuning where a number of topics were addressed:

1. in design put the fields most frequently accessed at the front of the record and put NU fields together;
2. when retrieving MU or PE fields read the average number of occurrences plus the count;

3. load data in primary sequence in which it will be accessed;
4. consider doing logical deletes i.e., clear or set key field and delete overnight;
5. NATURAL 1.2 with a GDDM graphics interface was in alpha test.

On June 15th, 24 users met in Ottawa hosted by PAC/DSS. The meeting began with a review of the conference in LAS VEGAS. Administrative changes within SAG were announced including moving Development to Reston. The format of the conference was reviewed and an agenda was circulated for reference by those who did not attend. New Product announcements were discussed including NATURAL 1.2 and GRAPHICS, X-IMAGE, COM-PASS, REVIEW and ACCESS. A question which was raised whether ACCESS was the equivalent of what was known as NATURAL/AF was unanswered and Harry France of R. D. Nickel indicated he would find out.

The meeting proceeded with a review of the new features/enhancements coming in NATURAL 1.2. It was also indicated that it was expected to be available shortly (end of JUNE for tech support) and it was in BETA test at 15 sites, however, none of these are CANADIAN.

Sharon Conners of PAC gave a presentation and demonstration of ADABAS-M at PAC. She indicated they were running on a PDP 11/70 under RSX11-M V3.2 and they were developing their first application. After discussing and illustrating the functions and capabilities of ADABAS-M, Sharon asked Francine Legault to demonstrate this application. Development of a billing system, Francine explained, was proceeding using ADABAS-M and DEC's F.M.S. (screen formatter).

In discussing problem reports, Tom Okrainek indicated a problem testing the REGENERATE function under VS1. He indicated Cliff Wietzel of R. D. Nickel was working on the problem. It was suggested Tom

report the problem to Denver to see if anyone else had experienced similar circumstances (Rep's Note: the problem has been reported to SAG under T. L. #39321). ITC inquired if anyone knew whether ADABAS would run under MVS/SP3 (Rep. Note: Cliff Wietzel informs me Version 4 will run with no problem and there are users doing this but that Version 3 will not). Phillip Morelli asked if anyone knew a way of restricting the number of records that can be added by a test application without awaiting for the number of extents to be exceeded. One suggestion was to pre-allocate all DB space thus limiting space available on a file basis, however, it was apparent there was no direct way of having a maximum number of records on a file.

In the afternoon Gene Miklovich reviewed an application system developed almost entirely in NATURAL for the Canadian Electrical Association. The review included discussion on a NATURAL Bill of Materials structure, batch NATURAL updates and guidelines for use of NATURAL. A workshop on the role of the DBA followed in which as a group the users profiled their responsibilities. It was apparent that the roles varied considerably with the only almost unanimous role being the running of utilities. It was concluded that the roles depended on the organizational structures in each organization and that the scope that the DBA (group) handled or was capable of handling depended on the size of the group and commitment of the organization to the DBA role. Before adjourning it was agreed that we should meet early September in Ottawa and December in Toronto. (The dates and places will be confirmed as soon as available). It was also agreed to have an Ottawa area picnic July 25th at Vincent Massey Park.

## Japan Region 9th General Meeting

*Yasuo Shimizu/President  
Fuji Photo Film Co., Ltd.*

The 9th General Meeting of Far East Region Users' Group was held on June 15, 1982 in Tokyo. The number of users increased, and there were 74 attendees from 43 organizations.

The newly selected officers of Users' Group, the activities in the last fiscal year and the balance of 1981 fiscal year were reported and approved by the member companies. The accounting secretary explained the budget, and the officers announced the activities plan for this year. All users approved them unanimously. The Far East Users' Group is planning more active activities this year; for example, the users would like to have joint development and research projects.

Software AG reported briefly regarding the 10th International Users' Conference held in Las Vegas.

In the latter half of the general meeting, Software AG invited Dr. Hideo Suzuki of the University of Tokyo as a guest speaker. Dr. Suzuki presented his thesis on the different ways of thinking between the West (the world of Logos) and the East (the world of Lemma) from geographical, historical and religious point of view. We found it very interesting, and its basic idea would be useful in educating the computer system engineers who mainly deal with things structured logically.

In the afternoon ADABAS/NATURAL, COM-LETE and A-AUTO users had their own meetings respectively and discussed detailed activities plans. Also hot technical discussions were held.



## Japan Region ASSIGN Meeting

Hiroki Kawamura  
Nippon Kokan K. K.

I. 30th ASSIGN (the ADABAS Special Interest Group of Nippon) met on April 22, 1982 in Tokyo. 37 persons from 28 companies attended the meeting.

1) The presentations were on the software tools developed by the users. The subjects and the speakers were as follows:

a. "ADABAS Automatic Recovery and Command Log" by Mr. Takahashi, Nippon Kokan K. K.;

b. "ADABAS Operation Tool" by Mr. Kikuya, Fuji Photo Film Co., Ltd.;

c. "Test Supporting Tool" by Mr. Katsura, Nissan Motor Co., Ltd.

2) As for the activities plan, the users requested the items such as described below:

a. Users' presentations on their applications and/or research;

b. Report on the Las Vegas Conference;

c. Presentation by Software AG;

d. Joint research & development (users will form a

group(s) to research on their special interest.)

Five meetings are planned to be held in Tokyo during the year and the next one is scheduled on June 15.

II. On June 15, 31st ASSIGN was held in Tokyo. 44 persons from 30 companies attended.

1) Users approved that Hiroki Kawamura/Nippon Kokan K. K. continues to lead ASSIGN as a chairperson, and Mr. Kenji Terada/Kyoko Oil Company was elected as vice-chairperson.

2) Users discussed possibility of joint research and development for this year, such as:

a. Writing ADABAS self-learning book (PI-method);

b. Comparative study of DBMS;

c. Study on the relationship between ADABAS and MVS;

d. Presentation of interface developed by the users.

3) Mr. Juichi Hotta from Fuji Telecasting Co., Ltd. who attended Las Vegas Users' Conference briefly reported the conference.

4) Mr. Masahiro Shimada, Senior Analyst of SAGFE, gave a technical presentation on "ADABAS FUTURE PLANS AND NETWORK" and SAGNA's reply

to Change/Enhancement Request reported at 10th International Users' Conference.

5) Mr. Susumu Okoba from JGC Corporation, who also attended International Users' Conference, reported NATURAL Version 1.2 and its future version.

6) Each attendee introduced himself and explained his installation's configurations, etc.

## Japan Region COM-PLETE Meeting

Yasuhiko Katada/Tokyo Sangyo  
Credit Association

The COM-PLETE Meeting was held on June 15 in Tokyo. 16 persons from 8 companies attended.

1) The following activities plan for this year were discussed:

a. Presentation on COM-PLETE usage;

b. Technical Information from SAGFE;

c. Technical discussion on specially interested subject;

d. Discussion on Change/Enhancement Requests;

e. Information exchange on effective usage of COM-PLETE;

f. Exchange of generalized programming tools user developed;

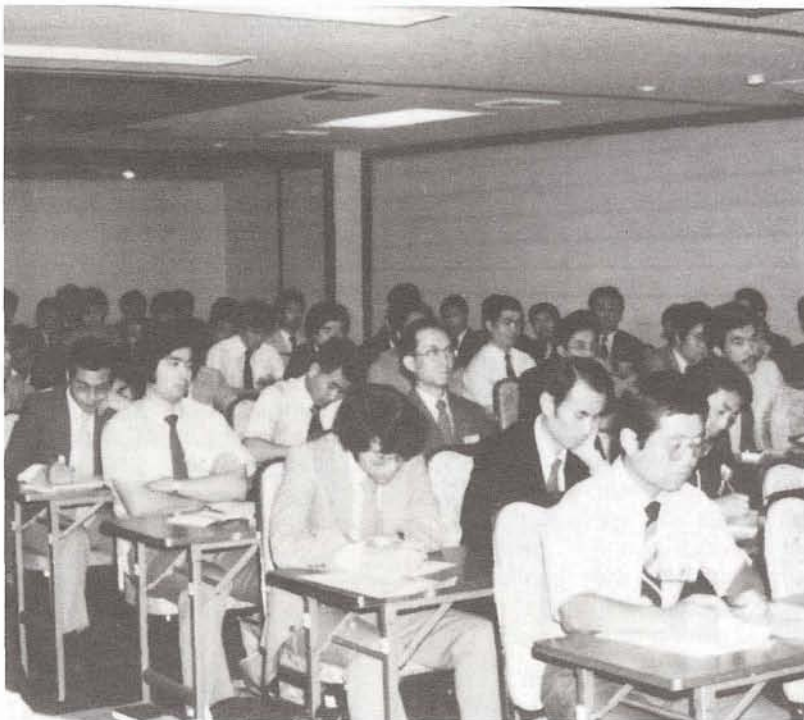
g. Joint development and enhancement of generalized programming tools among COM-PLETE users.

2) SAGFE briefly reported the SAGNA's reply to Change/Enhancement Requests.

3) Users gave short presentations on generalized programming tools which they developed. And programming tools provided through International Users' Group were introduced by SAGFE.

4) As users want to know each other for smoother technical communication, the members of COM-PLETE Group decided to prepare a data sheet on their machine configuration, transaction processing system, etc.

5) Next COM-PLETE Meeting will be held in September at Taisei Corporation.



## New England Region

Tim McGovern  
Massachusetts Institute of  
Technology

1. The Boston Company graciously hosted our eighth meeting on April 22, 1982 which was attended by 17 persons from 10 member organizations.

2. The following general business items were discussed and/or resolved:

- Our organization should be called the New England Regional Software AG Users' Group, or NE SAGGROUP;
- The next meeting of our organization will be hosted by Alice Schafer at MITRE in Bedford on June 17, 1982. Tim McGovern and Alice will coordinate the agenda for the meeting;
- The nomination and election of the NE Regional Representative for the next year, as mandated by the SAGGROUP Constitution, was deferred until and will be resolved at the Annual Conference in Las Vegas.

3. Overlooked past business

• At the December 1981 meeting, Lino Sullivan of the State of Vermont made an excellent presentation on the capabilities of NATURAL for end-product systems development, and we thank him for sharing his thoughts and accomplishments with us.

4. Dick Jones of Software AG attended the meeting.

- He comes to us from the Hasbrouck Heights, N.J. office now and was attending to give us the benefit of his technical background and experience;
- We were disappointed to see that the thrust of Dick's presentation was strictly non-technical and was instead a marketing pitch for the Sales, Education and Consulting Services available from Software AG;

- Dick reemphasized that although the SAGNA support for Version 3.2.1 has been diminished (that is, terminated), customers who have been unable to upgrade will not be slighted in Tech Support;

- Dick announced that the DBA Skills courses have been redesigned, and other courses will be likewise upgraded. The course evaluation has also been upgraded to allow the attendee to evaluate the instructor and the course independently;

- No database design course per se is now available from SAGNA Education and the prognosis for such a course is not bright;

- SAGNA is investigating a variety of alternative educational media other than the overhead transparency, but the near term promises more of the "foil" approach;

- On the subject of on-site education and custom-tailored education, Dick emphasized that "reasonable" tailoring was possible, and that in all cases, the customer has the right to negotiate with the Education office;

- Dick announced the resignations of Senior Financial VP John Okulski and Executive VP Ken Rardin;

- Dick mentioned in passing that the staffing level in the Education area is down somewhat due to the rapid expansion in the last year or so, and that the net profit problems at SAGNA will crimp the expansion required to truly serve the needs of the customer base;

- Dick's final point was a question to the attending members as to how best delineate where Sales Support and Tech Support leaves off and where billable Consulting Support picks up. No unanimous sentiment surfaced, except that the issue is of great interest to the membership.

- Problems and/or displeasures expressed, discussed with Dick:

- Some attendees recounted some serious problems that

they have had or are experiencing with new products, notably the SM1 of COM-LETE V4.1;

- The issuance of updates for and correction for the documentation is too sporadic or nonexistent;

- The volume of Early Warnings and zaps which accompany product tapes (be they new versions or SMS) is too great, places a needless burden on the customer and potentially delays possible implementation of the new product tape.

5. The Education Committee reported substantial, positive feedback on the most recent Advanced NATURAL Course sponsored by NE SAGGROUP. Other views and news . . .

- Some participants felt that some of the topics covered were of an intermediate nature but that their inclusion did not affect the usefulness adversely;

- It was the consensus that two courses were perhaps derivable from the existing syllabus, one which would be an Intermediate or Advanced NATURAL Programmer level and one which would address NATURAL functionality from the point of view of the DBA's traditional concerns;

- The scheduling of another Advanced NATURAL course will be postponed until we as a group evaluate the changes which we might like to see in the syllabus as a result of NATURAL Version 1.2 and how our third-party education vendor will be able to address those changes;

- On the subject of the Introduction to NATURAL Course recently held at MIT and not sponsored by NE SAGGROUP, there seems to be substantial interest throughout the group in scheduling another such course under the aegis of NE SAGGROUP;

- The ADABAS Operations Course which we began to discuss in February has not been finalized. The content of the course has been proposed and rewritten and will be



mailed to you during the week of April 26. Your speedy response to Alice Schafer will be appreciated. Dick Jones of Software AG responded to the original course syllabus with an offer of basically a one-day ADABAS Internals course based on existing course foils. The price of Software AG's offering was met coolly. After the group finalizes our own syllabus, we expect to entertain bids from third-party firms;

#### 6. DBA Tools Committee Report . . .

- Tim McGovern and Buck Shaw, both of MIT, reported on the current developments in the DBA Tools Exchange for the NE SAGGROUP;

- Acceding to Software AG's wishes to decentralize the DBA Tools distribution and collection process, the DBA Tools Exchange will obtain and catalogue the semi-annual releases of Tools from the DBA Tools SIG in Reston;

- Any member of the NE SAGGROUP can request tools from the Exchange—either the SIG Tools or the regionally developed Tools;

- The Exchange will provide a Tools Catalogue to the membership on a bimonthly basis;

- All members were encouraged to submit whatever tools they have developed to assist the DBA process regardless of the form they are in.

#### 7. Recovery/Restart Presentation.

Marilou Sazon of the Boston Company gave an excellent presentation on her experiences in the area of Recovery/Restart. Among the more salient points:

- Any RR plan must be equipped to deal with crashes of the ADABAS nucleus, either warranted or not, and with crashes of user programs;

- For crashes of the nucleus or the supporting hardware/software, the Autorestart/Auto-backout procedures, coupled with daily (nightly) ADAFIX dumping or some sort of Fast Dump/Restore procedure, usually provide adequate protection;

- For application systems, ET recovery at the transaction level coupled with daily (nightly) unloads of the affected files usually provide adequate protection. Recovery to an ADAFIX dump is yet another option but is trickier because of the problem of RABN availability;

- Marilou stressed the importance of incorporating the dual logging mechanism in any RR plan. Specifically, she advises the placement of the logs on volumes not occupied by the WORK dataset and the use of USER EXIT 2 for backing up the logs automatically;

- The Backout/Regenerate procedure currently being used at The Boston Company was detailed;

- Lastly, Marilou suggested some further alternatives to the RR problem including using the checkpoint file to store off 'user checkpoint' data, using the AUDIT utility to create a logical backout procedure, and using partial mounts to create temporary data bases for off-loading and reloading the damaged file(s).

#### 8. Discussion of NATURAL Version 1.2.

Bob Myers of The Boston Company presented some of the early news on the functionality of the NATURAL Version 1.2 based on his review of the Beta NATURAL 1.2 Reference Manual, albeit incomplete. The Boston Company is a beta test site for NATURAL V1.2. For example,

- Substantially more powerful error handling;
- External storage of NATURAL maps for multiple-use maps;
- Full PF/PA Key support;

- An exit for the installation of NATURAL security;
- A STACK verb for a NATURAL 'macro' capability;
- RETAIN SET command for more efficient loop processing logic;
- NOERASE option on map definition;
- Map painting capability . . . still undocumented;
- More powerful edit masking.

9. Bob Myers also presented a summary of Jim Bagby's (of Software AG) remarks on ADARUN parameter tuning which Jim presented to the SAGGROUP 7 meeting in February.

The MITRE Corporation graciously hosted our ninth general membership meeting on June 17, 1982. 34 persons from 11 member organizations attended.

#### General Business

- Nominations were accepted for the position of Regional Representative. Tim McGovern was the only nominee and was elected RR for the next year. His term ends with the close of the Conference in June 1983.

- The next meeting of our organization will be hosted by Mel Bemis at Northeast Utilities in Hartford, Connecticut on September 16, 1982. Despite the long layoff between meetings, the group is expected to continue to keep the lines of communication well-oiled during the summer hiatus.

- The question of whether consultants and other Software AG affiliates should be allowed to attend our meeting was raised. Tim McGovern suggested that the consultant exclusion policy which was decided at the February 1982 meeting should be modified to allow consultants who are actively engaged (or otherwise affiliated) with member organizations to be welcomed. The change to existing policy was accepted. A suggestion to designate one or more meetings as "consultant-attended" meetings was not adopted. No other changes were suggested.

### Committee Reports

- Alice Schafer discussed the status of the ADABAS Operations Course Survey. She has closed the survey period. She will collate the results, prioritize the topics, develop a syllabus and begin to entertain bids for the course. We hope that such a course could take place sometime in the fall.
- Buck Shaw discussed the status of the DBA Tools Committee's efforts. The Committee is waiting for Release 3 of the Tools Tape from Reston. Jim Crawford has assured Buck that the tape will be in hand within 30 days. Immediately upon receipt, Buck will advise the membership of the contents and availability. The collection of Tools from the NE SAGGROUP is still in its infant stages.
- Buck Shaw distributed the first version of the NE SAGGROUP Member Profile. Comments and criticisms are expected and encouraged. An official version of the Profile will incorporate member suggestions and be published for the September meeting.
- The changes in the NATURAL V1.2, it was generally believed, would seriously obsolete Roy Wood's existing Advanced NATURAL syllabus. The availability of NATURAL V1.2 third party education is still unsettled.

Rodger Mattlage of the Boston Company has the most experience in the group now because of his beta testing responsibilities, and the group might seek an arrangement with the Boston Company where Rodger would hold a course on the NATURAL V1.2 and how it changes (or should change) the on-line applications development process.

### The MITRE Security System

Alice Schafer made a presentation of the MITRE approach to ADABAS file and field security.

• MITRE's Security system was created in response to typical security demands:

- to protect data from unauthorized access and/or update;
- to restrict access and update to certain authorized programs or utilities.

• MITRE found that vanilla ADABAS Security contains certain limitations, including:

- the overhead involved in frequently changing large numbers of passwords is severe;
- the various ways in which a user must supply the password (via NATURAL, user-program or utilities) is inadequate and can easily be compromised.

• The MITRE Security system then has the following characteristics:

1. MVS passwords are used on ADABAS ASSO and DATA.
2. ADABAS passwords are used on all ADABAS logical files.
3. Access or update privileges are granted on a program name and authorization code basis.
4. These authorization codes must be safeguarded similarly to ADABAS passwords and normally would not change.
5. A password-protected encrypted ADABAS file contains the program to authorization code to ADABAS password relationships.
6. A source-protected Password Lookup Subroutine is used to "authorize" a user and to temporarily insert the ADABAS password in the submitted JCL stream. The temporary JCL is deleted after use.
7. The Password Lookup Subroutine is also used to perform the Security Administrator function via calls from the NATURAL-based Authorization Update Subsystem.

• In summary, the advantages of the MITRE Security System are that password modification is performed with relative ease and that passwords are suppressed from printed or viewable output. Together, this provides an adequate level of data protection.

• A potential disadvantage of the MITRE system is the need for several hours per week of part-time administrative support for the system.

### Projections of the Software AG Product Environment.

Bob Myers of The Boston Company presented some of his views of what a typical ADABAS environment might look like in the September 1982 to September 1983 time-frame. Participating by proxy was David Little (also of The Boston Company). Given the current development information and the levels of testing efforts of various SAG products, Bob believes a possible environment as consisting of:

- ADABAS, with VTAM or CTCSS for inter-machine communication. The support of the multi-machine environment is now a reality. In the future, the possibility of such an environment might be required by corporate policy, performance needs or security and disaster planning or others.
- NATURAL V1.2 with NATURAL Security feature. The NATURAL V1.2 product changes the nature of the NATURAL product radically, and the Security add-on permits the DBA, or other Security Administrator, to manage the adhoc programming environment without disturbing the production system environments in NATURAL.

• COMPASS and ACCESS facilitating TP and system development. The COMPASS (COMPLETE Parallel Access and Security System) is perhaps the most exciting new feature of the product line. It relieves the need for an SPF-like front end to COMPLETE. Further, it allows and facilitates the multiplexing of tasks. Thus, one can be running more than one NATURAL session, along with UQUE, UEDIT and other COMPLETE tasks all at the same time, via a roll-dataset technique. Bob was not certain what the implications of this capability have for resource contention and for non-activity time-out parameter settings.





Kevin Wilson from Duke Power presented a summary of his ADABAS SM04 testing.

Al Wolfson with Software AG gave a slide presentation on NATURAL Graphics. The Graphics interface requires graphics driven software such as IBM's GDDM as a prerequisite.

Bill McCrosky gave a presentation on Software AG's consulting services and education group. Some of the services offered are listed below:

- Contract programming;
- Conversion assistance;
- Performance and tuning assistance;
- Project management/system analysis.

A general discussion followed. Topics discussed were the upcoming Conference, nominations for 1982 Regional Representative, and proposed group projects.

Reginald Ellis of American Family Life presented the role of Data Administration and its structure within the organization. Emphasis was placed on data awareness within organizations and the evolving role of Data Administration.

Judy Pesses from Software AG gave a presentation on performance and tuning of ADABAS. Judy explained that each environment had uniqueness which must be considered when tuning. Some tuning considerations are mentioned below. SAG will be releasing tips on performance and tuning at a later date.

- Teleprocessing—run ADABAS above the TP driver in a TP EXCLUSIVE ENVIRONMENT. NOTE: Do not run batch jobs along with on-line in this configuration;
- ADABAS placement critical for good performance separate associator dates and work on separate packs and channels where possible. Placement in association to system page and spool data sets should also be considered;
- Avoid complex commands wherever possible;
- ADARUN parameters should

be tuned cautiously measuring the affect as parameters are changed.

- LBP—needs to be very large increase; check region size when increasing this parameter;
- LFP—default 4000, min 1,000, increase if RC 42;
- LI—increase if RC 71;
- LP—should zap as default; never change after unsuccessful ADABAS session;
- LQ—should start with default; then increase;
- LS—depends on installation; sometimes used to constrain find sorted;
- LWP—default should be at least (2 K LS). Regions size increase if this parameter changes.

Other ADARUN parameters vary on installations usage.

## Southwest Region

*Bob Glasscock  
Dow Chemical*

In the absence of Bob Glasscock, Bob Holub of Superior Oil opened the meeting with roundtable introductions and discussions. Bob Becker of Foremost Insurance gave an excellent talk on performance and tuning of ADABAS 4.1. During his talk he addressed the Foremost Insurance method of placing the data and associator of all the files across packs to gain performance considerations. He also discussed ways of reducing OPEN and CLOSE calls to reduce the number of buffer flushes and the adjustment of the Buffer Flush parameter.

Bryan Smith of Software AG gave a presentation showing the direct calls which various NATURAL commands generate and discussed which commands to use to cut down on CPU time and the number of I/O's. The attachment to these minutes shows the examples and conclusions discussed.

## Sierra Pacific Region

*Colette Farabaugh  
Castle & Cooke, Inc.*

The latest meeting of the Sierra Pacific Users' Group was held on June 29 at the County of Sacramento. There were 22 people present, representing 10 ADABAS sites.

Our first order of business was to elect Wayne Peterson of Teale Data Center as recording secretary. Then, after Bob Taylor of Software AG made announcements concerning the resignations of Keith Tipton and John Weil from the company, the remainder of the meeting centered on the Conference.

Alan Routhier, President of the International Users' Group, reported on several meetings the Executive Committee held during the Conference. Don Brown of the County of Sacramento talked on the ADABAS sessions he attended. Jim Reiner, also from Sacramento County, reported on the NATURAL presentations. Some of the new NATURAL products, such as NATURAL Graphics and NATURAL 1.2, were discussed. After lunch, since the County of Sacramento is a beta site, a demonstration of NATURAL 1.2 was given.

Our next meeting is scheduled for September 21, again in Sacramento. Software AG will be requested to provide a speaker on the new products and releases they are offering, most notably NATURAL 1.2, NATURAL AF, and the NATURAL Security package. The County of Sacramento will give a presentation of their law enforcement system which is currently in production using ADABAS.





promise of better restartability in those long running utilities and a Repair Block facility.

There were several sessions on ADABAS performance and a lot of valuable information was shared. Some areas of performance that many users have found to be important are:

1. ADARUN parameters (specifically the LBP parameter);
  2. Disk Placement;
  3. File Placement;
- and let us not forget,
4. Applications Design.

I would also like to ask again for any users who would like to participate in the Large Data Base Special Interest Group to contact me.

## ADABAS/VM Special Interest Group Announcement

*Tim McGovern  
Massachusetts Institute of  
Technology*

The VM/370 and VM/SP operating systems are important components of the IBM environment. Because of that, Software AG has provided some tailoring of the ADABAS product for the VM community. Many ADABAS installations are heavily committed to VM and at the same time are interested in using all aspects of the ADABAS software. In some cases, the VM architecture demands changes to or enhancements of the Software AG product line. In order to focus on these needs and to provide a clearinghouse for the latest news, etc., within the ADABAS/VM community, a Special Interest Group for ADABAS/VM sites is being formed. Tim McGovern of MIT has offered his services as Chairperson of the SIG.

At the present time, ADABAS/VM sites are scattered far and wide, and our numbers are still rather small. Consequently, for the next six months to a year, the agenda for the SIG will be to:

## ADABAS Special Interest Group Chairpersons

### Data Administration

Ms. Carole Schermer  
Chemical Abstracts  
P.O. Box 3012  
Columbus, Ohio 43210  
(614) 421-6940

### Data Dictionary

Alan Florence  
CCH Computax, Inc.  
601 N. Nash St.  
El Segundo, California 90245  
(213) 640-3270

### DBA Tools

Mr. Jeff Schutzer  
INCO, Ltd.  
1 New York Plaza  
New York, New York 10018  
(212) 742-4584

### DOS

Bernie Conner  
RAY-O-VAC  
101 East Washington  
Madison, Wisconsin 53703  
(608) 252-7557

### Education/Documentation

Mr. John Kaye  
Foremost Insurance Company  
5800 Foremost Drive, S.E.  
Grand Rapids, Michigan 49501  
(616) 942-3364

### Large Data Bases

Mr. Eric Seifert  
Citicorp Credit Services, Inc.  
1 Huntington Quadrangle  
Suite 2N06  
Melville, New York 11750  
(516) 752-3208

### Performance

Mr. Bob Becker  
Foremost Insurance Company  
5800 Foremost Drive, S.E.  
Grand Rapids, Michigan 49501  
(616) 942-3364

### Restart/Recovery

Mr. Alex Manaila  
Datacom Systems Corporation  
85 Executive Boulevard  
Elmsford, New York 10523  
(914) 347-3690

### Retrievals/Interfaces

Mr. John Colthar  
R. J. Reynolds Industries  
World Headquarters 4-A  
Winston-Salem, North Carolina  
27102  
(919) 777-4285

### ADABAS/VM

Mr. Tim McGovern  
Massachusetts Institute of  
Technology  
400 Main Street  
Cambridge, Massachusetts 02139  
(617) 253-3426

- Identify all ADABAS/VM sites, develop a profile of those sites and establish at least an informal ADABAS/VM communication network;
- Enlist individuals from ADABAS/VM sites to write articles about their experiences with the ADABAS/VM environment for the Newsletter to increase the visibility of the product;
- Encourage ADABAS/VM sites to actively discuss and present VM-related issues and requirements at regional and national users' groups;
- Develop a network of sites for the sharing of ADABAS/VM related tools, concepts, problems and solutions;
- Petition the Change/Enhancement Coordinator to allow

ADABAS/VM related problems to be listed separately in the C/E listings for easier identification by VM sites.

All known ADABAS/VM sites will receive a mailing with information related to the SIG and its agenda. If you have a VM site, are using ADABAS/VM and haven't received this mailing yet, it's possible you were overlooked. If so, you should contact the SIG Chairperson as listed below. Any other sites which are interested in receiving ADABAS/VM SIG news are also urged to contact:  
Tim McGovern  
Massachusetts Institute of  
Technology  
77 Massachusetts Ave,  
E19-332  
Cambridge, MA 02139  
(617) 253-3426



## NATURAL Technical Notes

### RSEQ—XEDIT Macro for NATURAL ReNUMBER Function

Tom Dimock  
Cornell University

This XEDIT Macro operates on NATURAL programs which are being edited with the VM/SP Editor, XEDIT. It presumes that either:

- CMPEXIT is being used to store and retrieve NATURAL program source and object code; or
- NATURAL programs are developed in the XEDIT environment and loaded into a system file for final checkout.

In either case, this macro has proved to be a valuable tool.

```
&TRACE OFF
PRESERVE
SET LINEN OFF
SET ARB OFF
SET SPAN OFF
SET STREAM OFF
SET VERIFY OFF
VERIFY OFF
SET WRAP OFF
SET ZONE 1*
TRANSFER LINE COL SIZE
&READ VARS &RLINE &COLP
&SIZ
TOP
&SEQ = 0
&INCR = 10
&IF &INDEX > 0 &INCR = &1
& = &MULT OF &SIZ &INCR
&IF & < 10000 & GOTO -LOOP
&INCR = &DIV OF 10000 &SIZ
EMSG LARGEST USABLE
INCREMENT IS &INCR
CMMSG RSEQ &INCR
&GOTO -POUTB
-LOOP
NEXT
&IF &RC NE 0 &GOTO
-PASSTWO
```

```
STACK 1 1 4
&READ STRING &LI
&SEQ = &SEQ + &INCR
&SEQN = &CONCAT OF 0000
&SEQ
&SEQO = &RIGHT OF &SEQN
4
&IF .&X&LI NE . &Y&LI = A
&X&LI = &SEQO
&GOTO -LOOP
-PASSTWO
TOP
&SEQ = 0
-LOOP2
NEXT
&IF &RC NE 0 &GOTO -POUTB
STACK
&READ STRING &LI
&SEQ = &SEQ + &INCR
&SEQN = &CONCAT OF 0000
&SEQ
&SEQO = &RIGHT OF &SEQN
4
& = &SUBSTR OF &LI 5
&LI = &CONCAT OF &SEQO &
REPLACE &LI
&LIT = &TRANS OF &LI
0123456789 ??????????
&OFF = 1
-LOOPY
&REF = &LOCATION OF (????
&LIT
&IF &REF = 0 &GOTO -LOOP2
&RED = &REF + &OFF
&RE = &SUBSTR OF &LI &RED
4
&IF .&Y&RE = .A EMSG
AMBIGUOUS REFERENCE
. . . TO &RC IN LINE &SEQO
SET TO &X&RE
&IF .&X&RE NE . &GOTO
-GOTIT
EMSG REFERENCE TO
MISSING LINE &RE IN . . .
LINE & SEQO UNCHANGED
&X&RE = &RE
-GOTIT
&CMD = &CONCAT OF :&RED
CL &CMD
CR &X&RE
CL :1
&RED = &REF + 1
&LIT = &SUBSTR OF &LIT
&RED
&OFF = &OFF + &REF
&GOTO -LOOPY
-POUTB
&COLP = &CONCAT OF
: &COLP
: &RLINE
CL &COLP
RESTORE
```

## SETTIME AND \*TIMD Commands

Steve Robinson  
S. L. Robinson & Associates,  
Inc.

As evidenced by articles in the last several newsletters, the utility of the SETTIME and \*TIMD commands is becoming more widely known and employed in the NATURAL user's community.

Below is a short program, using SETTIME and \*TIMD, designed to demonstrate the "cost" of inappropriate use of the ADABAS ET command. (End of Transaction in Natural).

Many shops badly abuse this powerful command and its associated facilities (e.g. BT). The ET command should serve one of two functions:

- 1) Delineate a set of logically related updates, e.g. Add an order record to the order file; Update two fields in a customer record to reflect one more order for this customer and an increase in total dollar value of orders; Update a variable number of product records (one for each line item of the order) to reduce quantity unallocated fields.

- 2) Establish a recovery time unit. This is especially appropriate in a batch run which will update a large percent of the records in a file, e.g. passing a 200,000 record file making a minor update to each record. Issuing an ET command every N transactions will permit recovery in considerably less time than would be required to rerun the entire program. Typical values of N might be in the range 50-200 depending on the extent of the updating going on and the size of the entire update run.

Unfortunately, many shops use the ET command as a











































