

CONNECTIONS

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FALL ISSUE

Come Join Software AG at "Windows on Tomorrow"

The 20th International Software AG Users' Conference, October 22-26, 1989, in Anaheim, California, promises to be our biggest and best ever!

You'll see the people and products that have made Software AG's Users' Conferences the most popular in the world! You'll have front-row seats as Software AG again demonstrates the technologies and services that have made us the world's leading software manufacturer for the last 20 years.

Our 20th International Users' Conference in Anaheim coincides with the 20th Anniversary of Software AG, formed in Darmstadt, West

Germany, in 1969. Software AG's 20th Anniversary also coincides with the 20th anniversary of the independent software industry, initiated when IBM first "unbundled" software offerings from its hardware product twenty years ago.

A Learning Experience: 4 Days of Presentations, Demonstrations, and Classes

We'll be opening the "Windows on Tomorrow" at a wide variety of sessions, workshops, presentations and classes during the 20th International Users' Conference! As attendees from past conferences know, these four days in October

provide a wealth of technical information about Software AG products and directions.

You can attend daily general sessions; see user presentations on unique applications and solutions to problems that your organization might also face; hear Software AG product managers describe the new functionality of products you're using; and interact with the other 2,000 international users!

Demo Room: Creating Business Solutions for Your Organization

We have further expanded and enhanced the popular Demo Room facilities this year to provide an unique set of demos giving you an insight into our latest products and versions on a variety of operating systems.

New this year is the online registration system for the Demo Room. You'll be able to register to see any demo you want through the "Reach Out & CON-NECT" system.

It is Software AG's intention to provide a different focus in this year's product demonstrations. Each demo will address the actual application of Software AG technology to business problems faced by organizations like yours.

"Ask Software AG!"

To fulfill the promise of "Windows on Tomorrow", we'll open the windows on your views, opinions, and questions during the Software AG Open Forum. As always, this forum provides an unique opportunity to address your comments directly to Software AG leading executives and developers, and offer observations that we may use in future development of products and services.

PREDICT CASE: An Integrated 4th Generation CASE Solution

Greg Hagen
Product Manager

Business' create system development environments through the purchase of hardware and software, the rental or purchase of facilities, the hiring and training of staff, and the implementation of corporate policies. The major objectives for this effort are to establish an environment where their staff can work productively in the creation of quality systems that:

- Are cost effective
- Perform as expected, when expected, and
- Are easy to modify in response to changes in the business or technical environment.

Unfortunately, most of these objectives are seldom achieved. Often development focuses on only one or two of the full set of objectives

(e.g., minimize development costs and meet the schedule). Current application portfolios would be in much better shape if well known Software Engineering Practices had been followed during their development. However, even the best intentions are often sidetracked by the harsh realities of limited budgets, lack of qualified personnel, and tight schedules that are seemingly cast in concrete.

There seem to be two extremes in our approaches to developing systems. The first might be characterized as following a "Waterfall" Lifecycle model. Such a project works through a set of phases (e.g., Project Definition, Requirements, etc.) attempting to produce and validate a set of deliverables for each phase.

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President's Message



Bill Wagner

As the days start getting shorter, as the students start back to school, and as the Cubs fade into the depths of the NL East, the time comes to start thinking about the upcoming Software AG conference in Anaheim. For all of us, these yearly events are exciting times full of new product announcements, new ideas, new speculations, and renewed friendships. For some, there is an extra element of anticipation: awaiting the results of this year's SAGGROUP elections.

The individuals who have chosen to run for office share two common traits: they each have a vision of how to strengthen the relationship between Software AG and their clients, and they each have made the commitment of volunteering their time and effort to make that vision a reality. Their nomination statements appear in this issue of CONNECTIONS. I urge you to read and reflect on these statements, using the candidates' goals as the main criteria to determine who will receive your votes. All of the candidates are well qualified and capable people, and all of them have made significant contributions to SAGGROUP in the past. This election, however, is not about the past but about the future. Your votes will help determine the shape of that future.

Elections are not the only conference activity with a direct effect on the future of the user community. For all of the SIGs (and many of the BIGs), the conference is the only time of the year when members have the opportunity to meet, plan, exchange ideas, and conduct business. The SIGs and BIGs each have organizational meetings scheduled for Tuesday evening at the conference. In addition, each of the SIGs will host a workshop during one of the conference sessions. A list of both SIGs and BIGs appears at the back of each issue of CONNECTIONS. I urge each of you to use

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NATURAL ISPF: A NEW DIMENSION IN PRODUCTIVITY

Barry Warwick
Product Manager

NATURAL ISPF (Integrated Structured Programming Facility) is an integrated programming and maintenance environment designed to meet the needs of the application developer and system programmer. Using NATURAL PROCESS as the base technology, NATURAL ISPF users have access to a full complement of integrated facilities such as data set maintenance, PDS member editing, operating system information, ADABAS access, and access to Panvalet and Librarian source. NATURAL ISPF also provides the user with a new, standardized editor for NATURAL as well as non-NATURAL object editing.

NATURAL ISPF's extended split-screen capability provides a solution which unites different NATURAL ISPF objects within a single screen image. For example, databases may be viewed online using NATURAL views while the NATURAL program is edited interactively, and the results may be routed to the workpool for testing and debugging.

Any NATURAL ISPF object (e.g. NATURAL programs, PDS member, etc.) may be exported to or imported from a PC when NATURAL CONNECTION is installed. In addition, the NATURAL ISPF interface to Software AG's office automation system, CON-NECT, allows the transfer of files or documents from one environment to another.

Extended ISPF-Functionality for Heterogenous Environments

In order for an organization to achieve increased productivity, a set of tools must be provided that encompass a wide array of integrated functionality while providing an environment that is both comfortable and familiar. This approach should not be based on a particular teleprocessing or data communications facility, but should allow the flexibility to span multiple environments to ensure maximum

system productivity using minimum system resources.

NATURAL ISPF supports this concept by delivering a set of tools that include an ISPF-like editor. With this single editor a uniform syntax is adhered to for editing of programs and other sources, independent of programming language used or type of source being edited. Compliant with existing standards, it can be used to edit PDS members, prepare JCL, browse JOB SYSOUT or object lists such as VTOC's and the like. Additional

comfort is provided by extending the editor functionality to support special object-specific commands such as Stow, Check, Run, Cat, and Struct when editing NATURAL objects.

Full Networking Capabilities

NATURAL ISPF, working in conjunction with NET-WORK, can be utilized to monitor and maintain NATURAL ISPF objects even when these are located on another CPU, physical machine or at a remote

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VMS Customers—See What's in Store for You at Anaheim!

If you attended the Software AG VMS Special Interest Group (SIG) meeting at the University of Houston this past March, you were given a close look at many of the technical and product-internal advances in Software AG's VAX product line.

But this year at our 20th International Users' Conference in Anaheim, California, Software AG's VAX customers will witness much more than technical presentations about Software AG's growing VAX product line—they will benefit from nearly 40 sessions describing the practical application of these products to solve business problems.

Why Come to Anaheim?

Unlike the Users' Conferences of previous years, this year's conference, "Windows on Tomorrow," will focus less on how our products are constructed, and more on how they are applied in organizations like yours, to address problems you face.

We'll be offering more education, workshops, hands-on training, and expanded product demonstrations; there will be more Software AG VMS developers to meet and interact with; and, for the first time,

we'll make available a separate, special break-out room for VAX users—for meeting other VAX customers, leaving and picking up messages, and just relaxing.

What's on the VAX Agenda?

We'll start each morning with a VMS-specific General Session. These General Session presentations will include addresses by renowned experts in the Digital arena; and discussions of "Open ISA for VMS," "CASE Strategy for VAX," and "Workstation and OLTP Strategy," presented by Software AG executives.

Then, in separate, dedicated "VAX Tracks" offered exclusively for our VAX customers, you'll see presentations addressing cutting-edge issues:

- Portable, Commercial OLTP Applications on DEC/VAX
- Workstation Concepts for DEC/VAX Environments
- CASE Tools for VAX Application Implementation
- Office Automation with DEC/VAX

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ISPF

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location. Maintenance activities across all computing nodes of a network from a host processor optimizes the users productivity. Rather than having the requirement of logging on to each system separately, the user merely identifies to NATURAL ISPF which computer nodes is to be accessed.

Operates across multiple Teleprocessing and Operating System Environments

In order to provide a tool to be used to its fullest by application developers, system maintenance groups or end-users, this tool must not be dedicated solely to a single teleprocessing or operating system. NATURAL ISPF runs in any NATURAL environment. That environment may be COM-LETE, CICS, IMS/DC, TSO, CMS or Batch. Therefore, NATURAL ISPF can become the standard user interface in an organization regardless of the operating systems or the teleprocessing monitors being used.

Full Access to Conventional Datasets, Library Management Systems and System Information

NATURAL ISPF provides access to NATURAL and conventional datasets such as sequential or partitioned datasets, and library management systems such as Panvalet and Librarian. The NATURAL objects maintenance facility allows a full range of functions including displaying a list of members from a NATURAL library. Members may be selected from the list by name, type or status for edit, browse, delete, catalog or uncatalog operations or to display information about a particular member.

A full range of NATURAL commands are available, as well as access to the NATURAL Macro facility for using dynamic substitution of variables in NATURAL programs.

The PDS object maintenance allows listing datasets by prefix, volume or members of a dataset; edit, browse, delete, rename and copy capabilities; online dataset compression; job submission and job status checking including notification and access to a job's sysout.

Other dataset maintenance include online dataset allocations and catalog or uncatalog functions. NATURAL ISPF also provides access to Panvalet and Librarian libraries, offering the same functionality as for PDS members.

Integrated Environment for Interactive Application Development and System Maintenance

Application development and system maintenance requires having access to differing environments and resources in order to fulfill tasks such as:

- Development of applications in NATURAL
- Access to existing programs and subprograms written in 3rd generation Languages or Assembler
- Testing of programs
- Development of documentation such as technical or user manuals and installation documentation

As a NATURAL application, NATURAL ISPF offer its users a single, east-to-use environment in order to have

- One uniform editor to edit JCL, documentation, or programs independent of their programming language
- Facilities to test NATURAL programs and applications without leaving NATURAL ISPF
- Maintenance of datasets and catalogs
- Access to job information, including job activities and sysout
- System operation capabilities like monitoring the SYSLOG, displaying the operator console or issuing operator commands

4th Generation Technology Common User Access

With its integration into the 4th Generation Technology, NATURAL ISPF enhances the usage of its objects. Any of these objects, such as NATURAL source, PDS members, and sysout lists can be exported as documents using Software AG's office automation system CON-NECT. Conversely,

CON-NECT documents imported to NATURAL ISPF can be stored in NATURAL or PDS Libraries or as sequential datasets.

If NATURAL CONNECTION is used, files can be transferred between the PC and NATURAL ISPF using the IMPORT and EXPORT direct commands. Existing NATURAL applications can be included in NATURAL ISPF by simply adapting the supplied menus.

The integration of NATURAL PROCESS technology provides NATURAL ISPF with access to operating system and services. The use of NET-WORK allows NATURAL ISPF to access objects even if they are located on different physical machines.

Enhanced Split-Screen Management System

NATURAL ISPF provides enhanced multi-session and split-screen capabilities to work with a large number of objects in parallel active sessions. These objects can be copied across the boundaries of active sessions. Easy switching between the sessions is controlled by a single command or keystroke.

The capability of suspending any active NATURAL ISPF session and return to them later delivers increased productivity in development.

Enforcing Company-wide User Access Standards

NATURAL ISPF provides a comprehensive online HELP facility that the consists of general HELP texts that explain system functions for self-studying, and pop-up-windows for selection of available commands or objects.

Access to the different functions of NATURAL ISPF is provided by menus or with direct commands. Standard functions may be assigned to PF keys. The choice between menu-driven and direct command input provides flexible and quick access to NATURAL ISPF's functions.

See You in Anaheim!

NATURAL ISPF is one of the many products that will be demonstrated at the 20th International Users' Conference. Also, informational presentations will be given on this product. We hope to see you at this demo and presentation.

New Developments for Software AG and WANG

Leslie Easter
Product Manager

Software AG announced the availability of its core products (ADABAS, NATURAL, NATURAL SECURITY, PREDICT, AND SUPER-NATURAL) for WANG at the International Users' Conference last year in Nashville, Tennessee. At that time there were 2 Software AG/WANG customers worldwide and only three beta sites in the United States. This year, we have more than twenty sites throughout the world, with more than a quarter of them in the U.S.—and the number is rapidly growing!

Customers all over are discovering what Software AG has known for some time: development of NATURAL applications on the WANG VS systems is fast, easy, efficient, and cost effective! And, its FUN!! This is the most rapidly expanding use for Software AG's products on the VS—and as more products become available, it will become a full development environment.

For instance, NATURAL CONSTRUCT is currently available, NATURAL Architect Workstation is in test and PREDICT CASE is under conversion to the VS platform. With this product set, in addition to NATURAL and the VS's normally user-friendly environment, development is a snap!

Moving the applications from the WANG to the IBM is currently achieved through either an SNA transfer or a tape transfer. With the addition of NATURAL CONNECTION later this year, however, the applications can be moved from one platform to another through the NATURAL CONNECTION PC, in unattended mode, if desired. Once the application is ported, there is no need to re-stow the programs, maps, etc.—it's all directly compatible. How much easier can it get!

For those applications developed on the WANG VS which need to access data on the mainframe or another VS, NETWORK will provide

the solution, with both WSN (Wang Systems Networking) and SNA (Systems Network Architecture) support. If there is a need to access existing WANG applications from NATURAL on the WANG, don't feel left out—with NATURAL DMS, NATURAL applications on the WANG will be able to access any DMS or XDMS file, so integration is easy.

Speaking of integration—wait until you see how NATURAL on the VS integrates with WANG's WIIS (Wang Integrated Imaging Systems) . . . Oops—out of space—you'll just need to visit the Software AG/WANG booth at the conference to find out about this exciting development . . . See you there!

SUPER NATURAL Serves You

Sara Wanderer
Product Manager

SUPER NATURAL 2.3.1 was released this July (1989), and this release constitutes another step towards full self-service computing. The ability to actively manage your data, which was provided with SUPER NATURAL 2.1.1, has been extended with major steps toward decision support capabilities.

Those of you who are involved in an end user role realize that there are many different types of end users, just as there are many needs. One thing that you all have in common, though, is the need to make decisions based upon the information available to you. In the process of making a decision, you are called upon to:

- a) capture the existing situation
- b) calculate budgets and plans
- c) prepare what/if analyses

- d) justify your suggestions
- e) distribute your suggestions
- f) monitor your results

There are several ways, both manually and automatically, to step through this list. Our objective at Software AG is to present you with an integrated product set that fulfills all of the requirements to help you make your decisions.

SUPER NATURAL 2.3.1 is our platform that provides the support for your daily work. SUPER NATURAL allows you to create reports, prototype programs and your own personal files, without having to write programs. With SUPER NATURAL 2.3.1, the same menu-driven interface that allows you to create reports also allows you to perform sophisticated calculations using our mainframe spreadsheet, NATURAL SPREADSHEET, and to use the statistical power of the

SAS™ System using the NATURAL STATISTICAL LINK. Both NATURAL SPREADSHEET and NATURAL STATISTICAL LINK will be released this fall.

What about other applications you may use? The ability to create SUPER NATURAL applications allows you to invoke any NATURAL system directly. A built-in interface to CON-NECT, for example, allows you to distribute your SUPER NATURAL results electronically. You can, in turn, use SUPER NATURAL to help you create CON-NECT documents! This same concept will work for your own in-house NATURAL systems.

You can see the interaction of all these components at the demo room at Anaheim, as well as some prototypes for future direction of the Executive Information Products. We hope to see you there!

The Changing Office Environment



Doug Wheeler
Product Manager

As a successful business person or organization much of your success is based on your ability to respond to change, to communicate, and to effectively use existing and future technology.

The world of office systems technology is moving forward at a tremendous pace. Seemingly, each week brings new announcements on the progress of standards, interfaces, integration of graphics, mixed documents, optical media, FAX machines, voice and much more. The reality of the world of office systems is continually changing. In fact, it is this ever-changing office system environment which represents one of the key challenges for Software AG's CON-NECT and you!

While we have all read the books, heard the presentations, and attended the seminars, the words: "responding to change . . . improving communication . . . effective use of technology . . ." will not bring about the competitive advantage critical to today's business environment. It is the explicit implementation through creative people using leading edge technology that molds these "concepts" into real solutions. These concepts are in fact the cornerstone of CON-NECT development.

Responding to Change

In order to quickly respond to the growing number of environments and technologies, CON-NECT was developed with an open architecture. This is demonstrated by CON-NECT's ability to manage ANY data object within the system. These data objects may be unlimited in size and may consist of textual data in revisable and final form, binary data such as: scanned images, PC programs and spreadsheets, system load modules and voice data.

Image Processing:

One of the exciting new developments for CON-NECT is image processing. We have developed CON-NECT to work with an image scanning device from IBM. CON-NECT provides a standard interface to communicate with the IBM document scanner 3117/3118 and can display the documents filed as images on 3193 workstations. The image documents are stored within CON-NECT as special objects and can be merged with textual information which becomes part of the CON-NECT document. For displaying the image documents, CON-NECT uses IBM's GDDM facilities for terminal communication.

Image processing is not limited to the IBM environment. Using NATURAL CONNECTION for the Macintosh, Software AG is working on a Macintosh front-end for the CON-NECT office world. In conjunction, the CON-NECT Macintosh interface will have the ability to scan images using the Apple scanner and display/modify those images at the workstation level.

Another interesting project under investigation is the interface between the WANG Imaging System and CON-NECT. Software AG is investigating how we can integrate not only WANG office, but the WANG Imaging System into the CON-NECT and NATURAL environment. While this capability is not currently demonstrable, it is a possible direction for CON-NECT and the image processing capability.

By developing a flexible open architecture, we have quickly adapted CON-NECT for the ever-changing world of image processing technologies. In fact, the development for digitized "objects" can be applied to voice documents, desktop publishing, and undoubtedly other technologies the business world has yet to discover.

Improving Communication

Within the office system environment many communication systems exist which are limiting in that they are unable to communicate with each other. In some instances, they require specialized hardware,

software, and even specific operating system environments. In fact, very few installations are implemented with a single integrated data processing and office system. The optimal implementation of an office system is one which not only is available to all users in all environments, but may include other users in other office systems. For these reasons, CON-NECT is designed as an easily portable solution (i.e. IBM, VAX-planned, PC Workstations-planned) for wherever the NATURAL environment extends, and focuses on improving communication through CON-NECTivity!

Multi-Node CON-NECT (Released):

The communication between multiple CON-NECT systems uses the Software AG general NET-WORK communication system which transparently can use multiple communication protocols like SNA/VTAM, Channel-to-Channel, VM/IUCV, HYPERCHANNEL, and DEC-NET. In this fashion, CON-NECT nodes may exchange all types of data objects and information.

CON-NECT TELEX Support (Released):

CON-NECT can directly communicate with a TELEX link for sending and receiving telexes by any CON-NECT user. CON-NECT supports a TELEX driver (modifiable for different telex systems) which allows text documents to be transmitted to a telex connection or received from a telex connection. TELEX users may be incorporated into the CON-NECT system and the communications are completely transparent to the user.

CON-NECT/DISOSS Link (Under Development):

The CON-NECT DISOSS Link uses the API of DISOSS as an interface. DISOSS users may be defined in the CON-NECT address directory with full capabilities. This allows CON-NECT to be used within a DISOSS environment as a flexible user front-end and address directory. The CON-NECT DISOSS Link is capable of communicating Revisable Document Content Architecture (DCA-RFT) form documents, as well as Final Form Text (DCA-FFT). Using the translation facility

YES, Please send me additional information on:

- PREDICT CASE
- NATURAL ISPF
- Geographic Information Systems
- Software AG and Wang
- CON-NECT
- FASTRACK

- SUPER NATURAL
- NATURAL ELITE-Computer Based Training
- Please Include me on the Customer Training Mailing List
- Other _____

NAME _____

TITLE _____

COMPANY NAME _____ CUSTOMER # _____

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of CON-NECT, a DCA form document can be dynamically converted for use with the text editor within CON-NECT or a local word processor. In addition, CON-NECT users can send documents to DISOSS using the DISOSS Link.

CON-NECT SNADS Link (Under Development):

The CON-NECT SNADS Link establishes a SNADS communication based on the LU 6.2 protocol. CON-NECT appears to the SNADS environment as a self-contained SNADS node. Thus, any system communicating via SNADS may operate with CON-NECT.

Other CON-NECTivity planned or under development include:

- VAXMAIL/ALL-IN-ONE
- WANG Office
- X.400

Improving communication through CON-NECTivity and portability

are key concepts that you should examine for a successful office strategy.

It is not enough to support internal or external technology unless it is integrated in a useful fashion. CON-NECT effectively utilizes technology by offering you the ability to integrate its features/functions into your existing applications. As an ADABAS/NATURAL user, you have with CON-NECT a product which can incorporate all NATURAL programs into commands, menus, pf-keys, and act as a focal point for entry into all application systems. In addition, CON-NECT activities may be performed from outside NATURAL applications. Thus, objects manageable within the CON-NECT system are also accessible to external NATURAL applications.

By offering complete integration with the data processing world,

CON-NECT offers you a means to incorporate technologies which are useful, but take on a new dimension when integrated with daily problem solving applications. CON-NECT will offer you new and innovative ways to offer solutions to your users.

I invite you to see a greatly enhanced and exciting demonstration of CON-NECT at the Users' Conference in Anaheim, California. We will be showing CON-NECT integration with NATURAL, new image processing capabilities, and a preview of the CON-NECT Macintosh interface. In addition, we will be presenting our plans for CON-NECT's development for the 1990's. I'll look forward to seeing you there!

FASTRACK: How to Jump Start Your Projects

Pete Webster
Custom Solutions Group

Are you new to Software AG's family of products and don't know where to start? Have high turnover rates left you with untrained staff? Do you have a project that you can't get started or that needs a burst of energy?

If you answered "yes" to any or all of these questions, Software AG's Custom Solutions Group offers FASTRACK to help head you in the right direction in a hurry.

What is FASTRACK?

FASTRACK is a custom-designed service that includes formal training for you and your staff, suggestions regarding design techniques, proven methodology used in our own application development projects, and our professionals assigned full-time to your site to provide immediate answers to your questions and concerns.

FASTRACK provides a comprehensive work plan to educate and train your programmers and analysts using our product line. The concept is considered "on the job" training with formal education and

the practical application of the presented material. When your project is completed, your staff is trained and ready for departmental duties. One benefit of this service is that your application systems or sub-systems get written and are ready to use for their intended purpose.

Customized to Meet Your Needs

The key to FASTRACK is that it's not a "canned" set of training objects. Our formal classes address the needs of your staff and recognize their current knowledge and experience levels. Since formal training is scheduled at intervals, it is customized according to your needs, timetables, and desired results or objectives. Although the formal classes cover all of the features within Software AG's product line, the amount of time spent on different areas is directed by the attendees. This "participation in direction" has proven to be a strong personal motivator for all attendees and the FASTRACK advisor.

A secondary motivator is the "real life" application development that guides the whole project. An application is designed, written, docu-

mented, and implemented into your environment by your information systems staff.

An important activity within FASTRACK is the interface with the user community. This provides an opportunity for you to communicate within the company without the daily pressures of demands and problems. The objective of this activity is to design a system from your perspective, using the knowledge obtained from the education of FASTRACK.

Putting FASTRACK to Work for Your Company

If FASTRACK interests you, someone from our Custom Solutions Group will analyze your requirements and present a proposal for the work to be done. Although the time for each project varies, we usually plan on at least eight consecutive weeks, using a staff of five to ten data processing personnel. The cost of FASTRACK is set at a fixed price bid. There are no hidden costs, add-ons, or afterthoughts.

To set FASTRACK in motion, contact your Software AG Account Manager today!

PREDICT CASE

continued from page 1

When coupled with the enforced use of Software Engineering practices this approach provides the following benefits:

- A well documented set of User Requirements on which to base the system design.
- A well designed and maintainable system with low maintenance costs.

Some other typical attributes of this approach are not so positive:

- A long delay from recognition of a user need to the satisfaction of that need via an implemented system.
- A mismatch between the implemented system and the "documented" requirements. For most systems, requirements will change over time. The problem with this approach (even with the use of Front End CASE tools) is to keep the "documented" requirements updated so they will match the implemented system.

The second extreme might be called "Iterative Prototyping." A project following this approach spends sufficient time in requirements analysis to ensure it is "in-the-ballpark." Further clarification of user requirements is accomplished through the creation and use of a series of "working models" or prototypes. The last prototype, with some modifications, often become the production system.

The benefits of Iterative Prototyping are:

- It is extremely flexible. It targets business applications where either the users understanding of the requirements is not clear, or the requirements themselves change rapidly.
- Users tend to be more involved with the development effort. They prefer to evaluate "working models" rather than paper models.
- The time delay between identifying a need and satisfying all or

part of that need may be much shorter using the second approach.

Some other attributes of this approach are also not very positive.

- The toolset used for rapid iterative prototyping may not be appropriate for a production system.
- It can degenerate into a "Code then Fix" cycle approach where the toolset simply allows for faster iterations. There is always the question of "When do you stop?"
- Systems tend to evolve instead of being built to a comprehensive design.
- Unless a shop is very disciplined, the only documentation for the system is probably the code.
- The resulting system will normally be more expensive to maintain than an equivalent system developed with the "Waterfall" approach.

What is needed is a system development environment that combines the productivity gains of a 4GL with the quality and productivity gains of front-end CASE Tools. An environment that combines rigorous analysis and documentation of requirements with a facility that can quickly generate a prototype based on those requirements. Software AG provides such an environment with its integrated CASE tool PREDICT CASE.

PREDICT CASE supports development through the complete lifecycle from project definition to replacement of the system. It provides a central Development Data Base that serves as a repository for the logical and conceptual models that are produced during the early phases of a lifecycle. This Development Data Base is closely coupled with PREDICT (The Operational Data Base) which serves as a repository for the physical models created during the Design and Implementation phases of a lifecycle.

PREDICT CASE provides both a PC based graphic interface and an interactive Mainframe interface to support project definition and requirements analysis activities. Its workstation supports Entity Relationship Diagrams, Decomposition

Diagrams, and Information Analysis Diagrams. These diagrams may be used to initially identify objects (e.g., Entities, Business Functions, etc.) to PREDICT CASE, or objects already in the repository may be selected and downloaded to the Workstation. The Workstation's Layout Manager can be used to clean-up diagrams created by the user, or will be automatically invoked to create the appropriate diagram from a set of objects when they are downloaded from PREDICT CASE.

Quality Assurance functions are provided by PREDICT CASE to test the information stored in the Development Data Base. Quality Assurance occurs at three levels.

- Whenever an object is in the process of being identified or maintained interactive Quality Assurance checks all object specific rules (e.g., that the name given to a new Entity is unique).
- Whenever an object is saved Quality Assurance automatically enforces all rules necessary to ensure referential integrity of the Development Data Base (e.g., That entities required by a business function exist in the data model).
- The first and second levels of QA ensure that the content of the development data base is consistent. The third level of QA checks a selected set of objects for adherence to data and process modeling rules.

Once the Development Data Base has been populated with information about a logical data model, a set of entities may be selected for Schema Generation. The PREDICT CASE Schema Generator first performs Quality Assurance on the selected set of entities, their relationships and attributes. Then guided by a set of user defined parameters, it transforms the logical data model into a data base schema. The user may use default parameters for creating either an ADABAS schema or a Conceptual (SQL) schema, or the user can, within limits, modify the parameters. The parameters guide the Schema Generator in everything from whether or not to populate PREDICT with the results of the schema generation, to how to resolve a specific many to many relationship.

On the process side, methodology and tool support is provided for the

identification and specification of System Functions. Business Functions describe the full set of logical user requirements. System Functions describe the operations that will be performed by an automated system in order to support the Business Functions. When a System Function is defined it then becomes a candidate for the Program Composer.

The PREDICT CASE Program Composer provides a facility for the identification and association of reusable blocks of code. It associates various object types (e.g., Maps, Standard Procedures, Custom Components, etc.) with Frames that are specific to a System Function Type. A System Function is first identified as a specific System Function Type. This triggers the association with a Frame that pulls in all associated blocks of code. The only new code that the user must write is application or program specific logic and algorithms.

Software AG provides a range of solutions in its NATURAL ENGINEERING SERIES to address problems in the Application Development Environment. PREDICT CASE is targeted to support the complete development environment:

- At the Information Systems Management Level with Strategic Planning, Information Systems Planning, and a repository to store, utilize, and control Corporate Data and Process Models,
- At the project management level with lifecycle models and project reporting (Document Generation), and,
- At the staff level within a project with front-end CASE tools merged with Schema Generation and the Program Composer all targeting a highly productive 4GL (NATURAL).

Other solutions provided by Software AG include NATURAL Architect Workstation and NATURAL CONSTRUCT. These products provide a staff level solution that addresses the need for immediate productivity gains both for new development and for re-engineering of existing systems.

During the Users' Conference there will be many opportunities to learn more about PREDICT CASE. A series of detailed demonstrations of PREDICT CASE, its Workstation,

the Schema Generator, and the Program Composer will be provided in the demonstration facility. In addition the following presentations on CASE, the NATURAL ENGINEERING SERIES, and PREDICT CASE will be given during the conference. (NOTE: Check the Conference Catalog for complete descriptions of these presentations.)

- *CASE and Quality Improvement* by Vaughan Merlyn
(In Executive Track)
- *NATURAL Engineering Series: SAG CASE Strategy for the 90s.*
- *PREDICT CASE: Repository Drive Tool Support for Application Software Development*
(A conceptual view of PREDICT CASE)
- *I-CASE: Methodology and Tool Support for the full Lifecycle*
(A technical view of PREDICT CASE)
- *Developing Applications Using PREDICT CASE*
(User Presentation)
- *Building applications Using ISO-TEC, the Methodology of PREDICT CASE*
(Class by SAGNA Education)
- *CASE Application Development*
(Application Workshop by SAGNA Custom Solutions)

VMS

continued from page 3

... And in-depth discussions of how to further apply Software AG VAX technology:

- Installing and Maintaining Software AG VMS Software
- Software AG Network Strategy
- Database Backup & Recovery
- Trouble-shooting in the ADABAS and NATURAL Environment
- Performance & Tuning; Capacity Planning
- Maintaining Integrity in Multi-node Networks

And you'll see keynote presentations—again, exclusively for our VAX customers—by Software AG executives, Digital representatives,

expert industry analysts, and Software AG's Digital product developers. Additionally, we'll be presenting new information—and hands-on demonstrations—of important, new technologies of interest to all Digital users:

- NATURAL Rdb
- NATURAL RMS
- ADABAS 2
- ADABAS/DECIntact
- NATURAL 2

See You in Anaheim!

In short, we're offering a program for our VAX customers like never before. Your attendance at Anaheim will bring you up to date on all of our latest advances and future plans, and provides a unique opportunity to share questions and answers with hundreds of other users.

And, needless to say, you'll be again enjoying one of the finest Users' Conferences in the world—complete with our typically outstanding social events, and the unparalleled regional attractions offered by the Anaheim area.

So make your plans to attend "Windows on Tomorrow" . . . see your Users' Conference registration kit for more information. And we'll plan on seeing you there!

STOP!

If you haven't registered for Software AG's 20th International Users' Conference Call Now!
1-800-843-9534

Graphic Information Systems: What Are They? Why Are They Important?

Bill Gordon

Geographic Information Systems

Recently, Software AG announced its plans for development of two new products that are designed to support applications in an area called Geographic Information Systems, or GIS. The new products, ADABAS Geographic and NATURAL Geographic Workstation, are used in conjunction with a digital map data base of the street network, for any given area, and provide end users with the ability to manipulate and view data from a geographic perspective.

Why are these products and applications considered important? What value and benefit do GIS applications provide to the end user?

Some History

Geography and the use of geographic data have been with us in many parts of our business operations for a very long time. Paper map systems reflect this phenomenon and have been manually created and maintained to support a wide range of industry applications for many years.

As computer technologies have evolved, they have been applied to geographic data processing by cartographers and engineers who wanted to "automate" many of the very labor-intensive steps that go into creating and maintaining numerous map products and mapping applications. Many improvements and advances in computerization of these activities have been developed over the last 20 years. In fact, the evolution of these technical products, and increased recognition of the value of geographically related data, have stimulated such significant interest in commercial industries and government that entirely new segments of business applications and categories of data processing products have surfaced in the last ten years.

In the original efforts to automate geographic data processing, the emphasis was very much on managing the geography itself. Applications for land use planning and

environmental research were the targets of the early technology because that was the essence of what the paper map really was for the end user—an image of the surface of the earth.

As technology was applied to the problem of managing geographic data, it became apparent that there was an equally important characteristic in the map systems of the end user that needed to be addressed. The end product, the map itself, typically reflected many important elements of business information. In fact, the map was the only mechanism for showing the physical distribution of critical business data (see Figure 1), such as where customers are, where critical business data is, where facilities are, and where service calls occur most frequently.

GIS Enters the Picture

It was becoming apparent that geography, or at least geographic parameters, played a critical role in the actual organization of the business enterprise and its operations. How would a business organization function if it could not geographically segment its market, define its distribution channels, regionalize its sales, or describe the boundaries of its service areas? Further, how effective could one be in organizing business operations without the ability to identify what the basic distribution of business data was in relation to the other components of the organization (see Figure 2).

Imagine a sales manager defining a target market without understanding the location and characteristics of the consumer. How would the distribution manager organize the placement of product outlets or distribution centers without knowing the patterns of buying activity or density of product sales? And, finally, how would the municipal government realign boundaries for reapportionment without understanding the geographic distribution of data such as property values, demographics, and other socioeconomic information? Managing the geographically distrib-

uted information of the business enterprise was clearly an important capability.

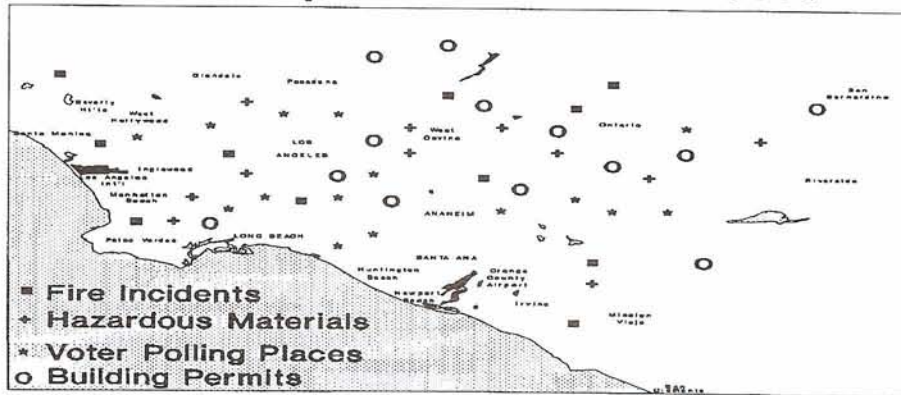
Developments in automated mapping and geographic data management projects soon pointed out the importance of effectively managing and integrating data that was related to geography, or "geographically distributed." Because geography or physical location provided a common denominator for the association of business data, it could be used as the basis for a powerful new information system architecture. Many new applications could be constructed that would merge and analyze business data from the common view of geography—a geographic information system.

GIS Technology

Many types of products and applications have come into the marketplace over the last 10 to 15 years that have tried to satisfy the geographic data processing requirements of the end user. The majority of them have emphasized the graphics processing capabilities typically associated with automated mapping systems. While these have improved the manufacture and look of the mapping products themselves, they have done little to address the management of the geographically related data that already resides in the end user's data processing systems. Most GIS implementations become "departmental" systems, or standalone workstations, that have no direct access to the wealth of data in the product systems of a corporation. If corporate data is to be used in the GIS, cumbersome and costly conversion procedures must be implemented to extract information and apply it to the GIS application. The typical GIS installation cannot be integrated into the existing data processing environment of the business enterprise. Therefore, the most significant benefits of installing a geographic data base—corporate data integration—are not realized. The GIS departmental systems and graphics workstations become "islands of automation."

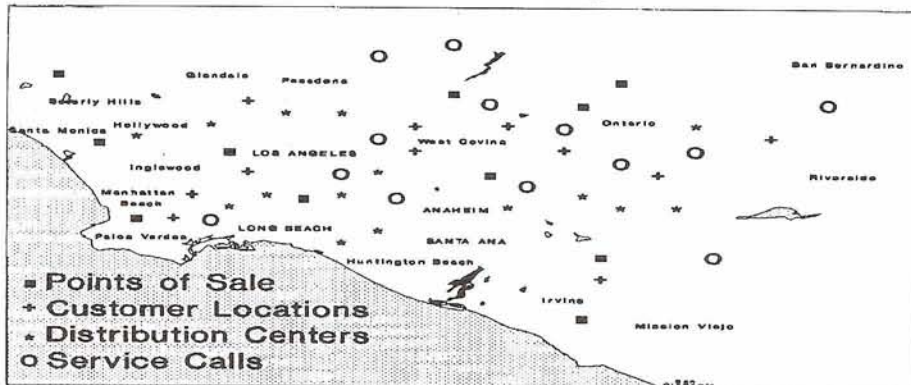
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Municipal Government



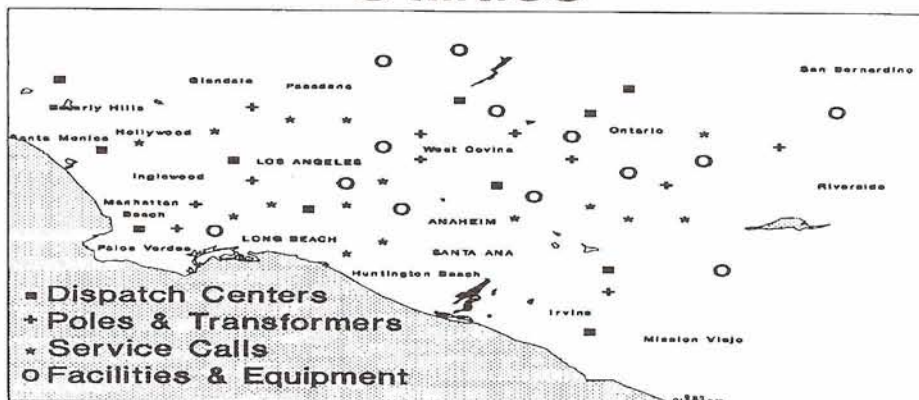
Software AG of North America, Inc.

Publishing



Software AG of North America, Inc.

Utilities



Software AG of North America, Inc.

Figure 1: Geography in the Organization

COMMON COMMERCIAL ACTIVITY

CONSUMER CONTACT
CUSTOMER ORDER
PRODUCT ASSEMBLY
PRODUCT DISPATCH
PHYSICAL DELIVERY
CUSTOMER SERVICES

PROMOTION
SALES
MANUFACTURING
DISTRIBUTION
SERVICE

OPERATIONS
ORGANIZATION
RESEARCH
PLANNING

POINT
LOCATION

NETWORK
LOCATION

AREA
LOCATION



Figure 2: Generic Business Applications that Reference Geography

GEOGRAPHIC DATA MANAGEMENT FOR CORPORATE APPLICATIONS

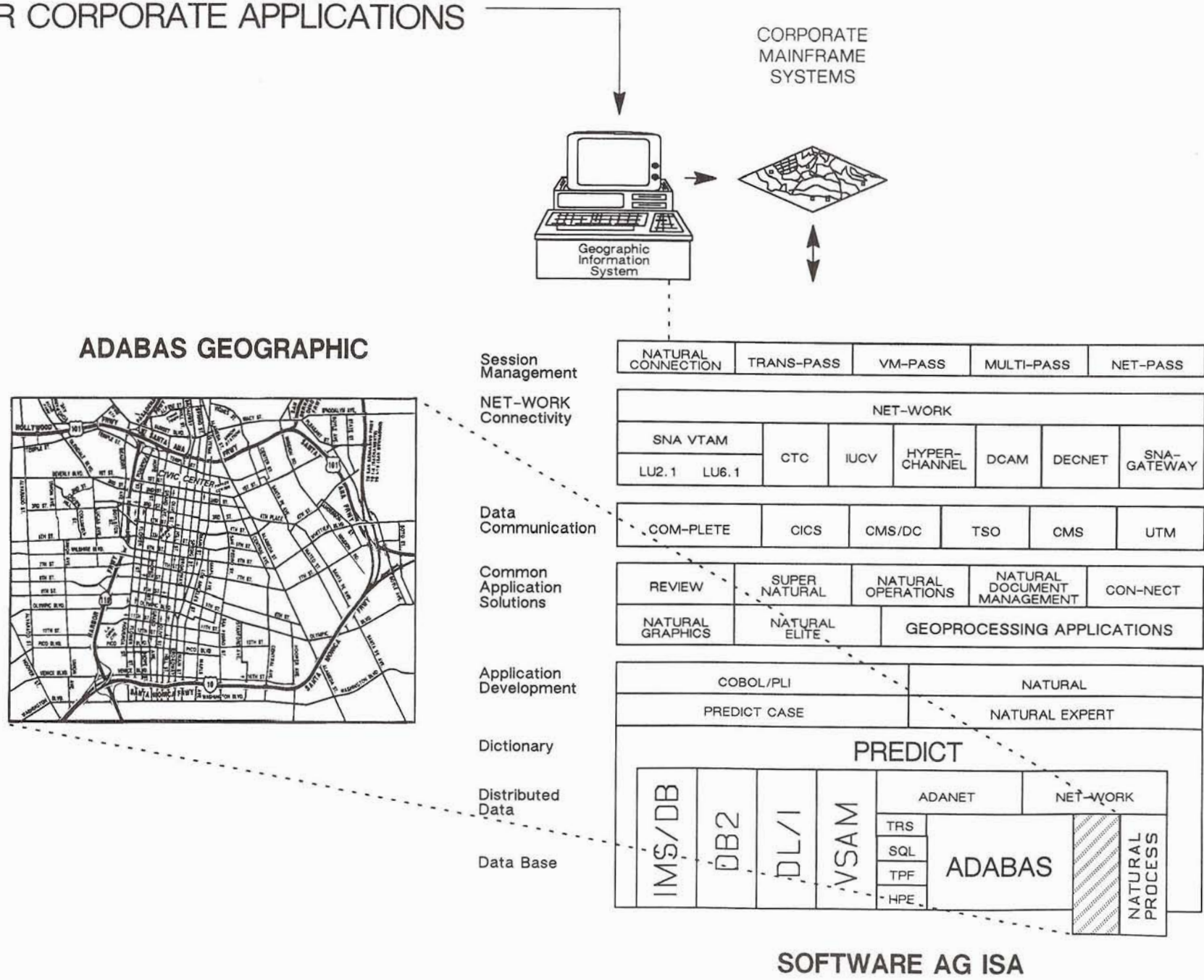


Figure 3: Geographic Data Management for Corporate Applications

The Key to GIS

In recent years, the most significant innovation has been the recognition that "geography" is already a part of business applications. It is not a totally new set of data that must be created and managed as an automated graphics product replacing all paper map systems of the enterprise. In fact, the most important consideration in building a GIS architecture for corporate applications is to introduce *geographic data management* tools that operate against the street address that currently resides in the business system data base. This address-based data is the geography of the commercial business application and the government agency. It is the key common denominator that relates most geographically distributed information for critical business operations.

ADABAS Geographic and NATURAL Geographic Workstation

These components in the Integrated Software Architecture of Software AG—ADABAS Geographic and NATURAL Geographic Workstation—manage the geography of a corporation as an integrated data base. They support the general retrieval and manipulation of geographic elements, and allow application system programs to access geographically distributed information just as they do any other form of data.

These facilities provide the corporation with a tremendously powerful tool for improved data management in a variety of application areas. The corporate end user can now manage information that is geographically distributed (see Figure 3). In fact, the all-important characteristics of the distribution itself can be analyzed and correlated with other factors in business operations. Most significantly, the geographic common denominator concept implemented in this way provides the basis for overall data integration for the enterprise.

Who Benefits?

A wide range of industry operations can be significantly improved

with the introduction of a cost-effective geographic data management system. Government agencies, at both the state and local levels, have extensive amounts of geographically distributed data that they must manage effectively.

For many commercial operations, such as those listed below, effective geographic data management applications are critical to overall profitability in the enterprise:

- Utilities
- Newspapers
- Package and postal delivery services
- Rail and truck transportation
- Real estate
- Travel services
- Health and emergency services
- Marketing research

Next Quarter

In the next issue of Connections, look for examples of geographic data management applications using ADABAS Geographic and NATURAL Geographic Workstation.

Users' Conference

continued from page 1

A Typical Day

General Sessions will take place every morning then you can attend 1 of 10 breakout sessions running concurrently! Since you can't be in 10 places at once we suggest sending more than one representative from your organization. Sessions will include:

- **User Presentations:** Users relate the application of Software AG technologies in various environments, to meet various challenges;
- **Workshops:** Users lead informal sessions on specific Software AG products, as defined by each Special Interest Group (SIG);
- **Software AG Presentations:** led by Software AG executives and product managers, these sessions give you detailed status information about the products you use—including their future directions; and

- **Classes:** Technical experts from Software AG's worldwide offices conduct in-depth, interactive classes to further expand your technical knowledge and skills.

Executive Track Conference: third consecutive year

This year's program, designed exclusively for executives, is full of up-to-date information on the latest trends in the information systems industry.

We'll have industry analysts such as Vaughan Merlyn, Paul Hessinger, and John Logan speaking on the latest industry trends so you know how to position your company for the 1990's. Business Management speakers: Dr. James Wetherbe, Nancy Austin, and Peter Johnson will share their expertise in the areas of information systems, leadership, and strategic positioning.

Also, Software AG Executives will talk about future plans for the 1990's and how Software AG is "The Better Choice." Professor Peter Chen, "father" of the Entity-Relationship approach to database design, and Peter Page', Executive Vice President, Software AG, will discuss "Where CASE Meets DBMS."

Software AG customers from the University of Texas and Central Hudson Gas & Electric will present on how they used Software AG products to produce state-of-the-art results.

The Executive Track Conference will be held on October 22-24, 1989 at the Anaheim Hilton concurrent with the 20th International Users' Conference.

See You in Anaheim!

If you haven't registered for the 20th International Users' Conference call 1-800-843-9534 and ask for the Users' Conference Registrar! You won't want to miss getting a first-hand glimpse of the new directions and technologies that will provide the solutions you'll need in the next 20 years! And at no other time will there be this many Software AG users convened together to share their experiences! So come to Anaheim, help us celebrate Software AG's 20th Anniversary which you have made possible, and take a look at the future of information management through our "Windows on Tomorrow."

PREDICT USER PANEL MEETING

Patti Piccola

BP Exploration

Administrative Product Representative

Editor's Note: In the Summer issue of Connections the 1988 PREDICT User Panel Meeting notes were published. I apologize for any confusion this caused. Below is a summary of the most recent meeting

The 1989 PREDICT User Panel was held in Reston, Virginia on June 22, with sixteen panel members present. Panel members contributed specific questions, concerns and issues to be discussed with Chris Hopker, Software AG Darmstadt, Manager of PREDICT Development. Also in attendance from Software AG were Randy Kastendieck, SAGNA, Customer Support, and Virginia Sullivan, PREDICT QA Analyst.

As many of you know, Software AG has been working for a long time on a project that was originally called Version 3.0, which was based on ADABAS native. Software AG stated that PREDICT Version 3.0 will not be the same product which had been previously announced. Software AG has refocused their direction on the data dictionary after extensive analysis and discussion in Darmstadt. The previous Version 3.0 has been renamed Version 4.0. This change in product structure was brought about by advances in Software AG's Entity Relationship modeling software—ADABAS Entire. PREDICT V4.0 will be based on ADABAS Entire. PREDICT CASE has demonstrated that ADABAS Entire gives the performance and functionality

required for a Computer Aided Software Engineering (CASE) data dictionary environment.

There will still be a Version 3, now called Version 3.1.0. This version was originally PREDICT Version 2.4. Are you lost yet? The renaming of version numbers is a bit confusing; but, I will try to clarify and identify which version is providing what functionality.

First, listed is the current status of PREDICT:

PREDICT Version 2.3.2

Current (as of July 15, 1989)

PREDICT Version 2.3.3

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Japan Region Users' Group 16th General Meeting Held

Sadayuki Takehana

Nikon, Co. Ltd.

On June 7, 1989, the 16th General Meeting of Japan Region Software AG Users' Group was held in Tokyo with 232 attendants from 161 organizations (including 84 organizations attending as attorneys).

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

Mr. Michael Jakes, Senior Vice President of International Operations Software AG of North America had visited again and reported the current status of Software AG Group around the world.

Report of Activities/Activity Plans for '89

In addition to the regular agenda (report on closing accounts, activities of each study group and its activity plans for '89 as well as approval of the board of Users' Group), there was a report on the new committee which was organized in order to reconsider Users' Group activities.

5 Study Groups (*Database Study Group; Network Study Group; Computer Operation Study Group; Cross Over Study Group*; interchanging opinions of various products; *Management Study Group*, aiming at people at the management level) will work on their themes this year. The former three study groups are further divided into 24 sessions and meet once a month. Each group will report its study results at the next users' symposium to be held in March 1990.

Also, it was reported that "Users' Group Newsletter" played an im-

portant role in activating communication among users.

Awarding Excellent Activities

The "Excellent Activity Award" established last year was given. Individuals and groups that have achieved excellent results in the previous year are elected and awarded.

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

Management Study Group

After the General Meeting, Management Study Group held a meeting in which 82 people from 70 organizations attended.

Mr. Masayuki Kamei of Toyota Automatic Loom Works, Ltd. made a speech on "Quality Assurance of Software through Systematic Development" at the meeting.

First VMS SIG Conference Smash Success

Michael Livingston
VMS SIG Chairman

"My head is about to explode, I never knew there was so much to learn!" "One day here is worth more than reading all the manuals in the world!" "It's almost unimaginable that I could learn so much and have so much fun doing it! My thanks to all the folks at The University of Houston for making it all possible." "The things I've learned here I've never seen in any manual—it's great having the developers teaching these classes!" "The folks in Houston sure know how to make you welcome and keep you well fed!" These were but a few of the many comments from several of the many attendees of the *First Annual Software AG VMS SIG Users' Conference*.

The VMS conference was held from March 12 through March 15, 1989 and was hosted by the University of Houston in Houston, Texas at the luxurious Stouffer's Hotel. The conference was attended by over 200 people from twelve countries.

The theme of the VAX conference was internals and featured Dr. Herbert Fischer and Peter Holdermann both of Software AG, Darmstadt, West Germany, who over the course of three days presented well over fifteen hours of formal classes on NATURAL, ADABAS, and NETWORK VMS. Among the topics covered were:

- "ADABAS Intertask Communication"
- "NATURAL Internals: Data Structures, Code Generation, Processing Flow, Optimization, and Parameters"
- "ADABAS Internal Structures"
- "ADABAS I/O Routines"
- "NETWORK VMS: Protocol Handler and Network Manager"

In addition to the presentations made by Dr. Fischer and Mr. Holdermann, several user and Software AG presentations were also made. These presentations included:

- "Command Log Interpretation" by Bruce Sions, Department of Transportation, State of Virginia
- "Customizing the User Environment" by Melinda Irwin and Suresh Kumar, University of Houston
- "Writing DCL Command Procedures" by John Fredrickson, National Public Radio
- "NATURAL Architect" by Andy Coutts, Software AG, Canada
- "High Available Systems" by Ron Kaminski, Inland Steel
- "Command Analysis: A Practical Tool" by Tom McNeally, CNCP
- "Product Overview and Future Directions" by Mary Kirkman, Software AG, North America
- "NATURAL Programming Tips and Techniques" by Melinda Irwin, University of Houston

The conference was officially opened by Michael Livingston who welcomed the attendees to Houston. Michael then introduced Tom Berrisford, Director of Administrative Computing, University of Houston. Tom gave an overview of the mission of the University of Houston as well as a slide presentation on the University of Houston campus. Tom then introduced Dr. Richard Van Horn, President, University of Houston. Dr. Van Horn gave a presentation on the advent of computerization and its impact on modern information processing. Tom Berrisford then introduced John Maguire, Chairman of the Board, Software AG of North America.

John enthusiastically welcomed the attendees to the conference and noted how the gathering was similar to the founding of SAGGROUP, the users group. John also noted that the formation of a VAX Special Interest Group and promotion of a conference was long over due and was greatly welcomed by Software AG. John spent several minutes explaining the reasons behind the merger of Software AG, North America with Software AG, Darmstadt. In summary, John believed

that the merger would result in a much stronger Software AG. John then opened the floor to general questions from the audience. In closing, John pledged Software AG's continued support to the VAX SIG.

During the conference considerable discussion was given for a method to easily distribute "shareware" from users and information in general. John Fredrickson and Tom McNeally donated tapes of DBA tools to the SIG. Dan Nolan, of Nolan and Associates, graciously offered use of his VAX system as a messaging and software download facility. The number to dial to take advantage of free user software is (703) 642-1111. The account number and password is "VMSSIG". Dan Nolan and Associates, Software AG, the software authors, nor members of the VMS SIG take any responsibility in the functioning or maintenance of any "shareware" software.

Conference attendees were treated to sumptuous meals at the Stouffer's Hotel with the feature event being a night out at the *Texas Tumbleweed*, a favorite Texas dinner place for T-Bone steak cooked only the way Texans can cook. In addition to the filling dinner, the attendees were delighted by a popular country-western band and dancers dressed in authentic country-western dancewear.

At the close of the conference the attendees unanimously elected the University of Houston to host the second conference once again in Houston. One attendee said "I don't know how Michael and the folks in Houston can possibly out do themselves next year but I'm going to be here again to watch them try!"

So, stay tuned for further information on the next VMS SIG Conference.

Onward To Anaheim!

Michael Livingston
VMS SIG Chairman

The 20th International Software AG Users' Conference is upon us and I hope that every Software AG user will be there, especially the VMS users!

VMS users are like all users; they want to know "What's in it for me?" The Users' Conference represents a rare once a year educational opportunity for all Software AG users to meet under one roof to hear and discuss what has transpired in Software AG and user shops throughout the world since the last conference. At the conference you have the opportunity to not only learn from one another but from Software AG developers who you may never have the occasion to meet otherwise.

This year, Software AG has dedicated great time and energy to insuring that an informative agenda is prepared for VMS users in addition to the usual superb general sessions. So it is with great enthusiasm that I encourage all the VMS users to join me in Anaheim in October.

VMS SIG Agenda

Michael Livingston
VMS SIG Chairman

A general meeting of the VAX VMS Special Interest Group will be held during the 20th International Software AG Users' Conference. Agenda items will include:

- Report on the First VMS Users' Conference in Houston, Texas
- Request for Topics for Second VMS Users' Conference
- Discussion of Change/Enhancement issues
- Other topics as suggested by attendees

We hope to see you there!

Wanted: User Support

Michael Livingston
VMS SIG Chairman

The one thing that is common among users is complaints! It doesn't matter how hard and long we work on a project the final results always fall short of their expectations and needs. No doubt each of us can give pause and recount numerous times we've said to our own users, "Well, if you had just told me that, I wouldn't have done it that way in the first place!" or "If you knew that was a problem, why didn't you tell me?"

In the great scheme of things, we are all users to Software AG. I've heard many accounts in the past two years of how Software AG "... doesn't understand my problem ..." or "If only Software AG would make this change it would make my life so much easier ...". When I've asked if anyone at the site has filled out a Change/Enhancement form, I either get a blank stare or a reply of "What's that?"

Completion of the Change/Enhancement form is an essential procedure for any user to communicate product deficiencies and future product desires to Software AG. The way the process works is as follows: Change/Enhancement forms are available in the back pages of each copy of Software AG's CONNECTIONS. Anyone from a licensed site may fill out a form. Once completed the forms should be returned to the address indicated on the reverse side of the form. Currently, the forms are returned to Kelly Jones of Leaseway National Service Corporation, 3700 Park East Drive, Beachwood, OH 44122. Upon receipt of your form, Kelly categorizes the forms by product and nature of the request. Kelly also attempts to categorize the requests as "product generic" or "product specific", i.e. is the request generic to all NATURAL users or is it specific to VAX users. Once Kelly has categorized the requests, they are sent to Software AG in Reston, Virginia where ultimately it is sent to the product developers.

Unfortunately, very few VMS user sites participate in the process. Various reasons are given for non-action. In particular, I've heard many VMS users either say "What's the use of filling out a change form; nobody in Software AG takes them seriously" or "What's the use of filling it out; the IBM users outnumber us and they always get their way!"

Contrary to the above statements, Change/Enhancement forms are important. First of all, Software AG takes the forms very seriously since the forms are the only means by which Software AG has the opportunity to communicate with every Software AG user world-wide. The Change/Enhancement forms are read carefully by Software AG representatives in Reston, Virginia, and by representatives in Darmstadt, West Germany (including the product developers!).

Second, while it is true that there are more IBM licences held world-wide than VMS licenses this is changing rapidly. In addition, SAG-GROUP representatives do make an effort to determine which requests are specific to the VAX environment and to see that those requests are reported to Software AG as specific concerns.

Most important, however, is not the procedure and process; it is *participation!* VMS users will have less of an impact upon the overall product direction of Software AG unless they actively voice their concerns and desires at every opportunity. The Change/Enhancement form represents a basic input to Software AG and is meaningless unless completed and returned to them.

The Change/Enhancement process is by no means perfect. Unfortunately improvements to products or to the user feedback structure cannot be implemented until every VMS user sends in his or her form and takes the responsibility for being involved!

Communications Functional Area Representative Report



Ellen M. Birch
Price Waterhouse

Note: This report was scheduled to appear in the Summer 1989 Issue of Connections. By mistake it was accidentally omitted.

The editor apologizes for any inconvenience this has caused.

Thanks to so many of you for keeping in touch and passing on your concerns, problems, and ideas. I've had some very interesting discussions since my last newsletter article and I have summarized some of these below:

- **COM-LETE support of ADABAS Version 5 user exits A and B**—Currently, the ULOPADAB exit does not support this interface. I have been informed by SAG that this will be supported in release 4.5 of COM-LETE.
- **COM-LETE compatibility with Candle's Suppression session manager**—There have been reported hangs in COM-LETE when used with this product. These hangs can be corrected through a change to the VTAM logmode table entry for the hanging device.
- **COM-LETE 4.4.3**—This SM has been released as of the date of this article—no feedback yet.
- **COM-LETE 4.5**—In my last article, I stated that this release was in beta test. As expected, the dates on this release have slipped, with it currently still in alpha test, with no earlier than an early summer release expected. Those of us with multi-engine processors could definitely use the multi-processor support this release will provide.

- **SYSCOM/SYSNAT model users**—The concept of having one COM-LETE userid record in the userid file used for multiple concurrently logged on users was introduced with 4.4, but not documented until the SM3 release notes. This is an excellent idea for integration with RACF/ACF2/Top Secret usersids—be sure to read about it in the release notes.
- **UZAPS**—This is an extremely useful utility that will list all applied COM-LETE fixes and all available and applied applymods. In my opinion, this utility is not as well known or emphasized as it should be.
- **HSM support**—The UXEEEX5 user exit will allow, in UPDS or UEDIT, issuing of the recall SVC for a library that has been migrated by IBM's Hierarchical Storage Manager.
- **External security interface documentation**—This is minimal to nonexistent in the regular manuals, with just a brief explanation in the SM3 release notes. SAG needs to provide more thorough documentation in this area, including a more detailed description of the format and use of the RACTAB for 8 to 6 character userid conversion.
- **COM-LETE's use of the SVC FLIH**—It was brought to my attention that numerous questions and comments about the method COM-LETE uses to process and trap SVCs were put on the Bitnet "IBM Mainframe Discussion List" bulletin board. Much incorrect and out-of-date information was sent around on this bulletin board about how COM-LETE functions and how it integrates with the operating system and other systems software. If you have questions about COM-LETE logic, please direct them to me first—I may have the answer, or can get an answer for you.

The following questions have been brought to my attention and are still outstanding. Please call me if you are interested in these issues or if you have a solution:

- **Natural Program thread priority**—I'm still looking for ideas on how to provide COM-LETE thread-locking for a program

running under NATURAL, not just for the NATURAL system itself.

- **KOMAND**—I'm looking for experiences in using this billing product in a COM-LETE environment.
- **SMP**—Has anyone implemented their own method of COM-LETE maintenance through SMP? Software AG will be providing this in the future, but there may be people who have gone ahead with their own system.

Please contact me if you have concerns or information to pass on to Software AG or other users or if you're looking for other users with similar problems or environments. Since the next Executive Committee meeting is on May 10, I am even more interested in your issues to present at that meeting. Keep in mind that the change/enhancement process is your best bet to get your ideas to Software AG on the direction of the communications products. I still haven't seen any of these in some time!

I want to especially thank Don Castleberry of Delta Air Lines for the following article on assigning default printers to users without using TIBTAB. I am always happy to receive articles for the newsletter. If you have done anything interesting with any of the communications products, just jot down some thoughts and send or fax them to me—I'll take care of editing them for the newsletter. My fax number is (301) 493-9161.

I am still looking for a volunteer to chair the COM-LETE Futures User Panel at this year's conference. Please contact me if you are interested. The purpose of this panel is to keep the lines of communication open between COM-LETE developers and users—a very worthy cause.

As always, I look forward to hearing from all of you.

UPDATE: Communications Functional Area Representative Report

Ellen M. Birch
Price Waterhouse

Since my last article, the SAGGROUP Executive Committee midyear meeting was held at the Software AG Denver Offices on May 10 through 12. I would like to share with you some of the items related to the communications area:

- The communications area is now defined to include COMPLETE, ADABAS TPF, ADABAS HPE, ACCESS, NET-PASS, VM-PASS, TRANS-PASS, NATURAL AF, and all NET-WORK products.
- Incompatibility of the different Software AG products was a big topic of discussion (e.g., what release of COM-LETE do you need to support NATURAL 2.1.4?). Ability of Software AG to fix problems with all supported releases across products was also an issue. Software AG will be pursuing avenues of addressing these problems.
- The multiple iterations of the COM-LETE 4.4.2 tape was also an issue. In the future, Software AG will address this with fix tapes between SMS, labelled with the latest fix number.

I am also chairing a committee within the Executive Committee that is studying issues related to world-wide sharing of information among Software AG users—including, but not limited to, use of Service Connection as a vehicle for this. Sample issues include language translations and distribution of papers and documents. If you have any ideas related to this topic, please contact me.

Thanks again to those of you who have been keeping in touch and passing on your concerns, problems, and ideas. Some of the issues raised since my last newsletter article have been:

- *STOW macro support for COM-LETE under ESA*—The STOW macro is being changed to support this environment. As of this writing, the fix is still in beta

test. Be aware that this fix will change the functionality of the STOW macro. I would be interested in hearing of your experiences with and opinions on this change.

- *COM-LETE 4.4.3*—This SM has not been as clean as one would hope. Software AG is aware of these problems and is working to correct this situation.
- *COM-LETE 4.5*—As of this writing, this version has not been released. Look for it around the end of the year.
- *COM-LETE's (and ADABAS TPF) use of the SVC FLIH*—There is a project to eliminate use of this mechanism, as part of the effort to use IBM standard interfaces in COM-LETE. This will be included in Version 4.5.
- *IBM-to-DEC NET-WORK compatibility*—There are discussions currently proceeding on issues with compatibility of ADABAS 5 on the IBM side, NET-WORK, and ADABAS on the VAX side (e.g., what releases of NET-WORK and VAX ADABAS are required, what steps should be taken in any conversions or integrations). If you are interested in this issue, please contact Mary Ellen Woods at (216) 399-7686. More information on the results of these discussions will be forthcoming.

Please contact me if you have concerns or information to pass on to Software AG or other users or if you're looking for other users with similar problems or environments—I may be able to expedite information sharing or to heighten Software AG awareness of problems or concerns. I would especially like to hear from you before Anaheim, where the next Executive Committee meeting will be held, so that I can bring your issues to the table—and to the attention of Software AG's executives—at that time.

Remember that the Change/Enhancement process is probably your best bet to get your ideas to Software AG on the direction of the communications products. I have been receiving numerous ones for NET-PASS, but few for other products. Keep those cards and letters coming!

Along that note, you probably have gathered by now that I am *always* happy to receive articles for the

newsletter. If you have done anything interesting with communications products, just jot down some thoughts and send or fax them to me—I will expand and edit them for the newsletter. My fax number is (301) 493-9161. Also, please send your favorite COM-LETE, ACCESS, ADABAS TPF, NET-PASS, or NET-WORK tool to Ed Simon (address in the back of this issue) for inclusion on the COM-LETE tools tape. He especially needs COM-LETE 4.4 tools at this point.

If you will be attending the conference, don't miss the "COM-LETE Performance and Tuning, and Tools Workshop," chaired by Ed Simon. This is probably the largest gathering of communications products users at the conference in an open forum setting. We had an excellent discussion last year, and I hope that will be true this year also. Marius Abel, Norbert Gruettner, Steve McGuire, and Rick Shigaki will be there, representing COM-LETE development and technical support. I'll be there too and I hope to see you all in Anaheim!

Issues of Connections

Future

The Winter issue of Connections will be the Post-Conference issue. It will be a wrap-up of all the events that took place at the conference. Please send editorial to:

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

Editorial Deadline

Winter Issue—November 20th
Note: This deadline has been extended

Data Base Functional Area Representative Update



Bob Becker
Foremost Insurance Company

In the past several CONNECTIONS articles I've started off with the weather conditions at the time of writing realizing that by the time the article is received by you, conditions could be vastly improved or worsened. With that in mind, we are experiencing our hottest most humid weather conditions so far this year, as today is the second day after the summer solstice. On the other hand, this spring and early summer has no where near matched the dryness and heat of 1988. Only time will tell what this summer will be like for us folks in Western Michigan.

After the CONNECTIONS articles which referred to the ADABAS centralized security interface, I had numerous calls from users all over the country expressing more interest in this critical new development. I can report to you that the ADABAS centralized security interface is still in development and is expected to be released with ADABAS 5.2. Also, in mid July, I will receive from the author of the interface in the UK all of the documentation pertaining to its use. In my next newsletter article, I'll pass on the information that I obtain about the interface. It presumably will allow Top Secret ACF2 and RAC/S environments to communicate and secure ADABAS data.

As more and more of you are installing ADABAS 5 into production, I would like to hear about your experiences with the product. We are presently in the preliminary stages of planning for our conversion and implementation of ADABAS 5. If you have any thoughts that I could share with others' please feel free to contact

me. My office number is (616) 956-2664 or you may fax me at (616) 956-4452. Another note on ADABAS 5. Our testing over the past 3 years has indicated ADABAS 5 to be a true performance winner over ADABAS 4. As special interest group chairperson for performance, I would like to hear your comments about statistics that you acquire in your comparisons between ADABAS 5 and 4.

Presently, I have several special interest group chairperson vacancies within the data base arena. The DBA Tools chairperson has recently become vacant. I wish to thank Mr. Galen Hansen for his excellent job at maintaining the DBA Tools tape over the past years. Please contact me if you could become the new DBA Tools representative. All that is required of you is to assemble the user written and submitted items onto one common Tools tape and send that tape on to Software AG for national distribution.

Another vacancy is with the Education/Documentation special interest group as well as Large Data Base SIG. If you have any interest in any of these 3 areas, I would be happy to talk with you.

Technical Advisory Committees (TACs) are being formed to address specific areas within the data base product area. These TACs would be able to advise me, as the data base functional representative, on any and all technical issues associated with a given TAC product. If you're interested in providing me technical support on any of the following data base products, I would certainly like to assign you as the TAC for that given product. The following products are within the data base functional area: ADABAS On Line Services, ADABAS VSAM Bridge, ADABAS DL1 Bridge, ADABAS Total Bridge, ADABAS IMS/DC Interface, ADABAS CICS Interface, ADABAS TSO Interface, Reflective Data Base, Text Retrieval, REVIEW, CONVERT (VMS), NETWORK and ADANET or CTC. This appears to be a long list of products all related to the data base functional area, and at present I'm asking each of you to consider being a TAC. If you are interested and or using any of the above products and would like to devote a small amount of time to the SAGGROUP organization as an advisor and to give input to the

directions of these products, please let me know.

The Executive Committee will be meeting several of the preceding days and for most of the conference in Anaheim. We will be working with Software AG closely to resolve your issues and concerns.

Thank you for all of your interest and it's been good to hear from you over the past year. I hope to see each of you at the Anaheim conference. Take care.

End User Functional Representative Report

Laura Jacobs

During these hot months, it's hard to start thinking about Fall. Along with school starting and the leaves turning, Fall brings the Users' Conference in Anaheim. I'm very excited about the conference. We will be having Special Interest Group Workshops for NATURAL CONNECTION, SUPER NATURAL and NATURAL Elite. Each workshop will have representatives from Software AG and users who work with the product. This is the place to discuss policies and procedures with other installations, tips and techniques, future plans, etc. To prepare for the conference, jot down questions you have and bring them to the workshops.

There seems to be confusion on what a Special Interest Group (SIG) is. A SIG focuses on one Software AG product for all machines. The SIG communicates with other users through the conference, the Software AG Connections, or through their own newsletter. Discussions range from the product itself, to how the product is used. An example of discussion for SUPER NATURAL is how does an installation train end users. Each installation is different and it's amazing how many new ideas are brought with each user. We have SIG's for SUPER NATURAL, NATURAL Elite, and NATURAL CONNECTION. Addresses for the chairpersons are in the back of Connections. Call them or drop a line to join a SIG. You can also sign up at the conference.

End User

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Clayton Clendinen has graciously volunteered to be the NATURAL CONNECTION Special Interest Chairperson. Tony Cortese is the NATURAL Elite Chairperson and Christine Burbank is the SUPER NATURAL Chairperson.

If you have any comments, complaints, problems or praises with the following software, please contact me. I'll try to help. The products I'm responsible for are: SUPER NATURAL, NATURAL Elite Extended function, NATURAL Elite Basic functions, NATURAL Elite Courseware, NATURAL CONNECTION Mainframe, NATURAL Document Manager, CON-NECT Standalone, CON-NECT Documentation Retrieval, NATURAL Spreadsheet, and NATURAL Statistical Link.

I hope to see you at the conference. Be sure to vote in the SAG Users' Group elections.

PREDICT

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Beta (fixes only; it was stated at the June 22 meeting that V2.3.3 would be shipped in 6 weeks)

PREDICT Version 3.1.0

Old PREDICT Version 2.4 (Dec. 89)

PREDICT Version 4.0

New product based on ADABAS Entire (No date)

Version 3.1.0 Features

Darmstadt installed a BETA test version of 3.1.0 in Germany during August. There will be a general release of Version 3.1.0 in December, 1989. It will have two new features:

- User Defined Entities (UDEs)
- Application Control System

Both are selectable items, but a price was not released to the User

Panel. There was lengthy discussion on the new features being provided for an additional cost. However, Chris Hopker stated that these features have always been presented as a cost item, regardless of the Version number, and they will not be released as public.

User Defined Entities (UDEs) provide the ability to create additional user-defined entities. The UDEs in PREDICT V3.1.0 are different from the original project and different from what was presented at previous conferences. User Defined Entities will have 24 keywords, each with extended descriptions and short comments. A UDE can be defined as a 20 byte Alpha/Alphanumeric 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 migrate utility does not currently migrate UDEs.

The PREDICT User Panel collectively stated it would not be acceptable unless UDEs can be migrated. A vote was taken to determine if the migrate was a high priority and it was a unanimous vote that the migrate utility should support UDEs. Chris stated he would take this vote under consideration.

The PREDICT Application Control System provides a control of NATURAL applications from a development phase to a control phase, with multiple test phases including module test, system test, and integration test.

PREDICT Product Direction:

Several questions were asked about the direction of PREDICT and PREDICT CASE and how the products would be integrated. Chris emphasized that PREDICT CASE is a design tool together with a method to do it and PREDICT is basically an operational repository for your real, existing world. The direction of PREDICT development is for operational; not logical or data modeling or business design.

A question was asked about the Standard File, the concept of the Standard File and how it would be

effected in Version 4 and with PREDICT CASE. Chris stated he could not make a comment on that item at this time because he has taken the existing design and is reevaluating what is now necessary with the new products.

Chris asked the User Panel an interesting question. If there could possibly be one additional functionality added to Version 3, which of the two Software AG proposed enhancements would we choose? The two choices were:

—PREDICT Object Security

—Central User Integration

But only *one or the other* was feasible. The PREDICT Security feature protects PREDICT objects and the Central User Integration enhancement provides the functionality of a central security profile for all Software AG products, which would reside in PREDICT.

Both items were discussed in detail and it was agreed that each of the enhancements provide Software AG Users with excellent administration management techniques that we have been seeking for some time. After lengthy debate, the Panel voted on PREDICT Object Security. Chris stated that our vote would be taken into consideration; however, no commitment was made to either enhancement.

PREDICT VERSION 3.1.0 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:
 - Incorporate DB2 databases

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PREDICT

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- Incorporate DB2 table/view
- Generate DB2 table/view
- Compare DB2 table/view
- Compare DB2 databases
- “Static SQL” is now supported by Active Reference
- New Subsystem “Implement File”
- New User-exits for maintenance
- SAVE set functionality
- Extended program documentation for third generation languages
- More entry points in Version 3.1.0
- PREDICT is now prepared for ADANET
- Processing Rules: free rules can be protected with NSS
- Extended LIST XREF command
- Extended functionality of verify of PFkeys
- PREDICT CASE is supported

Modified Menu Structures:

The menu structure has been changed. For all functions users will now pass one menu less than previously passed. Both “function” and “object” menu are different views to PREDICT, but the functionality is the same (i.e. all functions of PREDICT can be reached by both menus). Entering “?” will start a help system. All menus and pop-ups are now cursor-sensitive: a function will be selected by positioning the cursor at the corresponding text on the screen.

Integrated ADABAS Online Services:

All functions of AOS, which are associated with files and elementary fields, can now be handled with PREDICT. Also, if AOS is not installed at your installation, PREDICT has some additional functionality to assist you. New attributes have been added to the database object in PREDICT in order to provide information for ADABAS. This information about the ADABAS files is stored in a separate record which exists once per file/database. The function in-

corporate ADABAS file (formerly incorporate FDT) will show different behavior depending on whether AOS is installed or not. If AOS is installed, the file can be connected to PREDICT.

New Attributes for Databases and Files:

A database entry in PREDICT has new attributes. The size of a database is now stored and maintained in a different way. If the size of a database is specified it is checked against the files. The new attributes “Physical database-nr” and “Isolated database” will only be of interest if ADANET is installed at your site.

Protection of Processing Rules:

Processing rules can now be protected. If NATURAL Security System (NSS) is installed, it is now possible to specify NSS groups or users who are authorized to modify the rule. If a group is specified, all members of that group are authorized to modify the rule. The default will be an unprotected rule. Up to 10 groups or users can be linked to each rule.

SAVE Set Functionality:

The sets which are used by the Extended List command can also be created by active reference functions and by compare functions, if the result is a list of NATURAL objects which are registered via ACM. After the result list is displayed, another screen will display and the dictionary user may specify user-IDs for each library where the set is to be saved. If user-ID is left blank the set will not be saved. If NSS is installed at your site, the user-ID must have access permission for the list command of that specific library.

Extended XREF Command:

In NATURAL it is possible to handle global variables, which begin with “+”. This convention has not been supported with active reference because the ACM could not identify the + variable names. This problem is now resolved. There will be correct cross-reference information collected and stored once the program is cataloged (with the source reference). Please note: An object module being deleted with “uncat” will also delete the references.

Miscellaneous Notes on Version 3.1.0:

PREDICT Version 3.1.0 can run under ADABAS Version 4; however, the new functionality provided by AOS and refresh files are not available unless Version 3.1.0 is running under Version 5.0.

There will be additional and improved documentation for Version 3.1.0 which includes:

- Concepts and Facilities Manual,
- Programmer Command Processing Manual,
- Administrator's Reference Manual,
- User's Guide, and
- Reference Card.

PREDICT Version 4:

PREDICT Version 4 development has been moved from the UK to Darmstadt and is based on ADABAS Entire with four layers (see attachment):

- ADABAS
- ADABAS Entire*
- “Extra Layer”** (the German word did not translate well)
- PREDICT Functionality (i.e.: Add, Copy, Modify, etc.)

*ADABAS Entire stores all the PREDICT objects

**The “Extra Layer” helps

PREDICT with PREDICT CASE and documentation generation from CONFORM

Customized PREDICT reporting:

- Suppress data
- Resequenece data
- Verify Application Integrity
- Verify Consistency: checks module, xref data and source timestamp
- Verify All (potentially an expensive command)
- User Sets: defined sets created by users

Miscellaneous Notes on Version 4.0:

Chris stated that Version 3 will be supported for two full years after the release of Version 4.

1990 User Panel Participation:

User Panel members have the exceptional opportunity to voice their organization's business requirements and to participate with

SAGGROUP ELECTIONS GET INVOLVED - VOTE!

SAGGROUP Officer Elections

I am pleased to introduce our Nominees for this year's *SAGGROUP* elections. There are Four positions up for election this year: *Vice President, Database Product Representative, Communications Products Representative and End User Products Representative*. Each of these positions serve Two Year terms. The Candidates' Statements follow.

As members of the *SAGGROUP* Executive Committee, these people are entrusted with a great deal of responsibility and leadership. The *SAGGROUP* Executive Committee represents **all** Users, their concerns and issues, to SAG Management and the Development Staff. It's **YOUR** job to decide which of the qualified candidates you want to select. Please make your decision carefully.

Remember, too, *SAGGROUP* elections are only as meaningful as they are representative. **GET OUT AND VOTE!**

As in the past, you will have two methods by which you can vote:

1. Return the attached (see page 2) ballot by 6 October by mail or at the conference by 23 October.
2. Or you may vote at the Conference. Ballots will be available near the Registration area. You may complete one there, but it must be deposited by 5 PM Monday 23 October.

Please remember! We can only accept **ONE** Ballot per Customer Number. The first complete and accurate Ballot received will be counted. Subsequent ballots will be discarded.

1989 SAGGROUP BALLOT

<i>Position</i>	<i>Candidate</i>	<i>Vote for one for each position</i>
Vice President (2 Year Term)	<i>Colette Farabaugh Brock Norman</i>	_____ _____
Database Product Representative (2 Year Term)	<i>Bob Becker</i> _____	_____ _____
Communications Product Representative (2 Year Term)	<i>Ellen Birch Chip Gilbert</i>	_____ _____
End User Product Representative (2 Year Term)	<i>Bob Comstock Laura Jacobs</i>	_____ _____

Name: _____
Customer Number: * _____
* Note: All ballots must have a customer number to be counted.

Company Name: _____
Address: _____

Return Ballots:

- 1. By Mail: Must be received by 6 October 1989**

*Mary Ellen Woods
Inland Steel Company
3210 Watling Street MC 5-000
East Chicago, IN 46312, USA*
- 2. In Person: To Ballot Box (in Registration Area)**
*By 5 PM 23 October 1989
at the International Users' Conference
Anaheim, CA (22-26 October 1989)*

NOTE: ONLY ONE BALLOT WILL BE ACCEPTED PER CUSTOMER NUMBER
Please review your decisions internally prior to returning a ballot. The first complete and accurate ballot received will be counted.

SAGGROUP ELECTIONS CANDIDATES

Colette Farabaugh
Dole Packaged Foods
Candidate for Vice President

In accepting the nomination of *SAGGROUP* Vice President I would like to thank those people who nominated me and encouraged me to run. Their faith and their support is very much appreciated.

My experience with Software AG products began in 1980 with ADABAS V3.2.1 and NATURAL V1.1 in a DOS environment at Castle & Cooke. Nine years later the company is the same, although the name is now Dole Packaged Foods, the operating system is the same, but the Software AG products have changed and expanded to include PREDICT, NATURAL/AF and SUPER NATURAL, plus assorted preprocessors and performance monitors. During those nine years I have held several *SAGGROUP* positions which I believe have given me the experience for serving as Vice President. I served several terms as the Sierra Pacific Regional Representative, consequently I am familiar with how the regional process works, and the region's role with *SAGGROUP*. My first term as North American Area Rep introduced me to the Executive Committee and taught me the value of getting the regions involved. Subsequent terms as Area Rep, followed by a term as Nominations Chairman increasingly gave me the experience, understanding and confidence to allow me to be an effective member of the Executive Committee. Currently I am serving as the interim Vice President due to Bill Wagner's election as President.

Throughout all these years I have learned that *SAGGROUP* depends, actually thrives on two things -- involvement and communication. Inclusion in *SAGGROUP* is guaranteed by virtue of having a license, but membership does not automatically demonstrate involvement. And talking about changes, improvements, problems but not following up the words with involvement is nothing but that -- just talk. It only becomes communication when involvement is introduced into the equation. The first step to becoming involved is the hardest -- I will admit to being 'volunteered' for Regional Rep the first time, as have many of you. And having many months go by before becoming aware of what *SAGGROUP* really was and what it did. Since that time I have learned that when the users cared enough to get involved Software AG listened. One example of this was the PREDICT ACM pricing issue. The users were concerned enough to get involved and communicate their feelings, both directly to SAG personnel and thru the Executive Committee. Software AG responded by dropping the charge for XREF -- the communication was working. Now, with the direction of the Software AG product line diverging and growing at such a rate, a balance has to be achieved and maintained -- growth with quality, expansion but timely, profit but not unreasonably. This means the user commitment to and involvement in *SAGGROUP* is more important than ever.

Colette Farabaugh

Candidate for Vice President (Continued)

The Vice President's duties are not product oriented, with no direct charter to represent a particular segment of the user community. However, I view the position as no less important than any other position. The holder is still committed to representing all users, and responsible for keeping the communications going with Software AG. More importantly I feel that the Vice President, or for that matter any of the officers, should **actively** and **aggressively** encourage individual user involvement at all levels within SAGGROUP. These include regional committees, SIGs, BIGs, user panels and the new Technical Advisor positions.

If elected Vice President I will continue the dialogue with Software AG, attempting to strike a balance between what we as users want and what is best for the company and its products. And I would look for those of you users who have the gleam of involvement in your eyes, who are willing to commit your time and effort to keep SAGGROUP at its current high level of achievement. And get you started.

SAGGROUP ELECTIONS CANDIDATES

Brock Norman

Blue Cross, Blue Shield of Oregon

Candidate for Vice President

I am currently the Senior Data Base Analyst for my corporation with my duties ranging from installing new software releases to tuning the system to application analysis. I have over seven years experience with ADABAS, NATURAL, and PREDICT used in various ways and environments. I am also the Northwest Regional Representative for SAGGROUP and, as such, hold the responsibility for ensuring that our quarterly meetings run smoothly with significant and interesting information being presented at them.

As the Senior DBA, I see my tasks in one light: make the system perform to its maximum potential. If my corporation is to grow and succeed, the data base software must be utilized completely and efficiently in order to make a full contribution. This way of viewing my responsibilities causes me to carefully implement all phases of my tasks and also to quickly find resolution to any problems or questions that arise.

In like manner, my role as Regional Representative has expanded my horizons, enabling me to aid the users in my region by providing them with relevant topics and knowledgeable speakers at our meetings. Desiring that they too succeed in their endeavors has brought solutions to the group along with the rewards of serving them in this way.

I see the position of Vice President as being an even greater opportunity to practice my method of working. If given the privilege of serving in this office, I would give all my efforts to ensuring your full satisfaction and use of Software AG's products. Since the Business and Industry Groups report to the Vice President, my concern would be that their problems and questions received the quickest resolution and that current information flowed freely from the Executive Committee. Finally, I would work to help the management of Software AG realize their goal: "Provide business solutions" to users of their products.

Thank you for your time, and I hope to be given the opportunity to serve the User Group in the office of Vice President.

SAGGROUP ELECTIONS CANDIDATES

Bob Becker

Foremost Insurance

Candidate for Data Base Functional Representative

I would like to run one more term for the position of Data Base Functional Representative. My previous involvement with the Software AG user group has been in several positions over the past 17 years. There have been two occasions when I have held positions on the Executive Committee. One term as Complete Product Representative. Another term, holding the position as Technical Survey Chairperson. I am currently holding the position of Data Base Functional Representative. Over the past several years, I have been involved as the chairperson of the Special Interest Group in ADABAS performance. By giving several user presentations over the past years at the International Users' Conferences, I have had the opportunity to meet many of you and discuss various problems and solutions to ADABAS design and performance. By holding the position as the Data Base Functional Representative, it has allowed us as a user community to continue to grow with communications to Software AG about all data base related projects with ADABAS being a major component.

I would like to continue to hold this position for one more term so that I may continue to serve the user community in the capacity of providing information about ADABAS to Software AG as the user community sees it as well as obtaining information from Software AG and passing that information on to you through various newsletter articles from a user's perspective.

By working with the Executive Community, I have found a means to better the overall communications between us as users and Software AG. This has allowed Software AG to understand. Understand our perspective and ensure that Software AG products continue to head in the proper direction.

SAGGROUP ELECTIONS CANDIDATES

Ellen M. Birch

Price Waterhouse

Candidate for Communications Functional Area Representative

My background consists of the following:

- I have been the Communications Functional Area representative for the past two years;
- I have worked with COM-LETE and other Software AG products since 1980, with fifteen years in systems programming and five years experience at Software AG, initially as COM-LETE product support representative and then as manager of COM-LETE support;
- I have presented seminars on COM-LETE debugging and on tuning COM-LETE at past Software AG Users' Conferences;
- I have taught the highly-rated "COM-LETE Systems Programming Workshop" under contract as an outside consultant to Software AG;
- As a consultant, I have tuned many COM-LETE installations and performed numerous COM-LETE/ADABAS/NATURAL capacity planning studies; and
- I am currently a senior manager with Price Waterhouse, a COM-LETE/ADABAS/NATURAL user.

My continuing goals as the Communications Functional Area Representative will be:

- Fostering communication and involvement among the users of SAG communications products. I will continue to do this through my regular "tips" column in the newsletter, by functioning as a central routing point for information and questions, and by encouraging member involvement; and
- Increasing communication between the communications products users and Software AG on issues such as support, product enhancement, training, and documentation.

My highest priority is to make sure all of you feel that you are part of an organization that is making a difference in your relationship with each other and with Software AG - and is helping you to use your SAG communications products to their fullest potential. Most importantly, I'd like to see your experience with your user group be as productive, satisfying, and fun as it can possibly be!

SAGGROUP ELECTIONS CANDIDATES

Chip Gilbert

Martin Marietta

Candidate for Communications Product Representative

I have been an active user of the Software AG product line since 1985. During that time Martin Marietta has built a distributed data base between the IBM and VAX. This data base has the same data structures on both portions of the data base. We store the bulk of the data on one side and add a pointer to the data on the other portion of the data base. This data is stored and retrieved by the use of remote data access products. We helped Software AG build the communications products for a heterogeneous environment by being both an alpha and beta site for these products. I currently serve as chairman of Technical Advisory Committee (TAC) for VAX NET-WORK products.

As we approach the nineties, communication software has become a strategic asset and the key for information management. We are moving to the era of multiple data bases and multiple machines on different platforms. We are moving from remote data access to truly distributed data bases. The addition of the VAX, WANG and UNIX environments means that we have to communicate heterogeneously. Software AG has made a commitment to support distributed process. We also must guide Software AG in producing products that will solve our communication dilemmas. It depends on us the user community to integrate these products into our systems.

I will also work with COM-LETE users and present current issues to the Executive Committee.

If elected as the Communications Product Representative, I want to establish dialogue between the users and Software AG on the future direction of the product. Secondly, there is a need for a unified design for distributed data bases. Currently, the ADA-NET product is an IBM oriented design without regard to any architectural difference between the IBM, VAX, WANG, and UNIX environments.

I would appreciate your support and the opportunity to represent you on the Executive Committee.

SAGGROUP ELECTIONS CANDIDATES

Bob Comstock

Planning Research Corporation

Candidate for End User Product Representative

As an employee of Planning Research Corporation (PRC) for more than 18 years, I have been a user of Software AG products since 1974. Working in support of the PRC McLean Data Center, I have held the positions of Data Base Administrator and Customer Support Manager. Moving on from the Data Center responsibilities I've worked as an ADABAS/NATURAL Technical Consultant on development projects and on to Applications Development Manager for PRC on large scale ADABAS development projects. I am currently in my second year as the SAGGROUP Eastern Regional representative and served as Vice-President prior to my current position.

My goal as End User Product Representative would be to effectively represent the End User community to the Executive Committee and Software AG and to keep information flowing to and from the End User community using such facilities as "Connections". As End User Product Representative I would strive to work in the following areas:

- Encourage Software AG to participate in an open dialogue with end users on a regular basis as to how the products are being used and allow the End Users to play a part in specifying software enhancements.
- Encourage creation of new Special Interest Groups as it pertains to End User Products and insure the End User Functional Area Representative (FAR) has required representation as it pertains to Technical Advisory Committee members.
- Actively solicit users of End User Products to exchange user profile information among themselves.

I am committed to provide the time and energy necessary to hold this position and ask only that you consider myself as your End User Product Representative.

SAGGROUP ELECTIONS CANDIDATES

Laura L. Jacobs

Rochester Institute of Technology

Candidate for End User Functional Representative

I would like the opportunity to continue to be your End User Functional Representative, and would like to remain being your liaison.

I am the Data Base Administrator at Rochester Institute of Technology and have been involved with many aspects of SAG products for eight years. I am very active in the Eastern Great Lakes Users' Group and have held the position of Regional Representative. I've programmed from ADASCRIP through NATURAL 2. I have been involved with all aspects of Systems Analysis and Design. I have trained programmers and end users in NATURAL and SUPER NATURAL. I know the frustrations of trying to explain the concept of a periodic group to a poor person who is still struggling with the idea of files and records. I know the sick feeling when the Operation's Manager knocks at the door, wondering what to do with a SUPER NATURAL job written by an end user that has been running for over three hours.

We are fortunate to have strong Special Interest Groups for ELITE, SUPER NATURAL, and NATURAL CONNECTION. During the past year, I've had the opportunity to talk to many of you. I have listened to your problems and suggestions. I have many ideas that I would like to implement:

- To organize a SUPER NATURAL User's Panel to meet in addition to the International SAG Users' Conference. When there is enough interest in other products the same could be done.
- Increase the use of SAG Connections. Meeting at a conference once a year, (if you're lucky enough to have a budget allowing this) is not enough. Users should be motivated to write articles to be published. How are users trained? What restrictions are enforced?
- **Software AG LEARNS FROM US.** Users should be encouraged to submit Change/Enhancement forms.
- **Software AG LISTENS TO US.** Users should join Special Interest Groups which provide the necessary vehicle to be heard. Did we really need as many system modifications to SUPER NATURAL software as we had this year?

I have enjoyed being your Representative, but I've only just begun. I would appreciate your support to elect me as your End User Representative. I want to hear your suggestions, grievances and praises.

SAAGORWAH ELECTIONS
ELECTIVE BOARD - VOTE

Qualities

It has the attached (see page 2) ballot
by 2 October, by mail or at the election
by 23 October.

If you wish to vote in person, please
bring your ballot to the election
you are a member of, or to the
location of the election.

These notices are being sent to you
because you are a member of the
election committee.

Yours faithfully,
The Electoral Commission

Electoral Commission
100 Victoria Street
Wellington

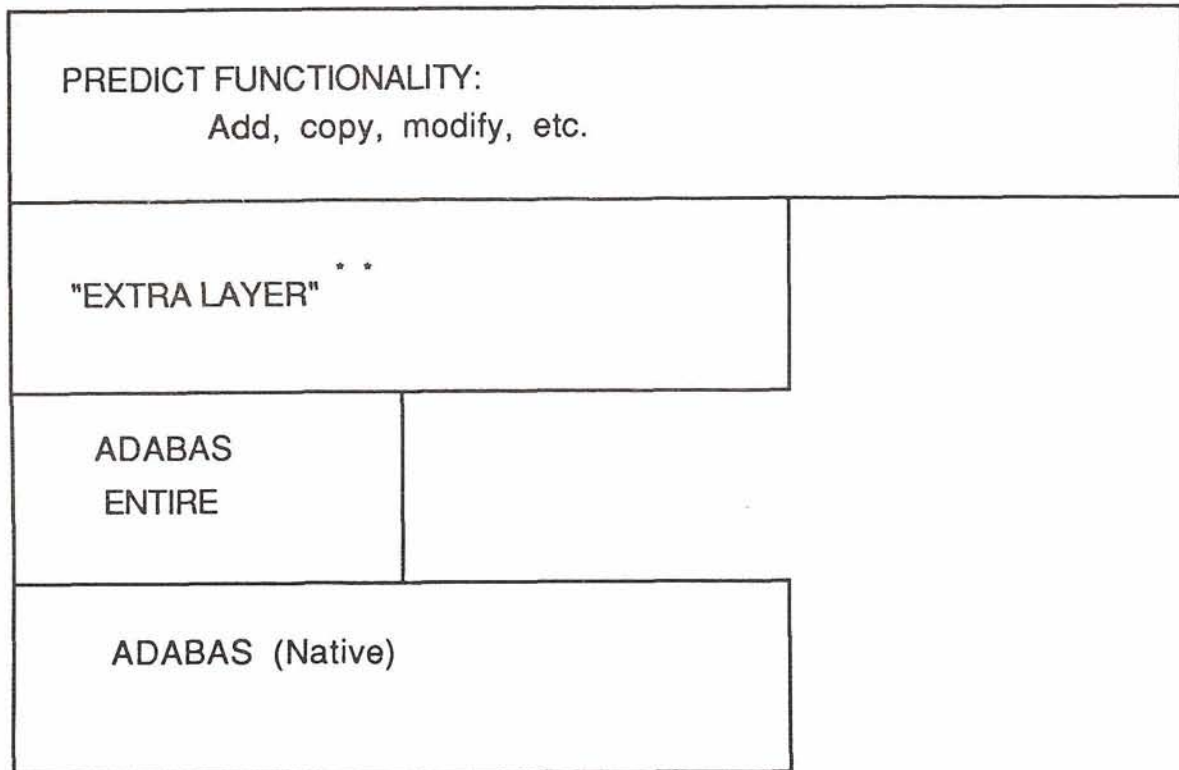
SAGGROUP ELECTIONS GET INVOLVED – VOTE!

Deadlines

1. Return the attached (see page 2) ballot by 6 October by mail or at the conference by 23 October.
2. Or you may vote at the Conference. Ballots will be available near the Registration area. You may complete one there, but it must be deposited by 5 PM Monday 23 October.

Please remember! We can only accept **ONE** Ballot per Customer Number. The first complete and accurate Ballot received will be counted. Subsequent ballots will be discarded.

PREDICT VERSION 4.0



** German word does not translate well, temporarily called "extra layer"

Software AG on the future of the data dictionary and related products. If you and your organization are interested in participating in the 1990 PREDICT User Panel, please submit your name, address, phone number and job title to me:

Patti Piccola
Data Administrator
BP Exploration
5151 San Felipe
P.O. Box 4587
Houston, Texas 77210

All expenses for the PREDICT User Panel are the responsibility of the panel member's organization.

At the Anaheim Conference, a list will be circulated during the PREDICT SIG meeting on Tuesday evening, October 24, to sign up for the 1990 PREDICT User Panel. Please check your conference agenda and procedures to confirm the correct time and place for the PREDICT SIG meeting.

PREDICT User Panel members are encouraged to *actively participate* by providing constructive recommendations and suggestions for Software AG.

PREDICT VERSION 4.0

PREDICT FUNCTIONALITY:

Add, copy, modify, etc.
"EXTRA LAYER"***
ADABAS
ENTIRE
ADABAS (Native)
Attachment
**German word does not translate well, temporarily called "extra layer"

1989 PREDICT PANEL MEMBERS

Bill Mackowiak
Senior Analyst/Predict Support
Rochester Gas and Electric

Joan Vragel
Data Base Administrator
Rochester Gas and Electric

Paul Ruais
Assistant Director DRA
Boston University

Stanley Weinronk
Data Administrator
Boston University

Patti Piccola
Data Administrator
British Petroleum Exploration

Lynne Dowling
Data Base Analyst
M.I.T.

Sarah Tourville
Sr. Data Base Staff Consultant
EPA NCC Facilities Mgmt. Contract
UNISYS

Stuart Moisan
DDA-PREDICT Application
Support
EPA NCC Facilities Mgmt. Contract
UNISYS

Debby Lawson
Manager, Production Environment
& Quality Assurance
Washington State University

John Wirtanen
Project Manager: Software AG
Product Line
TIAA/CREF

Richard Peth
Data Base Administrator
Department of Natural Resources

Fred Frudden
Manager, Data Administration
A. H. Robbins

PREDICT

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Jay McDermott
Applications DBA/DA
Westinghouse Savannah River Co

Ron Johnston
Project Manager/DBA
ATAC

Also in Attendance from SOFTWARE AG:

Chris Hopker, Software AG, Darmstadt, Manager PREDICT Development

Randy Kastendieck, SAGNA Customer Support

Virginia Sullivan, SAGNA, PREDICT QA Analyst

PRESIDENT'S MESSAGE

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this list to find the groups who deal with your special areas of interest. These groups give you an excellent opportunity to customize your conference agenda to your particular needs.

The diversity of interests represented by the SIGs and BIGs is, as always, only a small part of the total conference experience. As always, there will be announcements from Software AG revealing their future directions. As always, there will be presentations by users detailing how they have used Software AG products to solve their business problems. And as always, there will be product demonstrations by Software AG to give us a look at solutions to the business problems of tomorrow. Equally important, however, is the opportunity to share and exchange ideas with each other throughout the week—at breaks, at meals, at social functions. The value of the conference increases with each person who registers; each registrant contributes a unique set of ideas and philosophies. We can all look forward to the most valuable conference yet in Anaheim.

PREDICT SIG Meeting

Patti Piccola
*BP Exploration
Administrative Product Representative*

A PREDICT SIG meeting will be held on Tuesday, October 24, in Anaheim. The new PREDICT SIG chairperson is Hannah Dolan, A.H. Robins. Hannah has been an active PREDICT user for numerous years and assisted in preparing a PREDICT presentation for the Nashville Conference.

Software AG Representatives, Randy Kastendieck, SAGNA, Denver Customer Support and Greg Hagen, SAGNA, PREDICT Case Product Manager, are scheduled to attend the meeting. The SIG meeting will be a general session to discuss issues, questions, ideas and effective "work-arounds". Also, there will be multiple handouts available which answer frequently asked PREDICT questions.

All interested PREDICT and PREDICT Case users should plan on attending Tuesday's meeting. This will be a ninety-minute session to be held following the scheduled conference presentations. Please check your conference proceedings and agenda to confirm the time and place of the PREDICT SIG meeting. If you are unable to attend the Anaheim conference but have a specific question/concern, submit the question in writing to:

Hannah Dolan
A.H. Robins
1407 Cummings Drive
P.O. Box 26609
Richmond, Virginia 23262-6609

If you have questions about the SIG meeting, please call either Hannah at 804-257-2550 or me at 713-552-6017. See you Tuesday night in Anaheim.

Macintosh SIG Forming

Gone are the days when micro and mainframe are as distant as two sides of the Grand Canyon. Micro to mainframe connectivity is an exciting reality. As Software AG enters the Macintosh world, the possibilities of cooperative processing are exciting. The products available from Software AG, such as NATURAL CONNECTION and NATURAL Architect Workstation, along with the Macintosh CPU, are extending powerful capabilities to the user. "We", at The University of Texas, are firm believers in the Software AG and Apple Macintosh platforms. Together, Software AG and Apple Computer are providing tools that extend the reach of the user into a world of information wealth.

In talking with other sites using products from Software AG and Apple, enthusiasm is high. There is an eagerness to share information, ideas and solutions in implementing these new products and technologies. Success stories already exist, and more are on the way. The purpose of the Macintosh SIG (Special Interest Group) will be to facilitate the sharing of information among Software AG and Macintosh users. The possibilities for use of these "application" and "presentation" platforms are tremendous, and your participation in this SIG will ensure that these solutions are implemented successfully.

The 1989 International Users' Conference will be the first formal opportunity for those currently using, or desirous of learning about the integration of Software AG products and the Macintosh to meet together. If the canvassed interest level in a NATURAL/Macintosh SIG is an accurate indicator, our first meeting will be valuable. Your participation will make this SIG a success. If you are interested in participating, or have input you would like to share, please give me a call or drop me a line as soon as possible. I can be reached at:

Kim Arledge
University of Texas at Austin
Data Processing Department
P.O. Box Q
Austin, Texas 78713
(512) 471-0265

I look forward to talking with you, and seeing you in Anaheim!

SUPER NATURAL and CON-NECT: Saving Time and Trees Together

Lisa Crispin
NATURAL Applications Group,
Customer Support

Like peanut butter and chocolate, SUPER NATURAL and CON-NECT are even better together with the release of SUPER NATURAL 2.3.1. SUPER NATURAL users can invoke CON-NECT from any SUPER NATURAL menu and return directly to SUPER NATURAL when finished. SUPER NATURAL allows end-users to take advantage of CON-NECT features that up to now required some knowledge of NATURAL programming. CON-NECT in turn allows SUPER NATURAL users to modify SUPER NATURAL reports in CON-NECT and distribute them electronically. Even experienced NATURAL programmers will find SUPER NATURAL useful for creating pre-formatting procedures for CON-NECT documents.

Creating Formatted CON-NECT Documents with SUPER NATURAL

In the July 1989 issue of Connections, Wendy Crist described how to use the COM-POSE statement in NATURAL and pre-formatting procedures in CON-NECT to create documents containing data automatically extracted from data base files. This is a great time-saving tool, but requires coding a NATURAL program. The following steps illustrate how a non-programming end-user can produce a pre-formatted CON-NECT document through SUPER NATURAL, with no knowledge of NATURAL programming required!

If you have the July 1989 issue of Connections at hand, refer to it now. We will use the same example of a letter to be sent to all employees who have over 55 days of leave available. The letter will contain each employee's first name, middle initial, and last name. It will be addressed to these employees at work and tell them their available leave and how much leave needs to be taken before June 1.

Step 1: Create the CON-NECT "Skeleton" Document

From any SUPER NATURAL menu, type "C" on the command line to invoke CON-NECT (you may also enter CON-NECT directly, without going through SUPER NATURAL). Add a document with the text for the letter described above. For all

fields that will be variables, enter a variable name preceded by an ampersand (&). For our sample, the variables will be &fname, &minit, &lname, &dept, &lvdue, and &lvtake. You may enter CON-FORM text formatting commands, as well, if desired.

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Assigning Default COM-PLETE Printers Without TIBTAB Changes

Don Castleberry
Delta Air Lines, Inc.

Note: This article was scheduled to appear in the Summer 1989 Issue of Connections. By mistake it was accidentally omitted. The editor apologizes for any inconvenience this has caused.

With the increasing number of terminals that were capable of gaining access to COM-PLETE through our VTAM network, we were facing an enormous task of maintaining a TIBTAB for all the printers in the system plus those users that still wished to have a default printer assigned to their terminal. We decided the best answer was to set up an ADABAS file containing, for each LU name of those VTAM terminals which were to have a default printer, the LU name of the associated printer. We chose the VTAM address for both entries since it would be less common for those to change at our site than it would be for the COM-PLETE TIDs of the printers to change.

We then wrote a version of the ULOGX1 user exit to make a direct call to this ADABAS file at logon time. We found, by trial and error, that if a function code of 4 (undocumented) was received in the UIT-CODE field of the ULOG Info Table, we were at the point where the

logon was "approved." We could then call ADABAS to determine if there was a default printer LU associated with the terminal LU of the calling TID (found in the TIB-NAME field of the calling TID's TIB control block) and, if so, update the UITHC field in the ULOG Info Table with the printer's LU name. The TIB control block address could be found in register 5 (since we hadn't used it in the exit) or by using fields from the COMREG control block for calculations of offsets. One thing to be aware of is that this method for setting the default printer for a terminal would not override any hard copy defaults set up through ULOGM or UDEF. The ULOG Info Table is documented in Appendix C of the COM-PLETE 4.4 Systems Programmer's Manual and the TIB and COMREG control blocks are documented in the COM-PLETE 4.4 Control Blocks Manual.

Along with this, we set up a series of NATURAL programs for maintaining the ADABAS file. This allowed the capability to add, modify, or delete the default printer setups whenever it became necessary. The next time a user would log on, the change would be picked up instead of having to wait for a TIBTAB to be assembled and initialized. This last capability has been helpful in our 24 hour shop.

SUPER NATURAL

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Step 2: Create the SUPER NATURAL Transaction

If you entered CONNECT from SUPER NATURAL, quitting out of CON-NLECT will take you directly back to SUPER NATURAL. Or, invoke SUPER NATURAL as you normally do.

Create a new SUPER NATURAL transaction and modify the modes for reporting:

Report Type: Choose CON-NLECT to produce a formatted CON-NLECT document.

Destination: A CON-NLECT document may be routed to the screen, a printer, CON-NLECT, or a PC file if NATURAL Connection is installed. For this example, choose destination CON-NLECT to send the formatted documents back to CON-NLECT.

Select the file(s) from which the variable fields are to be taken—in our example, EMPLOYEES. After you have chosen a file, SUPER NATURAL will bring up a screen listing all the documents in your CON-NLECT cabinet that contain text variables (those beginning with an "&"). You can select from the list or enter the name of the document.

Next, SUPER NATURAL will display the transaction specification screen so that you can enter selection criteria, calculations, logic statements, and select the fields to be inserted into the CON-NLECT document. For our example, the selection criterion is: LEAVE-DUE GT 55.

Now you must match the data base field names to the "&" text variable names for which they will provide data. To do this, you can enter the "&" variable name on the "text variable" column to the right of the field name. If you can't remember the text variable names, enter an "*" in position 1 of any text variable field. This will bring up a window containing a list of all the "&" text variables in your document, and you can enter the SUPER

NATURAL two-character field name for each text variable.

For this example, match the following fields with the CON-NLECT text variables:

FIRST-NAME	&fname
MIDDLE-I	&minit
NAME	&lname
DEPARTMENT	&dept
LEAVE-DUE	&lvdue

You still need a field to provide the value of &lvtake. This value has to be computed, so you must define a user-defined field (call it LEAVE-TO-TAKE) and enter a calculation:

```
LEAVE-TO-TAKE = LEAVE-DUE  
- 55
```

Then match the user-defined variable with the text variable:

LEAVE-TO-TAKE	&lvtake
---------------	---------

Step 3: RUN the SUPER NATURAL Transaction

RUN the SUPER NATURAL transaction. Since CON-NLECT is the destination, the only output you will see in SUPER NATURAL is the number of records processed.

Step 4: Look at the Results

Go back into CON-NLECT (type "C" on the SUPER NATURAL menu command line) and display the COM-POSE folder. Documents created with a CON-NLECT type report transaction in SUPER NATURAL are stored in the COM-POSE folder. There will be one document for each record that met the selection criteria. The document will be named with the date and time and transaction name by which it was created. You may now edit these documents, send them, print them, or perform any CON-NLECT function with them. These documents will look exactly the same as if you had created them in CON-NLECT using a pre-formatting procedure written in NATURAL.

Sending SUPER NATURAL Reports to CON-NLECT

Any type of SUPER NATURAL report—not just the CON-NLECT type report—can be sent to CON-NLECT and stored as a CON-NLECT document. Simply select CON-NLECT as the report destination for the SUPER NATURAL transaction and run the transaction. In CON-NLECT, these reports will be stored

in the SUPER NATURAL folder with the date, time and name of the creating transaction. These may then be treated as any CON-NLECT document; you may modify or send them, as needed.

Creating a Pre-formatting Procedure with SUPER NATURAL

If you prefer to format your documents in CON-NLECT, rather than create them with the SUPER NATURAL transaction, you can create the SUPER NATURAL transaction as described above. Then, instead of RUNNING it, use the GP command to generate a prototype. Stow the prototype in an appropriate library (SYSCNT2 or SYSTEM). You now have a NATURAL program containing a COM-POSE statement which may be used as a pre-formatting procedure in CON-NLECT. For more information, please refer to Wendy Crist's article in the June 1989 issue of Connections.

SUPER NATURAL and CON-NLECT are now working together to allow both programmers and end-users access to time- and paper-saving tools such as automatically formatted documents and electronic distribution of reports.

Applying COM-LETE Fixes

Tom Olson

Communications Group, Customer Support

We in Customer Support recognize that there is an immense diversity of backgrounds in the various support staffs of our customers. Some of you run a 100% NATURAL environment, while others are Assembler and Cobol. Some of you have ADABAS shops and others of you are almost entirely VSAM. However, the majority of our customers have shops with various mixtures of languages, access methods, terminal types, and networking environments.

One thing all of you have in common is that sooner or later you will put a fix from our Communications Group into your environment, so it is the application of those fixes that is the topic of this article.

NOTE: References in this article to

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COM-LETE

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COM-LETE apply equally to COM-LETE, COM-POSE, and ADABAS/TPF.

Two Types of Load Modules

The COM-LETE load library that you receive on the distribution tape contains two types of load modules. The first I will refer to as the distribution modules and the second as the executable modules. All of the executable modules in the load library consist of distribution modules that were linked during the creation of the library. This is done to provide you with a shorter and simpler installation.

Distribution modules can be thought of as functionally independent pieces of code that will later make up an executable module. For example, if you have modules A, B, and C, they may be linked to form module UTIL. This is the way that the COM-LETE nucleus and all of the utilities are created. For your convenience, a member in the source library, JCLLINKS, contains the various linkage control statements that are required to re-create the executable modules. This member contains multiple steps, with each step set up to create one executable module.

Executable modules can be made up of one or more distribution modules. In the case where only one module exists, the distribution and executable module are one and the same, rather than two separate entries. An example of this is TTJJES2. It is in its executable format and there are no "distribution" modules in the library that need to be linked to create it. Conversely, a list of the distribution modules that create the COM-LETE nucleus contains over 200 entries.

A Typical Fix

What does a typical fix look like? The following sample should help you to understand what you will be receiving and how it relates to two basic maintenance philosophies.

NAME	TLFIXn	TLFIXn	LOADLIB(COMLETE)	
1	2	3	4	5
VER	00AB	00		
6	7	8		
REP	00AB	EE		
9	10	11		
NAME	TLAMVTAM	TLAMVTAM	LOADLIB(COMLETE)	
12	13	14	15	16
VER	0B54	9140503E	TM	TIBSSHR,TIBMSHR
17	18	19	20	
REP	0B54	47F0C3BE	B	VT105
21	22	23	24	

Figure 1: Anatomy of a Fix Member

An Explanation of the Fields in Figure 1

1. Directive to the zap utility that program identification information follows on this line.
2. Specifies to the zap utility the external module name. This is the name of the member in the directory of the load library. When 2 and 5 are the same, this should be the executable module. When 2 and 5 differ, this is the distribution module name.
3. Specifies the internal module name to the zap utility. For you Assembler programmers, this is the CSECT name.
4. The zap utility treats this as comments. It is a directive to the programmer to check field 5.
5. The zap utility treats this as comments. This is the external name of the executable module. You should be using this field in conjunction with your own maintenance philosophy to direct your actions.
6. Directive to the zap utility that validation information for the named module follows on this line.
7. Offset within the module to be used with data in 8.
8. Data to be used.
9. Directive to the zap utility that replacement information for the named module follows on this line.
10. Offset within the module to be used with data in 11.
11. Data to be used.
12. Same as 1.
13. Same as 2. When 13 and 16 are the same, this should be the executable module. When 13 and 16 differ, this will be the distribution module.
14. Same as 4.
15. The zap utility treats this as comments. It is a directive to the programmer to check 16.
16. The zap utility treats this as comments. This is the external name of the executable module. You should be using this field in conjunction with your own maintenance philosophy to direct your actions.
17. Directive to the zap utility that validation information for the named module follows on this line.
18. Offset within the module to be used with data in 19.
19. Data to be used.
20. Treated as comments by the zap utility. Indicates the source instruction represented in 19.
21. Directive to the zap utility that replacement information for the named module follows on this line.
22. Offset within the module to be used with data in 23.
23. Data to be used.

COM-PLETE

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24. Treated as comments by the zap utility. Indicates the source instruction represented in 23.

Adopting a Maintenance Philosophy

Now that you have seen a typical zap format, what is it that you could do with it? COM-PLETE maintenance is distributed in a form that will easily allow you to adopt one of two maintenance philosophies.

1. *Apply fixes directly to the executable module and do the testing you feel is necessary to verify that the fix corrects the problem.*

When you are confident the problem is resolved or the fix does what was intended, apply the fix to the appropriate distribution modules. This approach permits a window of test time that will allow you simply to relink the executable module in order to back off a fix that does not perform to your satisfaction.

Bear in mind that if there is more than one fix on the executable module that was not applied to the distribution module(s), you could possibly "lose" fixes. It does provide a very easy-to-use backout mechanism.

2. *Apply the fix to the distribution module(s) and then relink the appropriate executable modules.*

To backout a fix, you would create a second fix which would be a copy of the first, but you would change all of the control statements that were VER to REP and all those that were originally REP to VER. You would then apply your backout fix to the distribution module(s) and relink the corresponding executable module(s).

This second methodology closes the window where a fix could be lost, but increases the difficulty of backing off fix(es). One alternative you might consider for this situation is to create the linked module in a test library concatenated ahead of your

COM-PLETE load library in the STEPLIB DD statement in the COM-PLETE startup JCL. Then if you find it necessary to back out the updated module, you could simply scratch the member from the test library. If the test library copy is good, you would either copy it to the permanent load library or rerun the link using the permanent load library as the SYSLMOD target.

Load Library Modules

Regardless of which maintenance philosophy you adopt, there are a couple of considerations to make for COM-PLETE. The PGMLIB contains copies of many of the modules which exist in the load library. If a new copy of one of these modules is put into the load library, remember to use TULIB or ULIB to delete and recatalog the new version. Always ensure that your new program is in a STEPLIB data set ahead of any other copies so that your new module is the one picked up. If a transient module, identified by the first two characters being "TT", is being recataloged, make certain activity on COM-PLETE is quiesced or that COM-PLETE is down. We have encountered situations where COM-PLETE abended sometime during or immediately after the recataloging process.

Modules in the RESIDENTPAGE list need an additional step performed before a zap will be in effect. The operator command PGM,REFRESH,program-name must be issued before the new routine will be in place. RESIDENT-FIX modules are not refreshable and require COM-PLETE to be shut down and reinitialized.

Recording Your Fixes

There are a number of variations on these two approaches and you may be using one of them. Regardless of the specifics of your maintenance approach, it is important to be able to tell which fixes are on and where they are. For those of you who have multiple copies of software running, it is a great time-saver to keep good records. Whether those records are an online system on a mainframe or PC or just a notepad is unimportant as long as you can tell what is on and where.

NTFILE/LFILE Questions and Answers

Karen Fredrich
NATURAL Applications Group,
Customer Support

Several NATURAL 2 add-on products have their own system files, but do not have a way to identify them to the NATURAL nucleus (i.e., a NATPARM). PREDICT and NATURAL Security have been provided NATPARMs, FDIC and FSEC, to identify their system files. SUPER NATURAL and CON-NECT also have system files, but FNSN and FCNN are not valid NATPARMs.

This leads to some commonly-asked questions:

Q. How do I tell NATURAL 2 where the CON-NECT 2 system files are defined without a NATPARM?

A. The LFILE parm can be used to identify them dynamically, or the NTFILE can be specified in the NATPARM module.

Q. Where are these parms documented?

A. The NATURAL 2 Administration Manual, Profile Parameters section.

Q. What is the format?

A. The format for these parms is:

NATURAL parm specification—

NTFILE ID = 999, DBID = 999,
FNR = 999, PASSW = NO, CIPH = NO

Dynamic specification—

LFILE = (ID, DBID, FNR, PSWD,
CIPHER)

Q. Is there an example or an explanation?

A. Yes! Here is an example of how to define a SUPER NATURAL (NSN) help file on data base 140, file 15:

NTFILE
ID = 245, DBID = 140, FNR = 15
LFILE = (245, 140, 15)

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ID NUM	SYSTEM FILE DESCRIPTION
222	CONNECT V2 HELP TEXT
223	TELEX SYSTEM FILE
224	CONFORM SYSTEM FILE
225	NATURAL MODELING FILE—SAGNA
227	CONSTRUCT FILE —SAGCDN
228	SUPERNATURAL FILE—PHYSICAL DATABASE USER FILE
229	CAI FILE —SADCDN
230	TRS FILE—STRUCTURE DESCRIPTION
231	TRS FILE—DICTIONARY
232	TRS FILE—DOCUMENTS
233	TRS FILE
234	TRS FILE
235	TRS FILE
236	TRS FILE
237	TRS FILE
238	TRS FILE
239	NATURAL ONLINE SYSTEM AID
240	COM-LETE SECURITY SYSTEM FILE
241	REVIEW SYSTEM FILE
242	COM-LETE SECURITY FILE DEFINITION
243	NATURAL PRODUCTIVITY CENTER FILE—SAGNA
244	SUPERNATURAL SYSTEM FILE (HEADER)
245	SUPERNATURAL SYSTEM FILE (HELP)
246	SUPERNATURAL SYSTEM FILE (USER)
247	TEXT RETRIEVAL SYSTEM FILE
248	SUPERNATURAL SYSTEM FILE (FILE)
249	DICTIONARY SYSTEM FILE 1
250	DICTIONARY SYSTEM FILE 2
251	CONFORM SYSTEM FILE

**THE ABOVE INFORMATION IS EXTRACTED FROM THE NATURAL 214 NTFILE MACRO.

Figure 1—LFILE/NTFILE Identifiers,
Extracted From the NATURAL 214 NTFILE Macro

ID = each system file is assigned a unique number that is used by the NATURAL nucleus for identification. ID= 245 identifies a NSN help file whenever NSN/NATURAL 2 are installed. The ID number is not variable and is predetermined by Software AG.

DBID = the physical ADABAS number where the NSN help file is loaded.

FNR = the file number of the NSN help file, not the NATURAL system file number.

Q. How can I verify that all of the file IDs are correct?

A. A quick and easy way to verify is through the system profile function.

Log on to SYSDBA, selection option 1 to display system file information. This will display all of the system files assigned to NATURAL 2. The system file names will be displayed, not the ID numbers.

Q. Where can I get a list of these ID numbers?

A. Software AG provides a list of LFILE/NTFILE identifiers (refer to Figure 1) in the NTFILE macro. This macro is located in the NATURAL 2 source library.

Tips for Pop-up Help Using NATURAL ELITE 1.4

Susan Lowy
Instructional Technology Group

Now that we have the new version of NATURAL ELITE and we can work in the NATURAL 2 environment, there are some wonderful things we can do to enhance our ELITE courses. The most notable is the use of pop-up windows.

NATURAL ELITE uses the NATURAL 2 Map Editor when creating maps. We create regular maps, interactive maps, and help maps. In the past, we had full-screen help, which was invoked when the student pressed PF12 (or its equivalent). That help screen is still available; however, we can now add pop-up help screens.

Pop-up help requires at least one input field for the student to invoke the help, which is done by entering a question mark (you might indicate that by saying: Enter a ?_). Pop-up help can be attached to the original map, either on the "Define Map Settings" screen (where the help pops up as a default every time the student enters a question mark—mostly for quizzes), or on the "Extended Field Editing" screen (where the help is specifically for that field; this overrides any default help).

Creating a Pop-up Help Screen

When you create full-screen help (invoked with PF12), you would initialize a help map (H function

code) and proceed to the map editor. You enter the text and/or graphic and then stow it.

To create a pop-up help screen, initialize a help map, but on the "Define Map Settings" screen, adjust the Pagesize and the Linesize to a smaller setting (default is 23 × 79, respectively), and then proceed to the map editor. Always make the area larger than you might need; you can always make the area smaller, but you cannot enlarge it after you have stowed the map. If, after entering the text, you wish to make the area smaller, stow the map first, then adjust the size. Otherwise, you will lose all of your text!

continued on page 30

13:00:16

***** N A T U R A L / E L I T E *****
- ADD MENU UNIT -

23.06.89

UNIT NAME: NSESHelp

MAP NAME: SNSEI07M

HELP MAP NAME: _____

UP TO 5 ANSWERS

UNIT DESTINATIONS

1: ? _____
2: _____
3: _____
4: _____
5: _____

1: NSEIEXITELITE____
2: _____
3: _____
4: _____
5: _____

PF1 MAIN

PF2 BACK

PF3 STOP

PF12 HELP

Figure 1: Add Menu Unit Screen

After you have created the pop-up help, go to the original map that will use this help and attach it as screen-help (on the "Define Map Settings" screen). At this point, you can test your map to see if your pop-up help works by entering a question mark in the input field(s).

Maintaining Your Maps

Now you are ready to maintain your maps using the Unit Maintenance

component of Authoring. The full-screen help screens are attached to the maps next to the field HELP MAP NAME, just as you are used to doing (though now we can have full-screen help with menus, quizzes, and text screens!). For maps that will have one input field to invoke the pop-up help, you should use the MENU-type unit. If you use a quiz-type unit, your

students would receive feedback, but would also be scored if they didn't enter a question mark. You could give them two chances, the first telling them to enter the question mark. However, any input would be counted as part of the student's overall score.

You would complete your menu screen as shown in Figure 1. The destination is the next screen. If the student chose not to enter the question mark, the default would also be the next page.

REGIONAL REPORTS

EASTERN REGION

Frank Gillett Spoke On "How to Turn On Data Administration"

Debbie Watson
Technalysis Corporation

The quarterly meeting of the Eastern Region Software AG Users' Group was held at the Holiday Inn in Crystal City, Virginia on Tuesday, April 17, 1989. The meeting was called to order at 9:00 a.m. by President Bob Comstock and this meeting represented 100+ attendees. The following orders of business were covered:

General Business

The General Business information was passed on to members in writing so that Rose Ours, the ADABAS Representative could present information regarding ADABAS 5. Bob then turned the meeting over to Barry Kropf, the Vice President of the Eastern Region Software AG Users' Group.

ADABAS 5—Rose Ours of MCI

Rose Ours gave an update on installing ADABAS 5 pointing out some problems she had encountered:

- ADAINV Utility will sometime get a Point of No Return Error Message when it abends. When this message is received you cannot just execute the Recover Utility, you have to Restore the file and then rerun the invert.
- ADALOD Utility abended and the ADAREP showed the message that "The File was in Load Status." The Recovery Utility cannot be run at this point. The file needs to be deleted and reloaded.
- ADALOD Utility problem with specifying NUMREC. If you specify NUMREC and the NUMREC specified is less than the number of input records you will receive a return code of 0 instead

of 4. Rose is expecting a Zap for this and will be cleared up in SM04. Rose passed out papers regarding problems she had encountered.

DATA ADMINISTRATION—Frank Gillett of A.H. Robins

Frank Gillett of A.H. Robins gave a presentation on "How to Turn On Data Administration." The need for Data Administration at A.H. Robins came about so that they would have the capability to identify how and where their data was used. Frank described the documentation relating to data administration as Program Functions, System Functions and File Definitions. Previously, A.H. Robins did not have a standardized method of documenting their various systems. The Data Administration effort was to standardize this documentation and make it meaningful. A.H. Robins decided that the best way to achieve this goal was to use PREDICT and ACM. The goals of Data Administration was to provide a datamanagement facility where data was defined and consistent and supportive of the needs of their shop. PREDICT is used to catalog and maintain all of A.H. Robins documentation. ACM is used to capture data usage information. Data Administration trained their staff in the use of PREDICT and ACM identifying the benefits of using each one. The main area documented is the Production Environment. A.H. Robins is very pleased with the results of the Data Administration effort and intends to continue with this effort.

NATURAL 2 Processing—Sheri Kosh of Software AG

Sheri Kosh of Software AG gave the next presentation on NATURAL 2 Processing. Sheri discussed different aspects of NATURAL 2 including:

- NATURAL 2 Environment—The Operating System, A NATURAL 2 Architecture Overview, Dynamic Storage Usage, TP Interface and Screen Work Areas, Buffer Pool Architecture and Setups, Local Buffer Pool areas and Global Buffer Pool Areas.

- NATURAL 2 Objects—Main uses of each NATURAL 2 Object, Interaction of NATURAL 2 Objects, and creation of NATURAL 2 Objects.
- Internal Processing—Buffer Usage during NATURAL 2 Processing.

Sheri provided insight into the NATURAL 2 environment and answered several questions regarding problems.

User Open Forum Discussion

This time slot was offered to allow users to discuss their experiences and/or problems in using ADABAS and NATURAL. Our thanks to Sheri Kosh of Software AG for staying on and interfacing with these users.

SOUTHEASTERN REGION

Dr. James Thomann Presented NATURAL 2 Internals

On May 12, 1989, The Southeastern Users' Group held it's Spring meeting at the Westin Lennox in Atlanta, Georgia. The meeting was attended by around 70 attendees representing 37 companies. The meeting was preceded by a three day ADABAS 5 Internals Class taught by Becky Albin of Software AG's Educational Department at Reston, VA.

The Winter meeting will be held on January 22, 1990, at the Grovner Resort Hotel in Disney Village near Orlando, FL. A free NATURAL 2 Standards Seminar will be conducted the following day. The reservation number for the Grovner is 1-800-624-4109.

The following orders of business were covered:

1. General Business
2. NATURAL CONNECTION 3.1.1
Clayton Clendinen
Orlando Utilities Commission

3. ADABAS Text Retrieval System
Gretchen Werner
Software AG
4. NATURAL 2—Selected topics on how NATURAL 2 works
Dr. James Thomann
Software AG

General Business

A special thank you was extended to Dan Burger of Gold Bond for his hard work during the past 12 months while he was the group's Secretary, Class Registrar, and Treasurer. David Hamacher of UNISYS at the EPA was elected as the new Secretary. Dan will stay on as Registrar and Treasurer.

Clayton Clendinen informed the group that as of December, the bulletin board was opened up to people outside of the User group. Any 'neat' things to go on the bulletin board would be appreciated.

NATURAL CONNECTION 3.1.1

Clayton Clendinen gave a presentation on his experiences with NATURAL CONNECTION 3.1.1.

Topics covered included:

- Administration Facility
- LAN Support
- DOS Shell
- Application Execution
- File Conversion
- Task Automation
- File Transfer
- NATURAL CONNECTION as a:
 - Programmer Productivity Tool
 - Natural Maintenance Tool
 - Platform for Cooperative and Distributed Processing

ADABAS Text Retrieval System

Gretchen Werner of Software AG gave a presentation on the newly released ADABAS Text Retrieval System (TRS) and the NATURAL interface to this product, NATURAL Document Manager Interface (NDM).

TRS is coded in assembler and utilizes 3 logical ADABAS files:

- Definition
- Vocabulary
- Document Summary

TRS features include:

- Keyword Management

- Keyword Search
- Vocabulary/Synonym
- Call-Level Interface

NATURAL 2—Selected topics on how NATURAL 2 works

Dr. James Thomann of Software AG gave a presentation on some of the internal functions of NATURAL 2.

- NATURAL 2 Architecture Overview

NATURAL 2 Nucleus
Compiler and Optimizer
Command Processor
Execution Processor
NATPARM Module
NATTEXT Module
TP/Batch Interface

Dynamic Storage

System Control Block
Threads
Roll Files

- Dynamic Storage Usage

User Buffer (MSIZE)
Source Area (ESIZE)
NATURAL 2 Source Statements
Stack
RETAIN Command-id Table
PA/PF Key Tables
GDAs
Graphics Work Area
Subroutine Stack

Object area (USIZE)
NATURAL 1.2 Object Module
Executing
ADABAS Control Blocks
Data Areas needed for
Compiling
Data Areas needed for
NATURAL 2 Execution
NATURAL 2 Object execution information

File Buffer (FSIZE)
DDMs during Compilation
NATURAL 1.2 Global Variables
Compile Symbol Tables

Sort Buffer (SORTSZE)
Temporary Storage for On-line
Sorts

Debug Buffer (DSIZE)
Output for ADALOG Utility

- TP interface and Screen Work Areas
Page Buffer (LS*PS)
Screen Buffer
Terminal Buffer
- Buffer Pool Architecture
Local Buffer Pool
Global Buffer Pool

- Uses of each NATURAL 2 Object
- Interfaces of NATURAL 2 Object
- Processing Rule Summary
- NATURAL 2 Internal Processor
Buffer Usage during Processing
CICS Interface Processing

MIDWEST REGION

Jack Hauber Looks for Education and Training Suggestions

Debbie Carlsen

The Midwest Region Users' Group meeting was held on March 20, 1989 in Chicago and was hosted by Waste Management. The meeting was opened at 9:10 am by President John DeNatale. Ninety-five users attended the meeting.

First on our agenda was an introduction of Jack Hauber, Director of Training, Software AG, Reston. Jack is looking for ways to expand training in terms of quality, quantity and scope. Some of the ideas include:

- Sponsor non-product related seminars
- Package advanced seminars around user group meetings

Jack is looking for ideas and suggestions and can be reached at (703) 391-6652. Call him and tell him your ideas and needs for training and education.

Jack was followed by Roy Parkinson, Software AG Applications and Services presenting ADABAS 5 data base design. ADABAS 5 has bigger block sizes which should give better performance. New features including minisn, subfields, superfields, hyperdescriptors and unique superdescriptors were explained in detail. Automatic features includes ET buffering, multiple update threads, format translations in the work pool and new buffer flush algorithm were reviewed with the advantages each provides. Changes to prefetch, utility functions and close command statistics were also included.

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After lunch, Art Burkett, Manager of Customer Service, Software AG, presented Service Connection—a value added service for the user community. This was an updated version of the presentation given in Nashville; but for many attendees this was a new experience. The idea was well received. Price and release date is not yet available.

Regional Business—The bylaws were amended as follows:

1. From: Voting is available to all members with each installation being entitled to one vote for each major Software AG product. Major Software AG products are ADABAS, NATURAL and COMPLETE.

To: Voting is available to all members with each member organization being entitled to one vote.

2. From: These bylaws may be amended at any regional meeting by a two-thirds vote.

To: These bylaws may be amended at any regional meeting by a simple majority.

Both of these changes bring the bylaws to match the International bylaws.

Rejected were:

1. Change meetings from 2 to 3 per year.
2. Change election of officers—Vice President would assume president's role after 1 year with new Vice President to be elected annually.

Copies of the amended bylaws will be included in the next regional mailing.

Regional officers will be elected at the next meeting. A nominating committee of Charles Wyszomirski from American Bar Association, Chicago and Roger Wilson, City of Milwaukee was formed. If you have an interest in running for an office, contact either of the committee members.

Gerry Zeller from Elkay Mfg. presented NATURAL 2 Map Processing Rules. Gerry has done extensive work with the map editor, processing rules and ranking of rules. We

were all pleased he was willing to share his experiences with the group. The sample code provided was especially useful.

The next meeting will be hosted by the City of Milwaukee, probably the second week of September.

Madison Area SAG User Group is Going Again

John DeNatale
Midwest Region President

After much convincing and a lot of work on the part of Roger Wilson, City of Milwaukee, the Madison Area SAG User Group will be meeting on a regular basis. The Madison Area SAG User Group met on June 23, 1989. The turn out was a bit sparse but it's a start.

The meeting was opened with remarks by Roger Wilson, followed by a product update by Dean Salerno of Software AG. Dean also answered questions about what was going on in the Wisconsin area with regard to customers using or considering using Software AG products.

Next there was a presentation on ADABAS 5, given by SSR Andy Engels. Also, Andy highlighted some of the internal changes to ADABAS 5 for the users who are planning to install the product.

The meeting featured a presentation by John Havey of Elkay Manufacturing on "Using Inline Processing Rules in NATURAL 2." This presentation was a repeat of the one given to the Chicago Area SAG User Group and at the last Midwest Regional Meeting.

Our final item on the agenda was to get volunteers to help Roger Wilson keep the group meeting on a regular schedule. If you are interested in helping out or attending the next Madison Area SAG User Group Meeting, contact Roger Wilson at the City of Milwaukee (414) 278-2061. The next meeting of the Madison Area SAG User Group will be on November 16, 1989. The location is undecided at this time.

The Midwest Region has a number of local area SAG User Groups that meet at regularly scheduled times. Here is a list of the ones that I know about:

- Chicago Area SAG User Group. Meets every month.
- Madison Area SAG User Group. Meets quarterly.
- Michigan Area SAG User Group. Meets quarterly.
- Kansas Area SAG User Group. Meets quarterly.
- Twin Cities SAG User Group. Meets bi-monthly.

Please contact me for information about these local user groups. I realize that it is difficult at times to attend the Midwest Regional meetings. These local user groups do provide some of the same opportunities in sharing information about using Software AG products. As a reminder to the local user groups, continue to send me minutes from your meetings. I like to feature the user groups in the articles. This gives everyone a chance to find out how others are using Software AG products. I do not have the opportunity to get around to all of the local groups, mainly because of the geographic size of the region. However, I do provide these local user groups with information that is important for all Software AG users.

In the event that you receive the magazine before the next Midwest Region meeting it will be held on September 12, 1989, in Milwaukee, Wisconsin. You can contact me for information about the exact location and time.

NORTHWEST REGION

ADABAS 5 Compared to Version 4

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 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 of-

ficie. 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).

Training classes announced

Washington State Department of Information Services (DIS) and Software AG are offering several classes in the Olympia area.

- July 13-14
ADABAS 5 capabilities
\$250 max. cost
- August 23-25
ADABAS internals
\$375 max. cost
- August 15-17
Sep. 20-22
ADABAS & NATURAL 2
Programming
\$350

Since DIS is a non-profit service center costs will drop for classes if attendance is high. Organizations which are other than Washington State Government agencies, however, must pay a \$50/day surcharge.

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 reuse (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"
- 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.

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

NOTE: Copies of handouts and overviews referred to in the meet-

continued on page 35

ing 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

SIERRA PACIFIC REGION

Sheri Kosh Speaks on Future Training Needs

The June meeting was held June 5 at the Lake Tahoe Inn in South Lake Tahoe. Fifty people attended representing twenty-five users.

During the business session Ronna Slobe reminded us of the Change/Enhancement Form that is in the back of the Connections Magazine. If you are interested, please fill out and send to Ronna. Next SPUG Meeting will be September 12th at Dole Foods in San Francisco.

Next Collette Farabaugh from Dole Foods spoke regarding the Executive Committee Meeting she attended in Denver in May:

1. Reminder of the Users' Conference in Anaheim October 22 thru 26. The cost is \$875.00 before August 15th. Get reservations early. Some things that will make the conference better this year are the Bulletin Boards for different groups; Demo Rooms and more classes and presentations than last year.
2. Nominations will be open for officers: Vice President D. B. Functional Area Rep; Communications Area Rep; and End-User Area Rep. Also needed are advisory people to feed information to the Functional Area Reps. If interested contact Collette or your Functional Area Rep.
3. Some areas of interest brought out were:

Software AG is receiving 9,000 calls each month on NATURAL 2 which is resulting in some delays.

Service Connection is currently in BETA Test. It will be released before The Users' Conference.

The Change/Enhancement Form goes to Kelly Jones then to your Functional Area Rep. and then to Software AG. It is not to be used for problem reporting. Once each year you may then vote on the topics you wish to be placed on the priority list to be addressed during the next year.

Sheri Kosh of Software AG spoke about future training. Jack Hauber is the new Training Director and is located at the Reston Corporate Office. His phone number is 703-860-5050. Software AG plans to expand the scope of training for quality and quantity. Sheri asked "What are your needs?", "What do you want from us?", "Any complaints?". Some answers she had to previous questions are: Some new classes will be "ADABAS INTERNALS"; "ADABAS COMMAND"; "LOG ANALYSIS"; "SYSTEM DESIGN"; and "REVIEW". There will be more classes coming up at HWDC and "package training" which will allow you to take 4 classes at a reduced rate.

Ronna Slobe spoke again to remind us of the NATURAL 2 Conference in Boston in June 1990. If interested contact Ronna for an information packet. Ronna also stated that in the future she would like User Presentations at the meetings.

The rest of the meeting entailed an excellent presentation by Sheri Kosh on NATURAL SECURITY.

CENTRAL CANADIAN REGION

Central Canada Launches Users' Group

Dunc Anderson
Investors Group

You will be pleased to know that to date we have had two Central Canada SAGGROUP meetings.

The first meeting which was held on April 28, 1989 was hosted by Investors Group. The meeting was attended by 35 members representing 6 organizations.

The second meeting which was held on June 23, 1989 was hosted by the Family Services Department

of the Manitoba Government. This meeting was attended by 33 members representing 6 organizations.

As you can appreciate the purpose of the first meeting was to launch the group and to introduce the member organizations to each other.

Something else I organized was a luncheon with selected members from the various organizations with the view of soliciting support.

I am pleased to report that this resulted in the following people volunteering for the positions indicated.

President

Chris Baschuk
Data Base Administrator
United Grain Growers
433 Main Street
Winnipeg, MB, Canada
R3C 1B3

Vice-President

(Program-Coordinator)
Chris Aune
Manitoba Family Services
615-300 Graham Avenue
Winnipeg, MB, Canada
R3C 4A5

Secretary

Michael Langedock
Supervisor, Application
Programming
Gendis Business Services
1370 Sony Place
Winnipeg, MB, Canada
R3C 3C4

This slate of officers for the Central Canada SAGGROUP Region was presented at the June 23, 1989 meeting and was accepted unanimously.

A set of by-laws was drafted for this new region.

It would appear from the first two meetings and also the response to fill the executive positions that another SAGGROUP Region has been launched.

I would like to thank Larry Jayne, the SAGGROUP Executive and Jim Hill for their support in the launching of our new Central Canada Region.

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: January 1989 to September 1989

Data Base/Dictionary

Products	Date of Release
Versions	
ADABAS SQL 1.3	January 1989
NATURAL ARCHITECT Workstation 1.1.0	April 1989
ADABAS HPE 1.1.0	July 1989
ADABAS TPF 4.4.3	July 1989
ADABAS TRS 1.2	May 1989

Application Development

Products	Date of Release
Versions	
NATURAL Optimizer	
CMS	February 1989
DOS	February 1989
Versions	
NATURAL 2.1.4	February 1989
NATURAL SECURITY 2.1.4	January 1989
NATURAL VSAM 2.1.4	February 1989
NATURAL Graphics 2.1.4	March 1989
NATURAL DL1 2.1.4	April 1989
NATURAL 2.1.4 Fix Tape 1	June 1989
Versions	
ADABAS VSAM Bridge 3.1.1	Limited Release By Request Only
NATURAL SECURITY 2.1.4 Fix Tape 1	August 1989
NATURAL 2.1.4 Fix Tape 2	September 1989

Communications

Products	Date of Release
VM-PASS 1.1.0	April 1989
COM-LETE 4.4.3	
MVS/XA	March 1989
DOS	April 1989

User Services

Versions	Date of Release
SUPER NATURAL 2.3	July 1989
NATURAL CONNECTION (Mainframe) 2.1.4	May 1989
NATURAL Document Management 1.1.1	June 1989

NATURAL Elite	June 1989
ADABAS 5 Direct Calls	
CON-NECT 2.2.1	August 1989
NATURAL Elite	August 1989
ADABAS 5 Fundamentals	
NATURAL Elite	September 1989
PREDICT Fundamentals	
NATURAL Elite	August 1989
CON-NECT	
Time Management	

Data Center

Version	Date of Release
REVIEW 3.1	January 1989

VAX

Version	Date of Release
NATURAL 1.4	February 1989
ADABAS 1.5.1	March 1989
NATURAL Graphics 1.0.0	April 1989
NATURAL Professional 1.0.0	April 1989
NATURAL SECURITY 1.0.0	April 1989
NATURAL Architect Workstation 1.1	April 1989
NATURAL CONSTRUCT 1.2	May 1989
PREDICT 1.1	May 1989
SUPER NATURAL 2.1.2	May 1989
NATURAL Elite	September 1989
Extended 1.3	
ADABAS 1.5.2	August 1989
NATURAL Elite	September 1989
Basic 1.3.0	

Scheduled for Release: September 1989 to First Quarter 1990

Data Base/Dictionary

Versions
NET-WORK 5
beta test
Target release: First Quarter 1990
ADABAS SQL 1.4
beta test
Target release: First Quarter 1990
ADABAS 5.1.4
beta test
Target release: Third Quarter 1989

Application Development

Products
NATURAL SQL/DS
beta test
Target release: December 1989
PREDICT CASE
beta test
Target release: First Quarter 1990

Versions

NATURAL CONSTRUCT 2.2.1	beta test	Target release: September 1989
NATURAL DB2 1.3.1	beta test	Target release: September 1989
NATURAL ARCHITECT Workstation 1.2.1	beta test	Target release: September 1989

Communications

NET-PASS 2.2.1	beta test	Target release: Third Quarter 1989
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User Services

Products

NATURAL Spreadsheet	beta test	Target release: Third Quarter 1989
NATURAL Statistical Link	beta test	Target release: Third Quarter 1989

Versions

CON-NECT 2.2.2	beta test	Target release: October 1989
NATURAL Elite Basic System 1.4.2	beta test	Target release: October 1989
NATURAL DOCUMENT MANAGEMENT 1.2	beta test	Target release: December 1989
ADABAS TRS 1.3	beta test	Target release: December 1989
NATURAL Elite ADABAS 5 File Design 1.1	beta test	Target release: November 1989
NATURAL Elite NATURAL Structured Design 1.1	beta test	Target release: December 1989
NATURAL CONNECTION for the Macintosh 1.1	beta test	Target release: November 1989
NATURAL CONNECTION PC 3.2	beta test	Target release: First Quarter 1990

Data Center

Products

NATURAL PROCESS 1.2.1	beta test	Target release: December 1989
NATURAL OPERATIONS	beta test	Target release: December 1989
NATURAL ISPF	alpha test	Target release: Fourth Quarter 1989

VMS Products

NET-WORK 2.1	In Development	Target release: First Quarter 1990
ADABAS 2.1	beta test	Target release: Fourth Quarter 1989
NATURAL 1.4.2	beta test	Target release: October 1989
NATURAL Elite Intro to NATURAL	beta test	Target release: October 1989

Software AG Users' Group Tools Request Form

REQUEST

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

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

Users Outside the U.S. send to:

Your Software AG Distributor or Affiliate.

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

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

Ship to: (Please type or print)

Name _____

Organization _____

Address _____

City _____ State _____

Zip _____ Country _____ P.O. # _____

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

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

Name _____

Organization _____

Address _____

City _____ State _____

Zip _____ Country _____ P.O. # _____

Customer Number _____

Change of Address Form

Check One:

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

U.S. Users Send to:

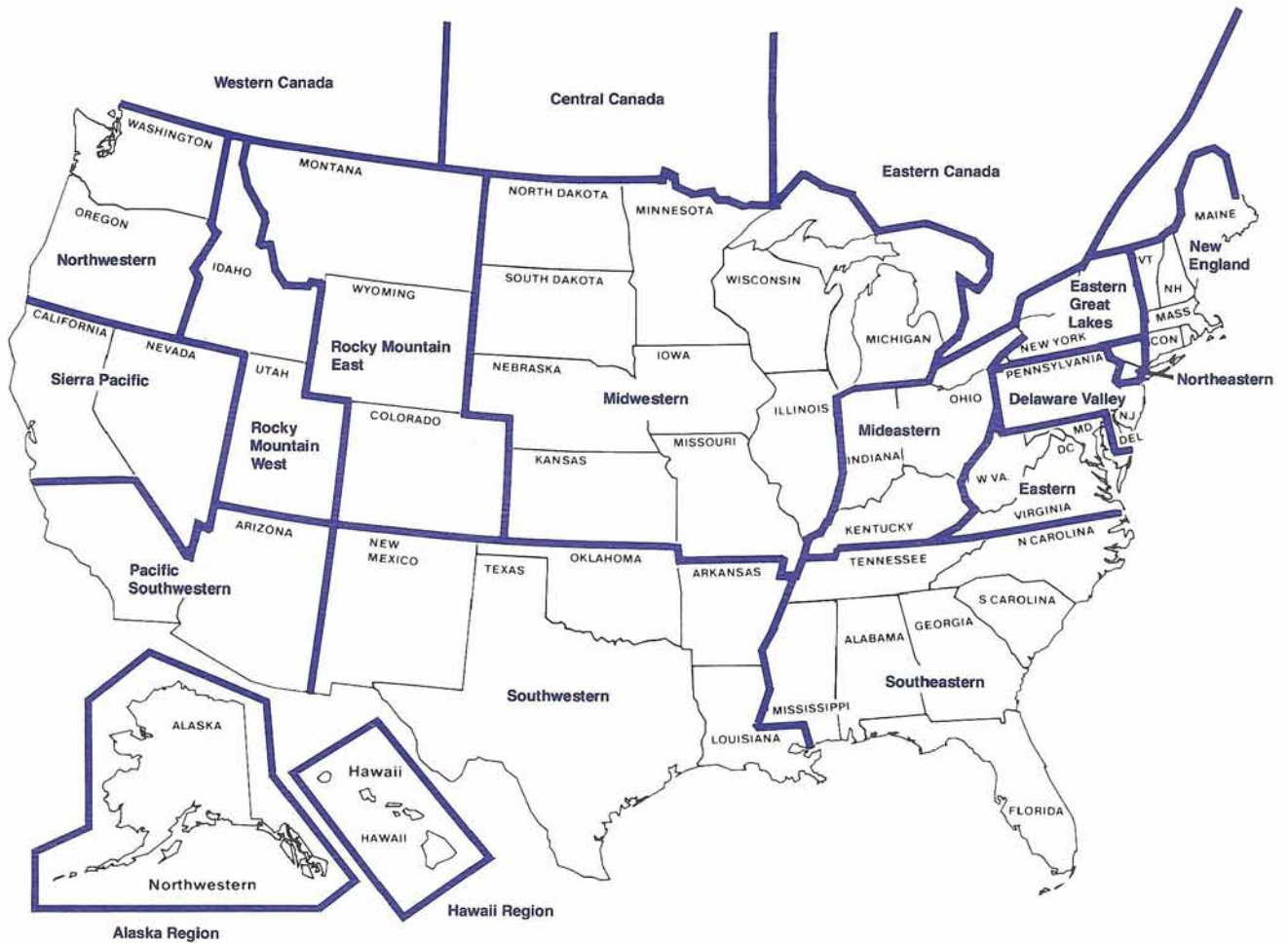
Manager, Customer Relations
Software AG of North America, Inc.
11190 Sunrise Valley Drive
Reston, VA 22091

Users Outside the U.S. Send to:

Your Software AG Distributor or Affiliate

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

Software AG Users' Group Regions in the United States



This map represents changes made in the United States regional Users' Group boundaries at the International Conference.

Change/Enhancement Form

DATA BASE

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

APPLICATION DEVELOPMENT

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

ADMINISTRATION

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

COMMUNICATIONS

- _____ ADABAS HPE
- _____ ADABAS TPF PROCESSOR
- _____ ADABAS VTAM
- _____ NATURAL ADVANCED UTILITIES
- _____ COM-LETE PROCESSOR
- _____ COM-LETE UTILITIES
- _____ COM-LETE CICS INTERFACE
- _____ COM-LETE TSO INTERFACE
- _____ COM-LETE IMS/DC INTERFACE
- _____ COM-LETE VTAM INTERFACE
- _____ NET-WORK INTERLINK (IBM)
- _____ NET-WORK HYPERCHANNEL (IBM)
- _____ NET-WORK CTCs
- _____ NET-PASS
- _____ NET-WORK DECNET

END USER

- _____ NATURAL SUPER NATURAL
- _____ NATURAL ELITE EXTENDED FUNCTIONS
- _____ NATURAL ELITE BASIC FUNCTIONS
- _____ NATURAL ELITE COURSEWARE
- _____ NATURAL CONNECTION MAINFRAME
- _____ NATURAL DOCUMENT MANAGEMENT FACILITY
- _____ CON-NECT STANDALONE
- _____ CON-NECT
- _____ CON-NECT DOCUMENT RETRIEVAL
- _____ NATURAL ARCHITECT WORKSTATION
- _____ NATURAL PROFESSIONAL

Request Title: _____

Request Description: _____

Request Benefits: _____

Submitted by— _____ Company: _____

Name: _____ Address: _____

Customer ID Number: _____

Telephone: _____

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

Instructions for Change/Enhancement Form

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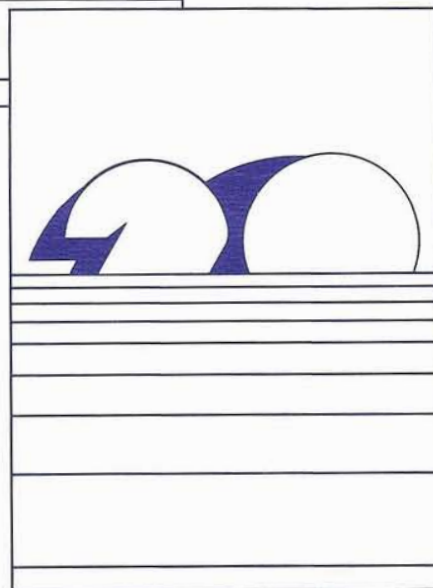
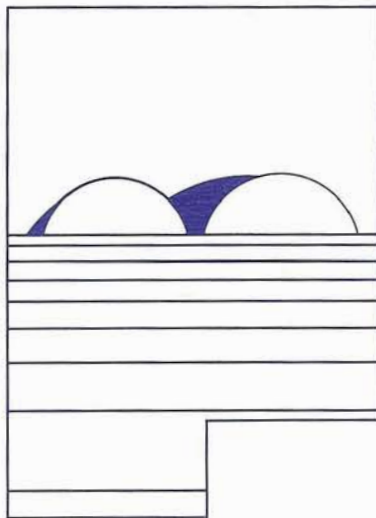
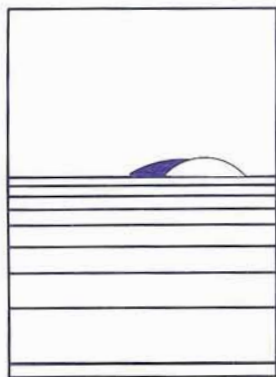
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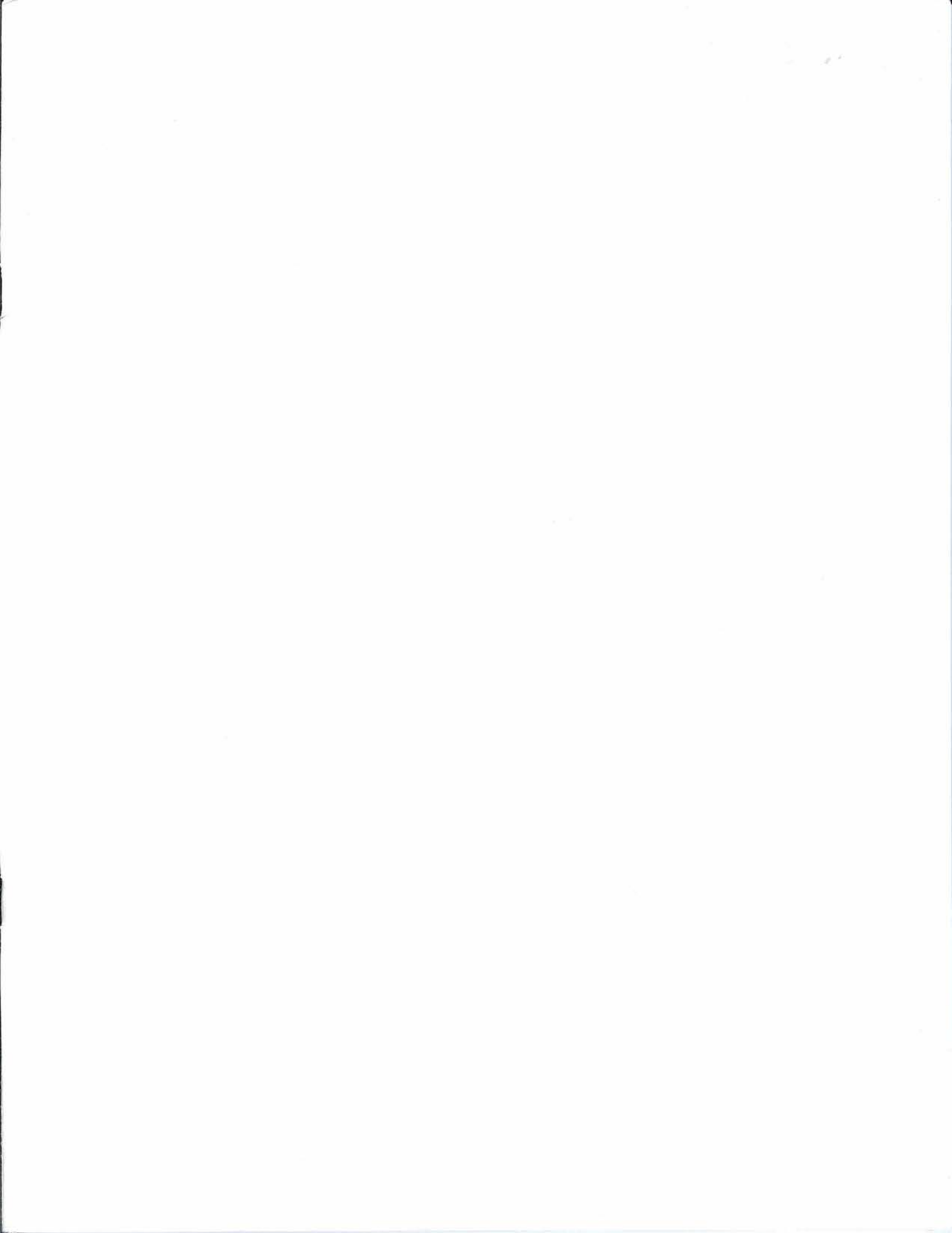
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