

CONNECTIONS

VOL. 13 No. 4 ■ DECEMBER, 1988

FALL ISSUE

Software AG's New Headquarters

The following is an excerpt of a letter that was sent to 4,700 contacts in almost 1,000 user sites in the United States.



John Norris Maguire
Chairman of the Board

I'm pleased to announce that after fifteen years headquartered in the Reston International Center, we now have our own building! During that period in the International Center, we outgrew available space necessitating locating a substantial portion of our Reston staff into numerous buildings around the Reston area.

Now, we have consolidated our 260 Reston-based employees under one roof which should improve our productivity and service to you.

Our new address is:

Software AG of North America, Inc.
11190 Sunrise Valley Drive
Reston, Virginia 22091
Main switchboard telephone:
703/860-5050
FAX: 703/391-6975
TELEX: 275301

We are very excited about our new products and especially our open Integrated Software Architecture (ISA). This architecture is available today and running (as opposed to others that won't be here until the 1990s and only on one hardware platform).

We would like to extend an invitation to you and your colleagues to visit our new Headquarters. Your visit would be tailored to your needs/desires be it about products or any other detail you desire. We would also be happy to discuss with you all of our product plans

for the future.

Please contact your local salesperson to arrange such a visit. I would participate, if appropriate, in the visit.

I hope you accept my invitation.

NATURAL 2 Exceeds COBOL Performance Levels



Doug Henrich
Product Manager

NATURAL 2 applications can now exceed COBOL performance and rival optimized COBOL (CA Optimizer) applications. These performance levels are achieved through the use of the NATURAL 2 OPTIMIZER COMPILER. Software AG announced the NATURAL 2 OPTIMIZER COMPILER in September at the 18th International Users' Conference in Nashville.

Test results from beta site customers show that optimized NATURAL 2 applications, on average, perform up to 3 times faster (in CPU time) than standard third generation COBOL! And as fast as optimized COBOL, in its execution of statements for complex data manipulation.

Beta site customers also found that new and existing NATURAL 2 applications using the NATURAL 2 OPTIMIZER COMPILER will experience significant overall CPU savings.

How It Works

The NATURAL 2 OPTIMIZER COMPILER compiles NATURAL programs into optimized machine code, providing considerable reductions in CPU usage for programs which contain a large amount of data manipulation, such as array processing, computation, transfer and logical condition processing. The NATURAL 2 OPTIMIZER COMPILER compiles all assignments, such as arithmetic, conditional and control statements, into optimized machine code. Because of this optimization, the

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President's Message



Bill Wagner
University of Texas at Austin

One of the more fascinating of the old Chinese curses reads: "May you live in interesting times." The Nashville Conference showed that times are indeed interesting for both Software AG and the user community. Challenges are ahead for both parties. As Michael Braude of the Gartner Group pointed out, the spectre of DB2 is alive and well (even if not particularly efficient) in the data processing world, and Software AG may have some interesting choices to make if their strategies are to reflect this reality. The challenge facing the user community is to assimilate the tremendous amount of new products that Software AG is offering. For one person to simply know what products are available is difficult; to understand something of the internals of all the products is virtually impossible. The result is that as Software AG products proliferate, so does the number of people responsible for their selection, installation, and maintenance. In short, the number of people in the user community is growing far faster than the number of sites.

SAGGROU has taken a big step toward accommodating both the number of users and the variety of products with the approval of several Constitutional amendments. The four positions of "Product Representatives" have been expanded to five "Functional Area Representatives," each looking after the interests of an entire family of Software AG products. As new products are introduced, they will be added to one of the existing categories. Each of the Representatives may also, at their discretion, appoint Technical Advisors for individual products. These advisors will participate directly in SAGGROU through the Change/Enhancement process, providing the expertise in specific products that the Functional Area Representative cannot be expected to have.

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18th International Users' Conference A Success

The 18th Annual International Software AG Users' Conference, held in Nashville, Tennessee on September 25-29, 1988 at the Opryland Hotel, proved a success. This year's conference featured an expanded demo room, over 80 sessions, 15 new product announcements and the second annual Executive Track Conference.

YEARLY CONFERENCE BRINGS USERS TOGETHER

The International Users' Conference provides a forum for users to meet and share ideas. This interaction with other users and Software AG is an invaluable part of attending the yearly users' conference. At no other time are nearly 2000 Software AG users assembled to discuss how they use Software AG products to solve their business problems.

VARIETY OF PRODUCTS MAKE DEMO ROOM A SUCCESS!

This year's demo room featured 24 booths displaying 50 products for IBM, DEC, and WANG hardware. Users enjoyed the demo room atmosphere which provided individual enclosed classrooms seating 15 people each. Product demos were held 12 hours a day to meet heavy demand. Also, each demonstrated product was graphically displayed as a part of ISA, Software AG's open Integrated Software Architecture.

OVER 80 SESSIONS PROVIDED UP-TO-DATE INFORMATION

During the 5 day conference in Nashville, over 80 sessions were held and many of them concurrently. Software AG employees, users, and industry analysts presented a vast amount of information through presentations, classes, and workshops.

Some Software AG Highlights

- ISA—Software AG described its open Integrated Software Architecture in detail
- 15 New Products Announced
- Open Forum—Users met one-on-one with Software AG executives

- Presentations were given on new products and new product versions
- Classes were taught on various products

Here's a Sampling of Users' Presentations

- Experiences with ADABAS SQL
- How to "Turn On" Data Administration
- Financial Package Built on ADABAS/NATURAL

- Hugh Volume—Creative Solution
- NATURAL Optimizer Testing and Performance
- Using ADABAS/VMS in a High-Availability VAX Cluster Environment

Industry Analysts Discussed Industry Trends

- John Logan, Vice President, Aberdeen Group, described

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NATURAL CONSTRUCT VMS Overview

Software AG incorporates Computer-Aided Software Engineering (CASE) technology with NATURAL, the world's most widely used and most highly acclaimed fourth generation technology. The result is NATURAL CONSTRUCT, a CASE tool that extends the portable NATURAL environment into even greater realms of productivity, functionality, and high performance. NATURAL CONSTRUCT provides a quick and easy way to generate efficient, high-quality, environment-independent NATURAL applications.

NATURAL CONSTRUCT is one of the first products to be released in the NATURAL Engineering Series, a suite of integrated CASE products that provide automated support for application development activities throughout the system development life cycle.

NATURAL CONSTRUCT is an application generator designed to support development of business applications using NATURAL. It facilitates both rapid prototyping and development of complete business applications. All NATURAL CONSTRUCT functions are interactive, including program specification, generation, and testing. NATURAL CONSTRUCT makes use of existing NATURAL facilities for painting maps and defining application views and data areas. To this base, it adds a program generator, a Help maintenance sys-

tem, and a library of program models for the generation of interactive file maintenance, file browsing, and menu programs.

NATURAL CONSTRUCT's standard program models are application templates that incorporate comprehensive error-handling, context-sensitive Help, cursor-selection, omnidirectional scrolling, and other productivity-enhancing features that are typically omitted from hand-coded applications, due to time constraints. Organizations can modify the standard models to add or change application functions. Standard models can also be modified to enforce local standards for code structure, documentation, security, and user interfaces.

The next version of NATURAL CONSTRUCT Version 1.2, will be available in December, 1988.

NATURAL CONSTRUCT 1.2 will include support for NATURAL ARCHITECT Workstation and several enhancements to current program models. Model enhancements include:

- multi-file support
- multi-map support, and
- an increased number of user exits.

For more information on NATURAL CONSTRUCT contact your Software AG representative or fill-out the reply card located in this issue of Connections.

Users Give NATURAL Customer Training Highest Marks

Stan Maring
Customer Service Division

According to a June, 1988 InformationWEEK survey of 4GL users, our customers like the NATURAL training we provide. In fact, when competing against nine other 4GLs, Software AG's NATURAL training was rated the best!

That's not really a surprise! We frequently receive letters and comments from customers praising our courses and instructors. Here are excerpts from some we've received recently:

- "The course was a resounding success, due mostly to the efforts of your instructor."
- "The instructor's knowledge of the subject matter, clear presentation, enthusiasm, and attention to detail made the class enjoyable and informative for all involved."
- "Your instructor's willingness to spend additional time covering workshop problems was appreciated by many students."
- "Every student gave your instructor outstanding reviews on her instruction and overall effectiveness. She was very well received by everyone."
- "After attending four Software AG courses, I have found all of them to be very professional, very detailed, and a pleasure to attend."
- "Software AG's instructors were excellent. All were willing and able to apply a student's application to the course of instruction. That was very valuable."
- "I have heard nothing but the highest praise for your instructor and the way she conducted the class and workshops. Even our resident grouch loved her!"
- "We expected outstanding training from Software AG when we selected your products, and we have not been disappointed."

- "Your instructor's knowledge of the course material, presentation skills, and ability to relate to the students made this the most valuable and informative Software AG course that we have attended."
- "Your instructor stands as a credit to Software AG and to your Customer Training Department."
- "I talked to many of the students after the class and they, too, were unanimous in the high marks given the course."

- "Your course was a real pleasure for me to attend. Your instructor was knowledgeable and enthusiastic about his subject matter and imparted that to his students."

For more information on Software AG's training classes please contact the Training Registrar at (703) 391-6904.

NATURAL Elite's ADABAS 5 Courseware Series

Susan Kaplar
Product Technology Division

The NATURAL Elite group is busy preparing for the release of ADABAS 5. Elite, Software AG's computer-based training, will be providing training in ADABAS 5 for a variety of audiences. The ADABAS 5 courseware series consists of four courses and is planned for release this year. The courses are described below.

ADABAS 5 Fundamentals

This course, the first in the ADABAS 5 series, is designed for those needing to access the ADABAS data base system—whether they be end users, programmers, or DBAs. The course teaches the fundamentals of ADABAS 5 concepts and structures.

Beta test: October 1988
Release: November 1988

ADABAS 5 Program Design

This course is designed for programmers using a 3GL—such as COBOL or PL/1—to access ADABAS files. Examples of the direct calls required in the program are taught. All example code uses COBOL and/or PL/1. A brief summary of the user of NATURAL with ADABAS is included as a lesson.

Beta test: October 1988
Release: November 1988

ADABAS 5 File Design

This course is designed for systems analysts, DBAs, or advanced programmers, involved in designing ADABAS files for application development. The design is not a systems design course; rather, it is instruction on the types of functionality and considerations involved in designing an ADABAS file.

Beta test: November 1988
Release: December 1988

ADABAS 5 Utilities

This course, the last in the ADABAS 5 series, is designed primarily for DBAs or other system support personnel involved in supporting the ADABAS environment. Each utility is covered in concept and examples in batch. This course reviews the utilities as they are available in the ONLINE mode through the ONLINE Utilities module of ADABAS.

Beta test: January 1989
Release: February 1989

Remember, NATURAL Elite is an economical way to provide quality training for your shop—be it large or small.

NATURAL 2 Exceeds

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product produces further CPU consumption improvements over NATURAL 2.

Compiled or Not Compiled—

The NATURAL 2 OPTIMIZER COMPILER compiles the following statements:

- move statements, (i.e., RESET, ASSIGN, and MOVE),
- arithmetic statements (COMPUTE, ADD, SUBTRACT, MULTIPLY, and DIVIDE),
- conditional statements (IF, DECIDE),
- control statements (FOR and REPEAT).

The NATURAL 2 OPTIMIZER COMPILER does NOT compile the following statements:

- I/O statements (data base operations, INPUT, WRITE, etc. . . .),
- complex special statements like EXAMINE or SEPARATE,

- calling statements like FETCH, PERFORM, CALLNAT, etc. . . .,
- the MOVED INDEX statement (array processing is optimized).

When To Use the NATURAL 2 OPTIMIZER COMPILER

Programs which contain string processing, command analysis, statistics, complex arithmetic, and the like, will find the NATURAL 2 OPTIMIZER COMPILER highly efficient and therefore is strongly recommended.

However, the Optimizer should not be used for programs which are only used very rarely. Also, the Optimizer will be of little benefit for programs which contain only data base operations. These programs may realize substantial performance gains with the ADABAS High Performance Environment (HPE). ADABAS HPE eliminates expensive inter-region communications.

Using the Optimizer

The NATURAL 2 profile parameter MCG (Machine Code Generation) is used to activate the Optimizer. This may be dynamically assigned for a given NATURAL 2 session. Additional options can check for arithmetic overflow, division by zero, and index boundary errors.

The NATURAL 2 OPTIMIZER COMPILER operates on IBM, IBM plug compatible and Siemens hardware platforms, MVS/SP, MVS/XA, VM/CMS, DOS/VSE, VSE/SP, BS2000, and MSP operating systems, and Software AG's COM-LETE, and ADABAS TPF teleprocessing environments, as well as IBM's CICS, TSO, CMS, and IMS/DC teleprocessing environments. NATURAL 2 OPTIMIZER COMPILER compiles NATURAL 2 programs accessing data from ADABAS, VSAM, DL/1, DB2 and SQL/DS, in both on-line and batch environments. NATURAL 2 OPTIMIZER COMPILER will be available shortly after the release of NATURAL 2.1.4. Please contact your Software AG representative for product details and pricing information.

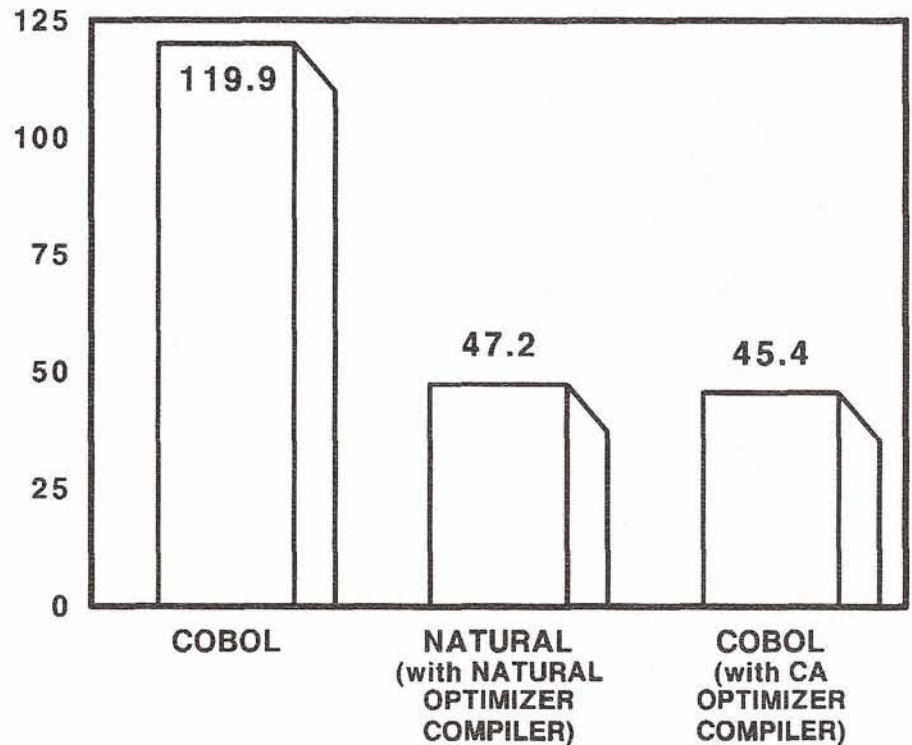
Benchmark - Frankfurt, West Germany

Command Profile

| | |
|----------|--------|
| Move | 58.6% |
| If | 19.5% |
| Perform | 11.4% |
| Add | 7.8% |
| Compute | 1.3% |
| Call | 1.1% |
| Subtract | 0.2% |
| Multiply | 0.1% |
| Total | 100.0% |

Total Commands
10,000,000

CPU Time in Seconds



SUPER NATURAL and Batch Transactions

Lisa Crispin

Customer Service Division

One of the most frequently-asked questions about SUPER NATURAL is how to run SUPER NATURAL transactions in batch mode. Creating and running batch SUPER NATURAL transactions isn't difficult, but several factors are involved. The SUPER NATURAL administrator has to decide who will be allowed to create and run batch transactions; decide how batch transactions will be submitted; set up the correct SUPER NATURAL options; code the JCL/JCS; and take care of security considerations and various other issues.

The SUPER NATURAL Installation and Maintenance Manual documents batch run mode (pg. 6-28 and 6-33 of the V2.1 manual; pg. 5-15 of the V2.2 manual) and JCL/JCS for batch transactions (pg. 6-38 of the V2.1 manual; pg. 5-63 of the V2.2 manual).

For a detailed discussion of how to run batch SUPER NATURAL transactions, read on!

Why Batch Mode?

Some SUPER NATURAL users may want to run a transaction that reads many records and/or prints a long report. For reasons of efficiency, these transactions may be better run in batch mode. Another reason for running in batch mode is that the administrator may have defined some user options to be available only in batch mode. For example, non-descriptor criteria may be allowed only in batch mode.

RJE Submission

Standard batch NATURAL jobs can be used to run SUPER NATURAL batch transactions. Since SUPER NATURAL users are usually end users who would not normally code JCL and submit batch jobs, SUPER NATURAL provides for submission of batch jobs through SUPER NATURAL using RJE (Remote Job Entry) facilities. The SUPER NATURAL administrator sets up the JCL and the user options appropriately; the user then can run the transaction and the batch job is automatically submitted. RJE submission is available only for COM-LETE and NATURAL Advanced

Facilities users. Other users are limited to running batch transactions using the same methods they would use to run regular NATURAL programs in batch.

NOTE: To use RJE in SUPER NATURAL under COM-LETE, the module NATRJE has to be included in the linkedit of the NATURAL nucleus, and must be a CSTATIC entry in NATPARMS. NATRJE is the same module as COM-LETE's RJE. NATURAL/AF users already have NATRJE in place, so no extra steps are required.

Setting Up For Batch Transactions

To create a batch mode transaction in SUPER NATURAL, the user option for Batch (B) Run Mode must be set to "Y." The appropriate report destination must also be available. For example, if output is to be routed to a printer, Printer (P) must be set to "Y" and the desired Logical Printer Number must be assigned.

A user who has Run Mode Batch = Y in the user options can save batch mode transactions. In order to run batch jobs from SUPER NATURAL, RJE must be available and additional steps must be taken.

If RJE is to be used, the SUPER NATURAL administrator must code JCL/JCS for a batch NATURAL job. A unique JCL member can be created for each user, or more than one user can use the same JCL member, as desired. The JCL members are stored as source members in NATURAL library ZJCL.

Administrators can add, copy, or modify JCL members from the SUPER NATURAL maintenance menu. The ADD and MODIFY options invoke the NATURAL editor, where JCL can be coded and SAVED, then a "." used to return to the maintenance menu. It's also possible to logon to the ZJCL library and edit the JCL members in NATURAL without going through the SUPER NATURAL maintenance menu.

Once one or more JCL members have been created, the administrator needs to modify the user options for each user who will be allowed to submit batch transactions through RJE. Three options need to be updated:

1. JCLID: This is the name of the JCL member the user will use. The default is "JCL01"
2. Run Mode Option for Batch (B) must be set to "Y"
3. Batch Job Entry/(RJE available) must be set to "Y", with default "Y"

Now the user can run batch transactions and SUPER NATURAL will automatically submit the batch jobs.

JCL/JCS

JCL/JCS may be coded the same way as any batch NATURAL job for the site. The JCL/JCS must execute batch NATURAL with appropriate NATPARMS. If JCL is to be submitted outside of SUPER NATURAL (in other words, without using the SUPER NATURAL RJE facility), the NATURAL control statements can be coded to logon to SYSSN and execute the transaction from the user's private library, or logon directly to the private library and execute the transaction. For example:

```
LOGON SYSSN  
EX IPGMNAME YLIBRARY
```

or

```
LOGON YLIBRARY  
EX IPGMNAME
```

NOTE: NATURAL SECURITY users have special requirements; see the section on NATURAL SECURITY considerations below.

A JCL member for use with SUPER NATURAL RJE is coded in the same way except for the NATURAL control statements: the //CMSYNIN DD * data for OS, or the instream data following the ADARUN card and /* for DOS. If a ">" is coded in column 2 on a line by itself, SUPER NATURAL will inset the correct LOGON and EX commands when the transaction is submitted to RJE. Using this recommended method for a transaction named "REPORT1" for the user SALZC, the administrator would code the NATURAL control statements in the JCL as this:

```
>  
FIN
```

When the job is submitted, SUPER NATURAL will insert commands to change the instream data to this:

```
LOGON SYSSN
EX IREPORT1 YSALZC
FIN
```

("I" is the program prefix for transactions, and "Y" is the private library prefix.)

The ">" insertion character allows a JCL member to be used over and over by the same or multiple users without having to modify the JCL member. Another feature SUPER NATURAL provides for flexibility in JCL is the use of the character string "*****", which is replaced by the User ID of the user running the transaction. This can be used in the job card (and POWER job card in DOS):

```
Example for OS:
//***** JOB BATCHNSN,
CLASS=A,
MSGCLASS=X
```

```
Example for DOS:
* $$ JOB JNM=***** ,
CLASS=A,
DISP=D // JOB *****
```

NATURAL SECURITY Considerations

If SUPER NATURAL is installed in NATURAL SECURITY, the NATPARM AUTO=ON must be used, as long as the user submitting the batch job is defined to NATURAL SECURITY as a person or an administrator. If the user is defined only as a member, AUTO=ON can still be used if SYSSN is the default application for that User ID. If the member does not have SYSSN for a default application, the NATURAL SECURITY logon commands must be coded in the JCL. For example:

```
SYSSN,USERID
%*
PASSWORD
```

If batch transactions are run in SUPER NATURAL using RJE to submit the jobs while the user is still logged on to SUPER NATURAL, steps must be taken to prevent an ADABAS RSP048 (Duplicate User ID in ADABAS) from occurring.

In NATURAL SECURITY V2, define application SYSSN with RESTART = N on the application profile. Restart data is not used in SUPER NATURAL, and turning RESTART off will prevent a duplicate User ID from occurring.

In NATURAL SECURITY V1.2, an error routine to trap NAT3048/NAT8048 at logon time must be used. (Please see NATURAL V1.2 SM06 Release Notes for details on coding this error routine.) The error routine must reside in SYSLIB, and must be defined as the error routine on the user's default application of AUTO=ON is used. If AUTO=ON cannot be used because the User ID is defined as a member with no default application, the JCL to run the SUPER NATURAL transaction must contain control statements to do the initial logon to an application that has the NAT3048/NAT8048 trap defined as its error routine. At logon time, the error routine should ignore the NAT3048 or NAT8048 and allow the job to continue with the "LOGON SYSSN".

As with vanilla NATURAL, there are two ways to execute SUPER NATURAL transactions in batch. The control statements can be either:

```
LOGON SYSSN
EX IPGMNAME YLIBRARY
```

or

```
LOGON YLIBRARY
EX IPGMNAME
```

Since SUPER NATURAL private libraries are not defined as applications to Security, the administrator would have to define each private library to Security before using the second method. Therefore, the first method, LOGON SYSSN, is recommended. Again, if the RJE facility is being used to submit batch jobs from SUPER NATURAL, use of the insertion character ">" is recommended to allow SUPER NATURAL to insert the LOGON SYSSN and EX IPGMNAME LIBRARY commands.

MENU must be defined as the STARTUP program for SYSSN in order to execute batch transactions from SYSSN. MENU accepts the command EX IPGMNAME YLIBRARY where IPGMNAME is the transaction name and YLIBRARY is the private library as input to a variable called #BATCH-LINE.

If the control statements are hard-coded rather than using the ">" insertion character, the transaction name must consist of eight positions. If the name is less than eight characters, trailing spaces

must be used to pad the name to eight positions. For example, if transaction ITEST in library YSALZC is to be run:

```
LOGON SYSSN
EX ITEST YSALZC
```

will result in an error under NATURAL SECURITY.

```
LOGON SYSSN
EX ITEST YSALZC
```

will work correctly. SUPER NATURAL generates the commands correctly when ">" is used.

Caveats

Once a job is submitted to run a SUPER NATURAL batch transaction, the transaction should not be modified until after the job has run. If changes are made before the batch transaction is run, it may get an error, or fail to produce the expected output. For example, say a user runs a batch transaction, but the job does not run right away. Then the user changes the transaction defaults to online run mode. When the batch job finally runs, it will try to run the transaction which is now online mode, and terminate with an error.

If report destination PRINTER is used, the online NATURAL session where SUPER NATURAL is running must have the PRINTER parameter set high enough in the NATPARM or dynamic override so that the code generated by SUPER NATURAL will pass the syntax checker. For example, if report destination is logical printer 8, PRINTER=8 (or higher) must be used. The number of printers allocated can be checked by typing in the command GLOBALS at a NEXT prompt (or NATURAL 2 command line).

Note also that batch JCL to execute a batch transaction must contain a //CMPRTXX DD card (for OS) or BPRINTD parameter (for DOS) that matches the logical printer being used. For example, in OS, if logical printer 2 is the destination, the JCL must contain a //CMPRT02 DD card. The same idea also applies to workfiles as a report destination—BWORKD or //CMWKFFX DD must be present for the workfile number being used.

I hope you find these tips are helpful as you run SUPER NATURAL transactions in batch mode.

Processing Rules in PREDICT 2 and NATURAL 2

Wendy Crist
Customer Service Division

General Information

NATURAL 2 uses processing rules to check the validity of input data for specified fields. The use of processing rules moves the validity check of input data from the program to the input map where the data can be checked as it is entered and before program processing begins.

PREDICT 2 provides a tool for centralizing the definition, maintenance, and storage of these rules. The use of centralized rules can allow for a consistent implementation of the rules.

Processing rules can be defined through PREDICT or through the NATURAL map editor. There are four types of processing rules: *inline*, *conceptual*, *free*, and *automatic*. Inline and free rules can be defined in the NATURAL map editor. Conceptual, free, and automatic rules can be defined in PREDICT. The status of the rule (conceptual, free, or automatic) is assigned in PREDICT depending on how the rule is to be used.

Inline rules are created using the NATURAL 2 map editor. The rule is added or updated by editing the desired field on the map and specifying processing rule editing. Inline rules are stored with the map in which they are created.

Conceptual rules are in the design stage and cannot be used in a map until their status is changed to free or automatic. Conceptual rules are created and maintained through PREDICT.

Free rules may be used on any field (data base or user-defined) in a map at the programmer's discretion. These rules are created and maintained through PREDICT or through the NATURAL 2 map editor.

Automatic rules are generated in the same manner as free and conceptual rules. The rule becomes automatic when it is connected to a field. The connection is set up when the rule name is added to the field entry in PREDICT and the DDM for the file or user view containing the field is generated. The rule becomes part of the DDM and

PREDICT changes the status of the rule from free or conceptual to automatic. These rules are created and maintained through PREDICT.

CREATING VERIFICATION RULES

In PREDICT

The verification TYPE and VALUE(s) are used to generate the NATURAL code for the rule. These are supplied by the user when a verification is added or modified in PREDICT. A verification can be of the following types:

- range, equal, less, greater, user, or table

Range is used with two values to indicate a consecutive set of values. Equal, less, and greater are used with one value. For a table type rule, several values may be specified. For all types, except user, PREDICT uses the type and value(s) to create NATURAL code. Code for verifications of user type must be supplied by the user.

To create a rule under PREDICT, add a verification with a TYPE and allowed VALUE(s). From the add screen on the verification menu, choose the option to EDIT the verification. On a new verification, this will display a blank edit screen. PREDICT will generate NATURAL code for the rule if the command GEN is entered on the command line. The code may be modified by the user.

Structured code can be generated by issuing the command GLOBALS SM=ON from the verification rule editor. The CHECK command can be used to check the syntax of the rule. The CAT command does not perform a syntax check. In PREDICT, the CAT and SAVE commands perform the same function: to save the entered code.

To save generated code as a conceptual rule, issue the SAVE or CAT command. To save it as a free rule, enter the command SAVE FREE or CAT FREE.

To create an automatic rule, the verification is saved as a free or conceptual rule. The verification name must be added to the desired field, and the DDM for that file or user view must be generated. At this time, PREDICT changes the status

of the rule from free or conceptual to automatic. The rule becomes a part of the DDM, and the code for the rule is stored in the DDM, as well as on the FDIC file. When the DDM is used in a NATURAL map, the rule is included automatically.

In NATURAL

Inline rules are created in the NATURAL 2 map editor. Select option "D" for DISPLAY FIELD DEFINITIONS from the map editor menu. A "P" should be entered next to the field for which a processing rule is being added. It is possible to enter a rank on the rule to set a priority for the rule. The rank is entered along with the "P" in the format "Prr" where "rr" is a value from 0 to 99 (refer to the NATURAL Reference Manual section on the map editor for suggested rank settings based upon the rule type and usage). If this is a new rule, a blank edit screen will be displayed. The user must then enter the desired code. An END statement *must not* be entered in this code. When finished, enter a "." on the command line.

To use a free rule from the NATURAL 2 map editor, select option "D" for DISPLAY FIELD DEFINITIONS from the map editor menu. A "P" and optional rank should be entered next to the field for which a rule is being pulled in. A blank split edit screen will be displayed. The user must then enter the name of the free rule in PREDICT on the underscores above the ">" symbol. After pressing ENTER, the code for the rule will be displayed. Enter a "." to save the rule for that field.

To create a free rule from the NATURAL 2 map editor, select option "D" for DISPLAY FIELD DEFINITIONS from the map editor menu. A "P" and optional rank should be entered next to the field for which a rule is being defined. A blank split edit screen will be displayed. The user must then enter the desired code. An END statement *must not* be entered in this code. To save the rule as a free rule in PREDICT, enter the verification rule name on the underscores on the line above the ">" symbol and enter a "." on the command line. The PREDICT ADD VERIFICATION screen will be displayed. The status

and format of the rule will have been set by PREDICT. The user needs to enter the verification type and value(s). The rule is stored on the dictionary.

MAINTAINING VERIFICATION RULES

In PREDICT

User, automatic, free, and conceptual rules are maintained through the PREDICT maintenance subsystem.

If an automatic rule changes after the DDM is generated, there are two ways to get the updated rule into the DDM. The first way is to regenerate the DDM specifying "Y" on the generate and replace verification rule(s) options. The second way to update the rule(s) in the DDM is to issue the GEN VER command. This command will only update the rules in the DDM. It will not process any other changes made to the file or userview (for example, new fields added or formats changed). If the file or userview fields entries were changed in addition to the rule changing, the DDM must be re-generated. The GEN VER command will not update the DDM unless the verification was included when the DDM was first generated.

In NATURAL

Free and inline rules can be maintained through the NATURAL 2 map editor. They are maintained in the same manner as when creating free and inline rules. When free rules are maintained through the map editor, the PREDICT verification rule maintenance system is invoked so that the rule definition in PREDICT remains consistent with the code in the map. The programmer may choose to save the modification as an inline rule for that map, rather than updating the free rule on PREDICT. If the user updates the free rule on PREDICT, all other maps using that free rule should be re-stowed in order for the changes to be in effect.

Automatic rules cannot be modified in the map editor, but they can be copied to a new rule name which would then become either free or inline and can be modified.

Deleting a Rule From a Field

An inline processing rule can be deleted from a field by using option "D", DISPLAY FIELD DEFINITIONS, for the field from which the rule is to be deleted. The code for the rule should be deleted or blanked out. The map must then be re-stowed.

A free processing rule is deleted in NATURAL 2 in the same manner as an inline rule, except for entering UNLINK or "U" on the command line after deleting the code. The map must then be re-stowed.

An automatic processing rule is deleted by editing the field in PREDICT and removing the verification name. The DDM should be re-generated and the maps re-stowed.

Considerations

1. All processing rules in maps are evaluated every time ENTER is pressed. This includes maps that are input-only maps.
2. Processing rules are executed in ascending order by rank and then by screen position of the field. PF-key processing rules have first screen position.
3. If more than one automatic rule is connected to a field, the rules are executed in the same order as they were assigned in PREDICT in the verification list for the field. All automatic rules for a field have the same rank.
4. Automatic rules (rules included in DDMs) are not available to NATURAL programs. Automatic rules are only available to NATURAL maps.
5. Processing rules only have access to fields that are defined in the map using the rule and to any field that is defined locally to the rule.
6. The INCLUDE statement may not be used within a processing rule.
7. The source for the map shows the name of the rule(s) included, but not the NATURAL code for the rule. The object code for the rule is included in the object code for the map.

8. A field on a map may have up to 100 rules and up to 50 of these can be automatic rules.
9. When a rule is used for a field in a map, NATURAL 2 will substitute the name of the field for the ampersand (&). This allows the same rule to be used by many different fields.

Additional information on processing rules can be found in the NATURAL 2 Reference Manual and the PREDICT 2 Reference Manual. If you have questions regarding the use of processing rules in NATURAL or PREDICT, please contact Software AG's Customer Support 1-800-525-7859.

President's Message

continued from page 2

These positions also provide an avenue for more people to become involved in the Users' Group, especially new users who may have experience in some of the new products.

As has always been the case, the key word is "involvement." At the Nashville Conference, I talked with more people than I can remember, and the overwhelming impression I got was of enthusiasm (approaching sensory overload) for the product and direction announcements. Enthusiasm is easy to come by at a conference. The challenge is to maintain it when you get home. Becoming actively involved with SAGGROUP gives you the opportunity to do just that. As you read the rest of this issue of Connections, you will see articles from the various Functional Area Representatives asking for volunteers for both user panels and Technical Advisory positions. I urge you to take advantage of these opportunities. Experience isn't required; just enthusiasm. "Interesting times" deserve interested people.

Frequently Encountered INPL Errors in the NATURAL Applications World

Lisa Theard

Customer Service Division

In order to assist in the INPL process, this list of common and not-so-common errors encountered during INPL processing has been compiled. The errors are accompanied by possible solutions to and/or causes of the problems.

This list of errors applies to the NATURAL application or add-on products only. It is also geared toward installs under NATURAL 2, although some sections contain problems that address the INPL process under both NATURAL Versions 1 and 2. NATURAL must first be installed before the INPL for any of the NATURAL application products can be performed.

The appropriate error messages and codes manuals should also be used to assist in solving these problems.

Logon Format

Some examples of the INPL syntax structure have been included in this document. If NATURAL SECURITY is installed, the logon will have to be changed to a NATURAL SECURITY logon. Refer to the "NATURAL SECURITY in Batch Mode" chapter in the NATURAL SECURITY Manual.

NATDEMO

Many times errors that occur during the INPL process are directly related to problems with the user's batch NATURAL. Try using NATDEMO from the NATURAL load library to run the INPL. If the error does not occur when using NATDEMO, then compare the NATPARM and link edit of the batch nucleus to Software AG's. Re-link the batch NATURAL nucleus, if necessary.

Dynamic Parameter Errors

Incorrect specification of the parameter stream can cause the parameters to be ignored, which can cause other errors, and generate any of the NAT7000 dynamic parameter errors.

Parameter statements and streams should look similar to the following:

```
1. OS
  a. NATURAL 2
     //STEP1 EXEC
     PGM=NATDEMO,
     REGION=1024K,
     //  PARM=('STACK=INPL,
     IM=D,DBID=2,FNR=4,
     FSEC=(2,5),
     FUSER=(2,6),',
     //  'FDIC=(2,7),MADIO=0,
     MAXCL=0,MT=0,
     ADASVC=21,INTENS=1')
```

NOTE: When continuing dynamic parameters, the last parameter on the line to be continued must be followed by a comma.

```
  b. NATURAL Version 1
     (NATMAINT)
     //SYSIN DD *
     FNR=4
     DBID=2
     IM=D
     INPL
     MT=0
     CATLG=NATFILE,
     NATFILES
     NATURAL=NATDEMO
```

```
2. DOS
  a. NATURAL 2
     // EXEC
     NATDEMO,SIZE=550K
     OBJIN=R
     FNR=4,DBID=2
     FSEC=(2,5)
     FUSER=(2,6)
     FDIC=(2,7)
     MADIO=0
     IM=D
     STACK=INPL
     MAXCL=0
     MT=0
     ADASVC=21
     INTENS=1
```

```
  b. NATURAL Version 1
     (NATMAINT)
     // EXEC
     NATMAINT,SIZE=768k
     FNR=4
     DBID=2
     IM=D
     INPL
     MT=0
     CATLG=NATFILE,
     NATFILES
     NATURAL=NATDEMO
```

```
3. CMS
   "EXECOS" MODULE "BATCH
   STACK=(INPL) DBID=2
   FNR=4 . . . . .(etc.)"
   NOTE: Disregarding the
   NAT7000 error codes can cause
   unpredictable or invalid results.
```

NATURAL CONSTRUCT Version 2 Looping INPL Job

Try removing STACK=INPL from the parameter stream, initiate a logon to library SYSINPL and issue the INPL command in the NATURAL input cards.

Example:

```
LOGON SYSINPL
INPL
B
FIN
```

NATURAL Elite Version 1

This section applies to NATURAL Elite Version 1.3.2 and subsequent releases.

NAT1106—Data String For "Input" Field Too Long

Specifying the INPL in both the parameter stream and the NATURAL input cards. The INPL command should only appear once in the job. Input cards should be:

```
LOGON SYSINPL
INPL
1
FIN
```

or, if using STACK=INPL:

```
1
FIN
```

NATURAL SECURITY Version 2

Refer to the NATURAL SECURITY Installation Notes for the parameters required to run the INPL.

CPU Time Out Before INPL Data Set Is Read From Tape

Try removing STACK=INPL from the parameter stream, initiate a logon to library SYSINPL and issue the INPL command in the NATURAL input cards.

Example:

```
LOGON SYSINPL
INPL
B
FIN
```



INFORMATION REQUEST CARD

CO-1288

YES, Please send me additional information on:

- | | |
|--|--|
| <input type="checkbox"/> NATURAL 2 OPTIMIZER | <input type="checkbox"/> Please Include me on the Customer Training Mailing List |
| <input type="checkbox"/> NATURAL CONSTRUCT | |
| <input type="checkbox"/> NATURAL ELITE-Computer Based Training | <input type="checkbox"/> Other _____ _____ _____ |

NAME _____

TITLE _____

COMPANY NAME _____ CUSTOMER # _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE _____



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Attn: Tim Fields

NOTE: If error code NAT0082 results, then insert a "." in the input cards. Refer to error code NAT0082, in this section.

Looping INPL Job

Run an ADAREP and compare the listed FSEC FDT with NATFDT on the current NATURAL install tape. If the FSEC FDT does not match, load a new FSEC file using NATFDT from the current NATURAL install tape.

NAT0082—Invalid Command, Or Object Does Not Exist In Library

Specify STACK=INPL in the parameter stream. The INPL command should be passed in the parameter stream, not in the NATURAL input cards.

If no room for STACK=INPL in the parameter stream, then specify the input card as follows:

```
LOGON SYSINPL
INPL
B
.
FIN
```

NAT0818—User ID Is Missing or This Terminal Is Not Defined

NOTE: May be accompanied by NAT1520 "Device Or Logical Printer Not Available".

Specify CMWKF01.

NAT0819—Logon Unsuccessful (Batch Mode Execution)

NOTE: May be accompanied by NAT9990 "NATURAL Initialization Failed."

1. Specify STACK=INPL and AUTO=OFF in the parameter stream
2. Check for parameter errors in specifying the system files. For instance, when specifying the FSEC file, it should be FSEC=(DBID,FILE-NUMBER) not FSEC=FILE-NUMBER.

Example:

If the FSEC file is file number 5 in data base 2:

Correct: FSEC=(2,5)

Incorrect: FSEC=5 or FSEC=(5)

The above system file specification applies to FSEC, FDIC,

FUSER and FNAT. FNR is still specified as FNR=FILE-NUMBER (FNR=4).

NAT0954—Abnormal Termination During Program Execution

NOTE: May also occur as ERROR 0954 and occurs in module INPL.

Specify CMWKF01.

NAT1009—Program Interrupted After Too Many ADABAS Calls

1. Set MADIO to zero in the parameter stream.
2. Check the parameter stream to ensure that the parameters are being specified and interpreted properly.

NAT1029—Interrupt After Too Many NATURAL Program Calls

1. Set MAXCL to zero in the parameter stream.
2. Check the parameter stream to ensure that the parameters are being specified and interpreted properly.

NAT1106—Data String For "Input" Field Too Long

NOTE: May also occur as ERROR 1106.

1. The INPL command should only appear once in the job. Make sure that the INPL command does not appear in the NATURAL input cards. For instance, using STACK=INPL in the parameter stream, the input cards should be as follows:

```
B
FIN
```

2. Refer to error code NAT0819, Item 2, in this section, to determine if it may be applicable.

NAT1500—Open For "Work" File Failed

NOTE: May also occur as ERROR 1500.

1. Specify STACK=INPL in the parameter stream.
2. Incorrect specification of work file or not using work file (CMWKF01).

NAT1505—Invalid Data For Numeric Input Field

NOTE: May also occur as ERROR 1505.

1. Incorrect input. Using incorrect function code for the INPL. Passing STACK=INPL in the parameter stream, the input cards should be:

```
B
FIN
```

2. Using incorrect NATURAL.
 - a. OS/DOS: Using incorrect NATDEMO or batch NATURAL. For instance, using a previous or back-leveled NATDEMO or batch NATURAL to run an INPL. Use NATDEMO or batch NATURAL for the SM being installed.
 - b. CMS: Using incorrect gxec. For instance, using a previous or back-leveled EXEC to run an INPL. Use EXEC for the SM being installed.

NAT1520—Device Or Logical Printer Not Available

Refer to error code NAT0818, in this section, to determine if it may be applicable.

NAT3017—Invalid File Number

NOTE: Error occurs in module INTSEC and may be accompanied by NAT9988 "Invalid System File Information" and/or NAT9987 "NATURAL Session Terminated Abnormally."

Specifying a file number for the FSEC file that was used by the ADABAS SYSFILES parameter to establish the CHECKPOINT or ADABAS Security file.

The file number for each ADABAS system file is determined by the file numbers which are specified in the SYSFILES parameter when the data base is established (see "Establishing A Data Base" in the ADABAS Installation Manual). Even if the file is deleted and reloaded as the FSEC file, ADABAS will still treat it as whatever file the SYSFILES parameter established it as. Create a new FSEC file.

NAT3061—An Error Was Detected In The Search Buffer

NOTE: Error occurs in module INTSEC.

1. The system file does not match the field definition table on the NATURAL 2 install tape. Run an ADAREP and compare the listed FSEC FDT with NATFDT on the tape. If the FSEC FDT does not match, load a new Version 2 FSEC file using NATFDT from the NATURAL 2 tape.
2. Using a NATURAL Version 1 system file: Run an ADAREP and compare the listed FSEC FDT with NATFDT on the NATURAL 2 install tape. If the FSEC FDT does not match, load a new Version 2 FSEC file using NATFDT from the NATURAL 2 tape.
3. System files are all combined on FNAT and the format is from the dictionary FDT (DICFDT or PRD222.SYSF). Perform FILEMOD on the system file and add or modify the following fields:

AF should have a length of 64
 BX should have a length of 35
 LX should be added:
 LX=LO(1,33),LP(1,33)

NAT9987—NATURAL Session Terminated Abnormally

Refer to error code NAT3017, in this section, to determine if it may be applicable.

NAT9988—Invalid System File Information

1. Trying to INPL the NATURAL SECURITY data sets without having first performed the INPL for base NATURAL. NATURAL must be installed before the INPL for any of the NATURAL Application products can be performed.
2. Refer to error code NAT3017, in this section, to determine if it may be applicable.

NAT9990—NATURAL Initialization Failed

Refer to error code NAT0819, in this section, to determine if it may be applicable.

NAT9992—Storage Required Exceeds 'MSIZE' Value

Increase the region size.

PREDICT Version 2

This section applies to PREDICT Version 2.2.2 and subsequent releases.

Tried To Read Incompatible Format Data Set, INPL Stopped

Incorrect input. Using incorrect function code for the INPL. Input cards should be:

| | |
|--------------|--------------|
| PREDICT V2.2 | PREDICT V2.3 |
| LOGON | LOGON |
| SYSINPL | SYSINPL |
| INPL | INPL |
| 1 | B |
| FIN | FIN |

or, if using STACK=INPL:

| | |
|-----|-----|
| 1 | B |
| FIN | FIN |

ABENDSOC4

NOTE: Error is specific to install under NATURAL Version 1.

1. The NATURAL load module is not specified. Specify the load module in the input cards.

Example:

- NATURAL=NATDEMO
2. Specifying a load module for DDMs. CATLG should be specified.

ABENDU0007

Incorrect ADARUN card.

NAT0082—Invalid Command, Or Object Does Not Exist In Library

NOTE: Error can occur on the INPL or the error text load step and may be accompanied by NAT9987 - "NATURAL Session Terminated Abnormally."

1. On the INPL step:
 - a. Find and copy module LODSRCN to the SYSTEM library on the FNAT file. Rerun the INPL job.
2. On the error text load step:
 - a. NATURAL Version 1.2.7: Find and copy modules

ERRORTXT, ERROREXT and HELPTBLE to the SYSTEM library on the FNAT file. Rerun the error text load job.

- b. NATURAL 2: Find and copy modules ERRORTXT and ERROREXT to the SYSTEM library on the FNAT file. Rerun the error text load job.

3. NATURAL 2 only:

- a. Using NATDEMO from the NATURAL install tape and not specifying the ADASVC parameter. Specify ADASVC.
- b. Using linked up batch NATURAL and the ADASVC parameter is not contained in the NATPARM or parameter cards. Specify ADASVC.

NAT0818—User ID Is Missing Or This Terminal Is Not Defined

NOTE: May be accompanied by NAT9990 'NATURAL Initialization Failed.

Specify FIN at the end of the input cards. Refer to error code NAT0954, in this section, for examples of correct input data.

NAT0953—Time Limit Exceeded

1. Set MT to zero in the parameter stream.
2. Check the parameter stream to ensure that the parameters are being specified and interpreted properly.

NAT0954—Abnormal Termination During Program Compilation

NOTE: Error occurs in module LOGONM1 and may be accompanied by NAT6768 in module LODNM1. NAT6768 is currently undocumented.

Specify FIN at the end of the input cards:

Example:

| | |
|--------------|--------------|
| PREDICT V2.2 | PREDICT V2.3 |
| LOGON | LOGON |
| SYSINPL | SYSINPL |
| INPL | INPL |
| 1 | B |
| FIN | FIN |

or, if using STACK=INPL

| | |
|-----|-----|
| 1 | B |
| FIN | FIN |

NAT1106—Data String For
“Input” Field Too Long

NOTE: May also occur as ERROR 1106.

1. Incorrect input data. Refer to error code NAT0954, in this section, for examples of correct input data.
2. Refer to error code NAT7300, in this section, to determine if it may be applicable.

NAT6768

NOTE: Error occurs in module LODNM1 and is undocumented at this time.

Refer to error code NAT0954, in this section, to determine if it may be applicable.

NAT7300—Dynamic Parm Error:
Parameter Not Found

NOTE: Error occurs in module INPL and may be accompanied by NAT1106/ERROR 1106 “Data String for ‘Input’ Field Too Long.”

Using incorrect INPL utility.

Example:

Using NATMAINT to perform the PREDICT INPL under NATURAL 2.

NATMAINT does not exist and is not valid for NATURAL 2. Use OJINPL (OS), DJINPL/XJINPL (DOS) or INPL EXEC (CMS) from NATURAL 2.

NAT9987—NATURAL Session
Terminated Abnormally

NOTE: Error is specific to install under NATURAL 2 and the job will usually show a condition code of 8.

1. Check INPL output carefully for error codes and messages. If no error codes or messages are found in the output, this error message can be ignored as long as the INPL output shows that a total number of modules and sources were loaded.
2. Refer to error code NAT0082 in this section to determine if it may be applicable.

NAT9990—NATURAL
Initialization Field

Refer to error code NAT0818 in this section to determine if it may be applicable.

NAT9992—Storage Required
Exceeds ‘MSIZE’ Value

1. OS/DOS: Using incorrect NAT-DEMO or batch NATURAL. For instance, using a previous or back-leveled NATDEMO or batch NATURAL to run an INPL. Use NATDEMO or batch NATURAL for the NATURAL SM under which the product is being installed.
2. CMS: Using incorrect EXEC. For instance, using a previous or back-leveled EXEC to run an INPL. Use EXEC for the NATURAL SM under which the product is being installed.

REVIEW Version 2

NAT0082—Invalid Command, Or
Object Does Not Exist In Library

Find and copy module LODSCRN to the SYSTEM library on the FNAT file. Rerun the INPL job.

SUPER NATURAL Version 2

This section applies to SUPER NATURAL Version 2.1.2 and subsequent releases.

Inactive INPL Job

Incorrect specification of the PROGRAM parameter on the ADARUN card. PROGRAM should be USER.

Example: ADARUN PR=USER, MODE=MULTI,SVC=21,DA=2

ABENDSOC4

If work files which are not being used are included in the JCL/JCS, they should be dummied out instead of commented out.

NAT0082—Invalid Command, Or
Object Does Not Exist In Library

Refer to error code NAT0082 in the REVIEW Version 2 section for possible explanation of the problem.

NAT1009—Program Interrupted
After Too Many ADABAS Calls

NOTE: May also occur as ERROR 1009.

Refer to error code NAT1009 in the NATURAL SECURITY Version 2 section for possible explanations of the problem.

NAT1106—Data String For
“Input” Field Too Long

Specifying INPL in both the parameter stream and the input cards. Specify either STACK=INPL in the parameter stream or INPL in the input cards, not both.

NAT1311—Index In
“Move Indexed” Statement Is
Zero Or Negative

Incorrect work file allocation. Work files should be:

CMWKF01—Input Data Set
CMWKF02—Error Text Data Set

NAT1500—Open for “Work”
File Failed

Incorrect specification of work file or not using work file (CMWKF01).

NAT1502—Permanent Physical
I/O Error

Check for hardware errors/problems. Try running the INPL job on different hardware, if possible (i.e., load tape on a different tape drive).

NAT3061—An Error Was Detected
In The Search Buffer

Refer to error code NAT3061 in the NATURAL SECURITY Version 2 section for possible explanations of the problem.

NAT9992—Storage Required
Exceeds ‘MSIZE’ Value

Refer to error code NAT1505 in the NATURAL SECURITY Version 2 section for possible explanations of the problem.

NAT9997—Not Enough Memory
To Start NATURAL

Increase the region size.

USER'S GROUP NEWS

September SAGGROUP Executive Committee Meeting Overview

Steven L. Baker
SAGGROUP Secretary

The SAGGROUP Executive Committee meeting was held at the Opryland Hotel in Nashville, Tennessee in conjunction with the International Users' Conference.

Annual International Users' Conference

The 1988 Conference was attended by over 2,000 users from regions all over the world. The Executive Track has mushroomed to over 250 people which is up over 40% from last year. New features of this year's conference included the Sunday start date, more Reach Out and CON-NECT terminals, more demonstrations, and the expanded Executive Track program.

Product demonstrations were greatly expanded to include 26 classroom type booths demonstrating over 50 different products. New features this year included a WANG VS machine running SAG software.

Next year's Conference will be held October 22-26, 1989 at the Anaheim Hilton in Anaheim, California.

New Product Representation

With the large number of products being released by Software AG, the Executive Committee felt that the existing Product Representation of ADABAS, NATURAL, COMPLETE, and PREDICT was outdated. The committee replaced that structure with four new functional areas: ADABAS, ADMINISTRATION, END-USER COMPUTING, and COMMUNICATIONS. All of Software AG's products are now represented within these groups and each group has a Functional Area Representative (FAR) assigned (see the breakdown in this issue of Connections.)

New Executive Committee Members

Elections held at the Conference resulted in the current Executive Committee representation:

- Bill Wagner, President
- Colette Farabaugh, Vice President (appointed)
- Steve Baker, Secretary
- Kelly Jones, Change/Enhancement Coordinator

- Martin Henderson, Technical Support Evaluation
- Mary Ellen Woods, Nominations/Elections
- Patti Piccola, Administration FAR
- Jim Wisdom, Application Development FAR
- Ellen Birch, Communications FAR
- Bob Becker, Data Base FAR
- Laura Jacobs, End User Computing FAR

Service/Connection

The exciting news was an update on the status of Service/Connection which provides the capability for each Software AG user to communicate with a central information depository. Gordon Perrins is the Service/Connection Coordinator and there is now worldwide interest in the product. Target date for release of phase I is February, 1989.

NATURAL CONNECTION will be required on both the PC and the mainframe, however, there will be subcomponents of this product

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New Change/Enhancement System Incorporated

Kelly Jones
Change/Enhancement Coordinator

During the 18th International Software AG Users' Conference, the many benefits to Software AG and users of Software AG products of maintaining open dialogue regarding the users' software product needs and expectations were stated several times. As one part of this dialogue, the Change/Enhancement System has been identified as the official means by which a user can communicate needs for increased functionality, and/or desires for future direction of existing products.

In order to increase the value of the Change/Enhancement System to SAGGROUP and Software AG, the

Executive Committee and Peter Schnell, President, Software AG, have agreed to enhancements to the Change/Enhancement System itself. The major thrust of changes agreed to is to shorten the Change/Enhancement cycle from a period of 6 to 8 months to 1 to 3 months. Implementation of these enhancements is expected to benefit Software AG by bringing to their attention means by which they can increase the value of their products in a dynamic and demanding market. The users of Software AG products are expected to benefit by realizing the increased value of these products in less time than may have been seen in the past.

Effective immediately, the procedure for processing Change/Enhancements will consist of the following steps:

1. A user will prepare a Change/Enhancement Request form and forward the request to the SAGGROUP Change/Enhancement Coordinator. A Change/Enhancement Request form may be found near the back of the Connections magazine.
2. The Change/Enhancement Coordinator will enter the request into the Change/Enhancement System.
3. On a monthly basis, the Change/Enhancement Coordinator will send to appropriate SAGGROUP Functional Area Representative:

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A Stitch in Time Saves Nine

Dave Williamson
Utah State Office of Education

If you have installed NATURAL 2 under CICS you have probably looked for some kind of information on how to set the thread size. You need to have threads large enough to handle the requirements of your site but in CICS memory can be precious and you definitely don't want to waste it. Since NATURAL 2 is still relatively new this type of operational information has not made it into the documentation. Software AG suggests that you start with 180k threads. Is this too much or too little for your shop? I believe that the following information may be helpful in determining what a reasonable thread size should be for your shop.

First we need to define a couple of new buffers used in NATURAL 2 and explain how their size is determined. The Screen Buffer holds the image of what is on the physical screen and is determined by the physical screen size. Its use includes the optimization of data streams on communications lines and windowing. To determine the size of this buffer use the following formula.

Screen Buffer = line size (of physical device) × page size (of physical device)

The Page Buffer holds the image of the data on the logical screen or page, it is determined by the LS and PS parameters in the NATPARM module or dynamic overrides. Its use includes windowing around logical screens that are larger than the physical screens. To determine the size of this buffer use the following formula.

Page Buffer = LS (from NATPARM) × PS (from NATPARM)

Both the Page Buffer and the Screen Buffer have an associated Attribute Buffer to hold the attribute information for the fields in the respective buffer. The attribute buffers size is influenced inversely by the AVERIO parameter in the NATPARM module or dynamic overrides. To

| | | |
|-------------------------|------|---------------------------|
| USIZE | 32k | user buffer |
| ESIZE | 28k | user buffer extension |
| FSIZE | 15k | NATURAL DDM/symbol tables |
| DSIZE | 1k | debug buffer |
| CSIZE | 0k | CONNECT buffer area |
| | 5k | miscellaneous |
| Screen Buffer | 2k | (24 × 80 = 1920) |
| Page Buffer | 8k | (60 × 132 = 7920) |
| Screen Attribute Buffer | 4k | (1920 × 10 / 5 = 3840) |
| Page Attribute Buffer | 16k | (7920 × 10 / 5 = 15840) |
| | 111k | required thread size |

Figure 1

determine the size of these buffers use the following formulas.

Screen Attribute Buffer = Screen Buffer × 10 / AVERIO

Page Attribute Buffer = Page Buffer × 10 / AVERIO

To determine the approximate required thread size simply add all of the NATURAL buffer sizes together and throw in an extra 5k for miscellaneous use. These buffers are the Screen Buffer, Page Buffer, Screen Attribute Buffer, Page Attribute Buffer, ESIZE, USIZE, FSIZE, DSIZE, CSIZE. Figure 1 is an example of this calculation.

Just to make life interesting we should look at a couple of things that will affect what thread size you may really need. If you allow the use of dynamic parameters at natural start up, you will need to take into account the effects of dynamic

parameters by either adding a cushion of a several k or use the maximum buffer settings you will allow in the calculations. The later could have several permutations. The other thing is that some of the buffers are being used slightly different than in the past. The USIZE for example is not used for the object code when running NATURAL 2 programs, as they are executed out of the buffer pool. A good description of how the USIZE is used appears in the NATURAL 2 Administrators Manual. The point is that you may need to reevaluate the settings of these buffers.

What is really needed is a tool that can be used to monitor the thread usage just as SYSTAT is used to monitor the buffer pool. Until we have that kind of tool this information may help save some memory that would otherwise be wasted.

New Executive Committee Appointees

Bill Wagner
The University of Texas at Austin

Because of the Constitutional changes and the elections, there are now several new faces on the Executive Committee. As was announced at the Conference, Laura Jacobs of the Rochester Institute of Technology has agreed to be the first End User Computing Functional Area Representative. Colette Farabaugh of Dole Processed Foods has accepted appointment to fill the vacant position of Vice President, and Mary Ellen Woods of Inland

Steel will take over Colette's former duties as Nominations and Elections Chairperson.

Addresses and phone numbers for these officers can be found at the back of this newsletter. Like the rest of the Executive Committee, their effectiveness in representing you is directly related to the input they receive from you. Suggestions, comments, questions, and criticisms are always welcome. And of course, the communication lines flow both ways, as many of you will find out when you hear from Mary Ellen in the months ahead.

Change/ Enhancement

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- a. a turnaround document for each new Change/Enhancement Request;
 - b. a complete list of all Change/Enhancements which were open at the preceding International Software AG Users' Conference, or have been submitted since that time.
4. The Functional Area Representative, in cooperation with Technical Area Committee Chairpersons, will review the requests. The purpose of the review is to ensure that:
- a. the request is a new request in the sense that it does not duplicate a request that has previously been submitted;
 - b. the request and its benefits are stated in a clear and understandable manner.
5. After review, the Functional Area Representative will send the request back to the Change/Enhancement Coordinator indicating whether the request should be submitted to Software AG, or be consolidated into a previously submitted request.
6. On a monthly basis, the Change/Enhancement Coordinator will submit to Software AG:
- a. a turnaround document for each Change/Enhancement Request which has been approved for submittal by the Functional Area Representative during the previous month;
 - b. a complete list of all Change/Enhancements which were open at the preceding International Software AG Users' Conference which have been

submitted to Software AG since that time.

7. On a schedule consistent with the publication of the Connections magazine, the Change/Enhancement Coordinator will send to Software AG a selected list of Change/Enhancements which have been responded to by Software AG for printing in the next issue of Connections.

In addition to the above, an agreement was reached to incorporate a large part of the Change/Enhancement System into Service/Connection. The question of what will be included in Service/Connection is on the agenda for the next SAGGROUP Executive Committee meeting to be held in May, 1989.

Using this enhanced system the SAGGROUP Executive Committee and Peter Schnell look forward to the increased ease and speed in the exchange of information through the Change/Enhancement System.

UK SAGGROUP (VMS) Holds First SIG Meeting

D.C. Cranwell

Chairmans Report

Since the last Newsletter the following milestones have been achieved with SAGGROUP (VMS) UK:

- The 1st Special Interest Group was held in June
- The establishment of a Change/Enhancement procedure for UK

The SIG was the first step to get a number of user sites together to actively discuss problems and exchange ideas. With the success of this event, despite a lower number of attendees than originally envisioned, future SIGs for VAX users look very promising.

The Change/Enhancement procedure is a means for users to write in changes of common interest to Software AG products.

I thank those of you who contributed to this Newsletter, I would like more input from the user community, whether it's ideas, moans, reports . . . anything!

Conference News

European Conference—Vienna, October 9-13, 1988

Registration details have been already sent out. Please note registrations are to be in by August 5, 1988, and accommodation booked by August 11, 1988.

Representation from UK sites is encouraged.

UK Annual Conference—Heathrow Penta, March 8-9, 1989

Call for papers will be sent out in August.

There will be prizes for the best paper presented, and a gift to all other presenters.

Change/Enhancement Procedure

A procedure is now in place which is common between VAX and IBM users. An invite has already been sent out to all users asking for people to register any Change/Enhancements by August 5, 1988 so that these can be collated and sent out to all users to vote on. This first bout is to determine the support for each change raised in time to be presented at the European Conference.

The deadline currently imposed does not stop users from raising Change/Enhancement requests at other times.

SPECIAL INTEREST GROUP MEETING

The 1st SIG meeting was held on Monday June 6, 1988 at the Dorchester, Park Lane, London.

Opening Session

This session was attended by both VAX and IBM delegates.

Software AG News

- Manchester office open.
- Staff—1988 increase of 26, giving total of 277(?).
- New Customers: Ministry of Agriculture, Fisheries and Food; DAN AIR; Following Ltd; Geisco and others.
- IBM Product News: HPE; COMPLETE 4.4; ADABAS 5; NATURAL OPTIMIZING COMPILER; PREDICT CASE; NATURAL PROCESS.

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- Miscellaneous
 - Computer Centre Upgrade at Derby.
 - In Memoriam—Mick Wells ex-User Group Chairman has passed away.
 - Community Charge Project—guaranteed work for Software AG for one Local Authority.

Training

- Training room now equipped with VMS—basic/advanced NATURAL.
- VMS DBA type course available this year.
- IBM—NATURAL 2—reporting mode and structured mode.
- Development life cycle course:
 - using NATURAL/PREDICT
 - pros and cons of different uses of software
 - end of August target for first course
- conversion IBM NATURAL 1.2 to 2.0 course
- ADABAS 5

VAX Special Interest Group Sessions

The session was attended by 9 VAX delegates plus the following Software AG personnel:

Clive Hutchinson, Sales & Marketing
 Siva Niran, VAX Technical Support
 Renee Greger, Software AG Germany
 Peter Holdermann, Software AG Germany

Additional VMS Training Courses

It was requested that DBA Workshops or Performance Management Seminars be set up.

Software AG said that they could achieve this through a consultancy role and visit individual sites.

Future VAX SIG's might provide a similar role.

Summary

At the June SIG questionnaires were given to VAX attendees for comments.

The majority of delegates had attended the meeting not only to exchange ideas with other users but to gain information on Software AG's plans for new products.

Of most interest to attendees were the following:

- Users' experience of prototyping
- Discussion on Software AG's plans for VAX products, enhancements
- PREDICT, SUPER NATURAL, and NATURAL 1.3
- VAX general discussion

Suggestions for future topics included:

- Software AG's strategy for Workbench, NATURAL CONSTRUCT, PREDICT CASE
- An agenda of topics covering specific operational/development areas to allow delegates to exchange/compare information
- Presentation of new products, i.e. photocopies of what PREDICT and SUPER NATURAL look like; terminal to demonstrate new products
- Performance issues

General comments included that the majority of VAX attendees felt that the meeting had been useful. Two delegates commented that more attendees need to be present.

Executive Committee

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provided free making Service/Connection available to all users. Phase I includes: Browse, extract, and download product fixes, zaps, NATURAL object modules, release notes, etc.; electronic mail between users (not from users to Software AG at this time); and owner updatable user profiles. At the urging of the Executive Committee, Gordon is going to incorporate a public bulletin board capability as well.

Users will be limited to only licensees (starting with US users first) and only one user ID will be issued per organization. Phase II (no projected date) will let users reply to zaps back to Software AG. An 800 number for Service/Connection has not been decided on yet.

Security and the Future

Security is an item that gets more complex with each new product announced. The committee is very interested in a central security facility and we were treated to a glimpse of what Software AG sees in the near future. They have defined an Open Security Interface that new products will have to use. If a product environment includes PREDICT, any product in the environment (SUPER NATURAL, etc.) will check to see if PREDICT is available. If so, then all security processing will only take place through PREDICT. The product mix can then run with an integrated environment as well as stand alone. This feature is scheduled for PREDICT Version 3.

Independent Business Units

There have been three independent business units identified: Denver, Dallas, and Atlanta. These units will sell and support products, have education centers, and have on hand tuning personnel to help

with product operation and custom solution people which will help develop application solutions. With this concept, Software AG hopes to put more technical people in the field.

Change/Enhancements

Peter Schnell visited with us and voiced a concern that is shared by the committee that the way Change/Enhancements (C/Es) are being processed needs to be changed. Currently Software AG receives around sixty pages of C/Es once each year about two to three weeks before the Conference and then there is a big push to get them published before the meeting takes place. Once the Conference is over, no one ever hears of C/Es again until just before the next Conference.

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Change/Enhancements need to be delivered to the developers on a more permanent basis and not just once each year. The fact that Software AG is providing more frequent updates to their products only confirms the need for a change. It was proposed to have no more than ten requests (per product) sent over to Germany each month. This would allow the developers a chance to really examine each proposal and reply accordingly.

The proposed Change/Enhancement process includes:

- The user sends a C/E request to the C/E Coordinator
- Once each month, the C/E Coordinator will forward requests to the applicable Area Rep for review
- Once each month, the Area Reps will send reviewed C/E Requests back to the C/E Coordinator
- Those C/E Requests that are not screened out are sent to Larry Jayne. Larry will be responsible for having someone get them to Darmstadt
- Darmstadt will reverse the process after responding.

Education

Stan Maring addressed general education topics.

There is a classroom (at user request during the last Conference) in Chicago which is now in full operation.

- There are three new classrooms in Reston (2 IBM & 1 DEC).
- ADABAS 5 classes are underway. There is going to be a five day DBA Skills class.
- There will be an ADABAS 5 Internals class later.
- They are going to attempt an ADABAS 5 Internals Class For Programmers. This would be to clue programmers on how

ADABAS works so they can use it more efficiently. The committee recommended the name, "ADABAS Application Performance."

- A COM-LETE System Programmer class will be available early next year.
- There are new NATURAL courses that will continue to change as users get more and more familiar with the product.
- There are Data Base Administration 1 & 2 courses offered which deal with NATURAL administration and security.
- There will be a new class to address the needs of the NATURAL SECURITY administrator. This will be much more in depth than the NATURAL Administration class will address.
- A new class on NATURAL CONSTRUCT is available. This will lead to other course based on the new Software AG products being released. The committee recommended that in developing these classes, it is important to visit user sites and find out how people are utilizing the products. It isn't enough to have classes on how the product works; new users need to be given some directions on how to manage and administer the product as well.

New SAGGROUP Regions

Due to the large areas to travel in the cold regions of North America, several new regions have been formed:

State of Alaska

Central Canada Region. The region would consist of an area from Thunder Bay, Ontario to Saskatchewan, Alberta.

Only One SAGGROUP

From time to time and in an article every now and then, you will hear the term "multi user groups" used. Past President Scagnelli would like to convey to all Software AG users that there is only one user group: SAGGROUP. This organization officially represents each and every Software AG user in the world. It is only through our combined voice, expressed through the actions of the Executive Committee, can we hope to have our wishes heard. On the back pages of each Connections you will find the members of your

Executive Committee, the Area Representatives, and the Regional Representatives in each region in the world where Software AG products are installed.

Comment

This was my first Conference as an Executive Committee member and I was impressed by being able to sit around the table and talk openly and frankly to Peter Page, Peter Schnell, John Maguire, and nearly every manager in Software AG about the concerns of Software AG users. It was equally impressive to listen to the German product developers about their plans for future enhancements/products.

Sitting with us were the representatives of Asia and South America who related to the committee and to Software AG the needs of users in those areas of the world. Each Software AG user has many avenues to express their interests and concerns whether it be through their Regional Representative, Functional Area Representative for the particular product involved, or through the Executive Committee directly. We are all working to get your thoughts known.

Next interim Executive Committee meeting

The meeting will take place next May in Denver.

Future Connections

March 1989—
editorial deadline—2/10

June 1989—
editorial deadline—4/17

September 1989—
editorial deadline—7/17

December 1989—
editorial deadline—10/30

A SUPER NATURAL Event: The Forming of the SUPER NATURAL Special Interest Group

The 18th International Users' Conference provided an opportunity to organize interested users and implementors of SUPER NATURAL. Prior to the Conference, twenty-nine organizations expressed interest in starting the group. By the end of the conference an additional thirty-one organizations joined the ranks of the SIG.

The SIG met on Monday night during the Conference. The intent of the meeting was to establish the purpose of the SIG and to define the SIG's direction for the upcoming year.

It was decided that the purpose of the SIG will be to provide a forum for communications between Software AG and the users and implementors of SUPER NATURAL. Communications between the two organizations will focus on Change/Enhancements of the current product and input into the future direc-

tion of the product. The SIG will also provide a site profile of each member's organization and a newsletter which will cover items of interest such as efficient coding guidelines, product usage techniques, and problems uncovered by SIG members.

Direction for the upcoming year includes gathering the data for the site profiles, issuing the newsletter, defining Software AG's insight into the product's future directions, and meeting with the product developers mid-year.

On Wednesday afternoon during the Conference, Klaus Kern and Sara Wanderer gave a presentation on SUPER NATURAL V2.3 which included interfaces with NATURAL Spreadsheet, CON-NECT, and NATURAL Statistical Link. The session was heavily attended and was an indication that the product is being integrated with other sys-

tems to provide a very powerful reporting tool.

Based on the heavy attendance of Wednesday's session, on the number of questions that followed, and on the new features to be integrated into the next version, one can easily see that a SIG is needed for the product. Your ideas, comments and suggestions are needed to make the group a viable entity and an effective forum for the future direction of SUPER NATURAL.

If you are interested in joining the SUPER NATURAL SIG, please write or call. Your membership will bring your organization valuable information about the usage and implementation of SUPER NATURAL.

Debbie Holt
University of Delaware
192 So. Chapel Street
Newark, Delaware 19716
(302) 451-6040

Japan Region Users' Group The 15th General Meeting was Held

Sadayuki Takehana
Nikon, Co., Ltd.

On June 2, 1988 the 15th General Meeting of Japan Region Software AG Users' Group was held in Tokyo with 156 attendants from 98 organizations (in addition, 77 organizations attended as attorneys).

The meeting consisted of the report of activities in the previous year, the announcement of this year's activity plans and the awarding for excellent activities. There was much enthusiasm for this year's activity.

Reelection of the Users' Group President

Mr. Goichi Yoshizawa of Nissan Motor Co., Ltd. who was the President for two years resigned. Sadayuki Takehana was elected the new President. He expressed his hopes: "The problems each of us has confronted are getting common to us all in terms of SIS. In order to correspond to such trend, it is time to consider how we should face and handle these common problems."

Report of Activities/Activity Plans

Each representative for the following groups: Special Interest Groups of main products (ADABAS, COM-LETE, A-AUTO*); Cross-Over Study Group, deals with the common themes over various products, and Management Study Group, deals with problems from the point of view of the manager, gave the report of activities done in the previous year and the announcement of this year's activity plans. Also, there was the report about the Users' Group Newsletter and how it was being prepared.

Awarding for Excellent Activities

The "Excellent Activity Award" established by the Users' Group committee was given. Individuals and groups who have done excellent jobs in the previous year are elected by questionnaire from other members and awarded.

This year, the awards were given to one person in the case study section and to two groups in the group study section.

Software AG Announcement

Mr. Yoshioki Ishii, the President of Software AG of Far East, gave a presentation titled "The Present Situation of The Software Industry and The Role of Software AG." He explained how Software AG has corresponded in each era, looking back to the history of the software industry from the beginning until today and what kind of role Software AG will play hereafter.

Special Guest

Mr. Michael Jakes, Senior Vice President, Software AG of North America, attended our meeting. He was impressed with how massive the Japanese Users' Group had grown.

Special Interest Group

In the afternoon, each Special Group and Study Group held a meeting and exchanged technical information such as the explanation of NATURAL 2 features.

*A-AUTO (Advanced AUTOMATIC computer systems) is developed and sold by Software AG of Far East.

SAG SIG Gets VAXinated

Michael Livingston

A famous quote states "... from little acorns do giant oaks grow." So it was with this thought in mind that a brave band of Digital VAX users convened the first working committee meeting of the VAX/SAG Special Interest Group. The intent of the conference was to establish a working relationship between VAX users on a long term basis for the sharing of common problems and interests regarding their use of Software AG products. Additionally, the meeting was held to convey to Software AG the need to work closely with VAX users during product enhancement and development.

The meeting was held on August 11th and August 12th at Software AG's headquarters in Reston, Virginia. The meeting was attended by:

University of Houston, Tom Berrisford
Maritz, Tom Dubb
National Public Radio, John Fredrickson
Martin Marietta, Chip Gilbert
RJ Reynolds, Kyle Harrison
Reston Associates, Rich Hedrick
University of Houston, Ralph Hoeting
N.Y. District Atty. Office, William Johnson
University of Houston, Michael Livingston
Perdue Farms, Steve Lovelady
Chase Manhattan Bank, Doug Mastin
Dept. of Consumer Affairs, Russel Moore
Reston Associates, Ron Moran
Dan Nolan & Associates, Dan Nolan
Commonwealth of Virginia, Bruce Sions

Software AG was represented by:

Larry Jayne
Mary Kirkman
Morag Lucas

Special Software AG quest speakers were:

Peter Holdermann
John Maguire
Lin Pearce
Jim Poole
John Streiff
Steve Sylvester

The first day of the conference was opened by Michael Livingston who served as defacto committee chairman. Michael welcomed the attendees and outlined the meeting's purpose and agenda. The two day agenda included an intermixing of user discussions and presentations by Software AG staff.

Chip Gilbert gave an initial presentation on a user survey that was conducted by the SAGGROUP which among other determinations indicated that users did not desire to organize around machines but instead wished to organize around products, i.e. ADABAS, NATURAL, PREDICT, etc. Open discussion ensued by the attendees which concluded that there was a clear need to establish a SIG specific to the VAX environment which would address VAX user concerns across the board.

Larry Jayne, Software AG, gave a presentation on proposed amendments to the Users' Group constitution. The changes would have the various SIG's report to Product Groups. Additionally, a new position for a "Technical Area Representative" would be created. The proposed amendments were voted on during the September International Users' Meeting.

At the conclusion of Larry Jayne's presentation, time was taken to allow each attendee to formally introduce himself and briefly discuss his shop and particular concerns.

After lunch Steve Sylvester gave a presentation on Software AG's Customer Service Division. Steve Sylvester's presentation detailed the structure of the Customer Service Division which provides both trouble resolution and professional services to user sites. Furthermore, Steve enumerated the diversity of Software AG products and the percentage of support required for each product.

Steve continued his discussion with an overview of Software AG's new "Service Connection". Service Connection is envisioned to be an electronic medium by which users can access a variety of information. Service Connection will be introduced in stages. At present each

Product Support Group will maintain a bulletin board concerning known problems with new software releases and available patches. As the service is enhanced it will allow users to check on the status of their open problems, download patches, post questions to Software AG representatives and other users, and upload and download user software.

The minimum requirements to access Service Connection will be an IBM PC or equivalent running NATURAL CONNECTION or some segment of NATURAL CONNECTION. Access charges to Service Connection or cost for the communication software were not available at the time of the conference.

Tom Berrisford moved that a form of electronic communication was essential for VAX users to maintain a relationship with one-another but questioned whether Service Connection was the appropriate method. He felt that other commercial networks were perhaps better. It was decided to table further discussion on this subject until the September International Users' Conference when Software AG would hopefully present more details on Service Connection.

With the conclusion of Steve's presentation Peter Holdermann was introduced to the group. Peter presented several issues relating to the new release of ADABAS 1.5.

According to Peter, ADABAS 1.5 will work with VMS 4.6, 4.7, and 5.0. However, a different ADALNK.EXE is required to run under VMS 4.x and 5.x.

Peter then proceeded to enumerate several new features of ADABAS 1.5, namely:

- ADABAS will not issue an ET if no real update has occurred since the last ET,
- ADAOPR will have an option to permit the DBA to disallow execution of user programs while allowing ADABAS utilities to access the nucleus (the nucleus will be in utility mode at such times),

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- By default LBP will be set to 600K, LFP will be set to 20k and ADABAS will truly allow 100 ISN's instead of 98 when NH is set to 100,
- If a system crash occurs during a buffer flush and ADABAS detects the possibility of questionable system integrity a message will be sent to the operator requesting acknowledgment to the event. If no answer is sent the ADABAS process will halt. Buffer flush integrity will be guaranteed by ADABAS setting a flag at the beginning of flush and resetting the flag at the end of buffer flush. If the flag is not reset at ADABAS restart time the system detects an error and halts until an operator intervenes,
- A new utility known as ADAMUP will allow the DBA to add or delete data in ADALOD format from a loaded data base,
- ADAMON and ADAOPR will allow the accessing of more than one data base during a session,
- ADABAS will allow the use of non-aligned cylinder boundaries. A site choosing to implement non-aligned cylinder boundaries will notice a considerable loss of performance. The primary reason for using non-aligned cylinders would be to use standard VMS backup and restore utilities.

At the conclusion of Peter's presentation, Jim Poole proceeded to give an overview of Software AG education. He stated that many of the courses although developed for the IBM were "general" enough to be applied to the VAX world.

John Shreff was the last speaker of the day. He spoke briefly on the subject of benchmarks and Software AG's development of a "benchmark" package.

Several questions were raised concerning the validity and appropriateness of benchmarks. John replied that user demands for comparison data was the driving force for the development of the benchmark package.

John Maguire, Chairman of the Board, Software AG of North America, opened the second day of the conference. John greeted with great enthusiasm the efforts of the attendees to form a SIG. He then introduced Lin Pearce, Chief Operating Officer of Software AG of North America.

Lin stated that he would answer any questions the attendees would like to present. Lin was asked to describe the corporate relationship between Software AG and Digital. Lin responded that at present Software AG and Digital had no formal working agreement. However, he stated that Software AG and Digital have had several high level discussions concerning establishment of a cooperative marketing agreement. Lin continued his response by commenting that both Software AG and Digital would benefit immensely from working together.

The meeting was then turned over to the conference attendees to conclude their discussions regarding the establishment of a VAX SIG.

The proposal of sanctioning the User Group under the umbrella of DECUS was put forth to the committee. Under the plan the User Group would be convened as a "birds of a feather" gathering. The attendees rejected this proposal since DECUS' primary function was to address Digital issues. Additionally, Software AG could not participate as fully as they could under the banner of the Software AG Users' Group. It was therefore affirmed that the SIG needed to work within the current SAGGROUP structure.

Although the issues of constitutional drafting and officers were discussed it was decided that of most importance was the formalizing of an action plan to involve a larger segment of the VAX user community. Tom Berrisford announced that the University of Houston was willing to host the first annual Software AG VAX conference in Houston, Texas. Tom also announced that Peter Holdermann had consented to teach a series of ADABAS internals seminars during the course of the

conference. The attendees unanimously accepted Tom's offer. The SIG conference was tentatively scheduled for early March, 1989. Michael Livingston was elected conference chairman.

Before the conference adjourned the attendees agreed to support the candidacy of John Fredrickson for NATURAL Product Representative to SAGGROUP. Fredrickson is not only an experienced NATURAL and ADABAS user but is the only candidate from a Digital site. The following items were left for further discussion at the Houston meeting:

- Establishment of a user software repository,
- Strategy of effectively communicating product changes to Software AG,
- Establishment of a user electronic communications network,
- Election of VAX SIG officers,
- Creation of VAX SIG bylaws,
- Rotations of future meeting sites.

Attention VAX Users

Announcing the
1st Annual
Software AG VMS
Special Interest
Group!

Hosted by the
University of
Houston, Stouffer
Hotel, Greenway
Plaza, March
12-15, 1989

Call Michael
Livingston at
713-749-7121
with questions.

Administrative Functional Representative Report

by Patti Piccola
Standard Oil Production Company

The 18th Annual International Software AG Users' Conference is now history. I hope all of you made it home safely and have managed to shovel through the stack of work that accumulated while you were in Nashville. I thank you for your support in electing me to the Executive Committee. I enjoyed meeting and talking with you and look forward to seeing everyone next year in sunny California.

A PREDICT Data Dictionary Workshop was held at the Nashville Conference. PREDICT SIG Chairperson, Thomas L. Visher, Foremost Insurance Company, coordinated and monitored the workshop. The workshop was divided into two separate sessions. The first directed questions to a panel of PREDICT users on how the data dictionary was being utilized in their different organizations, the problems they had encountered, and the solutions or work-arounds to the problems. The panel consisted of the previous PREDICT Product Representative, Frances Osteen, E. I. Dupont; Chris Hoepker, Software AG Darmstadt; Tom Visher, and the 1988 PREDICT Product Representative candidates. The second segment focused on PREDICT futures and enhancements with a question/answer session that was conducted by Chris Hoepker.

For those of you who missed the workshop or did not make it to one of Chris' many presentations, here are some PREDICT highlights:

PREDICT V2.3.2

ACM

The Active Cross Reference Module (ACM) is being re-instated and is back in full force, providing PREDICT users with a powerful tool. The ACM will capture new features of NATURAL 2, such as global data areas, subprograms, and NATURAL Copycode. (NOTE: The local data area will not be captured by the ACM unless it is defined externally.) The ACM will also capture and report information from the PREDICT preprocessor and ADABAS SQL preprocessor.

File Number Changes

The file number will be changed from four to three bytes. There will be an internal file number and an external file number. The internal file number will be used by PREDICT only. File type A (ADABAS) is limited to unique file numbers, but File type C (Conceptual) is not limited to unique file numbers.

Verify Function

Also available in V2.3.2 is a VERIFY function which provides: verify XREF, verify not referenced, and verify not implemented, to identify data files/elements defined and not utilized by an application. For example: you can check an element and verify if it was used in a search but not inverted or if a file had been defined and was not being used.

Migrate Backward

Version 2.3.2 provides the ability to migrate backward to a previous release. This eliminates the problem we all faced when a new release of PREDICT was installed in the test environment and the previous PREDICT release remained in the production environment.

Additional New Features

IMS Support
GENERATE FORTRAN Copycode

PREDICT V2.4

AOS

PREDICT V2.4 will integrate with ADABAS Online Services.

Recatalog Utility

This new feature of PREDICT V2.4 will list all of the programs that use a newly re-generated DDM and will provide the user with an option to recatalog the programs. The recatalog utility will be an extension of the LIST XREF facility where a user can define ten sets of NATURAL Object lists (i.e. Global Data Area, Local Data Area, etc.). A "show me

all" using a specified GDA will generate a list of the programs using the GDA and when a SAVE is issued on the list, a NATURAL build set will be created. Next, logical and/or processing of the build set will produce a list of programs that require a recatalog. After the list of programs is returned, there are three available options:

- Recatalog
- Edit
- List

Active and Update Commands

There are two new PREDICT commands: ACTIVE and UPDATE. When editing the files linked to a program (through the Program Maintenance Menu, "F" code), enter ACTIVE on the command line and a list of the files physically being used by the program will display. The list can then be compared to the user entered information in PREDICT and a variance report will be generated that shows the inconsistencies. The user will then have the option to issue an UPDATE command that overlays the user entered data with the file list generated by the ACTIVE command.

Additional New Features

DB2 Support
Disconnect

PREDICT Version 3 will not be addressed in this issue. The new features and functions of Version 3 will take a full column to document and will be presented in a future issue. However, two items that Chris Hoepker mentioned about Version 3 are: a PREDICT Version 3 Concepts and Facilities Manual is being prepared; and secondly, Chris stated that training will be required to convert to Version 3. When you submit your budget for next year, be sure to allocate funds for PREDICT education.

ADABAS Product Representative Report

Bob Becker

Foremost Insurance Company

We hope that many of you who are reading this article attended the Software AG International Users' Conference in Nashville. We feel that the latest announcements made by Software AG at the Conference were very impressive. ADABAS running on a PC as well as ADABAS having SQL as its front-end interface was also a impressive demonstration. Many long hours of meetings with the Executive Committee proved most informative. Within the Executive Committee, Software AG discussed the plans for a centralized security system which would consolidate all security subsystems into one focal point. With the centralized system communicating to TOP SECRET, RACF and ACF-2, it provides one central administration for all security needs. PREDICT as the dictionary will also be involved in this system.

I would like to invite all users to consider adding to the very popular DBA Tools Tape. The tools tape provides us a means of exchanging pieces of software without having to reinvent the wheel within our

own installation. We have used many modules and programs off the tools tape as a starting point for various ADABAS exits, accounting and reporting modules, and the like. Please consider any of your utilities or special applications for inclusion on the DBA Tools Tape. It is a simple matter of documenting and placing the product on tape and sending it to Software AG for inclusion.

We are most interested in finding a person who is ready, willing and able to take over the large data base Special Interest Group chairperson. Presently this position was vacated after many years of excellent service by Eric Seifert. We'll miss Eric's large data base experience. However, if you are involved in very large ADABAS data base work or plan to be, this could be a most rewarding, Special Interest Group. Please call me if you have interest in chairing this SIG.

Another group that has formed and has several members in it is the Centralized Security Committee. This is headed by Geri Castleman of Foremost Insurance Company. Geri is our Security Administrator and is planning on a platform of inter-

change of issues and information in the area of Centralized Security in conjunction with Software AG's plans for a total Centralized Security product. Geri has three members who will provide input to Software AG about these issues. If you have an interest in security and want to be a part of the group which will exchange vital information on security issues, please contact me, and I will have Geri Castleman get in touch with you.

Finally, the ADABAS Future Direction Committee is continuing to acquire interest and members. This is a very interesting group which is going to provide input to Software AG on suggestions for future development of ADABAS. Please contact me if you wish more information about this committee. It is headed by Dan Creger of U.S. Sprint.

I hope all of this activity within the Users' Group continues, as it's healthy to interchange ideas and express those ideas in a very positive, constructive approach back to Software AG.

If you have any questions, comments or concerns, please feel free to contact me at (616) 956-2664.

End User Product Representative Report

Laura Jacobs

I am very pleased to be the Functional Product Representative for End User Computing. My responsibilities include the following products:

- SUPER NATURAL
- Elite Courseware
- Elite Basic Functions
- Elite Extended Functions
- NATURAL CONNECTION Mainframe
- NATURAL Document Management
- NATURAL Text Retrieval
- CON-NECT
- CON-NECT Standalone
- CON-NECT Document Retrieval

If you have any comments, concerns, gripes, or praises about the above products for any machine or operating system please contact me. If you have changes or enhance-

ments that you would like to see in upcoming releases, please take the time to fill out a Change/Enhancement form included in this newsletter.

I desperately need technical advisors for the above products. The advisors would help me with the technical aspects for the products. This is a chance to get involved and to have input for the products. Please contact me if you're remotely interested.

A SUPER NATURAL Special Interest Group has been formed. We had our first meeting in Nashville. Over twenty-five people attended, bringing many concerns. Please contact Debbie Holt from the University of Delaware if you're interested in joining. Debbie can be reached at (302) 451-6040.

The future looks very exciting for Software AG End User Computing Products. For example, SUPER NATURAL will interface with SAS to generate SAS code. Through SUPER NATURAL, a mainframe spreadsheet will also be available. The information from the spreadsheets can be downloaded to PC spreadsheets (such as LOTUS 1-2-3) through NATURAL CONNECTION. NATURAL CONNECTION is also being developed to be used with the Macintosh class of computers.

Please call me if you have any interest in being a technical representative or if you have any ideas to improve the End User Computing Products. I can be reached at Rochester Institute of Technology at (716) 475-2973.

Southeastern Software AG Users' Group Electronic Bulletin Board

VAX SIG Calls For Papers

The Southeastern Regional Users' Group has been operating an electronic bulletin board for the past 14 months. For anyone unfamiliar with electronic bulletin board systems (BBS) it is a computer based program that facilitates the exchange of information through computers over phone lines. Our BBS differs from most because we distribute information and programs for mainframes.

The bulletin board is being run on an IBM XT clone. The machine is equipped with a 32Meg hard drive and a 2400 baud internal modem. The BBS is located at the Orlando Utilities Commission in Orlando, Florida. The bulletin board software is Capital PC's RBBS-PC version CPC16.1A.

The board is currently supporting the following features:

- Electronic Messages
- Bulletins
- File Distribution (Upload, Download)
- Surveys

The Southeastern Region has used the board's bulletins to announce meetings and events. A standing offer exists to all regions, SIGs, BIGs or committees to run a bulletin on our BBS.

The BBS also contains programs that can be downloaded to your PC. These programs are mainly utilities to assist in NATURAL and ADABAS administration. These programs have been distributed by various SAGUG members. These programs have been compressed into ARC formats. This is to conserve disk space and speed data transmission. The compression utilities are available on the BBS. The following is a sample of file offerings:

- DBA Tools Tape—This is the tools tape many have ordered through Software AG.
- Kendrick Utilities—NATURAL V1 Utilities (many will still work in V2).

- NATURAL V2 Utilities—From Washington State
- Software AG Product Demos

It is our desire in the future to make available application systems as well as additional Utilities. In order to create a large offering of sharable software, we would appreciate any contributions of utilities or applications. These programs can be uploaded to the board or sent to the BBS system operator.

In order to access the BBS you need the following:

- Any micro computer (if you want to download files the computer needs to be IBM compatible)
- Program to decompress files (these are available on the BBS)
- Communications Program (setup is no parity 8 data bits 1 stop bit)
- Modem (300 baud - 2400 baud)
- Micro-mainframe file transfer program (to get programs to your mainframe or mini)

The modem will normally answer after the fifth ring. When you connect to the BBS, you will be prompted for your first and last name. If you have never registered, you will be able to register online. You may optionally answer a new user questionnaire. If you choose to answer this you will be granted additional privileges on the BBS. Two of the questions that will be asked are your Software AG site name and support number. Certain functions will be restricted to users that have been verified as legitimate Software AG users.

BBS Data - (407) 236-9665 24 Hours
Voice - (407) 236-9645 Clayton
W. Clendinen
8:00 am - 5:00 pm
Monday - Friday

(407) 631-2696
7:00 pm - 10:00 pm
weekends

Michael Livingston

The first annual Software AG VAX conference will be hosted by the University of Houston in Houston, Texas. The conference begins Sunday afternoon, March 11, 1989 and ends Wednesday afternoon, March 14, 1989 and will feature Peter Holdermann and Dr. Herbert Fischer who have agreed to teach a series of ADABAS and NATURAL internals classes. Additionally, other Software AG staff members will be available to answer your questions.

The success of this conference is dependent upon the participation of users like yourself. User papers and presentations are needed now! If you have developed an innovative application using ADABAS and NATURAL that you feel would be beneficial to other users or wish to share your technical expertise, please submit your presentation abstract no later than January 15, 1988. The deadline for selected papers is February 15, 1989. Abstracts and papers should be typed written and sent to:

Michael Livingston
University of Houston
4800 Calhoun 500E
Houston, TX 77004
(713) 749-7121

Please make your plans now to attend this exciting event. Watch your mailbox for future news concerning the conference.

UK SAGGROUP (VMS) Provides Quarterly Newsletter

New Newsletter

This is the first Newsletter for SAGGROUP (VMS) UK, and will be used to bridge the communications gap between user group meetings (currently annually).

This Newsletter is planned to be issued quarterly and can be used as a forum for any information, queries, reports etc., and any contributions will be gratefully received.

Chairmans Report

As Chairman of the SAGGROUP (VMS) UK committee, my main aims for my term of office are:

- to improve communications between the user group committee and user group members, and also among user group members themselves; this Newsletter is a first step towards this objective.
- to define terms of reference for the user group, which could then be enhanced by receiving proposals from user group members and voted upon accordingly
- to unite users in pressing for changes, of common interest, to Software AG products
- to establish contact with other SAGGROUP (VMS) user groups, and report accordingly

To achieve these tasks we will have to begin to work as a group, and only then will we become a reckonable force with some control over the products we are using. Therefore, if you have any comments to make about the user group for Software AG products, or request for changes, or anything else let the committee know. I look forward to hearing from you.

Conference News

European Conference—Vienna, October 9-13, 1988

A call for papers has already been distributed to all user group members. Representation from UK sites at this conference is encouraged.

International Conference—

Nashville, September 25-29, 1988
Representation from UK sites at this conference is encouraged, though it is realized that the International and European Conferences are very close together.

UK Annual Conference—circa early March 1989

The UK Annual Conference has needed to be moved to the Spring due to becoming too close to the

European and International Conferences, and is likely to continue to be at that time of year in future. This means that there will be no 1988 UK Annual Conference.

VMS SIG/Conference—circa June 1988 (1 day)

In view of an 18 month gap between the last and next UK Annual conference, it seems worthwhile having a one day conference, which will run in parallel with the IBM SIG group. This one day conference could be a mixture of areas of special interest, plus Software AG presentations. Formal information on this conference will ensue, in the meantime if anybody would like to provide any input to the conference please contact a committee member.

Change/Enhancement Procedure

In order to better coordinate changes required by UK users to the Software AG product line, a single procedure is being developed for both IBM and VAX users. In the meantime any changes required may be forwarded via a committee member for central logging and forwarding to Software AG.

Attention ... New User Survey

In January, 1989 you will be receiving in the mail the NEW SAGGROUP User Survey. Do NOT throw it away!! Open, read it, fill it out, and mail it back so your particular issues and concerns can be expressed to Software AG.

The SAGGROUP User Survey has a new format this year that will allow us to pinpoint your concerns to a particular product. You will fill out one survey for each product at your installation!! This will enable us to determine the products that have areas which need improvement.

The survey is now only two pages long! The first page is general information about your installation and the second page evaluates the individual products you have. You simply make copies of the second page for the products you have and fill in the name of the product you are evaluating. This new format should minimize the amount of time it will take to fill it out.

I encourage all users to take the time to fill out the SAGGROUP User Survey. As you know, the value of the survey is determined by the number of people who participate. For the 1987 User Survey, only 15% of the total surveys were filled out and returned. I am hoping for a higher response for the 1988 User Survey. The survey takes very little time to fill out but the results can impact how Software AG allocates their resources to support the user community. Your response does make a difference!!

Conference

continued from page 3

"Winning with the Technology Accelerator"

- Michael Braude, Vice President and Director of Software Management Strategies Service, Gartner Group, detailed "IBM Futures, The Next Five Years"

15 NEW PRODUCTS ANNOUNCED!

CASE Tool for Macintosh

NATURAL ARCHITECT WORKSTATION is a Computer Aided Software Engineering (CASE) workstation for Apple Macintosh computers. NATURAL ARCHITECT WORKSTATION is the newest addition to the NATURAL Engineering Series, Software AG's line of fourth generation CASE products. NATURAL ARCHITECT WORKSTATION goes beyond the facilities offered with most CASE workstations, by supporting not only application analysis and design, but also the complete specification of information required to generate production-quality applications for main-frame and mid-range computers.

6 Core Products Available on WANG

ADABAS, NATURAL 2, SUPER NATURAL, PREDICT, NATURAL CONSTRUCT and NATURAL SECURITY are now available for use on WANG VS computer systems. Software AG has delivered these products to the WANG environment with the identical product features and functionality that currently exist in other hardware environments.

New 4GL Development, Performance and Security Capabilities for VAX

New for VAX/VMS 4GL development is NATURAL 1.4, which offers new functionality including third generation language program access to NATURAL programs. This allows the extension of existing application systems via NATURAL components, thus protecting user investment in 3GL applications.

In the VAX performance arena, NATURAL PROFESSIONAL enhances application development within the NATURAL environment. NATURAL PROFESSIONAL provides advanced interactive programming, testing, analysis and tuning tools.

For VAX security, NATURAL SECURITY protects all NATURAL code or programs with or without interaction with ADABAS, Software AG's data base management system. Security is provided to control user access to applications, programs, files, and types of users and user groups who can access organizational data.

High Performance Environment Products

ADABAS High Performance Environment (HPE) and ADABAS Transaction Processing Facility (TPF) together comprise the first integrated relational data base/data communications (DB/DC) high performance environment. The new products are designed to reduce CPU utilization, thereby stretching hardware resources and eliminating the need for hardware and operating system upgrades.

4GL Optimizer Announced

NATURAL 2 OPTIMIZER compiles NATURAL programs into optimized machine code, providing considerable reductions in CPU usage for programs involving a large amount of data manipulation (such as array processing, computation, transfer and logical condition processing). According to the test results from Software AG customer beta sites, the optimized compiled version of NATURAL 2 is, on average, up to three times faster than standard third generation COBOL programming language, and as fast as optimized COBOL, in its execution of statements for complex data manipulation.

Relational DBMS Technology Features Integrated Text Processing System

Two new products, the ADABAS Text Retrieval System (TRS) and the NATURAL Document Management Facility (NDM), deliver the capability to store and process traditionally paper-oriented text from an online environment while adding a full-functioning text man-

agement system and a standard text retrieval package to the ADABAS 5 data base management system.

EXECUTIVE TRACK: A CONFERENCE FOR UPPER-LEVEL MANAGEMENT

The second annual Executive Track Conference on September 25-27 was held concurrently during the 18th International Users' Conference in Nashville, Tennessee at the Opryland Hotel. Attendance exceeded last year's with 250 attendees. The Executive Track conference is designed to present DP and MIS managers with a view of today's business issues as well as technical issues.

Executive Track attendees were presented with:

- Industry Analysts views on the computer industry
- Software AG Executives presented company directions
- Software AG Users' experiences with Software AG products
- Motivational Speakers offering creative exercises

Executive Track attendees participated in some of the same events as the International Users' Conference attendees. These included the Sunday evening Opening General Session, the President's Reception, and Monday evening's "Come As You Were" theme dinner.

NEXT: THE 20TH INTERNATIONAL USERS' CONFERENCE!

Next year's Users' Conference will offer yet another dynamic agenda of product news, company directions, and user interaction.

So mark your calendars:

Where: The Anaheim Hilton
Anaheim, California

When: October 22-26, 1989

We'll see you in Anaheim!

REGIONAL REPORTS

EASTERN GREAT LAKES REGION

PREDICT 2 Verification And NATURAL 2 Processing Rules Presented by Randy Kastendick

Alan Smith

The Eastern Great Lakes Users' Group meeting was held on September 14, 1988 and was hosted by National Fuel Gas, Buffalo, New York.

The meeting was opened at 9:30 a.m. by Joan O'Brien with the introduction of 20 attendees representing 4 licensees and Software AG.

First on our agenda was a presentation by Mr. Randy Kastendick a Senior Technical Support Rep. from Software AG, Denver on PREDICT 2 Verification/NATURAL 2 Processing Rules.

Randy described the equivalence of these entities and categorized the different types (i.e. Free, Automatic, In-Line). Randy demonstrated the definition of rules in PREDICT, association of same with fields in files and generation into DDM's. He further demonstrated by adding NATURAL 2 processing rules in the Map Editor and pushing "Free Rules" created in the Map/Rule editors back into PREDICT. Randy emphasized the fact that, to become effective, the Verification/Processing Rules must be "activated" by (re)generating the DDM or (re)cataloging the Map to which it pertains.

After a short breather, Mr. Kastendick gave another presentation, this one on PREDICT 2.3 Change Enhancements.

After a fine lunch the agenda turned to the EGLUG's business.

Future meetings will be:

November 1, 1988—Univ. of Rochester

March 1, 1989—Rochester Inst. of Technology

The agenda for the November 1 meeting will include our annual elections and reports from the upcoming Software AG Users' Conference.

Nominations for annual elections include:

Regional Rep.—Nancy Simonds, Roch. Inst. Tech.

Program Chairperson—Dennis Conley, Erie Insurance

Secretary—Alan Smith, Roch. Gas & Electric

Education Coordinator—Lori Wilson, Arcata Graphics

The group was privileged to hear from the manager of the Software AG Boston Regional Office, Mr. Charlie Enwright. Charlie gave a brief description of the organizational chain from Rochester to Boston and mentioned, as well, the Software AG Custom Solutions staff now working in the Boston Office. Charlie introduced the two new additions to the Rochester office: Kevin Kelly (for the IBM market) and "Doc" Levy (for the VAX market).

Charlie requests that if we have difficulty in resolving any problems with Software AG that we would give his office the opportunity to assist in that resolution.

Nancy Simonds then gave us a preview of the paper she is to present at the International Software AG Users' Conference entitled "Establishing Application Programming Standards."

The prize for the individual traveling the farthest to attend our meeting was awarded to Mr. Julian Hyde, from McQuarrie University in Sydney, Australia. Mr. Hyde is traveling throughout the U.S. visiting University ADABAS/NATURAL user installations and gathering information on their usage. Julian came to the meeting with the Rochester Institute of Technology staff, with whom he is currently visiting.

Next, Mike Miller from Rochester Gas & Electric shared some information about the recent NATURAL 2 Conference organized at Boston University by Jim Wisdom. Gregg Hess (Erie Ins.) and Ken Friedman (Cornell) also attended. Mike and Gregg described something of the format and flavor of the conference and discussed a number of specific recommendations made there.

EASTERN GREAT LAKES REGION

Doug Sinel, CMS, Describes His Experiences With ADABAS 5

The meeting was opened at 10:00 a.m. on June 16, 1988 at Cornell University by Joan O'Brien with the introduction of 20 attendees representing 10 licensees and Software AG.

The business portion of the meeting was the first item on the agenda. Joan made available some information passed on by John Tomashunas, North American Area Rep for SAGGROUP.

Future meetings will be:

September 14, 1988—National Fuel Gas

November, 1988—Univ. of Rochester (firm date TBA)

March, 1989—(Date and Site TBA)

Education coordinator Paul Samol said that Fairport BOCES will be hosting a NATURAL 2 Enhancements class in the late-July/early-August timeframe to be taught by ADEPT. Three days of the 4-day class will address enhancements and the fourth day will focus on NATURAL 2 mapping facilities. Anyone interested should contact Lynn Stanzel at BOCES.

Alan Smith, EGLUG Secretary, requested that any installations that haven't updated their site-survey forms please do so.

Iggie Liccata, Software AG, informed the group that due to an organizational change installations in our district will now have an Account Rep from the Boston office instead of the Ft. Lee office. Iggie brought assurance that, as the accounts are being "handed off" between Regional offices, no ongoing testing or purchasing activities will be "dropped" abruptly. They will attempt to smooth the transition as much as possible.

Iggie then presented revisions and additions to the product/release status list which had been distributed from the April Executive Committee meeting.

Doug Sinel of Computer Marketing Services described some of their experiences at CMS as a beta-test site for ADABAS 5 (on a 9375 under VSE/SP3). Doug stepped-through the new sequence of utilities used to define an ADABAS 5 data base and create files in same. Lynn Stanzel of Fairport BOCES, has also been beta-testing ADABAS 5 and added a few caveats including concerns about the changing Work Block Size.

Karen Barnard of Rochester Gas and Electric brought back a report of the proceedings from the PREDICT User Panel meeting which she attended in Reston in April. Karen itemized a few of the directions discussed there.

A presentation on NATURAL PROCESS was given by Ken Friedman of Cornell, who has been testing it and gave us a general overview of what NATURAL PROCESS is and how it works.

A round-table discussion then ensued on the general topic of NATURAL SECURITY.

After the wide-ranging discussion, several people who had attended the College and University BIG meeting shared some of their recollections of what transpired there.

NORTHEASTERN REGION

ISA and Future Products Discussed

S. H. Clark

The June 28, 1988 meeting was held at The Department of Transportation. Mary Albano, President, introduced the newly elected officers. Linnea Jensen and Lew Levy are the Vice Presidents, and Steve Clark is the Secretary.

Mary Anne Fernald's responses to Questions, Issues, and Problems (QUIPS).

QIP001: Monica Scanlon—Commercial Union
Monica has a problem with VM system tapes not cataloging when multi volume tapes are involved. A work-around has been found. The problem has been turned over to Braintree.

Highlights

The open Integrated Software Architecture (ISA), Software AG's strategic direction, and future products were discussed. ISA was defined and compared to IBM's Systems Applications Architecture (SAA). The following new and future products were discussed: ADABAS Online Services, ADANET, NET-WORK, ADABAS 5, ADABAS Entire, NATURAL PROCESS, NATURAL OPERATIONS, NATURAL OPTIMIZER, Dynamic SQL, NATURAL CONSTRUCT, CON-NECT 2, COM-LETE 4.4, ADABAS HPE. A question and answer period followed.

Jim Yashinski and Jon Church helped out throughout the day by answering questions and clearing up points about NATURAL 2. Jim Wisdom, acting NATURAL Product Representative, discussed workshops to be held over the following two days on NATURAL 2.

The Executive Track at the User's Conference in Nashville was described.

Lew Levy, co-chair at the National NATURAL SIG (Special Interest Group) asked for volunteers to do short presentations in Nashville and to head the SIG next year.

Jim Wisdom made a presentation on his plan for the conversion to NATURAL 2 at Boston University.

Bob Pritchard, Software AG, Braintree, did a presentation on the integration of PREDICT Help, Help Routines, and Help Text.

Chris Bradley of the Commonwealth of Massachusetts presented utilities for NATURAL 1.2. A utility was presented to look at fields and their contents, or to backup and restore selected data.

Doug Nelson of Marshalls described a NATURAL System architecture for navigation between program initiation by a user and a central function.

Bob Miller of Boston University discussed a system for user access to data using NATURAL 2.1 and dynamic screens.

Larry O'Tool conducted a class on the NATURAL 2 Map Editor.

DELAWARE VALLEY REGION

NATURAL 2 Special Interest Group Meeting

Robert Fisher

President Jim Bell called the June 8, 1988 Delaware Valley Regional Users' Group meeting to order at 9:00 a.m. Sixty-six individuals from thirty-four different organizations attended the meeting.

Mr. George Garbes of MARITRANS GP INC was the first speaker. He presented a thorough overview of VTAM Networks.

Jim Bell began the afternoon session by asking for nominations for President, Vice-President, and Secretary of the Users' Group. The elected officers would begin their terms at the end of the September, 1988 meeting. No nominations were forthcoming but several individuals expressed a willingness to be drafted for the positions.

Mr. Bill Chapman of Software AG was the main afternoon speaker. He gave an encore presentation of

"Data dictionary directions, Past, Present & Future, and Software AG's PREDICT CASE directions." A limited number of handouts were made available to the attendees.

Mr. David Jones of CIGNA presided over the NATURAL 2 Special Interest Group meeting at the end of the day.

EASTERN REGION

Steve Robinson Presents On NATURAL 2 Windowing Concept

The quarterly meeting of the Eastern Region Software AG Users' Group was held at the Holiday Inn in Crystal City, Virginia on Tuesday, July 12, 1988. The meeting was called to order at 9:00 a.m. by President Bob Comstock. The following orders of business were covered:

1. General Business
2. MINT2SQL
3. NATURAL 2 Tool Kit
4. Windowing with NATURAL 2
5. PREDICT
6. NATURAL 2 "Shop Talk"

General Business

Bob Comstock welcomed ACS Inc., ATAC Inc. and AT&T as new members of the Eastern Region. Members interested in copies of correspondence sent to the Eastern Region Representative were given the opportunity to sign a list to have copies forwarded to them.

Otto Ferrari of AMS and Bob Comstock of PRC were identified as candidates for SAGGROUP NATURAL Product Representative and PREDICT Product Representative. Bob requested that interested person(s) for Eastern Region offices or Product Representative please identify yourself. Elections for the Eastern Region will be held at the October 11th meeting. Should no

one come forward, the current slate of officers and candidates will be used to get nominations off to a start at the October 11th meeting.

Members were notified of a two day NATURAL conference held in Boston on June 29th and 30th. This conference was hosted by Jim Wisdom of Boston University and Mary Albano of MIT. Bob Comstock of PRC and Ron Egger of S.L. Robinson Associates were two members of the Eastern Region who attended this meeting. Documentation presented at the conference was made available by Bob Comstock through a sign up sheet and the information will be mailed to interested users.

Bob Comstock introduced George Coker as the acting chairperson for the newly formed Federal BIG. George reminded members of the meeting to be held at PRC McLean, Virginia on July 13th and provided an overview of the agenda. This Federal BIG is at the national level and not tied to just the Eastern Region.

Windowing

Steve Robinson of S.L. Robinson & Associates gave a presentation on the windowing concept in NATURAL 2. Steve used the unique approach of Lakes (represents the logical screen which can be 250 x 249), glass bottom boats (workable portion of the pond), and ponds (your screen) to describe the windowing concept. Steve gave a very good description of the syntax needed to become familiar with the windowing concept as well as giving some warnings as to the pitfalls of windowing. The Eastern Region thanks Captain Robinson for an interesting cruise aboard the glass bottom boat.

PREDICT

Penny Carchedi of Software AG gave a presentation on future capabilities of PREDICT. Among the areas that will be enhanced in the new version of PREDICT will be the increased capabilities of the automatic cross reference and the NATURAL list cross reference functions. The new architecture of PREDICT was discussed along with the capability to retrieve information on both third and fourth generation languages.

NATURAL 2 "Shop Talk"

Ron Egger, Michelle Macauley, Otto Ferrari and Joseph Bauer were members of a panel that led a discussion on NATURAL 2. Some of the areas discussed were:

- A bulletin board made available by Clayton Clendinen. This is accessible through RBBS.
- Review of discussions at the NATURAL 2 conference held in Boston on June 29th and June 30th.
- Structured mode vs reporting mode
- Attribute buffer
- NATEDIT module
- Global buffer pool
- Use of GDA in reporting and structured mode

EASTERN CANADIAN REGION

Doug Wheeler Presents CON-NECT Features

Helen Cox

The September 12, 1988 meeting of the Eastern Canadian Region was attended by 53 members. It was hosted by the University of Ottawa in Ottawa, Ontario. The breakdown of attendees is as follows: 8 from Software AG, 26 representing 9 Ottawa area users, 11 representing 8 Toronto area users, 7 representing 3 Montreal area users and 1 guest.

Users' Group Business

1. The meeting opened at 9:05 a.m. chaired by Wendy Merkley and Helen Cox. A thank you goes to the University of Ottawa for hosting this meeting.
2. The data and place of the next meeting is as follows:

December 5, 1988—City of North York in the Toronto area hosted by Kathie Hamel. Directions will be sent out with the final agenda.

3. Topics for the agenda for the next meeting tentatively include the following:
 - NATURAL 1.2 to 2.1 conversion experiences (open discussion)
 - Review of Conference by Software AG
 - ADABAS 5 experiences—Consumer's Gas
 - Using an Entity-Relationship Model in ADABAS—Alan Florence—Consultant
 - A Temporal Data Base Design using ADABAS (application system)—Ron Person of Statistics Canada
 - Development Life Cycle using NATURAL—Software AG
4. The meeting following the December meeting will be held in Montreal on March 6, 1989 hosted by the City of Montreal with arrangements for this being made by Gilles Panier. The June meeting is expected to be held in Ottawa.
5. Helen announced that 15 companies have returned profiles and these will be compiled and sent to those putting in a copy before the next meeting. Blank forms can be obtained by calling Helen Cox at (416) 229-4515.

Presentations

1. ADABAS 5—Willy Saleminck, Software AG Canada

Willy gave a presentation of ADABAS 5 that included new features and upgrades.

Some of the points covered included:

 - MVS enhancements
 - improved run time considerations
 - ability for files to go to 6 extents
 - improved MPM statistics both at the end of session and on-line (with ADABAS Online Services)
 - Utilities (many utilities are now combinations of old utilities)
 - improved speed of ADAFIX
 - Migration aids for ADABAS 4.1 to 5—also means of converting back

- improved manuals
- ability to lock files for utility usage

Also included in the presentation was information about NET-WORK, ADANET (for multiple data bases) and HPE (for improved CPU).

ADABAS 5 has now been released for the OS environment. Releases for other environments will be following shortly.

2. ADABAS/NATURAL Parameters

After a break, there followed a discussion on ADABAS parameters followed by a brief discussion on NATURAL parameters.

3. Preview of Conference

Gene Miklovich talked about the upcoming conference and about some of the presentations being given at it. Preliminary conference agendas were available.

4. CON-NECT—Doug Wheeler, Software AG

Doug Wheeler gave a presentation on CON-NECT—A new concept in office systems.

The basic concepts are as follows:

- Concise handling of CON-NECT objects including PC programs, text, spreadsheets commands
- Object driven
- Command Processor where you can design your own commands and own user objects
- User Interface where there is context-sensitive help and pop-up windows and also uniform access across mainframe, departmental computers and personal computers
- Customization including a command editor, PF key editor, menu editor and personal profiles
- Connectivity—connects to other systems such as DISOSS and other nodes of CON-NECT

- Open Architecture with the ability to involve NATURAL applications from CON-NECT

Other features include: ability to mail out NATURAL reports, distribute reports, office functions including Electronic mail, Text Processing, Document Management and Time Management.

Electronic Mail includes features such as no paper, no waiting, proof of delivery, proof mail was opened, in/out basket and distribution lists.

Text processing includes four edit modes when using the text editor.

Time Management includes a calendaring, conference planning, schedule printing, reminders to do lists. In addition, there are note pads, bulletin boards etc.

5. NATURAL 2—Progress

Some of the comments arising from this discussion were:

- programs in batch and online use a different page size
- watch mixing structured mode and reporting mode—could be a problem with the processing rules in PREDICT
- set MADIO to zero or very high to avoid overflow. An alternative is to issue a non conversational write as in CATAL
- most users appear to be converting programs as opposed to migrating programs from 1.2 to 2
- there was some discussion on the methods of conversion planned
- NATURAL 2 has better performance in a number crunching program as well as better terminal I/O

John Farmer Discusses ADABAS 5 Installation and Internals

Laurie Hanley
TGI Friday's, Inc.

The August 5th Southwest Region Users' Group meeting was called to order by Kerrie Meyler, the Southwest Regional Representative. The following orders of business were covered:

1. General Business
2. ADABAS 5 by John Farmer, Software AG
3. PREDICT V2.3 discussion by Randy Kastendick, Software AG
4. NATURAL 2 DESIGN discussion by John Wheat, University of Texas at Austin
5. Round Table/Open Forum

General Business

Several persons have asked how to receive the minutes and agenda from the Regional meetings. All minutes and meeting information are distributed through the Regional office. If you are not receiving this information, you should contact your Regional office: specifically Jon Hoaldrige in Dallas or Doug Roberts in Houston. In many cases only one copy of the information is sent to each user site. Often this may be sent to the wrong person who is not forwarding the information or distributing to the proper personnel. If you are not receiving the information, you should contact Jon or Doug and confirm your distribution information.

If you wish to obtain a copy of the minutes from other Regions, you may contact John Oborn, the new Regional Representative.

There is a new newsletter titled VVAN (VAX-VMS-ADABAS-NATURAL) which is being distributed among the DEC/VAX users. If you have not received a copy of this newsletter and are interested in being on the mailing list please contact Kerrie Meyler or John Oborn.

Elections for Southwest Region officers were held at this meeting! The new elected officers are:

President/Regional Rep.
John Oborn
Vice President/Pgm Coord.
John Baird

ADABAS 5

John Farmer, Software AG, discussed ADABAS 5 installation and internals. He brought forward several very important points to note:

The ADABAS 5 Internals Manual can only be obtained by attending the Software AG Internals course.

You can convert from V4 to V5 without unloading files.

When installing ADABAS 5, you may perform a temporary or a permanent install of the SVC. When installing a temporary SVC you are not required to IPL. NOTE: The temporary SVC install is not possible for DOS/VSE users.

AMODE/RMODE parameters are only required for MVS/XA shops.

ADARUN is not upward compatible; you must have a V5 ADARUN module to execute ADABAS 5.

ADALNK is upward compatible; the TP links are NOT.

ADASIP the (SVC Install Program) must be executed after each system IPL.

ADASVC is loaded into and executed within the CSA.

You cannot use V4 PLOG files with V5 nucleus; the checkpoint files are different.

The BLKSIZE is larger on V5 for 3380 devices; you must change your WORK dataset.

You should alter the GCB entry for the number of blocks on the WORK dataset before the V5 nucleus is initiated. This is discussed in both the Implementation Manual and the Users Guide. Also, when ADAVUS NEW-WORK is run to alter the WORK dataset size in the GCB it only alters the GCB it does not alter the actual size of the WORK dataset.

Any user exits will have to be modified for V5.

If you revert back to V4 from V5, you must first remove any HYPER Descriptors.

The ADABAS 5 nucleus has been modified so that no user may take up more than 25% of the hold queue; if a user attempts to place a number of records in the queue larger than the maximum number of records setting, they will receive a non-zero response code.

The ADARUN parameter PLOG RQ=NO is the default parameter for the PLOG. This specifies that the MPM will come up with a PLOG as the default.

The ADARUN parameter "UTIONLY" specifies that the nucleus is brought up only in utility mode, users may not log on. The "UTIONLY=NO" parameter will return the MPM to use by users.

ADABAS 5 will reformat a part of a RABN.

When you delete a file in ADABAS 5, you may keep the FDT entry. When you reload the file, you may point to the FDT entry and specify the cards without having to recreate them.

You may now set a minimum ISN # to save address converter space.

The DSTAT operator console command will display the activity of a utility.

Several processing statistics such as the number of blocks used on a SORT, etc. will be printed along with the ADALOD utility output.

If you receive an error 10 when running a utility, it will tell you what DIB entry was in conflict.

The ADASAV drive parameter can use up to 8 tape drives at one time. This will allow parallel activity to multiple drives to speed up backup and restore times.

With ADARES BACKOUT, in V4, when it got to the end of tape 1 it would back out the end if you were not at ET status. Thus you could lose the end of one tape and the beginning of the next. In V5 you may specify no backout to prevent this from happening.

PREDICT V2.3

Randy Kastendick, Software AG, presented the changes and enhancements of PREDICT V2.3. Some of the more interesting features follow:

There will be a new function to generate FORTRAN copy code.

The PREDICT banner screen which displays the current FDIC file in use may be turned off by a flag under DDA services.

There will now be an Object Type within Object Class (i.e. Class Program has Types of Map, Program, Help, Subroutine, Subprogram).

The external file number no longer needs to be unique except within a physical data base.

Multiple data base types will exist (i.e. ADABAS, Conceptual, VSAM, DB2, IMS/DL1, NATURAL PROCESS).

For packed fields the entered length will not be changed into byte length when CATALOGING.

Field Type now has the following values:

- CM—Counter for MU field
- CP—Counter for PE field
- GP—Group field
- HM—Hyperdescriptor for MU fields
- HP—Hyperdescriptor for PE fields
- HY—HyperDE
- MC—MU field with automatic counter
- MU—Multi-value field
- PC—PE group with automatic counter
- PE—Periodic group
- PH—Phonetic descriptor
- RE—Redefine
- SB—Subdescriptor
- SP—Superdescriptor

Four user modifiable help routines will be provided in library SYSDICH. These will make PREDICT data from short comments, extended description, and verification values available as help information. They can be activated with the NATURAL parameter 'HE'.

Automatic NULL values flag in DDA services. All new fields are NULL suppression if no suppression option is entered.

Full functionality of the list XREF command is now available for 3rd generation languages (COBOL, PL/1, ASSEMBLER, FORTRAN).

Conversion of NATURAL 1.2 XREF data to NATURAL 2 format is possible using SYSDICCO CONVERT XREF function. This can be done on an on-going basis.

Software AG strongly recommends the use of the migration conversion from PREDICT 2.2 to PREDICT 2.3 for maximum efficiency in the FDIC file design and lowest probability of conversion error.

NATURAL 2 DESIGN

John Wheat of the University of Texas at Austin discussed an integrated financial management package which UT wrote exclusively in NATURAL 2. The system was titled "DESIGN" or Departmental Financial Information Network.

When performing the analysis phase of this project, UT calculated that the system would require approximately 4 manpower years to develop in NATURAL 2, 17 years in NATURAL V1 and 45 manpower years to develop in COBOL.

The system was approximately \$165,000 to develop requiring three programmers for one year.

John passed on several design tips to the audience. He suggested getting a working version of the system out as quickly as possible to prototype. It should be realized that the system will constantly be modified, as the system is never really "finished." It is a dynamic process of use and feedback.

UT designed their system to be optionally command driven. In this manner, the user may use a menu system until they feel comfortable with the commands, and then they may use the command mode for speed. This was accomplished by assigning a unique label (the command) to each function within the application.

The system is driven by a dispatcher module. This module allows the user to transfer from one functional module to another through entering a command. There is no logic unique to any function. If the command entered is not within that particular function module the command prefix tells

the dispatcher which function module the command falls in and that function module is invoked.

The dispatcher module provides the following functions:

- Provides a central exit point for any application
- Validates commands entered
- Generates and displays menus
- Audits security applications
- Invokes the requested function module

The DESIGN system includes a user notepad for creating their own help menus which is invoked by pressing <F10>. This is actually a subprogram which puts up a blank pop up menu to enter notes and then stores the data on a table record.

In this system all of the user documentation is contained in a text file. The text file is plugged into a blank pop-up menu so all of the documentation is online.

Open Forum/Round Table Session ADABAS 5 Questions/Concerns

Larry Godec, Computer Language Research, a beta test site, stated that you cannot perform the RESET DIB function on the fly. You will get an error if there is nothing in the DIB to reset. This is an important point for persons who may habitually run the RESET function before running utilities.

If the data base goes down abnormally there is an entry in the DIB. In this situation, you must add the "IGNORE DIB=YES" statement in your ADARUN cards to bring up the MPM. You must then remove the card from your MPM JCL. This ADARUN card may only be used if there is an entry in the DIB (the data base went down abnormally). If you leave it in the JCL you will get an error because ADABAS is trying to RESET the DIB and there is nothing to reset.

The ADAUNLD utility is greatly improved in ADABAS 5. You can now unload specified records rather than the entire file. Also you may unload a file while people are accessing it (with read-only access).

ADADBS—the ADABAS DB Services is essentially the ADABAS Online Services in batch mode.

If you have any NATURAL programs which read the checkpoint or security files they will not work

under ADABAS 5 since these FDTs have been changed. In addition, the security and checkpoint FDTs are in the nucleus and can not be seen through the data dictionary and you cannot generate DDMs on them. ADABAS 5 does, however, have a utility which can delete checkpoint entries.

Other Round Table Questions

Is ADABAS Online Services included with ADABAS 5? No. ADABAS Online Services is a separate product which costs approximately \$20,000. The NATURAL OPTIMIZER is also a separate product.

With the latest version of TOP SECRET (MVS), the bridge for ADABAS must be installed with the MPM down or you will have to re-IPL.

With NATURAL V2.1.3 there was a bad zap sent out. This zap applies a read loop to a SORT and results in the user getting a NAT 0955 error at catalog time.

Several questions were asked of John Farmer concerning ADABAS 5. The questions and their answers or status follow:

Will there be a DBA tools tape for ADABAS 5? At this time a DBA tools tape is not planned. However, if users are interested they should coordinate a Special Interest meeting at the Conference.

Can you have different updates to the same files on different threads? Yes.

MIDEASTERN REGION

New Officers Elected

The meeting was held on May 4, 1988 at the Marriot Inn in Indianapolis, Indiana. Dom DeMao greeted the members and started the business portion of the meeting. He indicated that he had held the position of Regional Representative for almost two years and it was time to elect new officers. After explaining the duties of Regional Representative and Secretary, he requested that the members think about nominees and or volunteers for these two positions so that elections could be held later in the day.

Larry Jayne of Software AG gave highlights of the International Conference held last November in Florida and an overview of the next Conference which will be held in Nashville, Tennessee in September. He encouraged everyone to make their reservations early because this Conference promised to be bigger and better than ever. Presentations were also given on NATURAL Elite, future enhancements for NATURAL Elite and NATURAL 2 by Software AG personnel.

Elections were held for the positions of Regional Representative and Secretary. The position of Regional Representative was assumed by Margaret Bush of PolyGram Records, Inc. and the position of Regional Secretary was assumed by Greg Johnson of Mayflower.

The next meeting of the group is scheduled for August 10, 1988.

MIDWESTERN REGION

Dennis Calleweart Explains S.C. Johnson Co.'s Usage of PREDICT

The meeting was held on August 2, 1988, in Kansas City. The host for the meeting was Steve Voelker of the Johnson County Water District. Our meeting agenda included elections of new Regional Representatives, user presentations on NATURAL 2 Conversion considerations and PREDICT Cross Reference usage. In addition Mark Cade from Software AG Customer Service Division also gave a presentation on selected topics covering NATURAL 2 conversion considerations.

At this meeting we elected our Regional Representatives for the coming term. For the office of Regional (REP) President, the User Group elected John DeNatale from Elkay Manufacturing Co. For the Office of Vice-President, the User Group elected Deborah Carlsen from Schwinn Bicycle Co.

The meeting opened with Steve Voelker, MIS Manager, from the Johnson County Water District describing their system and software

environment. Also, Steve highlighted some of the production applications that provide information to the county. In addition, Steve described the software and hardware environment and gave the user group an indication on the size of the Data Processing department. The applications at the water district include: account billing, collection, meter reading, and inquiry system; budget and financial systems to support the business; systems to monitor water levels, water contamination levels, system to evaluate the cost of establishing new water networks for housing sub-divisions. The Johnson County Water District utilizes NATURAL and ADABAS for their new system development and also uses the ADABAS/VSAM Bridge product for some of their existing VSAM based applications.

Our user presentation on PREDICT Cross Reference Usage and PREDICT 2.3 Enhancements was given by Dennis Calleweart from S.C. Johnson Co. Dennis presented to the group Johnson's usage of the cross reference feature of the PREDICT Dictionary. As part of the presentation Dennis described and provided examples of reports and programs that Johnson had developed for their use of the cross reference feature. Dennis related that most of the programs were fairly easy to write and that they used the standard exits provided by the PREDICT software.

On the subject of PREDICT 2.3 Enhancements, Dennis reviewed some of the highlights from the Special Interest Group meeting that he attended earlier in the year.

Our user presentation on NATURAL 2 was given by Deborah Carlsen from Schwinn Bicycle Co. Debbie's presentation was on Schwinn's experiences from their production installation of the software and existing application systems. We were very interested in listening to user experiences with the software since there are many users in the region who are in the process of planning and actually installing the software in a production environment.

We were pleased to have Mark Cade from Software AG Customer Service Division in attendance to provide additional information and a short presentation on NATURAL 2 conversion considerations. This provided the User Group the opportunity to hear a users' perspective and get Software AG's perspective on the conversion. Also, we had the ability to ask Mark some questions about the product.

Our final presentation was made by Ron Egger who is a Data Processing Consultant and had the opportunity to attend a Conference held on the east coast. This conference was a panel discussion on the selected topics such as the differences between NATURAL 2 and Version 1. For example, one topic was NATURAL 2 and Version 1 performance considerations. Ron provided information from the notes he took at the conference and related information on such items as the differences and benefits between structured and report modes of programming.

In the meeting we indicated that our next Regional Meeting would probably be held in March, 1989 and would probably be in Chicago.

PACIFIC SOUTHWESTERN REGION

Mark Milne Talks About ADABAS 5 Features

Terry Olson

The meeting was hosted by the Aerospace Corporation in El Segundo. The meeting was called to order by our President Sue Woodill. There were 62 people, representing 25 organizations in attendance.

Concerning Software AG manuals and updates: the distribution is limited to each user according to their contract. Please get Software AG's permission if you need to make more copies.

Announcements

Sue Woodill asked the users to compile and bring NATURAL 2 Standards to the September meeting. She will make them available for everyone.

Presentations

Duane Walker of the Aerospace Corporation gave a presentation on NATURAL SECURITY. He described how NATURAL SECURITY System is used at Aerospace, how it works, its good features and bugs to watch out for.

Monte Hipple, Software AG, talked about the importance of getting your reservation in early for the Nashville Conference. Monte also made available documentation about new areas of endeavor for Software AG.

Bill McManes, Software AG talked about some business changes Software AG was making in the United States to improve service to their customers. They will have more service representatives and local power to get the right job done for their customers.

Mark Milne, ADABAS Products Manager, told how the reorganization will effect the United States support groups. They will now have 70 people for research and development here in the U.S. Also, they will divide up the people addressing our question into areas like the ADABAS group and the NATURAL group. They plan to have VTAM links between customers, Denver and Germany to share problems and solutions too.

There are major changes being made to ADABAS and major check out Quality Control procedures must be applied to assure a production worthy product. Software AG selected 1500 different test items to run through the procedure. Currently, they have around 200 still to do. They plan to do a phased release in the September 1988 timeframe.

ADABAS 5 promises many wonderful state-of-the-art features and we are all very excited about it.

Mark Milne then gave a comprehensive and informative futures presentation on ADABAS 5, PREDICT, ESA Technology, ADABAS Online Services, Distributed data bases, relational data bases, SQL, text processor, ADABAS 5 Entity Relationship support, knowledge based systems, and PC to mainframe support. He stated that Software AG's goal was an information based management system which is much more than a DBMS.

NORTHWESTERN REGION

New Officers Elected

Loretta Eaves
Regional Secretary

The June 10, 1988, meeting of the Northwest Region was attended by 39 members and guests representing 18 organizations. Topics included presentations and discussions on PREDICT 2.2.3, PREDICT 2.3, NATURAL 2 parameters and NATURAL 2.1.3 fixes and problems. Also, the election of new officers took place.

General Business

The concept of Product Reps will be changed to Functional Reps.

Software AG of North America is now a private German Company. The general feeling is that service will improve under this scenario.

Service/Connection implementation is scheduled for fall, 1988.

Demos

Steve Bradley brought several machines with demos of ADABAS 5, NATURAL CONSTRUCT, SUPER NATURAL, NET-PASS. Also on display was an ADABAS 5 manual. Set-up is for use during breaks and lunch. Steve can field questions as available or during SAG Time.

PREDICT

To clarify terminology, Randy Kastendick, Software AG Denver, explained that verification rules and processing rules mean essentially the same thing. PREDICT terminology uses the word 'verification' and NATURAL uses 'processing.'

Randy told us that the interaction with Software AG Darmstadt has increased since the merger.

A discussion of PREDICT verification rules followed and how to use them and tie them to fields for automatic invoke. A handout was provided for reference. A copy of the overheads was also requested for reference.

Elections

New officers announced as follows:

Regional Representative:

Brock Norman

Training Coordinator:

Leo Webb

Program Coordinator:

Tom Thomas

Secretary:

Loretta Eaves

Miscellaneous

Software AG would like to host an ADABAS 5 capabilities class locally, Bill Linker, Software AG, asked for interested customers at \$400-\$500 each. The class costs \$8000 on-site with maximum class size of 20 participants. The group was polled for interest (possibly 10 people). Washington State's training division in Olympia may be contacted for a training room.

Bill had a brochure describing Integrated Systems Architecture.

The next meeting is on October 21st and topics suggested were: migration to ADABAS 5 and an overview of the conference sessions by those who attended.

Contact Steve Bradley, Software AG, for demo diskettes.

Dependency matrix or diagram was requested by users to know if a product of interest will run in current environment and/or what else is needed to make it run. Steve Bradley noted this need.

Copies of handouts and overviews referred to in the meeting notes may be obtained from the Northwest SAGGROUP Secretary, Loretta Eaves, (206) 586-4578, Washington State Department of Licensing, Highways-Licenses Bldg. M/S PB-01, Olympia, Washington 98504.

SIERRA PACIFIC REGION

Sheri Kosh Gave An Informative Presentation On Using PREDICT With NATURAL 2

Ronna Slobe
State of Nevada

Due to conflicting schedules the June meeting of the Sierra Pacific Users' Group was cancelled. The September meeting was held September 12th in South Lake Tahoe and was hosted by the State of Nevada. Thirty-six people attended representing twenty-one users.

The first order of business was election of new officers. Ronna Slobe from the State of Nevada was elected Regional Representative and Janice Patterson, from the State of California Alcoholic Beverage Control, was elected Secretary.

Nonnette Mello, the new Technical Support Manager from the San Francisco Office was introduced. She told us they are implementing new procedures for more timely customer contacts. Software AG customers supported by the San Francisco Office should be expecting to see and hear from their Account Representative on a more regular basis.

Sheri Kosh, an instructor from Reston, gave a very good presentation on "Using PREDICT to Manage NATURAL 2 Applications." She was referring to PREDICT V2.3. Sheri defined the three types of processing rules: 1) Automatic rules which are tied to a DDM, 2) In-line rules which are coded in-line in the map editor, and 3) Free rules which are stored in PREDICT and can be pulled into any map. We were given an overview of the Software Development Life Cycle and where Software AG products can be incorporated into the cycle. Then Sheri discussed the necessary components of a NATURAL 2 application along with PREDICT 2.3 subsystems and their uses. The presentation was packed full of information.

The next item on the agenda was a presentation by Susan Kaplar pertaining to NATURAL Elite. Susan told us what courseware was available currently and will be available in the future. The pros and cons of a mainframe based computer assisted instruction package were discussed and Susan explained the components of NATURAL Elite 2, including Administration, Authoring and Presentation. She showed us how a person would go about authoring a class or modifying an existing class.

After Susan's presentation there was some discussion about user experiences. Justifying the purchase of the package was easy if you compare the cost of sending all your people to training or bringing training into your business. However, the timeliness of the release of the NATURAL 2 Structured Mode series of classes was of some concern.

The next Tuesday meeting of the Sierra Pacific Users' Group is scheduled for December 6, 1988, and will be held at the Software AG office in San Francisco.

We Want To Hear From You!

Send the minutes from your latest regional meeting to:

Pam Ellis
Software AG
11190 Sunrise Valley
Drive
Reston, VA 22091

Software AG Product Status Report

Software AG offers this Product Status Report, updated quarterly, as a regular feature of Connections in order to advise our customers which products we have released recently and which are scheduled for release in the near future.

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

Released: August 1988 to January 1989

Data Base/Dictionary

| Products | Date of Release |
|-----------------|-----------------|
| AMI 2 SQL 1.1.0 | January 1989 |

Versions

| | |
|---------------------------------|----------------|
| ADABAS 5 (w/Online Services) | September 1988 |
| PREDICT 2.3 | December 1988 |
| ADABAS SQL 1.3 | January 1989 |

Application Development

| Products | Date of Release |
|-------------------|-----------------|
| NATURAL CONSTRUCT | September 1988 |

Versions

| | |
|------------------------------------|---------------|
| NATURAL 2.1.3 | November 1988 |
| NATURAL 2.1.3 DL1 | November 1988 |
| NATURAL 2.1.4 (OS) | December 1988 |
| NATURAL DB2 1.1.1 | December 1988 |
| NATURAL Optimizer Compiler (OS) | December 1988 |

Communications/Distributed

| Version | Date of Release |
|----------------|-----------------|
| COM-LETE 4.4.2 | November 1988 |

User Services

| | |
|------------------------------|---------------|
| CON-NECT 2.1 | August 1988 |
| SUPER NATURAL 2.2.1 | August 1988 |
| NATURAL Elite Basic 1.3.3 | November 1988 |
| NATURAL Elite CONSTRUCT | November 1988 |

VAX

| | |
|------------|-------------|
| ADABAS 1.5 | August 1988 |
|------------|-------------|

WANG

| | |
|--------------------------|----------------|
| ADABAS 4.1 | September 1988 |
| NATURAL 2.1 | September 1988 |
| PREDICT 2.3 | September 1988 |
| NATURAL SECURITY 2.1 | September 1988 |
| SUPER NATURAL 2.2 | September 1988 |
| NATURAL CONSTRUCT 2.1 | September 1988 |

Scheduled for Release: January 1989 to March 1989

Data Base/Dictionary

Products

| | |
|------------------|---|
| ADABAS HPE 1.1.0 | beta test Target release: First Quarter 1989 |
| ADABAS TPF 4.4.2 | beta test Target release: First Quarter 1989 |

Versions

| | |
|----------------|---|
| NET-WORK 5 | beta test Target release: First Quarter 1989 |
| ADABAS SQL 1.3 | beta test Target release: First Quarter 1989 |
| REVIEW 3.1 | beta test Target release: January 1989 |

System Maintenance Releases

| | |
|----------------|--|
| ADABAS SQL 1.2 | CMS: beta test Target release: First Quarter 1989 |
|----------------|--|

Application Development

Products

| | |
|-------------------|--|
| NATURAL SQL/DS | beta test Target release: March 1989 |
| NATURAL Optimizer | beta test Target release: February 1989 |
| PREDICT CASE | alpha test Target release: Third Quarter 1989 |

Versions

| | |
|----------------------------|---|
| NATURAL CONSTRUCT 2.2 | internal test Target release: March 1989 |
| NATURAL 2.1.4 (DOS/CMS) | beta test Target release: February 1989 |
| NATURAL SECURITY 2.1.4 | beta test Target release: January 1989 |
| NATURAL DL1 2.1.4 | beta test Target release: March 1989 |
| NATURAL VSAM 2.1.4 | beta test Target release: February 1989 |
| NATURAL DB2 1.1.2 | beta test Target release: March 1989 |
| NATURAL Graphics 2.1.4 | beta test Target release: February 1989 |
| ADABAS VSAM Bridge 3.1.1 | beta test Target release: March 1989 |

Communications/Distributed

| | |
|----------------|---|
| NET-PASS 2.2.1 | beta test Target release: First Quarter 1989 |
| VM-PASS 1.1.0 | beta test Target release: First Quarter 1989 |

User Services

Versions

| | |
|---|--|
| NATURAL CONNECTION (Mainframe) 2.1.4 | beta test Target release: February 1989 |
| NATURAL Elite: NATURAL 2 Advanced Programming Technical Courseware 1.1.1 | pre-beta Target release: May 1989 |
| NATURAL Elite ADABAS Fundamentals Courseware 1.1.1 | beta test Target release: April 1989 |
| NATURAL Elite ADABAS 5 Programming and Design | beta test Target release: March 1989 |
| NATURAL Elite Basic System 1.4.1 | beta test Target release: Second Quarter 1989 |

VMS Products

| | |
|-----------------------------------|---|
| NATURAL Elite Basic 1.3.0 | pre-release Target release: First Quarter 1989 |
| NATURAL Graphics 1.0.0 | pre-release Target release: First Quarter 1989 |
| NATURAL 1.4 | pre-release Target release: First Quarter 1989 |
| SUPER NATURAL 2.1.2 | pre-release Target release: First Quarter 1989 |
| NATURAL Professional 1.0.0 | pre-release Target release: First Quarter 1989 |
| NATURAL SECURITY 1.0.0 | pre-release Target release: First Quarter 1989 |
| NET-WORK 1.6 | In Development Target release: Second Quarter 1989 |
| NATURAL ARCHITECT Workstation 1.1 | beta test Target release: March 1989 |
| NATURAL CONSTRUCT 1.2 | alpha test Target release: March 1989 |
| ADABAS 1.6 | beta test Target release: March 1989 |
| PREDICT 1.1 | alpha test Target release: First Quarter 1989 |

Software AG Users' Group Tools Request Form

REQUEST

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

Complete the information below and send to: Users' Group Liaison, Software AG of North America, Inc.
11190 Sunrise Valley Drive, Reston, VA 22091 USA

Users Outside the U.S. send to:

Your Software AG Distributor or Affiliate.

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

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

Ship to: (Please type or print)

Name _____

Organization _____

Address _____

City _____ State _____

Zip _____ Country _____ P.O. # _____

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

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

Name _____

Organization _____

Address _____

City _____ State _____

Zip _____ Country _____ P.O. # _____

Customer Number _____

Change of Address Form

Check One:

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

U.S. Users Send to:

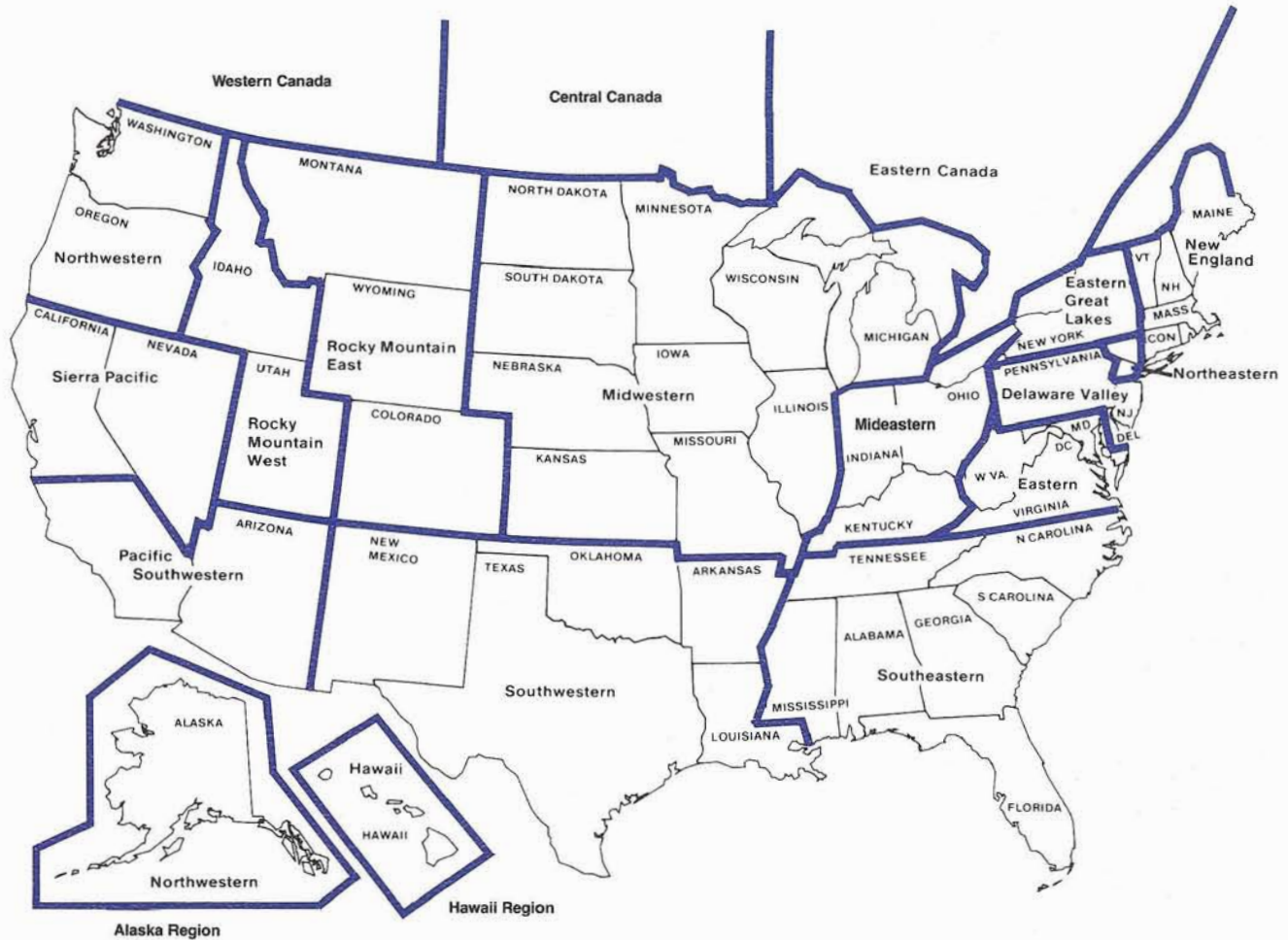
Manager, Customer Relations
Software AG of North America, Inc.
11190 Sunrise Valley Drive
Reston, VA 22091

Users Outside the U.S. Send to:

Your Software AG Distributor or Affiliate

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

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.

Change/Enhancement Form

DATA BASE

- _____ ADABAS
- _____ ADABAS ONLINE SERVICES
- _____ ADABAS VSAM BRIDGE
- _____ ADABAS DL1 BRIDGE
- _____ ADABAS TOTAL BRIDGE
- _____ ADABAS CICS INTERFACE
- _____ ADABAS IMS/DC INTERFACE
- _____ ADABAS TSO INTERFACE
- _____ ADABAS REFLECTIVE DATA BASE
- _____ ADABAS TEXT RETRIEVAL SYSTEM
- _____ ADABAS REVIEW
- _____ ADABAS VM
- _____ ADABAS CONVERT

APPLICATION DEVELOPMENT

- _____ ADABAS SQL
- _____ NATURAL—ADABAS
- _____ NATURAL—DB2
- _____ NATURAL—VSAM
- _____ NATURAL GRAPHICS
- _____ NATURAL OPTIMIZER COMPILER
- _____ NATURAL CONSTRUCT

ADMINISTRATION

- _____ PREDICT
- _____ PREDICT CASE
- _____ NATURAL SECURITY
- _____ NATURAL PROCESS
- _____ NATURAL OPERATIONS
- _____ COM-LETE SECURITY

COMMUNICATIONS

- _____ ADABAS HPE
- _____ ADABAS TPF PROCESSOR
- _____ ADABAS VTAM
- _____ NATURAL ADVANCED UTILITIES
- _____ COM-LETE PROCESSOR
- _____ COM-LETE UTILITIES
- _____ COM-LETE CICS INTERFACE
- _____ COM-LETE TSO INTERFACE
- _____ COM-LETE IMS/DC INTERFACE
- _____ COM-LETE VTAM INTERFACE
- _____ NET-WORK INTERLINK (IBM)
- _____ NET-WORK HYPERCHANNEL (IBM)
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- _____ NATURAL SUPER NATURAL
- _____ NATURAL ELITE EXTENDED FUNCTIONS
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- _____ NATURAL DOCUMENT MANAGEMENT FACILITY
- _____ CON-NECT STANDALONE
- _____ CON-NECT
- _____ CON-NECT DOCUMENT RETRIEVAL
- _____ NATURAL ARCHITECT WORKSTATION
- _____ NATURAL PROFESSIONAL

Request Title: _____

Request Description: _____

Request Benefits: _____

Submitted by— _____ Company: _____

Name: _____ Address: _____

Customer ID Number: _____

Telephone: _____

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

Instructions for Change/Enhancement Form

1. Place one 'X' to the left of a product. This indicates the Product to which this Change/Enhancement belongs. This groups similar Change/Enhancements together.
2. Enter a Request Title which is a one line description for your Change/Enhancement that is less than 40 characters.
3. Enter a description for your Change/Enhancement. Please be specific when describing your Change/Enhancement.
4. Enter an explanation of the benefits of the Change/Enhancement.
5. Enter information about yourself so someone can contact you if there is some question about your Change/Enhancement (you must include your telephone number).
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