TREETIPS

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Treehouse Software Releases TRIM V3.2

TRIM Version 3.2, with many new and improved features, has been released. Most enhancements are in the area of Real-time Monitoring. Describing all the improvements would fill this newsletter. Instead, we will highlight different features in each issue. In this issue, we describe the XUQ and TRMFIN features.

User Queue, On-line

```
02/23/88   QUQE              USER  QUEUE  ELEMENT                    14:31:56
                           DBID 227   TEST-DATABASE


INTERNAL UID  = 00140023                  NAT SEC APPLID  = TREETRIM
EXTERNAL UID  = TREE1                     NAT SEC UID     = TREE1
JOB NAME      = LO1TSI                    NAT PROGRAM     = TREETEST

TYPE/STATUS   = ET/NOT AT ET
LAST ACTIVITY = 10:47:42
PRIORITY      = 1                 COUNTS        CURRENT        TOTAL
                                  --------      -------        --------
                                  COMMANDS           17            807
                                  IO'S                8            101
RECORDS HELD  = 420               DUR (MS)          123           2433


FILES ACCESSED = 4
   ACC = 1,2,3,17
   UPD = 1,2


  PF2=UQ   3=UQE  4=UQF  5=UQN  6=UQA  7=UQU                    11=SWAP
```

The ADABAS User Queue contains information about each user's Internal User-Id, External User-Id, Job Name, etc.

After the DBA selects a particular ADABAS user from a menu of all active users, TRIM displays this user queue entry in readable form with a cross check to the Hold Queue, as shown on the left side of the screen above.

XUQ

XUQ is the acronym for TRIM's Extended User Queue. In the XUQ, TRIM holds information and tallies statistics for each ADABAS user. The TRIM XUQ holds additional NATURAL and NATURAL Security information about each user, along with counts of commands, I/Os, and duration for the session and since the last ENTER. The XUQ data is shown on the right side of the User Queue screen.

User Queue Lookup, By File

Often it is important to know which users are active against a particular file. In the next screen, four file 17 users are shown. It is possible for a user to be active all day but to have used file 17 long ago. The DBA may be prevented from running certain utilities because some user still has reference to the file. Prior to TRIM, to remove a user's reference to a file, the user either had to log off or be stopped by an operator command. The same user or different ones may start

```
02/23/88   QUQF          CURRENT  USERS  WITHIN  FILE   17          227   14:32:11
USERQ: ACTV   MAX   HI% USE      THIS FILE: ACTV
         12    20    70                  4
                                A U E U C                                  A U E U C
                                C P X T L                                  C P X T L
  INT UID  EXT UID  JOB NAME   C D U I U    INT UID  EXT UID  JOB NAME   C D U I U
  -------- -------- --------   - - - - -    -------- -------- --------   - - - - -
d 00140023 GROSS    LO1TSI     X X
  00140089 PORT     P01G13     X
  9A410643 D01XXAS4 D01XXAS4   X
  00228043 TREE2    TSI8833    X X

PF2=UQ   3=UQE  4=UQF  5=UQN  6=UQA  7=UQU                    11=SWAP
```

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accessing the file before the DBA can start the utility.

Note the users' activity (ACC, UPD, etc.) on the file. With TRIM V3.2, the user's reference to this file can be removed from the ADABAS User Queue by the DBA. The DBA can also lock out any further access to the file by employing TRIM's User-Exit-1 based "Dynamic Control and Security" feature. This combination, removal of current access along with locking out further access to a file, guarantees the DBA's solitary access to the file.

In TRIM V3.3, the DBA is able to

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Editor's Sproutings

By Bill Speaks

Welcome to the third issue of TREETIPS. Response to the first two issues has been outstanding. As you may note, this issue is slightly late. We have been very busy in the Treehouse! Since our last issue many new and exciting events have occurred which make up for this brief delay (see Current Breezes).

IN THIS ISSUE

TSI Affiliates

We highlight the representatives for Treehouse Software products and services in the international arena. Although we may come from different countries and cultures, our industry works toward a common goal: to find new and better ways to process and relate information. We think you will find our affiliates' organizational profiles enlightening, and we look forward to relating more information about their customers' ADABAS and NATURAL experiences in future issues of TREETIPS.

Consultant's Corner

In the previous issues of TREETIPS we initiated a feature entitled Consultant's Corner. The Consultant's Corner is proving very successful! In this issue we feature the article "NATURAL VMS TIPS" by Jerry Walton of PERSONIFIED COMPUTING, INC. Remember, if you know of a product or service worthy of mention in this newsletter, please let us know.

User Articles

We are pleased to feature an article from Bob Becker of Foremost Insurance on ADABAS Version 5 and DB2 considerations. Our thanks to Bob for this article which looks toward the mixed database management systems environment of the future.

Shawn Merkel of Ecosphere Corporation in Englewood, Colorado relates his experiences as a new user of ADABAS and NATURAL under the DEC VAX VMS operating system.

From the Treehouse

Besides the headline article on TRIM, we are featuring articles on converting a version 4 ADABAS database to version 5, Data Analysis and the NATURAL 2 Global Data Area, the University/SAG Business Interest Group Conference, and an interview with TSI's Vice President, Richard Jacobson.

FREE SUBSCRIPTION OFFER

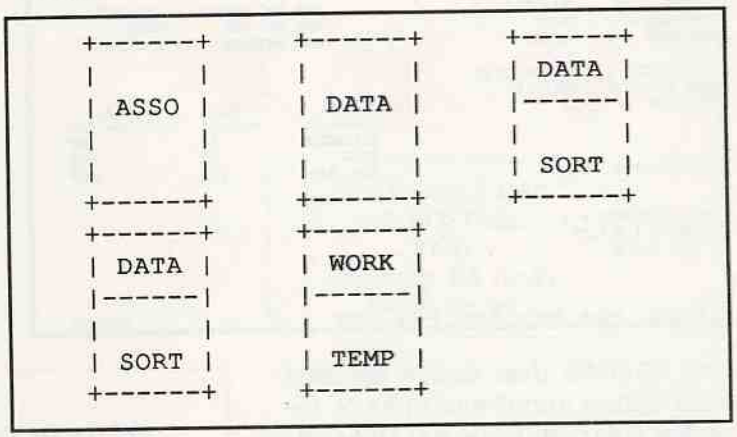
If you are reading a borrowed copy of TREETIPS, you can get your own by sending a businesss card or request on your organization's letterhead to:

TREETIPS Subscription
c/o Treehouse Software Inc.
400 Broad St., Suite 206
Sewickley, PA 15143

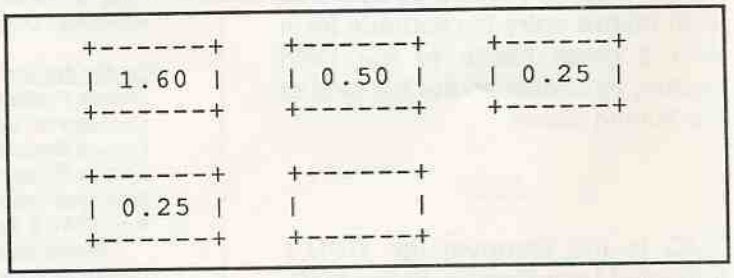
Letters to the Treehouse

I/O Balancing

I received Issue 2 of your TREETIPS newsletter recently and I really enjoyed it. In Issue 2, you suggest a database layout for five volumes with large data files as this:



However, ASSO is usually busier than DATA. Let us assume the ratio of ASSO I/Os to DATA I/Os is 1.6:1 (which is the case in our shop), and ASSO is half the size of DATA. If the above pattern is used, then I/O counts will be in the following ratios:



Obviously, this is violating your other suggestion of balancing I/Os to the DASD devices. I am wondering if

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Current Breezes

by George

TRIM VERSION 3.2

In June, TRIM version 3.2 (headline article) was released for general use. Version 3.2 contains many new and exciting features, mostly related to Real-time Monitoring.

AUDITRE

Work on our new ADABAS auditing system AUDITRE (pronounced Audit-Tree) has progressed. Treehouse Software will be releasing AUDITRE from Beta test within the next few weeks. AUDITRE is the first generalized auditing system for the ADABAS environment. An initial announcement and overview of AUDITRE was presented in issue #2 of TREETIPS. AUDITRE has been enhanced further and provides even greater functionality than when originally presented.

DEMO DISKETTES

To help get this new information such as AUDITRE out to you in a faster yet very graphic manner we have created **demo diskettes** which you can run on your IBM PC or compatible. If you would like a copy of the new AUDITRE demo diskette which was created using Dan Bricklin's Demo system, please contact our office. We are also working on a TRIM demo diskette. While we are excited about its marketing potential, we are equally enthused about the "computer based training" aspect of this demo diskette.

TSI ADABAS PERFORMANCE GUIDE

We are now distributing the Treehouse Software ADABAS Performance Guide. Response to the Guide has been overwhelming. In the spirit of sharing, we distributed a FREE copy to any individual representing an ADABAS installation who completed our marketing survey. ADABAS/NATURAL consultants can also have one, free. If you sent us a completed survey and have not received a copy of the guide, or would like a copy of the survey to complete, please give us a call here in Sewickley. Your organization does not have to be a Treehouse Software customer. Please note we can only distribute one free copy of the guide to an organization. Additional copies of the guide may be purchased by contacting our office.

AFFILIATES

As a result of a strong demand from the international ADABAS community, we recently traveled to Europe to work with our West German affiliate to get TRIM running in certain Siemens environments. Information is available from our West German affiliate. During the same European trip, we added a fifth affiliate, in England. We now have representation by affiliates in about 85% of all foreign countries having ADABAS. With a broadening of current affiliate representation and maybe one additional affiliate, we should have the ADABAS world covered.

CLASSES

We have held 21 private or semi-public classes during the first six months of this year. The numerous enhancements in NATURAL 2 have increased the demand for hands-on workshop training. User interest and our initial NATURAL 2 focus was on Intermediate level training. We will soon be prepared to handle Beginner through Advanced levels. We've even done seminars in Brazil.

CHANGES AND ADDITIONS

Richard Jacobson has been promoted to Vice-President. Rich has been instrumental in the growth and success of the Treehouse. You can learn more about Rich in the article on page 10.

Tim Hornung has joined TSI. Tim was formerly a DBA at SOHIO in Houston. Tim lends considerable high-level expertise to the TSI staff. Tim will assist in product planning and development, consulting, and education.

Jan Hunt, a recent Robert Morris College graduate, has joined TSI. Jan is currently learning NATURAL and developing demo diskettes for our products.

You will notice in "Editor's Sproutings" that Bill Speaks now has editing of this newsletter added to his many tasks.

NEW OFFICE

TSI has again moved, again doubling our space. Please note our new street address: **400 Broad St., Suite 206**. We'll have a picture of our office in the next issue.

TRIM V3.3

We hope to have TRIM V3.3 released early this fall. This time we bit off only what we can chew, so we think we'll make that date. We should have I/O Monitoring working for all environments, plus several other heavily demanded and promised improvements. Will V3.3 handle ADABAS V5? We believe that shortly after V5 is released in the United States, TRIM will work on it.

ADABAS / NATURAL VMS

A New User's Experience, by Shawn Merkel

Ever since I left the relatively quiet and peaceful environment of college programming and database design, and entered the world of production databases and real data, life has become both stressful and character building. Since I began working for **Echosphere Corporation** (a home satellite distribution company) about a year ago as a Programmer Analyst, I have been working in a variety of computer hardware and software environments.

Until the last two years, Echosphere was running all software applications on an IBM System 36. Among the software applications being processed on the system were order entry, general ledger and inventory control. All information generated from these applications was stored and updated using indexed-sequential files. As the company grew, it outgrew the System 36, and the MIS department was forced to take off its MIS cap and put on a Purchasing cap to acquire a system that would better fit the needs of the company.

After many studies and upper management meetings, the company purchased a Digital Equipment Corporation VAX 8600. With the acquisition of the 8600, management went back to the marketplace looking for a database product and fourth generation language to replace the indexed file based systems previously in use. The criteria used to make the purchasing decision were based on: handling large volumes of transactions, ease of database maintenance and file design, and speed. Echosphere felt that **Software AG's ADABAS database product, combined with the fourth generation language NATURAL, was the perfect solution**.

Today, our shop consists of an 8600 and an 8700 linked together in a clustered environment using DECnet, and accessed by its users via an Ethernet network.

This being my first real programming job, I found learning to program in NATURAL both a comfort and a self-confidence builder. **The ease with which one can access and update database information amazed me.** In very little time I was able to understand the more important statements of the language and start designing a number of different applications dealing with the areas of telemarketing, technical repair and accounts receivable.

As my knowledge of the language has grown, so have the types of problems I have encountered. While most of them I have solved and never come across again, a few continue to haunt me:

- Global variables current in a NATURAL session are stored with a program when the program is STOWed, regardless of whether the program actually uses them or not. The danger of this comes in to play when you change the format of a Global Variable in the programs that actually use them and forget about the programs that have them stored but never use them. The latter programs blow off as soon as you call them.

- After exiting the map utility, a program that was edited before you entered the map utility is still in main memory, and the name of the program has been replaced by the name of the map. If you SAVE or STOW without entering the program's name, the map name will be applied, and thus the actual map will be overwritten.

- General problems with VMS stack dumps. Unfortunately, stack dumps do not provide you with a great deal of information. I have found that a lot of my stack dumps have been the result of incorrect links between fields in a program and its corresponding map. Other stack dumps have been NATURAL bugs relating to FIND and "C*" statements.

Besides those items discussed above, my problems with NATURAL have been few. Having been able to beat most of my programming deadlines using NATURAL, I have become fairly confident programming using the language.

It wasn't until a few months ago that I realized that **there's a lot more to developing systems in a database environment than just writing the applications that access it.** Since our MIS department does not have a designated DBA, there is no one person assigned to ensuring that test programs are not seriously assaulting the database before they are installed into production. It has been up to each member of the department to be responsible for his/her own applications. While I have tried to honor this commitment, my knowledge of writing efficient database accessing programs has been limited, and therefore I have mainly concerned myself with structured programming issues only.

Over time I gained notoriety as the department's "World Record Holder and System Cruncher", two honors that I would gladly have given to someone else.

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NATURAL 2 TIPS: Data Analysis and the Global Data Area

by Tim Hornung

NATURAL 2 brought us many new terms and an overwhelming level of new functionality. One of the building blocks of this new functionality is the Global Data Area (GDA). One aspect of the GDA is to replace the old NATURAL 1.2 concept of +Global-Variables, while providing more functionality than +Global-Variables.

Views are subsets of Data Definition Modules (DDMs). Views that are defined in the GDA are accessible to all modules within a NATURAL application except subprogram objects. These fields are accessible without an active processing loop, and effectively eliminate the need for +Global-Variables to hold data between programs. The View itself can be used to pass data between Programs. Certain situations lend themselves to the use of GDAs.

Development groups that use data analysis techniques will find the GDA concept fits into their needs much better than groups that do not utilize data analysis. During data analysis the entities that are to be used in an application are identified and the editing requirements of those entities determined. Transferring these entities to PREDICT, we can define the data items in a Standard File and create processing rules to edit these data items.

As the data definition progresses, more concrete Data Definition Entries (DDEs) could be created to define the ADABAS files. In PREDICT, Automatic Rules can be attached to the fields, and Free Rules could be firmed up.

At this point in the process, the GDA for an application can then be generated. As a general guideline, because only one GDA can be active at a time, **there should be only one GDA for an application.**

To promote an efficient physical database design, this stage of development is a good time to have the DBA review the GDA. The DBA can begin developing a clear picture of the intended Views to be accessed and the keys to be used prior to physical file design. The DBA will then be able to provide assistance and recommendations to enhance the GDA.

At this point the application developer should have in hand the DDMs for the files to be accessed, the PREDICT processing rules (both automatic and free) and a base definition of the GDA. **This GDA becomes the building block onto which the application can be created.**

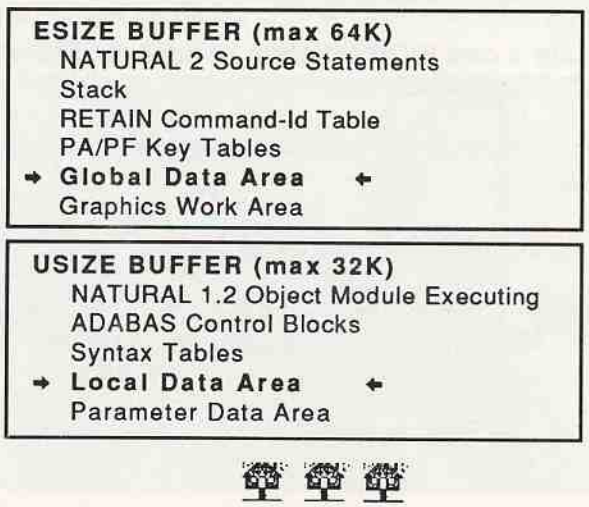
The next step in most 4GL based systems development efforts is to prototype the screens for the users. Using the DDMs, processing rules, and base GDA, the developer should be able to produce maps that are fully functional, and are actually capable of performing edits. These maps further validate the correctness of the prototype to the user. This iterative prototyping effort will result in further refinement of the GDA. Once the screens have been fully defined, all that remains is to provide the mechanisms to access the database records, and a means to navigate through the screens.

In reality nothing ever goes this smoothly. However, this method uses a dictionary driven application development system that generates an 80% solution from data that is created as part of the data analysis process. **The key building block for the application development process is the GDA, which is an integral component of NATURAL 2.**

The following tip is courtesy of Cathy Lester, University of Texas at Austin. -- Editor.

One problem developers of large NATURAL 2 application systems are running into is exceeding the USIZE buffer for local variables. NATURAL 2 must keep track of the local variables for all active 'levels' (PERFORM, CALLNAT, FETCH RETURN, INPUT USING MAP all create a level) for a given user in the USIZE buffer. The USIZE buffer is limited to 32K. Consequently it is not difficult to exceed the USIZE limit in an application that uses a large amount of tables.

Use of the Global Data Area (GDA) has been suggested as one solution to this problem. Data such as tables may be stored in the GDA. While the GDA is "global" across programs and their subroutines, the GDA is actually "local" to a subprogram, and is stored in the ESIZE buffer. The subprogram table lookup routines may use this GDA to save valuable space in the USIZE buffer.



ADABAS Version 5 Conversion Process

Many installations in the U.S. are now testing ADABAS version 5 (v5) and it looks as if the product is nearing a public release. In light of this, it is appropriate to highlight certain aspects of v5. In this article, we present the necessary steps to convert an existing v4 database to v5.

1) Bring the v4 nucleus down (i.e. issue a successful ADAEND operator command). This will ensure that no autorestart condition exists.

2) Backup the v4 database by taking a full ADAFIX DUMP of the database.

3) Unload the ADABAS Security system file in Single user mode. Do not be concerned with NATURAL system files.

4) Delete the ADABAS Security system file using the ADAVUS DELETE function.

5) Bring the v4 nucleus up and down to clear RABN 8 of the ASSOCIATOR. This RABN contains the "Checkpoint Block" of the checkpoints left by the utilities.

6) Determine the new correct size of the WORK dataset which must be 1.125 times as large as in v4 (for 3300 devices).

   Note: This change is required because the BLKSIZE of WORK changes under v5. For WORK on 3380s, the new BLKSIZE is 5492. So, this gives 120 BLK/CYL rather than the 135 BLK/CYL for WORK on 3380s for v4 at a BLKSIZE of 4820. Now, 135/120 = 1.125. So, the v5 WORK dataset must be larger than the v4 WORK dataset by this factor.

7) Allocate a new WORK dataset at the new size with BLKSIZE = 5492.

8) Use the v5 ADAFRM utility to format the new WORK dataset.

9) Zap ASSOCIATOR RABN 5 to X'00—00'.

   Note: This clears the "Security Block" in the ASSOCIATOR. This is <u>probably</u> a temporary measure. However, if you fail to do this with the current level of the software, the nucleus still thinks security exists - and the database conversion will fail.

10) Make the following nucleus parameter adjustments:

    a) Add: NISNHQ, PLOGRQ, OPENRQ, and UTIONLY

    b) Change:
       LI - new lower minimum of 2000
       LU - new maximum of 60k
       NH - must satisfy NH > NISNHQ * 4
       SVC- point to the new v5 SVC

    c) Remove: UEX1, UEX2, and UEX4 (all exits will require modification)

11) Change the nucleus JCL to point to the new v5 LOAD library.

12) Bring up the v5 nucleus.

    Note: You will get a message that conversion from v4 to v5 has been successful and the nucleus will terminate.

13) Take an ADASAV SAVE of the (now) v5 database.

14) Bring up the v5 nucleus and begin processing.

Now, you will have to give thought to the "migration aids" functions to ensure that all programs (NATURAL, COBOL, etc. from either on-line (COM-PLETE, CICS, etc.) or batch) will be able to access the database correctly.

In future articles, we will discuss the details of this migration function and the changes required to your UEX1, UEX2, and UEX4 routines for ADABAS v5.

Treehouse Software Affiliate Profiles

With five affiliates located in Brazil, England, Germany, Japan, and South Africa, Treehouse Software's products and services are well represented in the international arena. In providing profiles of our affiliates we want to convey to present and future clients that these organizations not only market our products and services, but are fully qualified to represent our organization and support our clients.

MSS do Brasil
Sistemas de Computadores Ltda.

MSS, with its offices in Brasilia and Sao Paulo markets a wide variety of software products for performance enhancement on IBM and Burroughs computers. These products include TRIM and AUDITRE, Treehouse Software products. MSS also markets XGEN, a program generator for UNIX-based Burroughs computing systems, PCS, a system for the administration and automation of production activities, DARGAL, a fourth-generation language for Burroughs computers, and MDASD, a disk space maintenance and security facility for IBM computers.

Its commitment to helping its customers achieve their productivity and efficiency goals has earned MSS an excellent reputation with many large national and international businesses, such as Banco do Brazil (one of Brazil's largest financial institutions), Dow Chemical, the Brazilian Mail and Telegraph Service, Ford Motor Company, Siemens, Telebras (a major Brazilian telephone company), and the University of Brasilia. A large number of the ADABAS installations in MSS' market are enjoying performance improvements due to the installation and use of TRIM.

MSS is Treehouse Software's representative for Brazil, Argentina, and the other countries of South America. The growing MSS clientele has resulted in plans to use Treehouse Software's education program for training in South America.

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The following statement from Dow Chemical of Brazil appears in an MSS marketing brochure:

As boas razoes de quem esta com a MSS.

"O TRIM foi um investimento fantastico: paguei uma vez e ele se paga a cada ano.

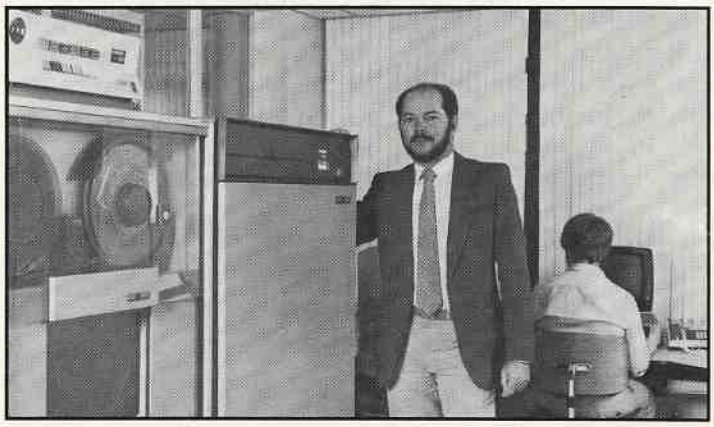
Do ponto de vista tecnico eu tinha tempos de respostas que iam de 45 a 60 segundos, que foram reduzidos, gracas ao TRIM, para 5 a 20 segundos, proporcionando uma enorme economia na utilizacao de recursos do CPD."

Jose Rangel de Farias
Gerente de Processamentos de Dados
Dow Quimica

Translated into English, this says:

"TRIM's purchase was a great investment. We paid for it once and it pays itself back every year. On the technical side, we had response times in the range of 45 to 60 seconds that dropped down to 5 to 20 seconds. Thanks to TRIM, we were able to save a great deal in computer resources utilization."

Jose Rangel de Farias of Dow Chemical, pictured below, is one of many satisfied TRIM users.



Treehouse Software Affiliate Profiles

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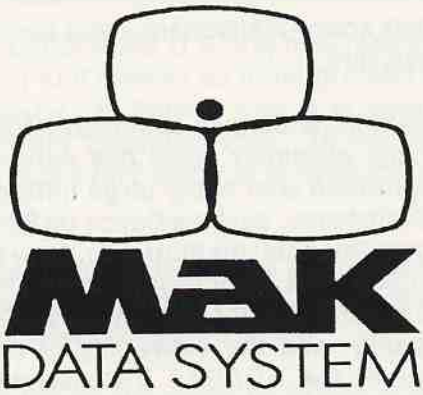

Krupp MaK Maschinenbau GmbH, located in Kiel, West Germany, is a leading manufacturer of diesel engine production and military systems. Krupp became interested in data processing when it began automating its production, design, and administrative information systems. In the years to follow, the company's DP employees gained a great deal of experience and developed many in-house software products that attracted the attention of external organizations. Because of this, Krupp began providing DP services and products outside the company in January 1983.

Demand for Krupp's DP services led the firm to expand its marketing of software and services as MaK Data System. Today MaK Data System serves many customers in a wide variety of project areas, such as database oriented DP systems, production automation, office automation, and military systems. In addition to marketing Treehouse Software products in West Germany and several nearby countries, MaK Data System also distributes IDT, an office automation system based on ADABAS and NATURAL. Also, services in the area of operating center automation are offered along with custom-made systems for its clients.

In the future, MaK Data System intends to increase its DP software support and also intensify its activities in the development and marketing of entire systems, many of which can be tested under actual production conditions at MaK Data System before being offered in the marketplace. This ability gives MaK Data System an edge over its competitors by allowing it to distribute proven, reliable products to its customers.

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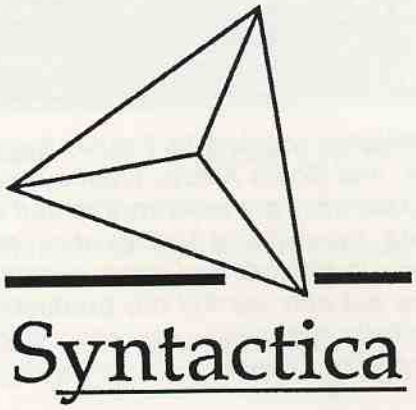

Syntactica, formed in 1985, provides facilities management consulting and software products support to some of the largest data processing facilities in South Africa, including Shell, First National Bank, Liberty Life, South African Transport Services, and the University of Witwatersrand.

Syntactica operates in alliance with Genesys Computer Services to provide a Business Recovery Service for mainframe users in the event they lose their in-house data processing capability.

Syntactica has moved into the Product Development arena. It has formed a company named Semantyx, in conjunction with the University of Stellenbosch. The first product from Semantyx will be an advanced capacity planning and modeling tool to assist IBM System 370 installations in configuring their DASD I/O subsystem and locating major file systems in order to optimize application performance.

Syntactica provides a service previously unavailable in the South African computer industry, i.e., a complete facilities management capability. Syntactica's product assortment is the most appropriate to the large mainframe facilities environment. In its consulting service, Syntactica does not simply advise, but provides "hands on" project management to enable its clients to meet their objectives.

On representing Treehouse Software, Syntactica says TRIM has proved to be one of Syntactica's most successful products, and it has brought a new understanding of performance and management to ADABAS/NATURAL users in South Africa.

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Treehouse Software Afffiliate Profiles

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NIAC

Nissho Iwai Corporation

Nissho Iwai Corp (NIC), along with its wholly-owned subsidiary Nissho Iwai American Corporation (NIAC), is Treehouse Software's distributor for the Japanese marketplace. NIC is a leading international trading company with 10 different product divisions, including a machinery division, ferrous metal products division, foodstuffs division, and textiles division. Among its many diverse activities, NIC has been an exclusive agent for Boeing passenger airplanes and is in partnership with Nike shoes.

In addition to these traditional businesses, NIC/NIAC has established a new division specializing in the area of High Technology. This division is exclusively responsible for meeting the increasing demand for advanced technology products, such as computer software, bioengineering items, advanced materials, alternative energy technologies, etc. In fact, TRIM - a Treehouse Software product - is currently promoted through this new division.

NIAC also aids American exporters by helping them find overseas markets for their products or technologies. NIC handles over 1% of the United States' total exports every year and has a truly global network, with offices in over 80 countries, including Brazil, India, Mexico, Singapore, Spain, and Venezuela.

NISSHO IWAI CORPORATION
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Minato-Ku, Tokyo 107 Japan

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4GL SYSTEMS

4GL Systems Limited

4GL Systems Limited is Treehouse Software's newest affiliate. 4GL Systems Limited was founded in 1986 as part of the Victor N. Groves Group (VNG Group) to compliment the recruitment, contracting, and microcomputing services already offered by other companies in the Group.

4GL has offices throughout the United Kingdom. Immediate geographical coverage of the UK and Northern Europe via the existing network of VNG offices means 4GL Systems Limited can provide national coverage as well as local service to their clients. 4GL Systems Limited's target is to become one of the top ten UK software houses, with plans to expand to other continents.

4GL Systems Limited offers a complete range of software house skills and consultancy support, providing the highest quality computer systems to meet clients' business needs and help their business grow. With over 150 experienced staff, 4GL Systems is able to work on projects throughout the UK either on customer premises or on their own mainframe and minicomputers which are interconnected using a high-speed nationwide communications network.

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An Interview with Richard Jacobson

In the last issue of TREETIPS, you heard about how George Szakach started Treehouse Software, our products and services. In this issue, I decided to interview Richard Jacobson, TSI's recently-appointed Vice President.

Rich, tell us a little about your background.

I grew up in Pittsburgh and attended Allderdice, the top academic high school in the city. I graduated from the University of Pittsburgh in 1966 with a BS in mathematics. I minored in philosophy and drove an ice cream truck to pay for all that education.

Where did you start your career?

I was one of many people who left Pittsburgh in the 60's to start a career. I joined Univac in the Philadelphia area as a systems programmer and was assigned to the COBOL compiler group for the Univac 9300. It was a 16K machine. (Can you believe that? How much memory does your PC have?) Disk devices were not yet available for the 9300, requiring the compiler to make umpteen passes over the data on tape. George, the Group Supervisor was quite helpful in explaining compiler concepts to me. My experience at Univac provided me with a broad education in data processing, much of which I still use today.

After George left Univac, I had a six-month stint at supervising the group. I then left Univac and went to Leasco in Bethesda, Maryland, where I again joined George. We designed and developed an interactive COBOL Compiler written in COBOL! Later, my major responsibility was the support and enhancement of a BASIC compiler on their timesharing system.

In 1972 I decided on a career in the Federal government, with the Food and Drug Administration, Bureau of Medical Devices. The Bureau was responsible for the regulation of medical devices that ranged from tongue depressors to artificial hearts and IUDs to CAT Scanners. We were also involved in education in areas like Toxic Shock Syndrome and birth control devices.

On the technology side, we had a VAX cluster on an Ethernet network that ran ORACLE and DEC's office automation software, ALL-IN-1, supporting 800 users. The network also had access to IBM mainframes running ADABAS, ORACLE and MODEL 204.

After 15 years with FDA, George coaxed me into joining the Treehouse in March of 1987. I never thought I'd come back to Pittsburgh to work.

What helped you decide on Treehouse?

I knew I would be working with individuals who wanted to provide quality products and services at a reasonable price and were genuinely interested in the customer's well-being. I knew Treehouse needed someone who knew the technical end of the business as well as the administrative.

What are your responsibilities at the Treehouse?

I get involved in a variety of things. Treehouse is a technically-oriented company, so I get involved in technical planning, design issues, programming techniques, documentation and packaging - everything but the actual programming. I handle corporate strategic planning, product pricing, affiliate relations, and customer requests. Administratively my duties include contracts, supervision, hiring, employee benefits and compensation, profit sharing, and recruiting. While this newsletter is being prepared I will be manning the Treehouse booth at a "job fair" in Vienna, Virginia, attempting to find skilled technicians for our offices. The one thing I am doing that surprised me is marketing and sales.

What do you enjoy most about your job?

I enjoy the part that is new to me, marketing and sales.

Treehouse Software's marketing is done through traditional methods and some less traditional methods including our TREETIPS newsletter, our ADABAS/NATURAL Performance Guide, and educational presentations at user group meetings and conferences. We've done little advertising, but we do have Treehouse and its products listed in Datapro.

We don't just sell products. By providing useful technical information about ADABAS and NATURAL through educational and consulting services, we prove we know what we are talking about. Truly the services sell the products, and vice-versa.

Our best salespeople are our customers. Word of mouth about the quality of our classes, consulting, and products spreads very rapidly. The credit for this obviously goes to our technical staff. They have made Treehouse Software the success it is today.

(continued on page 17)

VMS NATURAL Tips

By Jerry Walton

Work and Report Files

NATURAL VMS allows the definition of RMS Sequential files as WORK and REPORT files:

```
#REPORT(A10) = 'SALES.RPT'
DEFINE REPORT 1 #REPORT
```

The assignment may also be made by using the DCL command:

```
$ DEFINE NATWORK01 SALES.RPT
```

...where NATWORK01 is the logical file associated with SALES.RPT.

The file is not closed until the NEXT prompt is displayed (*DATA = 0). This may create a problem when trying to route a report to a printer from within an active NATURAL application. As a workaround, a second DEFINE WORK statement will reassign the unit number to another work file:

```
DEFINE REPORT 1 #TEMP(A10)
```

This will assign the unit number to the value of the variable #TEMP, but the file is not opened until a WRITE statement is executed. If the file does not exist, it is created. If the file exists, a new version is present. Once the reassignment has been made, the file 'SALES.RPT' can be routed to a printer by the statement:

```
STACK TOP COMMAND '$ PRINT/QUE=PZA7_LN03' #REPORT
```

(prior to release of NATURAL V1.2 '$$' is required for stacking DCL statements on the NATURAL stack.)

The same is true for the DEFINE WORK FILE statement.

An Edit Subroutine

Program validation of data can often be very cumbersome. Using a series of IF-THEN-ELSE statements with REINPUT is not the only way of editing data. Here is an example of a method that works for me:

```
RESET #EDIT-ERROR(A1) #ERR-MSG(A70)
      #MARK(P3)
INPUT USING MAP 'ECN1M001' #ACCESS(A1)
            #FUNCTION(A1)
/*
PERFORM VALIDATE-SEARCH-CRITERIA
IF #EDIT-ERROR NE ' '
  THEN REINPUT #ERR-MSG (AD=OV) MARK #MARK

.
.
.
rest of the program...
.
.
.
/*****************************************
DEFINE SUBROUTINE VALIDATE-SEARCH-CRITERIA
RP1.              /* label for repeat loop
REPEAT
  RESET #EDIT-ERROR #ERROR-MSG #MARK
/*
  IF #ACCESS = 'R' OR = 'P' IGNORE
  ELSE DO
    #EDIT-ERROR = 'Y'
    #ERR-MSG = 'ACCESS MUST BE "R - REJECT"
               OR "P - POST" '
    #MARK = 1 ESCAPE  /* escape repeat loop
  DOEND
/*
  IF #FUNCTION NE MASK(A) DO  /* alpha/num
    #EDIT-ERROR = 'Y'
    #ERR-MSG = 'FUNCTION MUST BE A LETTER
               "A" THRU "Z" '
    #MARK = 2
    ESCAPE      /* escape repeat loop
  DOEND
/*
  ESCAPE        /* final escape repeat loop
/*
LOOP(RP1.)     /* repeat loop end subroutine
RETURN
*****************************************
.
.
.
rest of the program...
.
.
.
```

This example uses an edit subroutine to validate the user-supplied data. It allows for the coding of a single REINPUT statement. The routine will also stop editing as soon as an error is encountered. MARK can be set to reposition the cursor to the field in error. The repeat loop within the subroutine allows the ESCAPE of the repeat loop and RETURN to the next statement after the PERFORM statement. **Don't forget** to code the last ESCAPE or the program will loop inside the subroutine indefinitely.

(continued on next page)

VMS NATURAL Tips

(continued from page 11)

Calling External NATURAL Subroutines in NATURAL

NATURAL VMS allows the use of true modular programming. The PERFORM statement can be used to invoke either a NATURAL subroutine contained within the current program, or an EXTERNAL subroutine contained within another program. The following program shows the execution of a subroutine within the current program:

```
RESET #SALES-KEY(A13) #PROD-SALES(P7)
REDEFINE #SALES-KEY(#REGION(N3)
         #PRODUCT-CODE(A10))
#REGION = 301
#PRODUCT-CODE = 'ABCGUM3331'
#PROD-SALES = 0   /* initialize accumulator
PERFORM READ-SALES-HIST  /* internal subr
.
.
.
rest of program
.
.
.
/*****************************************
DEFINE SUBROUTINE READ-SALES-HIST
R1. READ CORP-SALES-HIST
         WITH REGION-PRODCODE = #SALES-KEY
       IF REGION(R1.)    NE #REGION    OR
         SALESMAN(R1.) NE #SALESMAN ESCAPE
       #PROD-SALES =
         #PROD-SALES + PROD-SALES(R1.)
    LOOP(R1.)
RETURN
/*****************************************
.
.
.
rest of program
.
.
.
```

If the subroutine name is not defined, it is regarded as an EXTERNAL subroutine and an external NATURAL object module is executed. To pass local (program) data to an EXTERNAL subroutine, the data areas must be defined as GLOBAL DATA as shown in the following program:

```
/*****************************************
/*PROGRAM #1

RESET +SALES-KEY(A13) +PROD-SALES(P7)
REDEFINE +SALES-KEY
         (#REGION(A3) #PRODUCT-CODE(A10))
#REGION = 301
#PRODUCT-CODE = 'ABCGUM3331'
+PROD-SALES = 0   /* initialize accumulator
PERFORM RDSLSHST           /* external subr
WRITE
  /'SALES IN REGION' #REGION
   'FOR PRODUCT' #PROD-CODE
   ':' +PROD-SALES
.
.
.
rest of program
.
.
.
/*****************************************

/*****************************************
/*PROGRAM #2 RDSLSHST

REDEFINE +SALES-KEY
         (#REGION(A3) #PRODUCT-CODE(A10))
R1. READ CORP-SALES-HIST
         WITH REGION-PRODCODE = +SALES-KEY
       IF REGION(R1.)    NE #REGION    OR
         SALESMAN(R1.) NE #SALESMAN ESCAPE
       +PROD-SALES =
         +PROD-SALES + PROD-SALES(R1.)
    LOOP(R1.)
END
/*****************************************
```

EXTERNAL subroutines allow for use of an efficient modular design. However, care must be taken to **design** the system such that GLOBAL variables that are passed from module (program) to module are not excessive.

ABOUT THE AUTHOR: Jerry Walton is President of PERSONIFIED COMPUTING, Merrillville, Indiana. PERSONIFIED, which was formed three years ago, provides consulting services and custom application software development based on Software AG's portfolio of IBM and VAX database management products.

TRIM V3.2 Released

(Continued from Page 1)

direct a STOPU at the undesirable user to further cleanse the ADABAS User Queue.

NATURAL Security

The TRIM XUQ contains the current NATURAL Program, and NATURAL Security Application and User-Ids for each ADABAS user. Any of these three items can be the basis of queries to the XUQ. The next screen shows the results of a query by NATURAL Security Application "BOMBAY". Potentially multiple screens could result from such a query. In the example, two users are currently logged onto "BOMBAY".

```
02/23/88   QUQA          USER QUEUE BY NS APPL:  BOMBAY              14:32:29
                            DBID  227   TEST-DATABASE

                                                  ---- NATURAL  SESSION ----
                                                                      DURA
 UID      UIDX       JOB NAME  NATPROG   NSS UID   COMMANDS      IO   (SECS)
 ----     --------   --------  --------  --------  ---------  ------  ------
 ?F??     3D862033   DBA43     TRMQUQA   TREE1           92      54      33
 ??DC     3E03C4C3   DBA81     TRMMENU   DBA              7      10       8

  PF2=UQ   3=UQE  4=UQF  5=UQN  6=UQA  7=UQU                      11=SWAP
```

By continually striking the ENTER key, the Commands, I/Os, and Duration may increase, the NATPROGs may change, and the number of "BOMBAY" users may vary. These are but a few of the interesting features provided in the TRIM Real-time Monitor (TRIMRTM). There is no user coding required, no zaps to ADABAS, no JCL changes, no new disciplines to learn. TRIMRTM is simply another NATURAL application watching over ADABAS, its databases, and you, the user.

TRMFIN

The DBA can modify a supplied NATURAL program to present a screen similar to the one below for each user upon FIN of the NATURAL session.

```
02/23/88   FIN          NATURAL SESSION STATISTICS                  16:21:47

          *INIT-USER:  LARRY1     INTERNAL USER-ID:  C1C4F4C3
                                                     --- COST ---
          ADABAS DURATION (MS)        75,855
          COMMAND COUNT               32,206              32.20
          I/O COUNT                    8,137              24.41
          CPU INSTRUCTIONS           198,175              19.81
          NUMBER OF FILES                  4
                                                         -------
                                                          76.42

                    LAST NATURAL SECURITY ACCESS
                APPLICATION:  TESTLIB      USER:  LARRY1
```

Upon termination of the user's NATURAL session, the screen will inform the user of the session "cost". We expect quite a few enhancement suggestions to this new feature.

Consultant's Corner

In the last issue we initiated Consultants' Corner to give our friends and associates a chance to share their services and products.

Publication of information in this section does not indicate support or endorsement by Treehouse Software Inc.

Personified Computing Inc., advertised to the right, provides the article "NATURAL VMS Tips" on page 11. Editor.

University/SAG BIG Conference

The Fourth Annual University/College Software AG Business Interest Group (BIG) Users' Conference was hosted by the University of Delaware at the Radisson Hotel in Wilmington, Delaware, April 17-20, 1988. Treehouse Software again provided binders for the conference which was last hosted by the University of Texas at Austin in November, 1986.

For the U.T. sponsored conference some of you may remember we used Treehouse colors which also happen to be Texas A & M colors! This time we got the correct colors for the home team!

The University BIG User's Conference was organized into three tracks; Applications, Technical, and End-User.

The **application track** focused on two of the hottest topics in the industry today; NATURAL 2 and CASE Technology. John Wheat of the University of Texas at Austin delivered two excellent presentations on NATURAL 2 programming methods. John's discussion of the Function and Dispatcher module concept used by UT Austin could lead to a revolutionary concept within the data processing industry: **standardization of NATURAL programming techniques** across the user community!

The major topic of the **end-user track** was Electronic Authorization, with no less than three presentations being given. The concept of Electronic Authorization is to electronically communicate and verify transactions that had previously been on paper forms. This concept would be unthinkable in many large corporations, but **here again we see the university sector leading the way.**

The topics covered in the **technical track** were varied. In his presentation "Back to the Future" Randy Ebeling of UT Austin won the best speaker award for the technical track. Randy shared his views on and experiences with ADABAS V5, ADABAS On-line Services, ADABAS/HPE, NATURAL/PROCESS, and NATURAL/OPTIMIZER. The product that looks most interesting is NATURAL/OPTIMIZER. This product will surely put COBOL out of its misery, and should greatly expand NATURAL's market share as the **premier 4GL language.**

We would like to extend our thanks to the University BIG for allowing Treehouse Software to support and participate in this highly successful conference.

ADABAS / NATURAL VMS

(Continued from Page 4)

Not even the use of "alias" process names could allow me to escape the wrath of my co-workers. I knew it was time to take a step back and learn more about how ADABAS works and how best to use it.

By taking a more responsible approach to program design, **I have begun to learn what questions I should be asking myself when designing database applications.** For example:

- How many database calls does the program make?
- Is the ADABAS file organized efficiently (i.e., are the frequently used field names towards the beginning of the file? Is a descriptor finding too many records? Should the field item be null-suppressed?)
- How many records is the program holding?

While I am still learning the best way in which to answer the above questions, I am confident that I am on the right track to becoming a better programmer and database administrator.

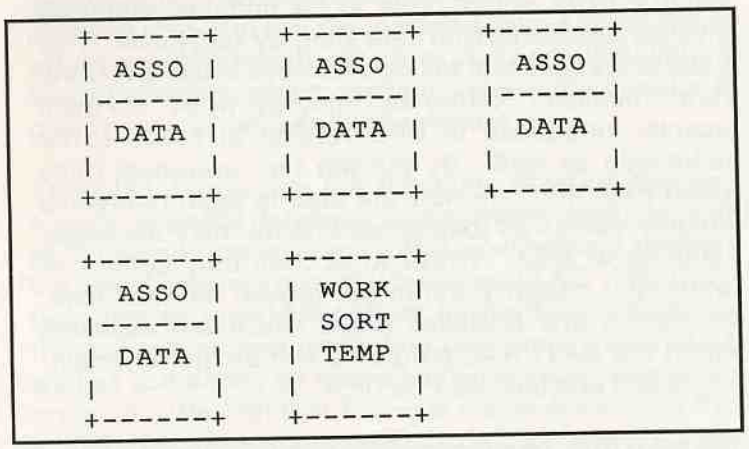
As a new member of the Western Region SAGGROUP, located in Denver, Colorado, I am learning more about how DBAs from around the area manage their databases. It is my hope that I can bring back some of the information I learn from them and apply it, so that as our company grows we will be able to continue managing the data and information it produces.

ABOUT THE AUTHOR: Shawn Merkel is a Programmer Analyst with Echosphere Corporation in Englewood, Colorado. Shawn has a BS in Business Information Systems from the University of Colorado, Boulder.

Letters to the Treehouse

(Continued from Page 2)

it would be better to arrange the datasets like this:



One third of each volume will be occupied by ASSO while the rest will be taken up by DATA. Also, the ASSO part and the DATA part of a file will be placed on different volumes to avoid I/O contentions. I think it will be easier to accomplish balanced I/Os this way.

I am planning to do a major database expansion and reorganization and I would appreciate your comments and opinion.

Patrick Ho
Database Administrator
Workers' Compensation Board - Alberta, Canada

Editor's note:

Thank you for your favorable comments on our TREETIPS newsletter, and your suggestions on I/O balancing.

Your observation about the database layout in the TREETIPS article is correct. However, this assumes a random access and not a sequential access processing environment. Additionally, your suggested configuration in the example could be improved by removing TEMP and SORT from the same volume as WORK (space permitting). It has also been shown that splitting SORT across multiple volumes can significantly improve the efficiency of file loading.

You also mention placing ASSOCIATOR and DATA STORAGE for a given ADABAS file on different volumes. If you have the I/O summary statistics provided in TRIM version 3.2, you might consider file placement based on decreasing frequency of access. As it relates to the configuration you proposed in your letter, on a per file basis the most heavily used ASSOCIATOR extent is loaded on the first unit, the most heavily used DATA STORAGE extent is placed on the fourth unit, the next most heavily used ASSOCIATOR extent is placed on the second unit, the next most heavily used DATA STORAGE extent is placed on the third unit and so on, until all files are placed based on frequency of access.

Also, physical placement of the ADABAS datasets as they relate to DASD channel controllers and cache memory systems generally provides greater performance improvements than fine tuning ADABAS logical file placement. In fact, if you do not allow for the influence of these factors in your environment, performance may become worse.

We appreciate your input and certainly welcome any additional ideas or suggestions you or others may provide.

TSI NATURAL 2 Course Comments

We recently completed three Treehouse Software NATURAL 2 Intermediate courses. We found the three instructors to be highly qualified. During the course of instruction, our students liked the "real world" examples the instructors were able to provide. The course material was well organized, and the workshop, which produces a problem tracking system, is very practical. One student commented, "The workshop looked like a real life application - it had validity." Also, the students were very appreciative of the instructors' willingness to work through lunch and after 5:00 pm. We found it very helpful when the instructors related things we should know when converting from version 1.2 to 2.1.

Terry Purcell
Meridian Oil

Editor's note:

Thank you for your comments. Treehouse Software puts a great deal of effort into keeping its educational material up-to-date and its instructors armed with the latest information about the topics they are presenting. We strive to make our courses complete, accurate, and relevant. Satisfied customers like you let us know we are moving in the right direction.

An Integrated Database Approach - ADABAS / DB2

By Bob Becker

Over the past year, we have experienced a need to very seriously look at IBM's DB2 Database. We realize that many installations across the country are also experiencing this need to allow their organization to grow with DB2, as well as the Software AG product line. Questions that come up during this process are whether or not to continue with the Software AG product line, that is, PREDICT, NATURAL, and ADABAS, or to exclusively switch to DB2. We are not prepared to discuss those options because we feel that every installation is unique in making those decisions. However, if you are an installation that would require ADABAS and DB2 to coexist for either a finite or indefinite period of time, this article may be of interest to you.

We will make the presumption that your installation has determined that NATURAL is a very viable, powerful, fourth generation language and you wish to continue to use it as your primary application development language. With this in mind, we have set out to develop a plan that would allow the flexibility needed between ADABAS and DB2, and at the same time, provide the stringent administration over both products in what we'll term a total integration approach.

We feel that SQL is the foundation language of databases now and in the future. It is within the framework of IBM's SAA environment, and consequently will be used throughout any future development under IBM. Therefore, we will want to build our environment around SQL. Please make reference to the figure on page 17. Note that NATURAL-based products - NATURAL, CONSTRUCT, ... will all communicate through SQL in a downward fashion to the physical database environment. Presently, ADABAS requires up to six parameters as its entry into the software. However, in the future, SQL will be a vehicle for communicating to ADABAS. Therefore, we are planning in our approach that NATURAL and NATURAL-based products will be communicating to any number of Database Management Systems through the standardized SQL interface. This is very important to note because, with very few exceptions, NATURAL applications will be able to communicate either to ADABAS or DB2 without programmatic changes. More about this later in this article.

We are also planning on using PREDICT as the focal point for our logical relational database environment. It will contain Views of all physical data. The View (or better known as the Data Definition Module or DDM) will be able to contain fields from DB2 or ADABAS when the view processor software is introduced. This will allow us to create data definition modules that can span different databases, such as ADABAS and DB2. The fields within a DDM will be able to be updated within all physical databases with data integrity kept intact. This is due to the code that will be developed in the NATURAL View Processor. Referential integrity, which has been recently introduced in DB2 version 2, needs to be addressed as well. By placing the referential rules within PREDICT, we now are able to span referential integrity across all databases whether they are under ADABAS or DB2. These rules then truly control all referential integrity within our logical model. Also, processing and business rules, which are executed within the NATURAL programs will be stored, maintained and executed via PREDICT.

The NATURAL program code itself has to conform to the rules which will allow it to be compatible between the two database management products. We do not anticipate using SQL code itself within a NATURAL program, but plan to use SQL as the communication vehicle when leaving NATURAL and going on to the physical database products. HISTOGRAMs, which process L9 commands within ADABAS, become SELECT commands within SQL's DB2 enviroment. Although HISTOGRAM will be compatible between the two physical databases, the speed differential will be substantially noted. Other commands like HISTOGRAMs will have to be reviewed for differences in performance.

To allow for a truly integrated approach between ADABAS and DB2, one must consider the relational data model when placing data files into ADABAS. Obviously, the use of MU or PE field definitions must be restricted or prohibited. By prohibiting the use of multiple-occurring fields and field groups, one can create an environment within ADABAS which is truly relational. Compounded with the fact that with ADABAS Version 5, key and non-key support will be synonymous when accessing data. ADABAS comes extremely close to DB2 in its possible structure when defining files and applications. Besides the MU and PE restrictions, the use of sub-descriptors, phonetic descriptors, and hyper descriptor fields would be restricted. Also, super-descriptors that are not contiguous field definitions within ADABAS would be a possible problem as well. By creating data that is relational within ADABAS, one can simply unload, decompress, and DXT into DB2 files that were created with ADABAS. We realize that the processing speed of ADABAS is in jeopardy when stripping away some of the powerful facilities that we have used for performance and design reasons. Your environment would have to evaluate these conditions as well.

One must look at what type of data and applications should be developed for ADABAS and what type of appli-

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An Integrated Database Approach - ADABAS / DB2

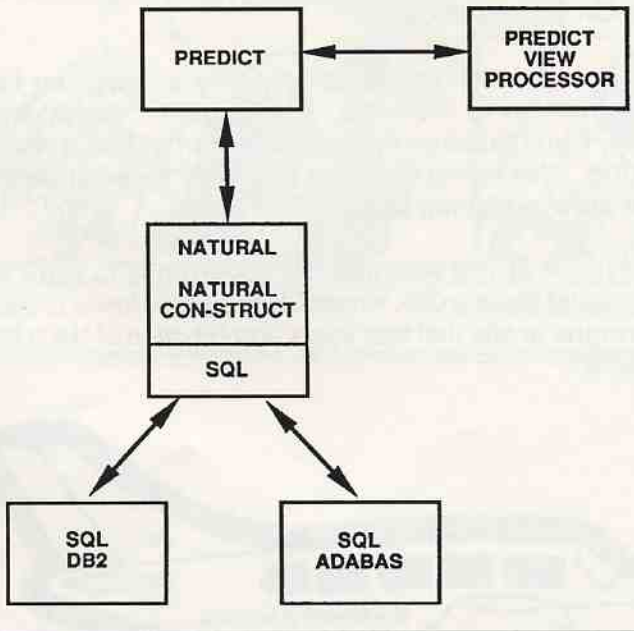
(continued from page 16)

cations should be developed for DB2. We are in the planning stages of developing those lists of applications within our installation. We feel that each installation should research which applications are the best for a given physical database environment.

This plan allows one the flexibility of using two extremely powerful database management products, and at the same time managing this environment through the use of software provided by Software AG. PREDICT becomes extremely important in this environment as the active manager protecting referential integrity as well as containing all active meta data within the environment. We feel that this is a viable solution to the situation of allowing for multiple databases within any installation, and we'd be happy to discuss this plan with anyone who has questions about it.

ABOUT THE AUTHOR: Bob Becker is a Consultant for Technology Directions for Foremost Insurance in Grand Rapids Michigan. Bob has worked for Foremost for fifteen years. He is an internationally renowned authority and speaker on the subject of ADABAS and DBMS design, performance, and tuning.

DIAGRAM OF
INTEGRATED PHYSICAL DATABASE



An Interview With Richard Jacobson

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What has been your biggest success?

I've had a hand in developing the Treehouse international marketing force into a well-informed and equipped unit. The five affiliates all operate differently, but effectively.

What difficulties do you have in marketing?

There has been customer interest in parts of TRIM, like the Real-time Monitor, PLOG processing, and the User-Exit-1 features. These could easily be standalone products. However, the Treehouse philosophy has always been to provide a comprehensive performance monitor, all parts of which can help make the ADABAS/NATURAL environment more efficient. Bundling permits us to pass enhancements on to all our customers, instead of those with an individual monitoring tool. This also makes it easier for our customers by sparing them the hassle of purchasing additional software products as new functions are desired. We do lose some sales by bundling. If a company only has the money for a part of the system, they may consider a competitor's product.

What about the future?

TRIM is going strong and growing. Its reputation has led to several pre-release sales of AUDITRE, our generalized auditing facility for ADABAS/NATURAL. Several new products are being planned. The Treehouse may be branching out to other databases, languages, and hardware.

The response to our marketing survey was very reassuring. Anybody who does a survey will probably get some positive response, but our survey clearly indicates that our products and services are in demand, with users desiring an alternative to the "supporting product" line offered by Software AG.

Our education customers appreciate our extra effort on their behalf. We recently sent four of our people to a user site in Oklahoma to provide some quickly-needed consulting. The user commented, "Treehouse has supplied us with the best group of consultants we've had." Obviously the Treehouse has a great future.

Treehouse Software Delivers Fiber-Optic Quality Support to US Sprint

US Sprint recently encountered a scenario that had the support staff at Software AG and here at Treehouse Software scratching our heads. Sporadically during the day, an update command would receive an apparently erroneous response code 9.

US Sprint, working with Treehouse personnel, was able to use the TRIM Real-time Monitor QCQ screen to analyze the ADABAS command queue. We determined that the update command receiving the response code 9 was waiting in the command queue for several minutes while many other commands were serviced. With this added information Software AG was able to provide US Sprint with a solution to their problem.

In our discussions with Software AG, it appears the problem is isolated to the new ADABAS XA SVC which was distributed after SM10. This new SVC contains enhancements for diadic processors.

The problem is related to an ADABAS command volume and mix specific to US Sprint. Specifically, the command sequence number generated by the SVC was being shifted by 1 byte, causing the command priority byte to be overlaid during periods of high activity.

US SPRINT ISSUES OVER 30 MILLION ADABAS CALLS PER DAY IN THEIR PRODUCTION ENVIRONMENT. MOST SHOPS PROBABLY WOULD NOT REACH THE COMMAND LEVEL REQUIRED TO ENCOUNTER THIS SITUATION. SOFTWARE AG INDICATES THIS PROBLEM WILL BE RESOLVED WITH THE NEW SVC FOR ADABAS V5.

If you encounter this situation you should contact Sue Karlin of the SAG Denver Support Group directly. If you encounter other questionable occurrences in ADABAS or NATURAL and need assistance in identifying whether it really is a problem, whose problem it is, and developing a solution, feel free to call Treehouse Software. Chances are we have encountered similar occurrences and can assist you.

Where Are They Now?

How many of you remember ADABAS version 3? Under version 3, the ADABAS multi-programming monitor (MPM) was a separate routine from the nucleus. Installing ADABAS required massive assemblies and links of the MPM routines. The MPM was written in the mid 1970's by **Chris Wooldridge**. At that time, Software AG of North America had about 50 employees, and about the same number of customers. Chris was also responsible for developing much of the JES interface and other routines found in the early releases of Software AG's COM-PLETE teleprocessing system.

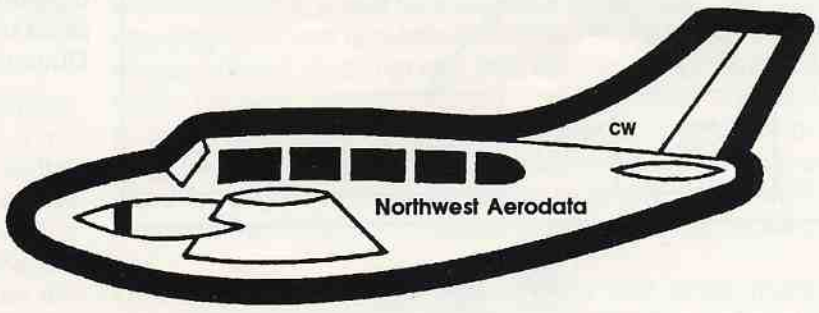
After transferring to the Software AG Seattle Development Office in 1980, Chris led the development of DOS COM-PLETE. After the closing of that office, Chris joined ORACLE Corporation.

Until recently, Chris was Director of IBM Products Development for ORACLE. As employee number 14 for ORACLE, Chris spearheaded the company's VM and MVS product implementations. ORACLE now employs over 3,000 people. Chris says he enjoyed very much working for Software AG and ORACLE during their early years because "you got to do a little bit of everything." While working for ORACLE Chris learned to hack in "C" instead of assembler.

Upon leaving ORACLE, Chris formed his own company, **Northwest Aerodata**, which provides consulting services for ORACLE, DB2, and SQL/DS users. His wife Jean is a Public Affairs Officer for the Fred Hutchinson Cancer Research Center.

Chris and Jean recently moved into a house on Lake Sammamish in Bellevue, Washington. In his spare time, Chris teaches flying and has an airline transport rating. This rating qualifies him to fly those planes we are always rushing to catch.

For those of you who had the opportunity to work with Chris and his dog Gib, whom Chris alleged knew COBOL, we regret to add that four years ago Gib died of NATURAL causes.



Sewickley in the News

By Emilie Szakach

In this article we are covering some of the fine art and charity events in Sewickley. -Editor.

Chukkers

When most of us think of polo, visions of Prince Charles come to mind. But residents of Sewickley can enjoy the annual D.T. Watson Polo Match featuring two Western PA polo clubs in head-to-head competition. Sunday, September 25, the D.T. Watson Rehabilitation Hospital's scenic 90-acre grounds are the site of Chukkers for Charity. All proceeds benefit the hospital, which helps improve the quality of life for people suffering devastating illnesses and head injuries.

Wind Symphony

Forty five brass, woodwind, and percussion instrumentalists from around the world make up The American Waterways Wind Orchestra, which performed a waterfront concert at the Sewickley boat landing in June. The vessel hunkers low in the water when it is sailing, but it sprouts an acoustic shell which houses the orchestra when the vessel is moored close to shore for a concert. A gank plank connected the shore to a barge that seated 1200 people and music was heard at the "Sewickley beach"!

Sewickley House Tour

A long winding driveway leads to this English Country Manor, named Poplar Hill. The columned north portico overlooks the rolling hills of the Allegheny Country Club. The soft pastel colors in the garden and hills have been carried indoors throughout the tastefully decorated rooms. Cottages, a carriage house, charming playhouse, pool and cabana all add to the sylvan setting. The formal oriental garden was designed by Arthur A. Shurtleff, who helped found the Harvard School of Landscape Architecture.

Poplar Hill was one of seven outstanding homes highlighted on this year's Sewickley House Tour, sponsored by The Child Health Association of Sewickley.

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