NATURAL DB2 Update

Norm Nicholson
Product Manager

At the time of this writing, November 29th, NATURAL DB2 V1.3.1 has been shipped to several beta sites. Assuming all goes well, the official release date is now in January. At this time all customers will receive the NDB V1.3.1 tape, the new NATURAL DB2 and SQL/DS Users Guide, and the Release Notes. This version of NDB has been tested with NATURAL SM4, (base and both the fix tapes), and also with NATURAL SM5. It is the released version of NDB V1.3.0 that many customers are now running, which features the SYSDB2 utility for the DBA, and Static Support for one application plan per execution of NATURAL. NBD V1.3.1 can run under TSO, (online or batch), CICS, and IMS/DC.

By Christmas the next release of NATURAL DB2 will already be installed in a few pilot installations.

It requires NATURAL SM5 as a prerequisite, and features as the major enhancement, support of the SQL SELECT statement from within a NATURAL program. In the program, the programmer can now choose, (when accessing DB2 or SQL/DS) to code a NATURAL FIND or READ statement, and have it translated to a SELECT, or to directly code a SELECT statement. The implementation method is that SELECT is functionally equivalent to FIND or READ in that it starts a NATURAL loop, and must be terminated with an END SELECT statement. The programmer does not have to worry about handling DB2 'cursors', since NATURAL will pass data back a row at a time, as normal. Syntax checking of the SELECT statement is performed

SAGGROUP Executive Committee Meeting Summary

The SAGGROUP Executive Committee meeting was held at the Hilton Hotel in Anaheim, California in conjunction with the 20th International Software AG Users' Conference.

Conference

Next year's conference is in San Antonio, Texas from November 4-8, 1990.

A price break for shops sending more than 1 person was asked about. Software AG said that the conference is zero budgeted, meaning no money is made from it. If the price goes down for someone, it would have to go up for someone else. They will take the request into consideration. It was mentioned that Software AG try and keep the cost of the conference under $1000. This appears to be the magic number for some shops.

"Knowledge Express 1990" will take the award winning Software AG presentations from the conference, package them together and take them on the road to different cities. This will allow people that didn't get to go to the conference the ability to hear some of the presentations. This will take place some time in January or February.

8 new products were announced at this year's conference.

NATURAL RDB/RMS

NATURAL/OS2

NATURAL CONNECTION for the Macintosh

PREDICT CASE

NET-WORK APPC

NATURAL 2—VAX

NATURAL ISPF

NATURAL CONSOLE

Technical Issues

There was a meeting the Friday night before the conference to discuss technical issues. It was attended by most of the Software AG Product Managers. Main topics discussed were how to improve the Change/Enhancement process, concerns from the different user regions, and specific problems relating to NATURAL and ADABAS.

President's Message

Bill Wagner

Remember the last time you bought a new car? Remember how you'd never noticed Belchfire 500s on the highway until you bought a Belchfire 500 of your very own, and remember how once you got behind the wheel it seemed like there were Belchfire 500s everywhere? Well, I had a similar experience last month in Anaheim. Only instead of automobiles, I suddenly became aware of the international flavor of SAGGROUP and the Software AG conference.

My "international week" started when I met Dieter Storr, the SAGGROUP representative from the German region. He had brought with him the names of the SIG chairmen from his region, and asked about exchanging these lists for their North American counterparts. Global cooperation among Software AG and its affiliates is certainly a reality, so similar communication among SAGGROUP international areas is a reasonable goal. And with FAX becoming commonplace and Service Connection nearly released, the tools for such communication are clearly in place.

Once I had started wondering about these possibilities, I made it a point to talk to as many people from overseas as I could during the remainder of the conference. To name a few, I met folks from Argentina, Australia, Denmark, England, Germany, Israel, Japan, New Zealand, South Africa, and Venezuela. Although the problems faced by users differ in different places around the world, the goals and objectives of the area user groups remain the same. There is much that we can learn from each other, and the Executive Committee has made it a project to facilitate that learning as much as possible during the coming year.

Dieter's lists have been given to the Functional Area Representatives, who will in turn distribute them to the SAGGROUP SIG chairmen. I will soon be contacting the area representatives from around the world to solicit and distribute similar lists, and enhancements to Service Connection. Worldwide communication will be high on the list of agenda items to be covered with Software AG at the next Executive Committee meeting in April.

We hope to culminate this project with an "International Year" theme at next year's Software AG conference in San Antonio, where the international area and regional representatives can meet to plan further details of establishing closer ties with each other. I am extremely excited about the potential opportunities we are facing, and hope that these first few steps will lead to a truly global SAGGROUP.

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Software AG Expands Customer Relations Group

For the past seven years, each of us has benefited from the commitment of Larry Jayne in his position of Manager, Customer Relations. With his assistance, our user community has developed into an organization of more than 3000 people.

Recently Larry has been offered and accepted the position, Manager of the Software AG Customer Information System Development Team. We regret the loss of his experience with SAGGROUP, but we're confident you will be pleased with the increased level of service extended to you through a valid and workable CIS. We all wish Larry much success with his new endeavor and offer our gratitude for his many years of service to the SOFTWARE AG Users' group.

In 1990, SOFTWARE AG is focusing on business solutions and solving our customers' problems. With our new management, our increased customer base and our technology integrating to new platforms, the customer relation position has been enhanced and expanded. A new group has been formed to meet these challenges. Charles Enwright, Director of Market Relations and Jen Norman, Manager of Market Support will continue to provide the ongoing support to our users.

Additionally, we realize the need to develop strategic alliances within our industry, outside associations and consultants. We want our customers to be able to capitalize on the multiple options that these relationships can bring. Whether you elect to take advantage of the strengths of a premiere application vendor or a large consultant firm, our goal is to have SOFTWARE AG products which meet your needs.

We are anxious to meet each of you and listen to your suggestions. Over the next several months, one of us will be attending a Regional User Group meeting in your area. Until then, feel free to give us a call. You can reach Jen at 703/391-6727 or Charley at 617/982-9098.

Charles Enwright   Jen Norman

Speakers, We Have Speakers

Jack Hauber
Customer Training Group

If you're in charge of planning your next users' group meeting and are wondering who you might invite to be your speaker, here's an idea. Ask someone from Software AG's Customer Training Group. We have members of our staff available to make such presentations. In fact, we stay pretty busy doing just that—it's our pleasure to share information from Software AG's customer training courses and future training directions.

For example, we have staff prepared to make presentation on the following:

- Mini-classes or excerpts from some of Software AG's training courses

- Excerpts from current Conference presentations

- Overview of current training offerings and future directions

- Discussion on creating training curricula to meet business needs

Choosing a Topic

In the past quarter or two, members of Software AG's Customer Training

Group have made the following presentations at regional users' group meetings, and we can do the same for your group, too. Give us enough notice and in most cases we can even tailor our presentations to meet your group's interests.

ADABAS Physical File Design: A short review of the basics of ADABAS file design, including compression designations, file groupings and descriptors, and efficiency trade-offs in the use of various options.

ADABAS 5 Changes for Programmers: A summary of new features, programming enhancements, and problem resolutions that are now available to the direct call programmer under ADABAS 5.

Effective Interface of Your Data Dictionary and Application Development Environments: A discussion on how PREDICT interfaces with NATURAL and techniques for designing and maintaining NATURAL applications using the data dictionary.

NATURAL 2 Security Administration: Excerpts from our two-day course of the same name, including

ELITE Has Been VAX-inated

P. Robin Moen
Computer-Based Training Group

It's finally here! NATURAL ELITE is now available for the VMS customer. NATURAL ELITE (VMS) is Software AG's computer-based training system, designed specifically for the VMS customer. ELITE is an acronym for Effective Learning in an Individual Training Environment.

Basic and Extended Packages Available

NATURAL ELITE (VMS) is available in two different packages. The basic package includes the Administration and Presentation systems, while the extended package includes the Administration, Presentation, and Authoring systems. Both packages allow students to register and take courses.

With the Administration and Presentation components, you may take courses and be tracked and scored. The Authoring feature not only allows you to take courses, but also to develop your own. For example, you can develop courses which teach employees how to use systems specific to your industry, such as:

- Communications hardware and software

- Accounting software

- Computer hardware and software

ELITE (VMS) Differences

NATURAL ELITE (VMS) is very similar to NATURAL ELITE for the IBM. However, there are some differences that make NATURAL ELITE (VMS) unique.

1. Throughout all of the courses, you will see references to PF-keys 1, 2, 3 and 12. Within the VMS environment, you willl need to use your equivalent GOLD keys. You should contact your training administrator to find out which are the GOLD keys for your keyboard.

2. When editing or creating a map (screen) in the Authoring component, you must *always* clear your work area (function code X) before you begin. You could have another map in the work area and might edit the wrong one. After submitting the CLEAR SOURCE AREA command, be sure you receive the following message: WORK AREA HAS BEEN CLEARED.

3. NATURAL ELITE (VMS) runs on VMS NATURAL 1.3.

How to Use ELITE (VMS) and Introduction to NATURAL (VMS) are the only courses currently available for NATURAL ELITE (VMS). ADABAS (VMS) Fundamentals is presently in beta test, and development on SUPER NATURAL (VMS) Fundamentals is scheduled to begin soon. Below is a brief description of all VMS courses.

How to Use ELITE (VMS)

How to Use ELITE (VMS) teaches the student all aspects of using ELITE, including:

- Accessing and using ELITE

- Student registration and course administration

- Course development

This course is accompanied by a Student Guide, which includes exercises and solutions designed for students to gain practical knowledge.

Introduction to NATURAL (VMS)

The Introduction to NATURAL (VMS) course teaches the commands, statements, and proper syntax required to write NATURAL programs ranging from simple to complicated and integrated. This course also includes a Student Guide which provides exercises and solutions to reinforce what the student has learned.

ADABAS (VMS) Fundamentals

ADABAS (VMS) Fundamentals is designed to introduce the student to the ADABAS data base environment by explaining the following ADABAS-related functions;

- Definition of a DBMS

- Data compression

- Data formats

- Data storage

- Data definition modules

Because students cannot directly access ADABAS, this course does not include a student guide.

SUPER NATURAL (VMS) Fundamentals

SUPER NATURAL (VMS) Fundamentals is designed for end-users who will be using SUPER NATURAL (VMS), a report generator. The student is introduced to both FIXED FORMAT and FREE FORMAT modes. The course will include a Student Guide with exercises using SUPER NATURAL.

For More Information

If you have any questions or comments about NATURAL ELITE (VMS), please call me at (703) 391-6545.

DB2

before it is passed to the DBMS, and the stated support is for the ANSI standard SELECT, plus applicable IBM extensions.

Other enhancements included are: the ability to switch application plans while NATURAL is running in the IMS/DC and CICS environments, support for the FIND UNIQUE statement which will translate to a form of the SELECT statement which retrieves one row only and does not use the FETCH statement internally. The purpose of this is to provide relief from some usability problems which have been reported when DB2's referential integrity is being used.

Finally, while not an NDB release, I should mention that PREDICT 3.1 which was demonstrated at Anaheim, provides support for DB2. PREDICT can now be used to keep the elementary definitions which make up the DB2 tables, views, and databases. DB2 tables and views may be generated from PREDICT, or existing tables/views can be incorporated into PREDICT. There is also a comparison facility, between information on the DB2 catalog and PREDICT.

Announcing the 2nd Annual VMS SIG Conference

Michael Livingston
University of Houston

Howdy, Pard'ner!,

It's roundup time in Houston, Texas again. Yes, it's time for the *Second Annual International Software AG VMS SIG Conference!* If you attended the conference last year in Houston you already know how informative and thought provoking the event was. If you didn't attend let me tell you what you missed.

The 1989 conference hosted over 200 Software AG VAX users from 12 countries. The conference theme was *internals* and Software AG blew the roof off the house when Dr. Herbert Fischer and Peter Holdermann stepped into the classroom and taught a series of seminars on NATURAL and ADABAS over a three day period. (If you don't know, **Dr. Fischer and Peter Holdermann are the chief developers from Software AG, Darmstadt, West Germany for NATURAL VMS and ADABAS VMS respectively.**) Some of the material had never before been offered to anyone outside of Software AG—several attendees remarked that the conference book alone was worth three or four times the conference fee! In addition to the extensive internals information provided by Software AG, the confernce featured many user presentations on managing ADABAS and NATURAL in a VAX environment. Beyond the information shared at the conference, the attendees were treated to cooking and hospitality that only Houston, Texas can provide.

The Software AG VMS SIG conference is dedicated to fostering interaction and communication between VMS users and with Software AG. The conference provides an opportunity for both VAX users and Software AG VMS support personnel and developers to meet and discuss common concerns and problems in depth.

At present, the conference agenda is under development but I can announce at this time that **the dynamic duo of Fischer and Holdermann will be back again this year!** You can rest assured that Software AG and the University of Houston are once again committing significant time, effort, and personnel to bring you the very best program possible. A preliminary agenda will be mailed to you sometime in the next month.

The conference is scheduled to begin on Sunday, February 11, 1990 and will continue through Wednesday, February 14, 1990. The conference will once again be hosted by the University of Houston in Houston, Texas at the luxurious Stouffer Presidentè Hotel, formally Stouffer Greenway Plaza. The conference registration fee for this extraordinary opportunity is a mere $250.00 for all registrations postmarked on or before January 15, 1990! Registration forms postmarked after January 15, 1990 must include an extra $50.00 processing fee ($300.00 total). A companion program is available for $125.00. The companion program does not include entry to seminars or a conference book (meals and after seminar activities are included). Checks and money orders must be drawn on U.S. banks and payable in U.S. Dollars. The Stouffer Hotel has made single rooms available for $75.00 and double rooms are available for $85.00.

Room reservations are the responsibility of the attendee. Please call the Stouffer Presidentè Hotel at (713) 629-1200 now to make your reservations. Each attendee should mention the Software AG VMS conference to the Stouffer reservationist to ensure the proper billing rate. Attendees will be asked for either a credit card number or advance payment of the first night to guarantee accommodations. Conference attendees are encouraged to arrive early during the weekend to take advantage of Houston's delightful nightlife and tourist attractions.

I'd like to emphasize that this conference will prove an invaluable learning experience to each attendee and their employers regardless of their expertise. No one involved in the development and maintenance of NATURAL or ADABAS applications can afford to miss this conference. The success of an active and successful VMS Special Interest Group which will continue to flourish tomorrow relies upon your participation today.

Please watch your mail for future news and agendas. Time is limited, so please sign up today!

Remember to mark your calendar to be in Houston from February 11–February 14, 1990 for this exciting event.

Note: You may have received a prior communication that the dates of the conference had been changed to a later date due to scheduling conflicts. The problems have been worked out and *the conference is confirmed to begin on February 11 and end on February 14, 1990.*

If you have any questions please feel free to contact me at (713) 749-7121. I look forward to seeing you in Houston.

1990 Connections

Issue	Editorial Deadline
Spring–April	February 12
Summer–July	May 14
Fall–October (Pre-Conference)	August 13
Winter— (Post-Conference)	December 10

Database Functional Area Representative Report

By Bob Becker
Foremost Insurance Company
Grand Rapids, MI

This is my first opportunity to write to you since the Anaheim conference. I felt, like many of you, that this was probably the best Software AG International Conference to date. I was pleased to meet many of you at the conference and discuss your concerns and needs in the area of Database Administration, specifically with the use and performance of ADABAS.

As mentioned to many of you at the conference, we are in the process of placing ADABAS Version 5 into production in a phased approach. We are using the Migration Aids Facility to alleviate the problem of an all or nothing situation between ADABAS Version 4 and ADABAS Version 5. We are obtaining outstanding results with our testing of the ADASAV Dump Restore Facility under Version 5. At the time of this writing, we have dumped our 10 Pack Tridensity production Database under Version 5 in approximately 60 minutes using the DRIVES-3 command in ADASAV. We were able to restore the same Database back to the full 10 Tridensity Packs in 52 minutes using the same multi drive approach. Therefore, all is going well with our evaluation of ADABAS Version 5 and we expect to be in production by the time that you read this newsletter article.

Software AG is planning on allowing us to review and test the Centralized Security Interface. More specifically, we are planning on evaluating the Top Secret component of the Centralized Security Interface. This very important area is moving exceptionally well within Software AG and we expect to have ADABAS under Top Secret control in the very near future. We will let you know in a subsequent article how the interface testing proceeded.

Many of you attended the ADABAS Performance and Tunning Session which I presented at the conference. I spoke with several of you after the presentation on your specific tunning questions and concerns. Please feel free to call me at any time to discuss your performance concerns and considerations, whether you are in production under ADABAS 5 or under ADABAS Version 4. I would be happy to assist you in your performance and tunning concerns. Presently, as mentioned above, we are very pleased with many of the areas under Version 5 that we are testing prior to our implementation into production.

In a preceding newsletter, I asked for several volunteers to fill the various vacancies within the Database functional area. I am pleased to announce that several of you have come forward and have volunteered. Christine Georgilas of Mitre Corporation has been appointed as our new Database Tools Coordinator. At the end of this newsletter article, I will pass along all names, addresses, phone numbers and FAX numbers as I have them to date for the newly appointed representatives. Christine should be contacted if you have any tools that would pertain to ADABAS in general. She and I have chatted and her plan is to produce a new tools tape which would encompass ADABAS Version 5. Presently, I am debugging several User Exits for Version 5 at our location. Most specifically, ADABAS User Exit 2 which processes dual PLOG and CLOG data. It is my intention that we will be providing this on the DBA Tools tape when properly debugged. Also our Exits are being written so that they take full advantage of 31 bit addressing, as well as running above the 16 MEG line.

Larry Rauch has taken the large Database SIG position. I thank Larry very much for filling this very important SIG and we should be hearing from Larry as the large Database users contact him with their concerns and advice in the large Database arena.

The TAC's are being filled by several volunteers who came forward during the Anaheim conference. Etem Dolem of BP Exploration, Inc. has accepted the TAC position of CICS ADABAS interface. Dan Burger of Gold Bond Building Products is our newly appointed ADABAS Review TAC. Jim Crystal of American Family Insurance has accepted the NET-WORK/ADANET TAC position. I am pleased to have these people coming forward and volunteering for these very important areas. Presently, I have several vacancies. I need TAC's for the following areas:

- ADABAS VSAM BRIDGE
- ADABAS DL1 BRIDGE
- ADABAS TOTAL BRIDGE
- ADABAS IMS/DC INTERFACE
- ADABAS TSO INTERFACE
- ADABAS REFLECTIVE DATABASE
- ADABAS TEXT RETRIEVAL
- and ADABAS CONVERT.

If you have any interest in being the representative of any of the above products, please feel free to contact me. It is not an exceptionally time consuming position, however, it does provide me with knowledge about products that I am not fully versed in and also provides us information as these products evolve.

We are planning to move more quickly on the ADABAS Future's Panel. This is a group of people who can volunteer their time to review future design considerations of ADABAS which would be sent to us from Software AG prior to its release. This allows us as a user panel to provide our input to Software AG about their proposed plans in any number of products related to ADABAS or features within ADABAS itself. This is an exciting panel which can offer valuable information back to the developers. If you have an interest, please contact me and I will sign you up. Other panels are working quite effectively within some of the other functional areas and I wish to have it become an effective panel within the Database arena.

I hope to hear from you soon on any number of the above topics or if you have any questions or concerns in general, please do not hesitate to contact me.

Thank you.

DATABASE

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Large Data Base SIG

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Administrative Product Representative

Patti Piccola
BP Exploration

The 20th Annual Software AG Users' Conference is over and we are all back in our offices pushing through the piles of work which stacked up and was waiting for us when we returned from California. So, what is new in the Administrative Functional Area? Well, there was exciting news announced at the conference, especially on the NATURAL Engineering Series. I will recap some of the new products and their current status for those who were unable to attend the conference or for those who were torn among the ten concurrent tracks. We had to make some difficult decisions on which presentation to attend and which one to miss! Next year before heading south to San Antonio, Texas we should devise a way to clone ourselves so we can attend all the informative presentations which fall into our areas of interest and cover the products we support.

First, and foremost, was the inspiring news on PREDICT CASE (PCA),

Software AG's Computer Aided Software Engineering tool which is the centerpiece of the NATURAL Engineering Series. What is PREDICT CASE? To summarize, it is a mainframe repository within an integrated application development environment, based on an object-oriented database management approach. PREDICT CASE includes:

- Object and set level repository maintenance

- PC Workstation based diagram generation and editing

- Schema Generation

- Program Composer

- Documentation generation facilities

Additionally, PREDICT CASE integrates all information captured during the development process and provides the user the ability to "navigate" the repository data model to view user specified information, or in other words, customized models. PCA is a sophisticated, comprehensive tool which addresses business requirements throughout the entire System Development Life Cycle (SDLC).

There were several presentations on PREDICT CASE and the NATURAL Engineering Series. Jim O'Leary, Software AG of North America and Wolfgang Martin, Software AG, Darmstadt, both did a great job in communicating the strategic goals of CASE and Software AG's direction on the new technologies which can be used for the development and implementation of corporate-wide information systems. In addition, Software AG responded to IBM's A/D Cycle. Software AG is currently positioned to address CASE tools and System Development Life Cycle *today* with existing products, while IBM talks about *futures*. PREDICT CASE was demonstrated in the conference demo room to standing-room-only crowds all week, unveiling Software AG's premier CASE tool.

Sue Lombardi and Pamela Howe, Software AG, North America (Denver), gave a very interesting presentation on CASE application development. Both Sue and Pam have worked extensively with the two American PREDICT CASE Beta sites, Washington State University (WSU) and British Petroleum Exploration (BPX), and presented

"real world" experiences with PREDICT CASE and the strategic direction of the product. Greg Hagan, Software AG of North America, PREDICT CASE product manager, made multiple presentations on PCA and also made himself available to all PREDICT Special Interest Group sessions and the data dictionary workshops to answer any PREDICT CASE questions. (Greg published an interesting article on PREDICT CASE in the September 1989 issue of *Connections*, Vol. 14, No. 3, Page 1).

Dr. Jim Thoman, Software AG of North America, gave a presentation on building applications using ISO-TEC, the methodology of PCA. Dave Wells, WSU, and Patti Piccola, BPX, gave a joint presentation on developing applications using PREDICT CASE. WSU and BPX were the two American Beta sites and these individuals gave an open and comprehensive report on their Beta experiences. (Both WSU and BP Oil, London, have purchased PCA.)

One of the more colorful presentations on PCA was given by Wolfgang Martin and Guenther Mueller-Dorn, both Software AG, Darmstadt. The presentation delivered the message with both humor and a "real world" analogy, comparing PCA with the complexity of making an international business trip. Sound unusual? This was one of the most unique presentations ever delivered at a Software AG conference. For those of you who missed this particular presentation it was exceptional. If you are interested in purchasing a tape the presentation was PREDICT CASE: Planning and Organizing the Application Software Development Cycle (N3).

Debuting in the demo room was PREDICT Version 3.1, demonstrating new, sophisticated functionality, including both User Defined Entities (UDEs) and support of PREDICT Application Control (PAC). At editorial deadline (Nov. 20, 1989), both PAC and UDEs are selectable items. If you are interested in either product, contact your local Software AG office for pricing and release dates. User Defined Entities (UDEs) provide the ability to create additional user-defined entities. User Defined Entities will have 24 keywords, each with extended descriptions and short comments. A UDE can be defined as a 20 byte Alpha/Alphan-

umeric field. The dictionary user can define UDE relationships with any other PREDICT entity (either a SAG or a user defined entity *except* for elementary fields due to addressability). The UDEs work as normal with PREDICT maintenance, all functionality is available: add, copy, modify, edit description, edit link, etc. A UDE can be connected to 50 other objects.

The PREDICT Application Control System provides a controlled environment to ensure the integrity of an application throughout its life cycle from development through testing and into production and then from production to maintenance. PAC was also demonstrated at Anaheim and many positive comments were passed along to me in hallway conversations. BPX will be Beta testing PAC and will report on the product in the Administrative FAR report following completion of the Beta test.

PREDICT VERSION 3.1 will contain:

Modified Menu Structures
Integrated ADABAS Online
   Services (AOS)
New attributes for databases and
   files
Extended functionality of
   incorporates with AOS
Extended functionality of compare
   ADABAS File
Generate ADABAS File: Load and
   modify FDT
Refresh ADABAS file (load null
   file)
NATURAL Process: new logic
   documented in PREDICT
DB2/SQL Functionality now
   supported by PREDICT
New Subsystem "Implement File"
Save SET functionality
Extended program documentation
   for third generation languages
More entry points in Version 3.1
PREDICT is now prepared for
   ADANET
Processing Rules: free rules can be
   protected with NSS
Extended LIST XREF command
   and extended functionality of
   PFKeys
PREDICT CASE is supported

For detailed information on the new functionality of PREDICT Version 3.1 see the fall issue of Con-

nection (Vol. 14 No. 3, pg 15, September 1989).

In addition to the status of PREDICT and PREDICT CASE is the following:

NATURAL Security: Current Version 2.1

The new version, V2.2, will be available the fourth quarter of 1990 and offers the following:

- Reworked user interface with CUA/SAA standards

- History Information

- PREDICT Application Control (PAC) Support

- Incorporate RACF, Top Secret Security (TSS), ACFII profiles

NATURAL Process: Current Version 1.1

Version 1.2 will debut in the first quarter of '90 and will be providing:

- Enhanced security interfaces

- New views providing SYSLOG and console access

- Enhancements to the SAG editor

NATURAL Operations: Current Version 1.1.0

Version 1.2.1 does not have an announced delivery date, but it will contain the following when it arrives:

- NATURAL Reports Manager will be integrated

- Expanded Restart/Recoverability facility

All of the above information referred to IBM products *only*. Next, here is the news for the VMS product line and Wang products:

PREDICT (VMS): Current Version 1.1:

The new version, 2.3, will be available the first quarter of 1990 and it will now be based on NATURAL 2 and is said to be identical to the IBM version PREDICT V2.3, which supports validation rules.

PREDICT (WANG): Current Version 2.3.1

Version 3.1 has been announced for the second quarter of 1990. See the IBM related notes for the Wang functionality.

End User Functional Representative Report

Laura Jacobs

The conference is over now and I'm trying to figure out how I can implement all the new ideas I learned. This years' conference was the best one I've been to in the last five years.

I want to thank everyone for the support I received in becoming the End User Functional Area Representative. I hope to serve you well in the next two years.

There is interest in starting two new Special Interest Groups. Chris Guinn would like to start a NATURAL ARCHITECT Group. If you're interested, call Chris at (512) 463-4157. Joe Huber would like to start a CON-NECT Special Interest Group. He can be reached at (608) 246-6112.

Conference Overview—3 Workshops Held

Chris Burback, chaired the SUPER NATURAL Workshop. Sue Cover gave an interesting talk on the effects of file changes on SUPER NATURAL transactions. A couple of interesting tidbits were found. With PREDICT 2.4, users will have the capability of looking at file descriptions within SUPER NATURAL. This has been needed for a long time. The other thing to be careful with in SUPER NATURAL is when SUPER NATURAL generates a READ LOGICAL statement when using ADABAS security by value. This will read the entire file not just the secured values.

Secondly, Tony Cortese chaired the NATURAL ELITE Workshop. Jim Hoying gave an interesting presentation on the results of a programmer going through ELITE courses. ELITE 1.4.2 will be released in November. This will be written in NATURAL 2 code. (Finally, I can take out my NATUR12 module in NATPARMS.) It's interesting to note that ELITE now has over 200 customers. Twelve courses have been released. The Customer Support Group in Denver now beta

END USER

tests ELITE courses. Who better to test the courseware, but I wonder how much they really learn?

Lastly, Clayton Clendinen chaired a NATURAL CONNECTION workshop and also gave a presentation. NATURAL CONNECTION for the Macintosh was released.

As always, if I can be of any help to you, please give me a call. I hope you have a Happy Holiday. See you on the ski slopes!

Natural Tips and Techniques SIG News

Lew Levy and Darrell Davenport

We would like to take this opportunity to thank everybody involved with the Tips and Techniques SIG in Anaheim: the presenters and panelists (Nancy Donnelly, Cathy Lester, Bill Anderson, Nehman Moukaddam, Scott Sinclair, Jim Wisdom, and Jim Yashinski); Jon Church for his many contributions; Larry Jayne and Karen Taylor for their immense help and patience; and a special thanks to all the attendees who made it all possible.

Minutes of Anaheim meeting

- Nancy Donnelly discussed the NATURAL OPTIMIZER.

- Cathy Lester distributed and explained a survey on NATURAL 2.1 usage.

- Bill Anderson discussed 'data driven design' techniques.

- Nehman Moukaddam presented an applications design.

- Scott Sinclair discussed various coding techniques.

A panel made up of Jim Yashinski, Scott Sinclair, Nehman Moukaddam, Jim Wisdom, Bill Anderson, and Darrell Davenport (moderated by Lew Levy) held an open forum discussion.

New news

The Tips and Techniques SIG is being split into two groups:

1. Applications Design to be chaired by Lew Levy.

2. Tips and Techniques to be chaired by Darrell Davenport.

Please forward any questions and/or suggestions to:

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Tips

Tip #1: (by Darrell Davenport, Lew Levy, and Veer Pawate)

If you ever wished more than one help routine could be defined for a field on a map, then read this tip—there is a way!

1. Define the HE parameter at both the field and statement level;

2. At the field level define the help routine as a text constant (HE = 'help-rtn');

3. At the MAP/INPUT level define the help routine as a variable (HE = #help-rtn);

4. The field level help will be invoked automatically when the help character is entered (default is '?');

5. The field level help can be invoked manually by using the REINPUT USING HELP MARK *field statement;

6. The MAP/INPUT level help will be invoked automatically when the help character is entered in a field with no help routine defined (not recommended);

7. The statement level help can be invoked manually by using the REINPUT USING HELP statement (note the absence of the MARK clause);

8. To make the statement level help dynamic set the #help-rtn variable before the REINPUT USING HELP statement;

9. When either version of the REINPUT USING HELP is used (MARK or no MARK), the use of STACK TOP FORMATTED prior to the REINPUT will allow you to pass data to the help routine (passed data can include data from the screen, a text message, message number, subprogram name, etc.);

10. A help routine can check *DATA to determine if data has been passed (IF *DATA > 0 INPUT #data);

11. Remember that a help routine can not call another help routine, but can de CALLNAT's and INPUT USING MAP's.

Tip #2: (by Darrell Davenport and Lew Levy)

When stacking data, there are a few efficiency and program size issues involved. Stacking numeric data adds overhead to the INPUT process as NATURAL has to include a sign byte and check for non-numeric data. All variables placed on the stack should be defined with an alpha format, be kept to a minimum, and be input with the IP parameter set to OFF (each variable being input has the input prompt and attribute definition compiled with it and needs to interpret the attribute definition at compile time). Remember: a group field does not count as one element, but as the total number of elements in the group (same with arrays).

In conclusion:

1. STACK only alpha fields;

2. INPUT all fields with IP = OFF;

3. STACK many fields as one large alpha field (redefined);

4. Don't STACK group fields.

SAGGROUP

It was mentioned that the SVC will change over the next few releases of ADABAS because of ongoing NET-WORK development.

Software AG has started using the database to issue behind the scenes calls to perform certain functions in NATURAL. Specifically, NATURAL itself can issue an E.T. This has caused some users to experience RSP 9's and RSP 21's. Software AG said they will be doing more and more of this to add functionality to NATURAL. There will be something put out to all users explaining when NATURAL issues E.T.'s.

Support for "MOVE INDEX" and "+Variables" will continue through NATURAL 2.1.6. There is a Change/Enhancement by Boston University that will probably go into NATURAL 2.2 to do a Define Data Dynamic on +Variables at the start of the program. The recommendation of the Product Developers is to start moving +Variables to the beginning of your programs now.

There is currently an open issue about whether +Variables should continue to exist across Logon areas like fields in your GDA.

The issue with "MOVE INDEX" is whether or not to keep the statement. In NATURAL 2, capabilities exist so you don't have to use "MOVE INDEX". Jim Wisdom, Application Development Functional Representative, mentioned that he sees a use for "MOVE INDEX" in dynamic array processing which NATURAL currently does not support.

"MOVE INDEX" and +Variables will continue to be discussed at future Executive Committee meetings. If you have an opinion on either of these issues, contact your Regional Representative or Jim Wisdom. (Addresses are in the back of Connections)

Tools

Anyone interested in being involved in a NATURAL Tools SIG should contact Jim Wisdom.

There is a new COM-PLETE Tools tape available. It includes putting the NATURAL Buffer Pool above the line. Anyone interested in getting a copy should contact Ellen Birch, Communications Functional Representative. (Addresses are in the back of Connections)

Technical Survey

The results of the Technical Survey showed the largest drop off in the area of Technical Support, especially timeliness of callbacks. The area that showed the greatest improvement was documentation. The next survey will go out in January and you will have until March to get it back to the Technical Survey Chairperson. These results are distributed to those in Software AG who need to get this feedback the most, so please take the time to fill it out.

Timeliness of Call Backs From Denver

Jim Hill, North American Area Representative, distributed a compilation of notes he received from the Regional Representatives. The #1 issue was the time it took to get a response from Denver on NATURAL V2 logs.

Software AG has come up with a priority system for logs recently. Working with this new method for 3 weeks before the conference cut the number of untaken calls from 350 to 8. Bob Galley, Director of Technical Support, said that Denver's goal is to return every call within 24 hours. I think all users would like to see Bob reach this goal.

International Area Representative Report

Dieter Storr, the International Area Representative, told us about SAGGROUP in Germany. They deal with the same problems we have. His goal is to begin the exchange of information between SAGGROUP in North America and SAGGROUP around the world. Everyone agreed that this is a wonderful goal, and to work towards that end, the following steps will be put in place:

1). Functional Representatives will get in touch with their counterparts oversees and discuss common problems and issues.

2). The Change/Enhancement Coordinator will work on consolidating Change/Enhancements from around the world and communicating Software AG's responses to SAGGROUP worldwide.

SOFTWARE AG

All new product releases go through a "Product Delivery Cycle". Software AG releases a product to about 10% of the shops first. This is called the "early shipment". These users are urged to test the new release to ensure there are no problems. After about a month, Software AG meets to determine if general distribution should proceed. Software AG is currently refining the list of "early users" who do field testing.

A copy of the XA/ESA upgrade policy was sent out to all IBM user sites with VM shops and above. This will also be sent to all DOS users. If you have not received a copy, contact your local Sales office. (Note: All current Products that run under X/A will also run under ESA with no changes.)

An added functionality of ADABAS under X/A and ESA will be to change the Buffer Pool mechanism to not search sequentially through memory anymore. This was done because the Buffer Pool can become so large that you spend a lot of time searching. An indexing approach which uses a 3rd level Caching will allow you to reduce your physical reads by as much as 60%-80%. For some applications, physical reads will all but disappear. This 3rd level Caching will use above-the-line storage in X/A and Dataspaces (if you have a lot of Real Storage) or Hiperspaces (if you have a lot of Secondary Storage) in ESA. Look for more information on this topic to be sent out by Software AG.

Software AG is currently running all products at the most current levels in Production throughout their data center. There is a formal action item from R&D, the data center, and the support group to move releases into Production as fast as they can. This allows the administration of Software AG to become a User of the products like the rest of us. This sometimes causes problems because Denver can't go back to a customer's level,

especially those users who are still on NATURAL 1.2. Software AG mentioned that they would love to get everyone on NATURAL V2 and drop support of NATURAL V1.2. This would allow Customer Support to handle the calls more efficiently. What Software AG does not want is mass panic when they announce the date V1.2 support will be dropped. Be forewarned, that day is coming! It's inevitable. NATURAL V2 is a stable product and I advise you to convert as soon as possible.

Software AG distributed a Customer Satisfaction Survey at the Conference. They will also distribute this to all users once a year. It will go directly to Software AG upper management and will tell them how Software AG is doing as a company in the eyes of their customers.

Software AG will put more into advertising next year. Hopefully this will help them break the mold of being "the best kept secret in the industry."

Software AG will be surveying the user base to determine how many have 3480 cartridge drives to determine the need to distribute releases on cartridges. Currently, if your shop has only 3480's, Software AG will send your release tapes on this medium at no charge. If you have both 3420's and 3480's, and you want your release tapes on cartridges, there will be a copying charge. (Note: Software AG needs 10 days notice if you want cartridges.)

Documentation

PC emulation on the VAX was not the same for NATURAL 1.4 and NATURAL 1.5. To address this issue Software AG will include the keyboard layout in the documentation.

There are 11 or 12 User Exits in NATURAL. These will be documented and officially available with NATURAL 2.2. All User Exits for all products will be documentd in future releases.

An issue came up concerning additional manuals which users purchase that become obsolete within a short time period. Therefore, a policy will be put in place that states if you purchase a manual within a specific period of time

prior to a *complete* manual change, Software AG will replace it with a current version, *if you call them*. (Note: You will still receive the number of copies specified in your contract.)

Education

Software AG is currently putting together a NATURAL Internals course. This is something we have wanted for years!

The course "Advanced ADABAS for Programmers" really covers ADABAS Internals for programmers. Software AG took their 3 day "ADABAS 5 Internals" course and asked "how can we teach similar information to programmers?" This course will take care of this.

The course "ADABAS System Design" is a 5 day course covering a wide range of topics including how you would integrate Software AG products to solve a particular business need.

What happened to the "ADABAS 5 Performance and Tuning" class? Is ADABAS 5 so wonderful that it doesn't require any tuning? Sorry, ADABAS 5 does require tuning. Software AG said that 50% of the "ADABAS 4 Performance and Tuning" class was on ADARUN parameters and the rest was on the Command log and design issues. They increased the "ADABAS 5 Internals" class from 2 to 3 days to cover ADARUN parameters. They put specific product design issues back into their appropriate class, and created a 1 day class called "Command Log Analysis" to cover the Command Log.

Executive Committee Elections

It is always difficult to get people to run for offices on the Executive Committee (and in the Regions). I have never understood this given all the information you receive and the ability you have to present your opinions directly to Software AG management. If you would like to know more about the benefits, call or write to myself, Mary Ellen Woods, Nominations/Elections Chairperson, or Colette Farabaugh, Vice President, and we will send you a letter explaining in detail all the benefits you get from being a member of the Executive Committee. (Addresses are in the back of CONNECTIONS)

Other ways to get involved, without going through the formal election process, is to become an officer in your region or to volunteer to become a Technical Advisory Committee (TAC) Chairperson. There is a TAC for every product Software AG has (over 60 at last count). A list of Software AG products is in the back of CONNECTIONS on the Change/Enhancement form. If you are interested in one of these, contact the Functional Representative who has responsibility for that particular product.

The outcome of this year's election is:

Vice President ... Colette Farabaugh

Data Base Functional Representative .... Bob Becker

Communications Functional Representative .... Ellen Birch

End User Functional Representative .... Laura Jacobs

Congratulations to the winners, and thanks to those who ran.

The next meeting of the Executive Committee is scheduled for April 25-27, 1990 in Reston. If you have any specific concerns, or comments, please contact your Regional Representative or someone on the Executive Committee.

Connections Editorial

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Need More Space in Your Version 5 Data Base?

Jody Colhouer and Robert Krause
ADABAS Group, Customer Support

Suppose it's 4:30 on a Friday afternoon and your thoughts are leaning toward the weekend. Your manager appears in your doorway and proclaims, "I want you to load this file immediately. I have to run some reports from it before I leave town."

What's the problem, you ask? All users know that such requests must be backed by field definitions and an input data set. So, why the long face?

Staring up at you from the center of your desk is your latest ADA-REP—and there just is not enough space on this data base for another large file. Cheer up—it isn't that bad.

You have two options: Either ADD to the data base or INCREASE it. Both options are functions of the ADADBS utility. The ADD should be used if the space will reside on a different device type from where the data base currently resides. This is straightforward and is well-explained in the ADABAS 5 Utilities manual, so let's concentrate on the INCREASE.

Hopefully, you are not confronted with this sort of emergency often, but it can happen. For that reason, we stress that you execute an IN-CREASE on your test data base to familiarize yourself with the process.

Let's draw a picture of our current data base.

For purposes of this example, the device type we will use is a single density 3380 with 883 cylinders available for use. Currently, our ASSO is 750 cylinders and DATA is 1000 cylinders. We want to increase ASSO by 250 cylinders and DATA by 500. The "increased area" for ASSO is available on ADA002. We want the increased area for DATA to reside on the new pack, ADA005.

The following steps should be used to INCREASE in an OS environment. NOTE: The procedures for CMS and DOS will be covered in a future issue of *Connections*.

Step 1

Execute an ADAREP CPLIST to establish a baseline snapshot of the existing data base prior to the INCREASE.

Step 2

Execute ADASAV SAVE. This is for your protection in case you should need to restore the data base to its state prior to the INCREASE.

Step 3

Execute ADADBS INCREASE. A change with Version 5 is that you can now INCREASE both ASSO and DATA with one execution of ADADBS.

Step 4

Execute ADAFRM. At this point, you must allocate and format the increased area. You have only two options where the increased area can be allocated: on the current pack or on a different pack. If you are increasing both ASSO and DATA, the formatting can be done with one execution of ADAFRM.
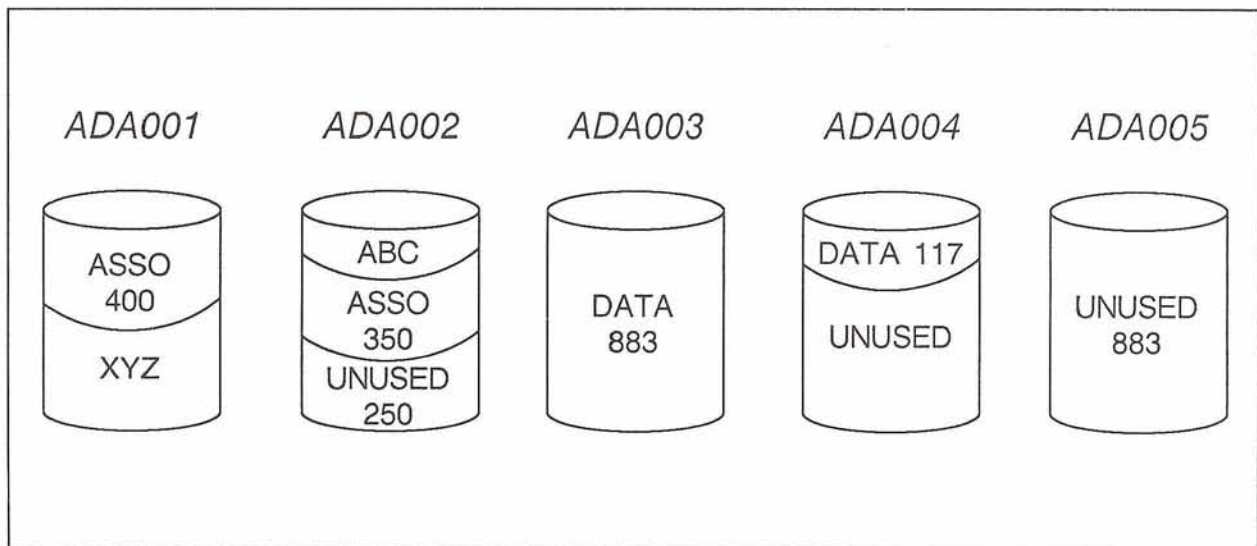

Figure 1: Current Data Base

VERSION 5

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If the increased area is on the same pack, as with our ASSO example, then the following JCL and Control Cards should be used:

```
//DDASSOR1 DD DSN = V5.ASSO,DISP = (MOD,KEEP),UNIT = (3380,2),
//              SPACE = (CYL,(0,250)),VOL = SER = (ADA001,ADA002)
//DDKARTE   DD *
ADAFRM ASSOFRM SIZE = 250
/*
```

When allocating the increased area to a new pack, as with our DATA example, there are several more steps that must be considered. A new VOLSER cannot be added to the catalog; therefore, the data set must be uncatalogued, the new VOLSER included and then recatalogued. Another consideration is that OS will take the space requested on any pack(s) in the VOLSER list where it is available. As a result, any free space on packs prior to the pack to which you're increasing must be allocated to a dummy data set to force the increased area to the pack where you want it.

In this example, the following JCL and Control Cards should be used:

```
//UNCAT       EXEC PGM = IEFBR14
//DD1         DD DSN = V5.DATA,DISP = (OLD,UNCAT)
//DUMMY1      DD DSN = DUMMY.ADA004,DISP = (,CATLG),UNIT = 3380,
//            VOL = SER = ADA004,SPACE = (CYL,(766,0))
//*
```

Then for the FORMAT step,

```
//DDDATAR1 DD DSN = V5.DATA,DISP = (MOD,CATLG),UNIT = (3380,3),
//              SPACE = (CYL,(0,500)),VOL = SER = (ADA003,ADA004,ADA005)
//DDKARTE DD *
ADAFRM DATAFRM SIZE = 500

//DEL         EXEC PGM = IEFBR14
//DUMMY1      DD DSN = DUMMY.ADA004,DISP = (SHR,DELETE)
//*
```

Step 5

Execute ADAREP CPLIST to verify that the INCREASE was successful. Pay particular attention to the VOLSER in the Physical Layout of the Data Base to make sure the new VOLSERs are listed and not "******"

Step 6

Execute ADASAV SAVE to save the INCREASE. This step is not required, but is recommended so that in a recovery situation the INCREASE procedure would not have to be repeated.

Now that we've INCREASEd ASSO and DATA, what about WORK? Since the WORK data set contains information pertinent to a given nucleus session, we need not worry about "accidentally" formatting over existing data during the INCREASE.

Providing the last ADABAS nucleus session terminated normally, you may change the size of the WORK data set. This is done using the ADADEF utility, the NEWWORK function. On the physical side, you need to scratch the existing data set and just allocate a new one with the size that you wish.

A sample jobstream was included in the Frequently Asked Questions document handed out at the Anaheim Users' Conference. If you would like to receive a copy, please call either of us at (303) 233-6500.

User Exits for SUPER NATURAL Transactions

Lisa Crispin
*NATURAL Applications Group,
Customer Support*

SUPER NATURAL trivia question: What's the shortest chapter in the SUPER NATURAL User's Guide?

If you answered Chapter 14, Exit Specifications, you win the satisfaction of knowing you are an informed user. Despite the short length of the chapter, however, this is not a trivial subject. User exits can be an important tool for SUPER NATURAL users. If you have ever wondered about possible applications for user exits in SUPER NATURAL or are confused about how to create a user exit, this discussion should enlighten you.

What is a User Exit?

A user exit is simply a program that is stored outside SUPER NATURAL and is invoked by one or more SUPER NATURAL transactions. This external program can be a NATURAL subprogram or a third-generation language program stored outside NATURAL. We will use a NATURAL subprogram as our example since it is the simpler method of creating a user exit. The same basic procedures would apply to an external program, such as a COBOL subroutine.

If the concept of a user exit is new to you, just think of it as a task that requires an investment of resources that saves you more resources over time. A power tool may cost you more than a hand tool, but you can get the job done faster and even do jobs that wouldn't be feasible with the hand tool. You might need some extra instruction to learn how to use the power tool, and you may need to take it to the shop periodically for maintenance, but it is a good investment. A user exit takes some work to create and implement, but it should save you work in the long run.

Any time you have a need that seems hard to meet using SUPER NATURAL, think about how the job could be done with a user exit.

User exits are useful for repetitive tasks that will be done by many transactions, such as a table lookup. Providing end users with a user exit may save them from having to enter a complicated set of logic statements or calculations, especially if the task must be performed by many transactions.

If one file is always used in conjunction with another, a file user exit can be used to bring necessary data back from the second file in any transaction involving that file. For example, if you have an employee file containing a job code for each employee and a separate table file containing the job title for each job code, you could code a user exit to retrieve the job title from the table file each time the employee file is accessed.

How Do You Implement a User Exit?

SUPER NATURAL transaction user exits are invoked via a CALLNAT statement for a NATURAL subprogram or a CALL statement for an external, non-NATURAL program. The first step in implementing a user exit is to write the user exit program according to the end user's specifications. The person who codes the program (or NATURAL subprogram) will then provide its name, and parameters to the end user. Once the user exit program has been written, it is simple to specify its use in a SUPER NATURAL transaction using the Exit Specification screen.

As an example, we will create a user exit that will allow us to retrieve an employee's full name using the employee's personnel ID number. By doing this task with a user exit, we will avoid having to do a file link or lookup to the file where the employee's name is stored.

Writing the NATURAL Subprogram

In order to code the NATURAL subprogram for a user exit, the programmer must know the specifications for the user exit and what data will be passed between the SUPER NATURAL transaction and the exit subprogram.

For our example, we will pass a personnel number to the user exit program. This personnel number is alphanumeric for eight positions. Once the name is retrieved and formatted, it will be sent back in an alphanumeric field containing 25 possible characters. Since this is a subprogram, we have to code a DEFINE DATA PARAMETER statement to identify the two fields passed between the SUPER NATURAL transaction and the subprogram. See Figure 1 for the sample user exit code. This example was written in reporting mode, but structured code may also be used.

The user exit subprogram object module must be stored in the private SUPER NATURAL library ("y-lib") of each user who will specify the user exit on a transaction. (NOTE: If you run SUPER NATURAL under NATURAL SECURITY, you will need to define the "y-lib" to NATURAL SECURITY in order to store the user exit module there.)

Specifying the User Exit in the Transaction

As the end user, we are told the name of our user exit subprogram, NAMEEXIT, and that we need to pass it two parameters: the employee's personnel number and a field for the name that is alphanumeric for 25 positions.

For our example, we will create a transaction that links the Automobiles and Finance files. We want to create a report that compares Ferrari owners with Ford owners and print each person's name, make of car, net worth, and hobby. We will use the user exit to retrieve the correct full name of each employee from the EMPLOYEES file. Since this file does not contain the employee's hobby, we will use a lookup to retrieve that field from the PERSONNEL file.

Our first step is to make sure we have the correct fields to pass as parameters to the user exit. One of the fields is personnel number. We have OWNER-PERSONNEL-NUMBER on the Automobiles file, but it needs to be put into an alphanumeric field for the user exit. The other parameter is a 25-character name. We have to define these fields using "&" in the function column on two empty lines in the field list. We use a calculation to place the value of OWNER-PERSONNEL-

```
All       ....+....1....+....2....+....3....+....4....+....5....+....6....+....7..
  0010 DEFINE DATA PARAMETER
  0020    1  #PERSONNEL-NUMBER (A8)
  0030    1  #NAME (A25)
  0040 LOCAL
  0050    1  EMPLOYEES VIEW OF EMPLOYEES
  0060       2  NAME
  0070       2  FIRST-NAME
  0080       2  MIDDLE-I
  0090       2  PERSONNEL-ID
  0100    1 #INITIAL (A2)
  0110 END-DEFINE
  0120 FIND EMPLOYEES
  0130    WITH PERSONNEL-ID = #PERSONNEL-NUMBER
  0140 IF MIDDLE-I NE ' '
  0150    COMPRESS MIDDLE-I '.' INTO #INITIAL LEAVING NO SPACE
  0160 ELSE
  0170    RESET #INITIAL
  0180 COMPRESS FIRST-NAME #INITIAL NAME INTO #NAME
  0190 CLOSE LOOP (0120)
  0200 END
       ....+....1....+....2....+....3....+....4....+....5....+... S 20    L 1
```

Figure 1: Sample User Exit
Subprogram

```
17:10:30                ***** SUPER NATURAL *****                89-10-11
                         - Exit Specification -                  M3500101
Command: __


       Exit NATURAL       Program   Parameter  Exit Location
            Subprog.
         1.    _        _____     _  *     at start
         2.    _        _____     _        before primary  file read
         3.    _        _____     _        before secondary file read
         4.    _        _____     _        before lookup, logic & calculations
         5.    x        nameexit       x        before external/buffer sort
         6.    _        _____     _        after  external/buffer sort
         7.    _        _____     _        before work/PC-write & add/update
         8.    _        _____     _        before report output
         9.    _        _____     _        before end of read loop(s)
        10.    _        _____     _        at end

                          *) Means: no parameters available


Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
cont  help  cmd   end                                       save  run   main
```

Figure 2: Specifying the User Exit

Mark required parameters with a number from 1 to 40 to specify the sequence.

Seq	Field Name	Seq	Field Name
___	MAKE	___	OWNER-PERSONNEL-NUMBER
___	MODEL	___	PERSONNEL-NUMBER
___	BODY-TYPE	___	NET-WORTH
___	NUMBER-OF-CYLINDERS	___	CREDIT-RATING
___	HORSEPOWER	___	COLLEGE
___	PISTON-DISPLACEMENT	___	INVESTMENT
___	WEIGHT	___	SAVINGS
___	COLOR	___	BANK
___	YEAR	___	PERSONNEL-NUMBER
___	SERIAL-NUMBER	___	HOBBY
___	DATE	1_	PERSONNEL-ID
___	MILEAGE	2_	NAME

more: Y

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
cont help   end   store   save   run   main

Figure 3: Specifying Parameters

Command: __
Select: 1̄ MAKE = FORD OR MAKE = FERRARI_____
       2 _____ more N

Ref	Dis	S/C	Func	Field Name	Ref	Dis	S/C	Func	Field Name
AA				G CAR-DESCRIPTION	AN				K .DATE
AB	1_	C1_		K .MAKE	AO				K .MILEAGE
AC				K .MODEL	AP			<_____	K .OWNER-PERSONNEL-N
AD				K .BODY-TYPE	AQ				K PERSONNEL-NUMBER
AE				K .NUMBER-OF-CYLINDE	AR				G*MAJOR-CREDIT
AF				K .HORSEPOWER	AS				K*.CREDIT-CARD
AG				.PISTON-DISPLACEME	AT				K*.CREDIT-LIMIT
AH				G CAR-DETAIL	AU				K*.CURRENT-BALANCE
AI				.WEIGHT	AV				K*OIL-CREDIT
AJ				K .COLOR	AW	3_		A1_____	K NET-WORTH
AK				G REGISTRATION	AX				K CREDIT-RATING
AL				K .YEAR	AY				G*INSURANCE-POLICY-T
AM				.SERIAL-NUMBER	AZ				K*.INSURANCE-COMPANY

Select. lines: ST=top SU=up SD=down SB=bottom SI=insert   more fields: Y
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
cont help cmd end   top   up   down bot   save   run   main

Figure 4: Transaction Example

- Reporting: Calculation and Fields Used -   M3050201

Command: ru
   Calc: 1   personnel-id = owner-personnel-number_____
        2   more N

Ref	Dis	S/C	Func	Field Name	Ref	Dis	S/C	Func	Field Name
BA				K*.POLICY-AMOUNT	BO				
BB				K COLLEGE	BP				
BC				G*VACATION	BQ				
BD				K*.ON-VAC	BR				
BE				K INVESTMENT	BS				
BF				K SAVINGS	BT				
BG				K BANK	BU				
BI	4			L HOBBY	BV				
BJ			>	PERSONNEL-ID	BW				
BK	2		>	NAME	BX				
BL					BY				
BM					BZ				
BN					CA				

Calc. lines: CT=top CU=up CD=down CB=bottom CI=insert   more fields: N
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
cont help cmd end   top up down bot save run main

Figure 5: Transaction Example

SAMPLE   MAKE = FORD OR MAKE = FERRARI   1
                                                     11/10/89

MAKE	NAME	NET-WORTH	MOST LOVED HOBB
FERRARI	CLARE D. PRATT	5,640	GOLF
	JENNIFER J. SVIRIDOV	5,900	BOATING
	ANN P. DAVENPORT	10,840	FISHING
	HEATHER DILWORTH	10,860	RAISING PETUNIAS
	HEATHER GILYAREVSKII	11,040	BIRD WATCHING
	STEPHEN O. WOOLSEY	15,900	FOLK MUSIC
	JACK J. PAPAYANOPOULOS	15,920	GOURMET COOKING
	JEFFERSON WATSON	15,940	

** control break (1) **
aver   11,505

MAKE	NAME	NET-WORTH	MOST LOVED HOBB
FORD	VERNON D. FLETCHER	5,620	ASTRONOMY
	CLARE D. PRATT	5,640	GOLF
	ANN P. MOUREAU	5,720	TABLE TENNIS
	CLARA C. WATSON	5,740	TRANSLATING FAIRY TALE

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
down   print mod   pos top   down   <- -> main

Figure 6: Example Output

NUMBER in our PERSONNEL-ID field.

Once the user-defined fields for personnel number and name are available, we type in the EX command to go to the User Exit Specification screen. The first task here is to decide when we want our user exit to execute: at start, before secondary field read, after external/buffer sort, etc. We will do our user exit after the lookup, logic, and calculations, and before the sort. Since we are using a NATURAL subprogram, we mark an X in the NATURAL Subprog. column by the exit number that we want. We enter the name of the subprogram NAMEEXIT under "Program" and mark an X in the Parameter column since we are passing fields to the exit. See Figure 2 for an example.

When we press ENTER, we get a screen on which we can specify the sequence of parameters to be passed. See Figure 3. Once the fields are selected, we can press PF5 or ENTER to return to the transaction screen.

We make sure the rest of the transaction is defined appropriately. See Figures 4 and 5 for the example transaction. When we run the program using RU or PF11, our SUPER NATURAL transaction will automatically invoke the user exit subprogram using the CALLNAT statement, and the information from the user exit can be displayed on the report. See Figure 6.

We could also generate a prototype with the GP command and see how SUPER NATURAL generates the CALLNAT statement to invoke the user exit. You may want to do this to understand better how the user exit subprogram should be coded.

Advantages of the User Exit

Using user exits can provide many benefits to end users, even though end users may not know how to code the NATURAL subprograms themselves.

- Repetitive or complex tasks can be coded in a NATURAL subprogram and invoked as a user exit, saving the end user time and trouble.

- File accesses such as table look-ups can be done in user exits, allowing end users to access more files with one transaction than if they used only file links and lookups.

- Tasks that need to be done each time a particular file is accessed, such as a lookup to the second file, can be coded and specified as a user exit on the file options through SUPER NATURAL maintenance. Then each time the end user creates a transaction to access that file, the user exit will be automatically invoked.

- Any function that is beyond the normal capabilities of SUPER NATURAL may be feasible if coded in a user exit.

SUPER NATURAL users should not overlook the possible uses of user exits in their shops. If user exits can be helpful "power tools," the SUPER NATURAL administrator may want to set up procedures to design, code, and implement them.

SPEAKERS

an overview of the NATURAL Security environment, the necessary Security objects, and how to implement NATURAL Security.

Overview of Expert Systems: An introduction to artificial intelligence and expert systems, including history, definition of terms, and a review of some successful applications.

Training Update: An overview of the plans and directions for our Customer Training Group, including specific discussions of new courses, seminars, and region-specific requirements.

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In addition to all of the above, we can condense one of customer

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- Building Applications Using ISOTEC: The Methodology of PREDICT CASE

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- Keeping the ADABAS Pools Crystal Clear

- Effective Interface of Your Data Dictionary and Application Development Environments

- File Options for Faster Processing

- Effective use of Standard Files in the Dictionary

- ADABAS 5 for Programmers

For More Information

If you would like to make arrangements to have one of our speakers at your next users' group meeting, or if you need more information on any of the above topics, please call Customer Training at (703) 391-6904.

"Windows On Tomorrow" draws over 2,200 customers

More than 2,200 Software AG customers from around the world attended the 20th International Software AG Users' Conference, October 22-26, at the Anaheim Hilton Hotel, in Anaheim, California. This attendance figure made this the largest users' conference in the history of Software AG.

Just as conference attendance has grown, so has the conference itself. This year, attendees could choose from ten concurrent "tracks," each customized to meet their specific needs. Presentations were geared toward describing the use of Software AG technologies in the development of unique solutions to business problems, and focused on new technological approaches to the challenges of information management.

Two of these ten tracks were dedicated to Software AG VAX technologies, to satisfy the ever-growing number of Digital Equipment Corp. users who rely on Software AG for software solutions. Sessions for WANG were also well attended.

Expanded Demo Room Facilities

The demo room facilities continue to grow at each Users' Conference. This year, over 40 demonstrations were prepared for presentation from 29 booths; total attendance for all demo sessions was approximately 10,000 (meaning that each attendee witnessed an average of 5 demonstrations!).

Some of the most popular demonstrations included "SAA in ISA: ADABAS/NATURAL OS/2"; "A Geographic View of Data" (describing Software AG's GIS technologies); "NATURAL EXPERT System Technology"; "Object Oriented/ Entity Relationship Data Bases"; and "PREDICT V3.1—Active Repository."

Executive Track

More than 200 top executives from client and prospect organizations attended the third annual Executive Track. As in previous years, attend-

Peter Page', COO, Software AG and Michael King, President and CEO, Software AG of North America outside the Anaheim Convention Center where General Sessions and Entertainment took place.

ees were provided a mix of presentations geared to management issues, from Software AG executives, successful users, industry analysts and management experts.

Product Announcements

Once again, the annual Users' Conference served as a platform for the launching of several key technologies. New products announced to the press in attendance at Anaheim, and throughout the United States during the week of the conference, included:

- PREDICT CASE Version 2
- NATURAL Rdb/RMS
- NATURAL 2 for VAX
- NATURAL ISPF and NATURAL CONSOLE, additions to the Data Center Management Series;
- NATURAL OS/2; and
- NET-WORK APPC.

In addition, Software AG announced immediate availability of its full VAX product line for Digital Equipment Corp.'s new VAX 9000 Systems computers.

Other Highlights

- The 1989 Customer Service and Product Quality Survey

Emphasizing the commitment to customer satisfaction made by Michael King, Software AG of North America President and CEO, in his keynote address, an extensive, 14-page customer service and product quality survey was distributed to all attendees. To date, more than 1,000 completed surveys have been returned. The results are being tabulated and analyzed, and will be of immeasurable aid in continuing to provide the best levels of service available in our industry.

- "Ask Software AG"

More than 1,000 customers attended this annual open forum, where users present questions, comments and concerns directly to Software AG senior managers.

- Unmatched Entertainment Programs

As at previous conferences, attendees at "Windows On Tomorrow" enjoyed an outstanding entertainment program. This year's highlights included a trip to nearby Disneyland; an electric concert by Kenny Loggins; daily excursions for companions; and, as usual, excellent meals and social gatherings.

All in all, "Windows On Tomorrow" will be remembered as one of the finest of all Software AG International Users' Conferences.
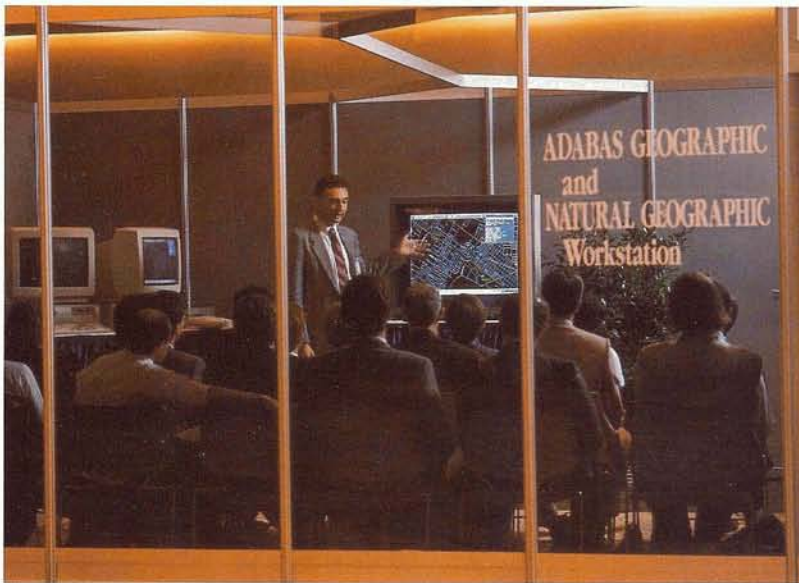
20th Anniversary stage at the Anaheim
Convention Center

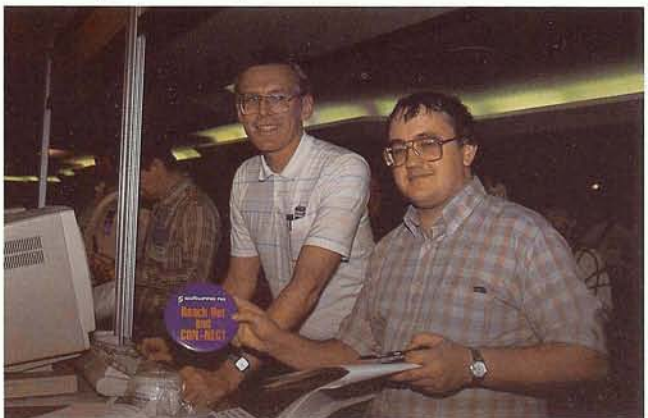Bill Wagner, SAGGROUP President, welcomes
users

Upgraded Demo Room facilities included 33" colored monitors

Attendees leave the General Session at the
Anaheim Convention Center and return to the
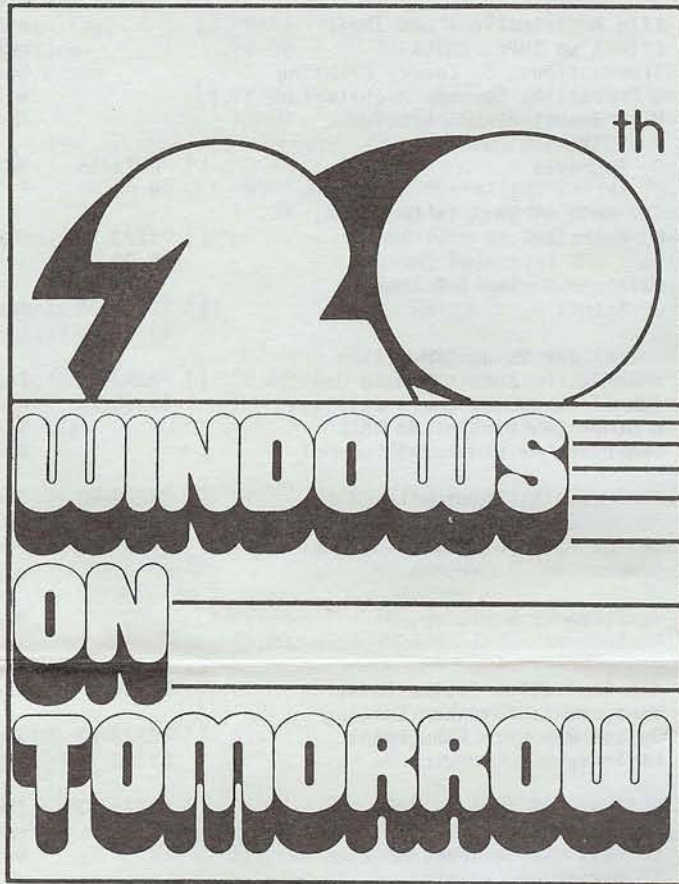Anaheim Hilton for break-out sessions

"Reach Out & CON-NECT" allowed attendees
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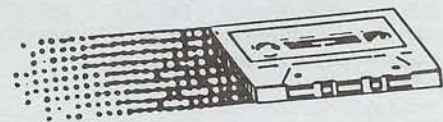
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Creating Forms for Use with CON-NECT 2

Wendy Crist
*NATURAL Applications Group,
Customer Support*

Form processing with CON-NECT 2 allows you to automate and quickly process those paper forms that are used frequently in your company. By defining the forms to CON-NECT, you can

- Always have the form available

- Send the form quickly

- Send multiple copies of the form

- Check that your form has been received

- Easily re-send the form if it is erased

- File a copy of the form for quick retrieval

When you invoke the ADD FORM command in CON-NECT, you are presented with the Add Form Definition screen (Figure 1) where you can select one of two methods for defining the form.

User Form Method

The first method is the User Form. This method allows you to define a 16-line form using CON-NECT system variables, as well as your own variables and text (Figure 2). After filling in the user form, CON-NECT generates the program using the fields and text you specified. The resulting program is stored in the SYSCNT2 library with a name assigned by CON-NECT.

NATURAL 2 Program and Map Method

The second method of defining a form to CON-NECT involves coding a NATURAL 2 map and program yourself. This method allows you to create a form with up to 20 lines for text and input fields. This method is used when you need to define a multi-page form. Each page of the form is a separate NATURAL 2 map that is processed by one NATURAL 2 program. A sample NATURAL 2 program for form processing with CON-NECT is in Figure 3. The user defined maps and stowed program must be in either the SYSCNT2 library or the SYSTEM library on your FNAT file.

After testing the program and map and copying them into the appropriate library, you enter the ADD FORM command as in the first method. Instead of marking the field User Form, you enter the program name that you created and stowed and either SYSCNT2 or SYSTEM as the library, depending on where you copied your program and map (Figure 4).

Creating NATURAL 2 Maps and Programs for CON-NECT Form Processing

General Processing Information

1. The screen (input map) is copied to the editor, and CON-NECT takes care of creating and saving the edit buffer as a document to be mailed.

2. The form program has control over when the screen image is copied. This enables you to do paging in multi-page forms; you must design the logic to do this. Just issue a SET CONTROL 'C' when finished with a given page.

3. One approach to multi-page forms is to use a map of more than 23 lines. With a large map, one SET CONTROL 'C' will copy the entire form to the edit buffer. Windowing commands can be used to page through the map.

4. All lines on the screen or map if larger than one screen display are copied to the edit buffer.

Writing and Testing a Form Using NATURAL 2 Maps and Programs

1. Develop code in a private or application library.

2. Use SYSMAIN to copy the CON-NECT GDA GL-STD to the library or application where the code is being developed.

3. Study the sample form program.

4. Add your code and catalog the program and any maps.

5. CLEAR the edit area.

6. Execute your program.

7. EDIT to see what was created in the edit area. The NATURAL editor will compress out blank lines; CON-NECT will preserve them.

8. Return to Step 4 if you are not happy with the results.

9. SYSMAIN program and maps to SYSCNT2 or to the SYSTEM library on your FNAT file.

10. Define the form to CON-NECT with the ADD FORM command.

Sending a Form

After defining the form to CON-NECT, you can send the form by using the command 'SEND FORM formname'. After filling in the form, you are presented with the standard CON-NECT send screen where you can select addresses and add a cover note to the form. PF5 from the send screen will confirm sending the form, and PF3 will abandon the send function.

System Forms

If you are creating forms for system-wide use, the form definition should be added in the SYSCNT cabinet. Adding the form in this cabinet creates a form that is available to all CON-NECT users. The DISPLAY FORM command lists all of the forms that are available to a user, including system forms which are denoted by (S). The DISPLAY command also lists the Program and Library names for the modules used as forms.

Additional information on CON-NECT forms can be found in the CON-NECT 2 User's Manual, Chapter 20, Form Handling.

```
13:59                    * * * C O N - N E C T  2  * * *              16.Oct.89
Cabinet SAGWC                   Add Form Definition                      C01140

          Folder Work_____ File _____

      Form Name User-form_____

      Comments Sample form definition using the first method of defining a_
               form.  CON-NECT generates the code for the form._____
               _____
               _____


      User Form x

 - OR -  Program _____  and Library SYSTEM__ for Form

     Private use _  or Security Read 7  Modify 7  Copy 7



Complete the information above and press enter to Add
   Command /                                                              /
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Quit  In    Send  Foldr Docs  Note  Cal   Flip  Last  Home
```

Figure 1: Add Form Definition
Screen Selecting User
Form Option

```
Just add your text and variables on this screen when creating a user form
and press enter to get all of the available lines.




--------------------------------------------------------------------------------
                          CON-NECT Form Editor

   This screen offers the possibility to define a form, either by simply
entering text, or by using one of the standard fields defined below. These six
lines will disappear when you press ENTER to allow a form of up to 16 lines.
   To have 'Fill in' areas on the form, mark the start of the area with a
plus symbol (+) and follow it with a series of X's. If you want an area filled
in for you by CON-NECT, use a '+' followed by one of these symbols :

   +SUBJ Memo subject    +DATE in your format    +TIME hh:mm    +FROM your name
   +DAY  Day of week     +FULL Month dd,yyyy     +DASH dashes   +TO   addressee
Enter a Command, press a PF-key, or enter * to list Commands
   Command /                                                              /
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Quit  In    Send  Foldr Docs  Note  Cal   Flip  Last  Home
```

Figure 2: User Form
Specification Screen

```
0010 ******************************************************************
0020 *                                                                *
0030 * Program name:  SAMPLFRM                                        *
0040 *    Created by:  Wendy Crist, Product Technology                *
0050 *          Date:  October 16, 1989                              *
0060 *                                                                *
0070 * Sample program for use when creating CON-NECT forms that will  *
0080 * be using NATURAL 2 maps.  This program and any maps it uses    *
0090 * must be stowed and copied into the SYSCNT2B library or the     *
0100 * SYSTEM library on the FNAT file.                               *
0110 *                                                                *
0120 ******************************************************************
0130 DEFINE DATA GLOBAL USING GL-STD
0140 *
0150 * Available field from the GL-STD GDA:
0160 *   G-S-FORM-QUIT (A1)     - If non-blank, form is not processed.
0170 *
0180 END-DEFINE
0190 SET CONTROL 'L'                          /* Set lower case
0200 SET CONTROL 'Z'                          /* Clear edit buffer
0210 *
0220 * PF Key considerations:
0230 *   1.   NATURAL 2 maps should be defined with Stdkey=Y
0240 *   2.   If you use an inline INPUT statement, add:  FORMAT KD=ON
0250 *   3.   If you do not want a PF Key display, add the statement
0260 *        SET CONTROL 'Y25' or the CON-NECT keys will be shown.
0270 *
0280 SET KEY PF1 = PGM NAMED OFF
0290         PF2 = PGM NAMED OFF
0300         PF3 = PGM NAMED 'Quit'
0310         PF4 = PGM NAMED OFF
0320         PF5 = PGM NAMED 'Send'
0330         PF6 = PGM NAMED OFF
0340         PF7 = PGM NAMED OFF
0350         PF8 = PGM NAMED OFF
0360         PF9 = PGM NAMED OFF
0370         PF10= PGM NAMED OFF
0380         PF11= PGM NAMED OFF
0390         PF12= PGM NAMED OFF
0400 *
0410 * End standard code
0420 *
0430 * User code and map here
0440 *
0460 * End of user code unless multiple maps are used
0470 *
0480 * The following block of code should follow each INPUT map
0490 *
0500 IF *PF-KEY EQ 'PF3' DO
0510    MOVE 'X' TO G-S-FORM-QUIT              /* Flag to NOT send the form
0520    STOP
0530 DOEND
0540 SET CONTROL 'C'                          /* Copy screen to edit buffer
0550 IF *PF-KEY NE 'PF5'
0560    REINPUT
0570       'Press PF5 to SEND or PF3 to abandon this form' (AD=PI)
0580    MARK 1
0590 *
0600 * This is what 'sends' the form...
0610 *
0620 IF *PF-KEY EQ 'PF5'                      /* Next program on stack will
0630    STOP                                  /* save edit buffer and invoke
0640 END                                      /* SEND
```

Figure 3: Sample
NATURAL 2 Program
for Form Processing

```
14:02                    * * * C O N - N E C T  2 * * *              16.Oct.89
Cabinet SAGWC                  Add Form Definition                    C01140

          Folder Work_____  File _____

     Form Name Sample-form_____

        Comments Sample form definition using the second method of defining a
                 form.  User creates the program and map for this method.____
                 _____
                 _____

         User Form _

   - OR -  Program samplfrm  and Library SYSTEM__ for Form

       Private use _  or Security Read 7  Modify 7  Copy 7


Complete the information above and press enter to Add
   Command /                                                            /
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Quit  In    Send  Foldr Docs  Note  Cal   Flip  Last  Home
```

Figure 4: Add Form
Definition Screen
Selecting User Created Form

```
14:04                    * * * C O N - N E C T  2 * * *              16.Oct.89
Cabinet SAGWC            Display Form Definitions by Name             C0314010

Cmd Form Name                        Program  Library  Folder        Date filed
--- -------------------------------- -------- -------- ------------  ----------
__   ARF-Form                        ARF-FORM SYSTEM   Work          11.Jul.89
__   Sample-form                     SAMPLFRM SYSTEM   Work          16.Oct.89
__   User-form                       F9999999 SYSCNT2  Work          16.Oct.89
__   system-form                     SYSTMFRM SYSTEM   (S)           16.Oct.89
```

```
Cmds are 1 or 2 characters from the list below (FLIP for PF-keys)
   Command /
 Copy      Display  Erase    File     Modify   Send     Top
```

REGIONAL REPORTS

New Officers Elected

Steve Clark
Westvāco

Mary Albano, President, opened the April 28th meeting with announcements. Jim Hill from Washington State University is the SAGGROUP North American Representative. He is looking for a panel of 4 to 5 volunteers to trial SERVICE CONNECTION to ensure it meets your needs and to determine what improvements should be planned for phase 2. The panel will meet at the Conference in Anaheim.

Three-day ADABAS 5 Internals classes offered in May, June, and July in Atlanta, Orlando, and Charlotte were announced. This information was sent to Mary by Clayton Clendinen, President of the Southeast User Group.

A vote was held to determine whether consultants could hold the position of President, Vice President, and Secretary in the New England User Group. It was voted to allow consultants to be Secretary, but not President or Vice President.

QUIPS—Questions, Issues, Problems

Often QUIPS are submitted to let other users know about a problem or a solution. If you want a response from the local Software AG office, please provide a log number.

Jim Wisdom—Boston University: Will dynamic global variables be supported? Why are they not documented? Are they being phased out?

Mary Anne Furnald's response: Roel Pieper has stated in a letter to Boston University on June 5, 1989 that the usage of " + " variables will be allowed in NATURAL 2.1.4 and NATURAL 2.1.5. Fixes to allow this use are available from Denver. No decision has yet been made for NATURAL 2.2.

Lew Levy: A NAT0888 can be caused by an error in a parameter list. Field formats are not checked (NATURAL 2.1.3).

Steve Clark said that this problem is fixed in SM4.

Jim Wisdom—BU: The L* variable is now packed in NATURAL 2, although it is documented as unpacked. This can cause a problem if you are passing it to an external routine.

After doing a CATALL, listing programs (L * *) does not show the new catalog date. This is because the date displayed shows when the source was saved, and a CATALL changes the object date only. A ".I" will show a single object date, or there are user-written programs to show all object dates.

Elections

The election of officers was held. Rick Wahlberg from Brown University was elected President. The new Vice Presidents are Christine Georgilas from Mitre Corp. and Steve Clark from Westvāco Corp. The new Secretary is Susan Giordano of MIT.

User Presentations

Paul Schapira from Marshalls presented a case study of the use of SUPER NATURAL and NATURAL CONNECTION. These two products work well together: SUPER NATURAL transactions can be used to download with NATURAL CONNECTION. Downloading has reduced the need to re-key reports.

Jim Buckner from the Commonwealth of Massachusetts spoke on "Performance Monitoring—making Statistics Meaningful." He covered the following points: (1) Reduce data to a reasonable size, (2) Establish contemporary bench marks (profiles), (3) Chart trends, (4) Measures of central tendency—why averages are meaningless for ADABAS Commands—why the median and quartiles are used, and (5) Summarize findings daily.

After lunch Mary Albano thanked the out-going officers, Lew Levy, Linnea Jensen, and Steve Clark. She then turned the meeting over to the new president, Rick Wahlberg.

Eileen Cerbarano and John Guido of Network Solutions and Lew Levy of RPMS spoke on "Putting the Pieces Together—Applications Design using NATURAL 2." An eight-year-old welfare system that was developed in NATURAL 1.1 at the State of Vermont was enhanced and converted to NATURAL 2 for the state of Rhode Island. A system with over 1000 executable modules was created in 6 months. After an introduction by Lew Levy, Eileen Cerbarano covered system navigation. John Guido discussed program design issues.

Rick Wahlberg and Aristotle Ogoke from Brown University spoke on the "Profile of a NATURAL Security Architecture." They described how Brown set out to design a NATURAL Architecture that would: (1) Distribute tasks to end users and developers, (2) Install a security system that is easy to understand and manage, and (3) restrict NATURAL Administrator accounts to members of the Information Resources team.

Jim Wisdom of Boston University presented "NATURAL 2 Administration Issues." He described an on-line system to handle the turnover procedure.

Service Connection Features Discussed

Jim Obenschain
EPA, National Data Processing Division

On July 17, 1989, The Southeastern Users' Group held it's Summer meeting at the Guest Quarters Suite Hotel in Charlotte, NC. The meeting was attended by 45 attendees rep-

resenting 22 companies. The meeting was followed by a three day ADABAS 5 Internals class taught by Mike Conena and Becky Albin of Software AG's Educational Department in Reston, VA.

The group's winter meeting will be held on January 22, 1990, at the Grovsner Resort Hotel in the Disney Village area near Orlando, FL. A free NATURAL 2 Standards Seminar will be conducted the following day. The reservation number for the Grovsner Hotel is 1-800-624-4109. An agenda will be published in November, 1989.

The following orders of business were covered:

1. General Business

2. SERVICE CONNECTION 1.1.0—Clayton Clendenin, Orlando Utilities Commission

3. Data Center Products—Bob Glasscock, Software AG, Atlanta

4. NATURAL DB2—Lynn Phillips, Software AG, Federal

5. NET-PASS—Jim Bando, Software AG, Atlanta

6. JES Resource Control—Charles Evans, EPA/UNISYS

7. Log Offload Procedures—Dave Hamacher, EPA/UNISYS

8. CASE Tools Usage—Arnold Carlson, Lykes Pasco Packing Company

General Business

A special thank you was extended to Clay Clendenin of the Orlando Utilities Commission for his hard work during the past 2 1/2 terms as the group's President. Clay will now be the SEUG BBS System Operator. Dan Burger of Gold Bond Building Products was elected as the new Regional President.

A product update was given by Jay Fasick from Software AG, Atlanta.

NATURAL Tips will now be combined with the Help Session.

SERVICE CONNECTION 1.1.0

Clayton Clendenin of the Orlando Utilities Commission discussed the features of this long awaited product release. SERVICE CONNECTION will be accessible through a dial-in service using Telenet at

either 1200 or 2400 baud. An IBM or IBM compatible PC running MS-DOS will be required for version 1.1.0. An enhancement will be required for NATURAL CONNECTION users to be able to use SERVICE CONNECTION.

System components include:

- Fixes for downloading

- Software AG Bulletin Boards—to include such items as: Customer and Product Support; Customer Training; Distribution; Product Marketing; Tools Tape information

- User Bulletin Boards—to include such items as: User Group Regions; SAGGROUP Executive Committee

- Customer Profile System—This will provide information on your site to other users. Each user will have control over what, if any, information will be available about their installation.

Clayton also demonstrated Orlando Utilities locally written trouble log system. This application is a 'Clipper' application available through the bulletin board.

Data Center Products

Bob Glasscock, Software AG, discussed Software AG's Data Center Series of products: NATURAL OPERATIONS, NATURAL CONSOLE, NATURAL NETWORK, and NATURAL ISPF. All of these products are based upon Software AG's operating system interface, NATURAL PROCESS.

NATURAL Operations:

- Integration of online production environment

- Integration of NATURAL in production streams

- Analysis of condition codes and sysout

- Analysis of user-defined events

- Use without modification of existing productive jobs.

NATURAL Console:

- Display of Operating system messages

- Logging and filing of messages

- Determination of actions and reactions

NATURAL Network:

- Full control of network

- DBMS information to analyze network problems

- Menu driven

NATURAL ISPF:

- Multiple active sessions (split screen and windowing)

- ISPF like panels

NATURAL DB2

Lynn Phillips, Software AG, discussed NATURAL DB2. Lynn outlined some very interesting features of this product including automatic cursor management, transparent mixed dynamic/static mode support, and full execution time compatibility between TSO and CICS. Also, there will be full PREDICT support and access to the DB2 catalog in PREDICT version 3.

For those users that have or will be installing DB2 at their site, NATURAL DB2 is a product that should be given a close look.

NET-PASS

Jim Bando, Software AG, discussed Software AG's session manager product, NET-PASS. Features include a 'Showscreen' function that allows a user to transmit a screen to another terminal, session control that allows a disconnect from one terminal while logging on to another. Jim also discussed Optimize 3270 which performs outbound and inbound message compression, Windows 3270 which allows a user to 'cut and paste,' and Help 3270 that allows NATURAL help features to be used for non-NATURAL applications.

JES Resource Control

Charles Evans, EPA/UNISYS, discussed a method for controlling batch activity against databases. This technique requires the establishment of a 'resource' within JES, for example, the resource created for the production ADABAS MPM could be '/*PADABAS'. This means that the only time this job can execute is when the 'PADABAS' resource is attached.

As a normal part of bringing up the MPM, the resource is attached and the resource is detached when the MPM is brought down or it comes down abnormally. This will prevent batch jobs from receiving a response code 148 while the MPM is down.

It is also possible to assign a concurrency value for the resource. That means if the concurrency value for PADABAS is set to 10, only 10 jobs that allocate the PAD-ABAS resource may be active at any given time. This provides a way to 'throttle' batch work through your databases.

Log Off Loading

Dave Hamacher, EPA/UNISYS, discussed a method for handling PLOG and CLOG off loading for high transaction volume databases. Dave explained that during peak processing periods, the logs would be copied off at a steady rate. If a problem occurred with the offload, typically a tape error, the other log would fill and cause the database to go into a wait state waiting for an empty log.

The technique to get around this problem was to have the initial offload go from the ADABAS Dual log to a temporary data set on disk. When this offload was complete, the ADARES offload job would submit another job that would then copy this temporary log data set to tape. This eliminated the possibility that a tape error would cause the database to stall because by that time, the ADABAS Dual log had already been refreshed and was ready for the MPM.

CASE Tools

Arnold Carlson, Lykes Pasco Packing Company, discussed the use of Software AG's CASE tools, including NATURAL ARCHITECT Workstation at his firm. Included in the discussion was the use of the NATURAL ARCHITECT Workstation and its associated editors, methodologies for using CASE, and the need to establish proper naming standards.

Midwest Regional Officers Re-elected

Debbie Carlsen
Schwinn Cycling and Fitness

The Midwest Regional Meeting was held September 12, 1989 and was hosted by the City of Milwaukee. Eighty-two users were in attendance. John DeNatale of Elkay Manufacturing and Debbie Carlsen of Schwinn Cycling and Fitness were re-elected as President and Vice President for their second term of office.

Software AG Presentations

Larry Jayne began the meeting with highlights of last year's conference and referred to features of the upcoming conference. He also supplied us with news regarding the next International Conference.

Jack Hauber, Director of Training and Professional Services, Reston office, presented an interesting and informative lecture on "What is Expert Systems?" Jack covered five main issues:

1. Technology and Background

2. Conventional Programs vs. Knowledge Systems

3. Development Process

4. Usage of Expert Systems

5. Environment Expertise and Domain

There is a quick test to determine if the application being considered is a likely candidate to become an expert system. This is the 'Telephone Test'. If I can explain over the telephone what needs to be done, and the person on the other end of the phone can follow my instructions to complete the task, it can probably be turned into an expert system. It should also reduce an action from hours to minutes and there should be a finite number of solutions. This session was part of a full day seminar. If you are interested, contact Jack Hauber in Reston, Virginia.

Barry Warwick, Software AG, Reston office, gave a presentation on the very extensive new features provided by REVIEW. Jackie Albano from Software AG, Reston office, provided a subset of the Physical File Design Class. Each person received a copy of the Physical File Design Class workbook which is normally distributed with the full day class. The lecture has something for everyone. For the less experienced, the lecture provided new points for consideration. For the more experienced user, this refresher course came in handy.

User Presentations

Next on the Agenda was Diane Brown-Newell from Dow Chemical who addressed the topic of PREDICT Conversion. After going through the PREDICT conversion, Diane shared her insights with us. Some of her tips were:

1. It is necessary to set the defaults through DDA Services before the generate options are used.

2. VSAM DDM's must be contained in a VSAM Database.

3. How to get around PREDICT 2.3.2 not supporting binary superdescriptors.

Last on the Agenda was the user question and answer period. During this period, anyone can ask a question and, hopefully, another user will have the answer or a similar experience. Often, this session alone makes the entire Regional Meeting worth attending. The meeting adjourned at 4:15 p.m.

Next Meeting

The next Regional Meeting is scheduled for March 6, 1990, outside Minneapolis, Minnesota in Bloomington, Minnesota. Our host is West Publishing. We are looking for and encouraging user presentations. Let us hear from you! At the last few meetings, we have issued a 'Feedback User Comment Sheet' to collect information regarding the content of meetings, User's comments and ideas for upcoming meetings. In the next regional mailing, we are planning to send out a different type of questionnaire.

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This is your chance to comment on:

1. What topics would encourage your attendance at a Regional Meeting?

2. Suggestions for locations?

3. What is your status on current Software AG releases?

We need this information to provide high quality meetings. Please take the time to fill out the questionnaire and send it back. Your opinion counts! Contact your regional officers with questions, comments and volunteers! John DeNatale of Elkay Manufacturing (708) 572-2301 or Debbie Carlsen of Schwinn Cycling and Fitness (312) 454-7485.

New Elections

Kirk Reuter
Cherry Creek School District

The Rocky Mountain East User's group meeting was held on August 4, 1989 and hosted by Jefferson County Public Schools. The main topic of business was the election of officers for the coming year. Jim Keebaugh, outgoing president, thanked the group for its support over the past year. New officers are Mike Czyzewski as President/Regional Rep, Owen Plaster and Dave Ritter as Co-Program Coordinators and Kirk Reuter as the Secretary/Treasurer.

The first morning session was a presentation by Dale Nichols of Treehouse Software. He showcased their change management package which includes object archiving, object migration and auditing, and security for these functions.

Gary Hahnenkamp, Software AG, Denver, informed the group of Software AG's offering, PAC, which has functionality similar to that of the Treehouse product which was shown in the morning.

Next on the agenda was a talk given by Ken Marcum, Software AG ADABAS product support, on the virtues of converting to ADABAS,

particularly with the release of 5.1.4. He recommended conversion as soon as possible. He cautioned that adequate testing and backout procedures should not be overlooked. He also wondered why so few members had converted. The response was that more people were concerned with getting NATURAL 2.0 stabilized because it was such a high user visibility upgrade as compared to ADABAS 5.0.

Ken also recommended before going live users call the support center for new fixes, information, and for TSOP awareness in the case that their expertise is needed once the switch is made.

The final discussion of the day was led by Owen Plaster on PREDICT. Owen is an active member of the PREDICT SIG. He also said that verification rule security would be beefed up in version 2.4. He also noted that in 2.3.2 certain batch problems with the statistical data report were not functioning properly. Owen said that information relating to PREDICT is available through Tom Visher, PREDICT SIG. His address is in the back of Connections.

New Officers Elected

The meeting was held on July 31st at the State Auditor's Office.

The meeting was called to order at 9:30 a.m. and everyone was welcomed to the Regional Users' Group meeting. Everyone introduced themselves and Patrick Kirby, President, introduced the speakers for this meeting:

Teresa Meatte, State Auditor's Office

Ruth Pavelek, Health & Welfare

Patrick Kirby, State Auditor's Office

Ray Godsey, Software AG

Rich Gonzalez, Software AG

Elections were then held for new officers for President and Secretary/Treasurer positions. The floor was opened for President nominations first. Steve Larsen nominated Dave Williamson from Board of Education, State of Utah. The motion was seconded and nominations also ceased. The motion passed—Dave was elected our new President.

The floor was then opened for Secretary/Treasurer. Brenda Stephenson from Utah Retirement, State of Utah was nominated and seconded. Patrick Kirby moved nominations cease, we voted, the motion carried, and Brenda is our new Secretary/Treasurer.

Presentations

Teresa Meatte gave a "Site Profile" on the State Auditor's Office computer system—the hardware; software; and the versions of ADABAS, NATURAL, PREDICT, SUPER NATURAL, and NATURAL VSAM currently being used in their shop. They recently converted their production system to ADABAS 5 and have noticed some definite improvements in clock time and costs to run batch jobs that use the database.

Ruth Pavelek gave a "Site Profile" on the latest system they put into production for Vital Statistics at Health and Welfare. It is all written in NATURAL 2 structured mode and features Help maps and windowing functions to look up information needed as input on the screens. In addition, a variety of PF keys are incorporated in the system to allow shortcuts to other screens without going through all the menus.

Patrick Kirby gave a talk on "Converting to ADABAS 5" at the State Auditor's Office. He detailed some of the changes that needed to be made to the ADABAS parameters, Utility parameters, JCL (due to the utility changes), WORK dataset, and ADAWAN cards in order for everything to work properly. In addition, he talked not only about the improvements they have seen in the clock time and costs of running batch jobs that use the database but also the ease of maintenance on the database through the new product AOS (Adabas Online Services) from Software AG.

Ray Godsey gave a "Status Report on ADABAS 5" from Software AG. Version 5.1.4 of ADABAS has just been released. They did some reassemblies on it and it should be updated as soon as possible.

Version 5.1.5 of ADABAS is expected out before next quarter and it will have MVS/ESA support. Version 5.2 release is planned for early next year.

If you have any problems with version 5.1.4 of ADABAS, call Software AG and you'll get high priority so they can get any fix tapes to you.

Rich Gonzalez gave a presentation on "Session Management" products from Software AG. He gave a demo on the features of NET-PASS which runs on OS/ESA systems and gives users multiple session capabilities at their terminals without having to sign on/off each CICS, TSO, or COMPLETE session in order to get into one of the others.

Wrap-up

The next meeting will be held November 9, 1989 in Salt Lake City, Utah. Gordon Wood volunteered to give a "Site Profile" at the next meeting. Some possible topics to be presented next time could include:

1. ADABAS on a VAX machine (i.e. Utah Public Safety). Check with Jeff Allen at Software AG who is working with them on this.

2. CONSTRUCT—currently being used at State of Utah (contact Sandy Colburn).

3. Have Software AG demo their Library Management System.

4. Setup another class after the next meeting (i.e. NATURAL 2).

Ray Young Discusses Features of ADABAS 5

Loretta Eaves
State of Washington

The June 2, 1989, meeting of the Northwest Region was attended by 47 members and guests representing 22 organizations. Topics included presentations and discussions on NATURAL 2.1 Local Data Area Editor, ADABAS version 5, and ADABAS SQL. Presenters included Leo Webb of Washington State's Department of Information Services, Ray Young from Software AG's Denver office and Steve Bradley from Software AG's Seattle office. Guests included a representative from the Rocky Mountain West Region SAGGROUP.

Networking

The hour between 8:00 and 9:00 a.m. was used to network, revisit with old friends and get settled with coffee, juice and rolls.

Brock Norman opened the meeting promptly at 9:00 a.m. and asked those in attendance to introduce themselves.

NATURAL 2.1 Local Data Editor

Brock introduced Leo Webb who presented an overview of a class he is developing for his organization. He briefly discussed the three editors (map, program, data) and in response to a question on syntax from the group, noted that all the editors use the same syntax and edit commands.

Leo walked us through steps to create Local Data Areas and Global Data Areas. He discussed how to define arrays and how to break up a field into sub-fields (reference: handout #1).

Leo showed us some of the characteristics and commands within the data editor (reference: handout #2).

ADABAS 5—Ray Young from Software AG, Denver

Ray discussed differences/improvements of ADABAS 5 compared to version 4. Topics discussed included:

- Hold Queue—restricts programmer to no more than 1/4 of total queue

- Parm definitions and effects on programmers

- Field level changes—floating point format, super/sub-fields, super/sub-descriptors, hyperdescriptors

- Command Enhancements—search, read, update, open/close

- Other Improvements—Space reusage (inverted lists); Buffer flush mechanics (p 25); buffer pool enlarged (header still below 16 meg)

- GET NEXT Processing (p 6)—prefetch invoked at control block level; search criteria optimization; format change translation estimate

- Format Buffer Syntax for record typing (p 8)

- Use of Format Pool/Global Command ID (p 9)

- Search Algorithms—return of algorithm 3

- Soft Coupling (p 18)—Functionality of physical coupling without overhead of coupling lists

- Performance Strategies—increased user defined block sizes, better buffer efficiency; priority of commands; ET blocking

Other topics covered in handout not discussed due to time limitations include:

- buffer flush timing algorithm

- access commands may continue after buffer flush

- change in hold queue manager

Ray specifically recommended using no lower than sm-3 of ADABAS 5 and announced that sm-4 is due out this summer.

After lunch Ray fielded questions of general interest from the group.

- Migration Aids—the general feeling was "avoid"

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- If invert goes bad, must restore the file—problem is being addressed

- No more two-step utilities, all one-step

- Checkpoint file—should be considered off-limits, as should all system files

(Page numbers reference handout)

Elections

Current officers agreed to nominations for another year. No other nominations were offered. All were elected unanimously.

Training Coordinator—Leo Webb

Secretary—Loretta Eaves

Program Coordinator—Tom Thomas

Regional Representative—Brock Norman

Brock notified the group that he is running for Vice President of the Executive Committee. If he gets that position, he will vacate the NWSAGGroup Regional Representative position.

Executive Committee Report

Steve Baker, Secretary of Executive Committee, reported highlights from the Executive Committee meeting of May 11, 12 in Denver. Software AG's new president and CEO, Mike King, attended.

SAG time—Bill Linker, Software AG, Seattle

- ADABAS SQL—Alaska is using successfully, Bill has a contact for those interested

- ADABAS 5.2 will support SQL and referential integrity

- PREDICT CASE—outselling IEW in Europe in Beta test at WSU

- CONNECTIONS—contact Bill or Steve to be placed on the mailing list

- Benchmarks—Aberdeen group, November 20, 1988—ADABAS/ HPE/COMPLETE; 1060 transactions/second against 10M record file less than 1 second per transaction; Exceeds Oracle report against smaller database

Steve Bradley discusses ADABAS SQL

Topics discussed included:

Application concerns

- productivity

- maintainability

- performance

History of SQL

Definition of SQL—relational database for:

- Data manipulation

- Data definition

- Data security

- Ad Hoc query

SQL components

- relational DBMS

- Language components—DDL, DML, DCL

- Data types—character, numeric, floating point

Data manipulation language for 3GL applications

Steve displayed samples of code illustrating basic coding structures

Free-for-All

The Free-for-All played to a very small group of individuals who stuck around until after 4:00.

Discussions centered around NATURAL sm-3 to sm-4 changes.

ADABAS 5 fix tapes—multiples were being received and confusion was expressed from those in attendance about the number of tapes received and the sequence in which to apply them.

NOTE: Copies of handouts and overviews referred to in the meeting notes may be obtained from the NWSAGGROUP Secretary:

Loretta Eaves
(206) 586-4578
Washington State Department of Licensing
Highways-Licenses Bldg, M/S PB-01
Olympia, WA 98504

Overview of NATURAL 2 Conference

Loretta Eaves
State of Washington

The September 8, 1989, meeting of the Northwest Region was attended by 36 members and guests representing 20 organizations. Topics included presentations and discussions from the June NATURAL 2 conference in Boston, the April College/University BIG conference at Santa Barbara and the June PREDICT conference in Reston. Presenters included Rick Peth of Washington State's Department of Natural Resources, Darrell Davenport of Washington State University, Bob Hartsell of Washington State's Department of Information Services and Bill Anderson of IRM-WARE, Inc. Several representatives from Software AG's Bellevue office were also in attendance to bring us up to date on current corporate activity.

Networking

The hour between 8:00 and 9:00 a.m. was used to network, revisit with old friends and get settled with coffee, juice and rolls.

Brock Norman opened the meeting promptly at 9:00 a.m. and asked those in attendance to introduce themselves.

NATURAL 2 Conference—June, 1989, Boston, Massachusetts

Darrell Davenport, Washington State University, presented material from the conference which generated a lively interchange among the programmers and analysts in the group. Topics included:

- SET CONTROL statement for dynamic screen control

- SET CONTROL "n"

- NEWPAGE statement for Page Ejects

- FORMAT statement—works differently under sm-4 than in sm-3, has become compile time command

- Thread size—use of BUS function from SYSDBA, DIS reps had a sample with them of SYSCICS command response

- Buffer pool monitoring using SYSTAT

- NTSYS macro to define set of parms for specific use then use "PARM =" to dynamically tell NATURAL what set to use

- Library Management—moving modules into production has become cumbersome, it was noted that an intelligent automated module management system was sorely needed

- USER EXITS: Logon exits—
  - LOGONEX1 designed for front end security such as RACF or TOP SECRET;
  - LOGONEX2 is executed after the data is checked by NATURAL SECURITY;
  - User-exit field is in SYSSEC

- Modularization requires more buffer pools and directories

- Error handling

- Changes to NATURAL for CICS from sm-5 is in beta test at WSU

College/University BIG Conference—April, 1989, Santa Barbara, California

Bill Anderson, IRMWARE, Inc., covered the highlights of user presentations at the conference.

University of Delaware

- Extensive windowing usage. Note: help routines cause an ET—Be Careful

- PF key driven vs. command driven systems

- Control variables—control of rules via control variable checking

- NATURAL 2 modular design allowed them to break up work by work units

Penn State

- For each logical view—create a subprogram, map and LDA, main program is GDA/common LDA navigation

UCSB

- Using CONSTRUCT as starting point

- note pad windows for text capture (MU's in ADABAS)

- using cursor positioning to select records

University of Arkansas

- extensive use of GDA, keys, menu information

- integrated security and command processing

- subprograms used for common code

- Help . . . uses PREDICT map and field definitions

SAG time—Bill Linker, Software AG, Seattle

- Encouraged us to fill out the "Grass Roots Feedback" survey—new management in Denver wants our input

- Problems with log number, etc.—call Bill or Steve Bradley—Steve tracks outstanding log numbers and the list goes to Bill for contact with Denver (weekly)

- NATURAL ELITE—course list available

- Documentation request form—available

- CASE seminar—Los Angeles, September 28, 29

Thursday—Peter Chen, Peter Pagé on E/R modelling; Friday—PREDICT CASE presentation; Check with Steve on costs

- ADABAS 5.1.4 is out—customers should have tapes

- CONNECT 2.1 was shipped

PREDICT Conference—June 1989, Reston, Virginia

Rick Peth, Washington State Department of Natural Resources, gave an update.

- Up-coming releases

  PREDICT 2.3.3 will contain fixes, no major changes

  PREDICT 2.4 will be called 3.1, due 12/89—optional items will be user defined entities, application control system . . . may have object security, integration to on-line services, some DB2, SQL functionality, new user exits, preparation for ADANET, fewer menus, pop-up and cursor sensi-

tive, processing rules protection (if with NATURAL SECURITY)

  PREDICT 4 will be bundled with ENTIRE (two years??)—objects to be stored in ENTIRE, standard files—not decided, direction is secured files

- General Direction

  PREDICT—Operational World
  PREDICT CASE—Design World
  NATURAL VIEW PROCESSOR—Data Integrity Rules

Environmental Changes with NATURAL 2 in a CICS environment

Bob Hartsell presented a description of the installation environment at Washington State's Department of Information Services, Computer Services Division—a central processing area serving 17 State agencies using Software AG products. He also gave an overview of the steps to get to the current environment under CICS (NATURAL 2.1.4 and PREDICT 2.3.2).

A copy of Bob Crownhart's paper which Hartsell reviewed is filed with the regional notes.

NOTE: Copies of handouts and overviews referred to in the meeting notes may be obtained from the NWSAGGROUP Correspondence Coordinator:

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Olympia, WA 98504

SOUTHWEST REGION

PREDICT Experiences

The June 2nd meeting of the Southwest Region SAGGROUP was called to order by John Oborn, Southwest Regional Representative. The following order of business was covered:

1. General Business

2. PREDICT Usage & Experiences Jacques Hardy, City of San Antonio

3. Open Discussion on PREDICT

4. General Open Forum

5. NATURAL OPTIMIZER
   Mike Day, OXY USA, Tulsa

6. Open Discussion on NATURAL
   OPTIMIZER

General Business

The next regional meeting will be held on September 15, 1989. Officer elections will be held at that time. The following offices are open for election:

Regional Representative

Program Coordinator

Secretary

Because of a company transfer, John Oborn will not be running for re-election.

The theme for this year's conference is 'Windows on Tomorrow'. It will be held in Anaheim, California at the Anaheim Convention Center. The dates are October 22-26. The Executive Track will be October 22-24. Contact your regional representative or Software AG for more details.

Jeff Schmidt of Software AG discussed the installation updates for NATURAL 2.1.4.

PREDICT Usage & Experiences

Jacques Hardy spoke about the usage of PREDICT 2.3 at the City of San Antonio. Some of the features developed and used by them are:

- Submit batch jobs from PREDICT

- Summary style reporting

- User-ID tracking and reporting (using ACF2 Security)

- Help routines to maintain documentation and access. Re-wrote help routine to better serve the needs of the company.

- Used in operations to assist is application trouble shooting.

He highly recommends to establish the identity of a data element regardless of where it is. What is the source of the element, who administers or controls the format of data sharing. Also recommends an alias name structure be set up to customize attributes, but maintain the same meaning.

OPEN FORUM

Jesse Oliverez from US Sprint dis-

cussed PREDICT usage at Sprint. He also commented on a special forum on PREDICT Enhancements to be held with the Software AG developers in Reston, VA on June 22.

Deb Goltra discussed problems found with PREDICT free rules and key words associated with the free rules.

Jacques Hardy discussed ADABAS V4-V5 conversion in production at the City of San Antonio.

Larry Godec from 7Up discussed ADABAS V5 conversion and what to be aware of to avoid pit-falls.

Jeff Schmidt from Software AG discussed tolerance products and the release dates.

Pat LeMoine from Kerr-McGee discussed the features of SUPER NATURAL and how it is used. They have over 400 SUPER NATURAL users.

Jeff Schmidt discussed training opportunities for the Southwest Region. The majority requested Intermediate NATURAL 2 classes.

NATURAL 2 OPTIMIZER

Mike Day from OXY USA in Tulsa gave the next presenation on NATURAL 2 OPTIMIZER. The following are highlights of that discussion:

- Test showed a 10%-15% improvement in CPU time reduction. There was no noticeable reduction in response time.

- CPU Time Reductions:

  10%-20% with online programs that are CPU intensive.

  10%-40% with batch report programs.

  10%-15% with online programs that are not CPU intensive.

  0% with online programs that have high ADABAS access but little processing.

- Natural Optimized object code shows a size increase on order of 20%-25%.

- Should revert to normal compiled code if there is no performance gain from optimized code.

NATURAL Internals Class Held

Janice Patterson
State of California Department of Alcoholic Beverage Control

The September meeting was held on September 12th in San Francisco and was hosted by Dole Foods. There were 67 in attendance representing 29 companies.

During the business session officers were elected for the coming year. Ronna Slobe was unable to continue as Regional Representative. Mary Williams, from the State of California Franchise Tax Board, was elected for that position. Janice Patterson from the State of California Department of Alcoholic Beverage Control was re-elected as Secretary.

Reminder: The 20th International Software AG Users' Conference will be held in Anaheim October 22-26, 1989. At our next meeting we will be looking forward to hearing from those who will be attending this exciting conference. The theme for this conference is 'Windows on Tomorrow'.

Next Clay Burroughs from Selesta Systems gave a presentation on Software Administration and Management System (SAMS).

After a break, Collette Farabaugh of Dole Foods introduced Jim Yashinski of Software AG, Denver, who presented a class on NATURAL Internals. A copy of the foils used during this presentation has been mailed to each office/department represented at this meeting. Please call Janice Patterson at 916-327-5340 if you did not receive this packet and would like to have one mailed to you.

The meeting was adjourned after a Round Table Discussion.

The next meeting is scheduled for December 5 and will be hosted by the Department of Housing and Community Development at 1800 Third Street in Sacramento.

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: September 1989 to December 1989

Application Development

Versions	Date of Release
NATURAL CONSTRUCT 2.2.1	September 1989
NATURAL ARCHITECT Workstation 1.2.1	September 1989

User Services

Products	Date of Release
NATURAL Spreadsheet	September 1989
NATURAL Statistical Link	September 1989

Versions	
NATURAL Elite Basic System 1.4.2	November 1989
NATURAL Elite ADABAS File Design 1.1	December 1989
NATURAL Elite NATURAL Structural Design 1.1	December 1989
NATURAL Elite PREDICT Fundamentals	December 1989

Scheduled for Release: January 1990—June 1990

Data Base/Dictionary

Versions

NET-WORK 5
  beta test
  Target release: Second Quarter 1990
ADABAS SQL 1.4
  beta test
  Target release: First Quarter 1990

Application Development

Products

NATURAL SQL/DS
  beta test
  Target release: First Quarter 1990
PREDICT CASE
  beta test
  Target release: First Quarter 1990

Versions

NATURAL Optimizer Compiler 1.1.3
  beta test
  Target release: First Quarter 1990
NATURAL 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL SECURITY 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL VSAM 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL Graphics 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL AF 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL CONNECTION 2.1.5
  beta test
  Target release: First Quarter 1990
NATURAL DL 1
  beta test
  Target release: First Quarter 1990
NATURAL DB2 1.3.1
  beta test
  Target release: First Quarter 1990

Communications

NET-PASS 2.2.1
  beta test
  Target release: First Quarter 1990

User Services

Products

Versions

CON-NECT SNADS LINK
  beta test
  Target release: March 1990
NATURAL DOCUMENT MANAGEMENT 1.2
  beta test
  Target release: March 1990

ADABAS TRS 1.3
  beta test
  Target release: March 1990
NATURAL CONNECTION for the Macintosh 1.1
  beta test
  Target release: January 1990
NATURAL CONNECTION PC 3.2
  beta test
  Target release: Second Quarter 1990

Data Center

Products

NATURAL PROCESS 1.2.2
  beta test
  Target release: First Quarter 1990
NATURAL OPERATIONS 1.2.1
  beta test
  Target release: March 1990
NATURAL ISPF
  beta test
  Target release: First Quarter 1990

VMS Products

NET-WORK 2.1
  In Development
  Target release: Second Quarter 1990
ADABS 2.1
  beta test
  Target release: First Quarter 1990
ADABAS 1.5.3
Target release: First Quarter 1990
NATURAL Architect Workstation 1.2.1
Target release: First Quarter 1990
SUPER NATURAL 2.1.4
Target release: First Quarter 1990
NATURAL 2.1
  beta test
  Target release: First Quarter 1990
NATURAL Rdb 1.0
  beta test
  Target release: First Quarter 1990

Software AG Users' Group Tools Request Form

REQUEST

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

Complete the information below and send to: Users' Group Liaison, Software AG of North America, Inc.
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-PLETE 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.

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_____ ADABAS TSO INTERFACE
_____ ADABAS REFLECTIVE DATA BASE
_____ ADABAS TEXT RETRIEVAL SYSTEM
_____ ADABAS REVIEW
_____ ADABAS VM
_____ ADABAS CONVERT

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

ADMINISTRATION

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

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_____ NATURAL ADVANCED UTILITIES
_____ COM-PLETE PROCESSOR
_____ COM-PLETE UTILITIES
_____ COM-PLETE CICS INTERFACE
_____ COM-PLETE TSO INTERFACE
_____ COM-PLETE IMS/DC INTERFACE
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_____ NET-WORK CTCS
_____ NET-PASS
_____ NET-WORK DECNET

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_____ NATURAL DOCUMENT MANAGEMENT FACILITY
_____ CON-NECT STANDALONE
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_____ CON-NECT DOCUMENT RETRIEVAL
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Request Description: _____

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