ADABAS NEWSLETTER

the Adaptable DAta BAse System

PRESIDENT'S MESSAGE

By Pete Webster
E. I. duPont & Co.

The time for our Users Conference is drawing near. That means our program and format have to be finalized soon. Unless I get more feedback from you users, you are going to have to listen

USERS CONFERENCE REGISTRATION

As you probably know, the Third International ADABAS Users Conference will be held May 19-21, 1976 in San Francisco, California. Planning for the conference is proceeding well with the preliminary program scheduled for completion in the near future.
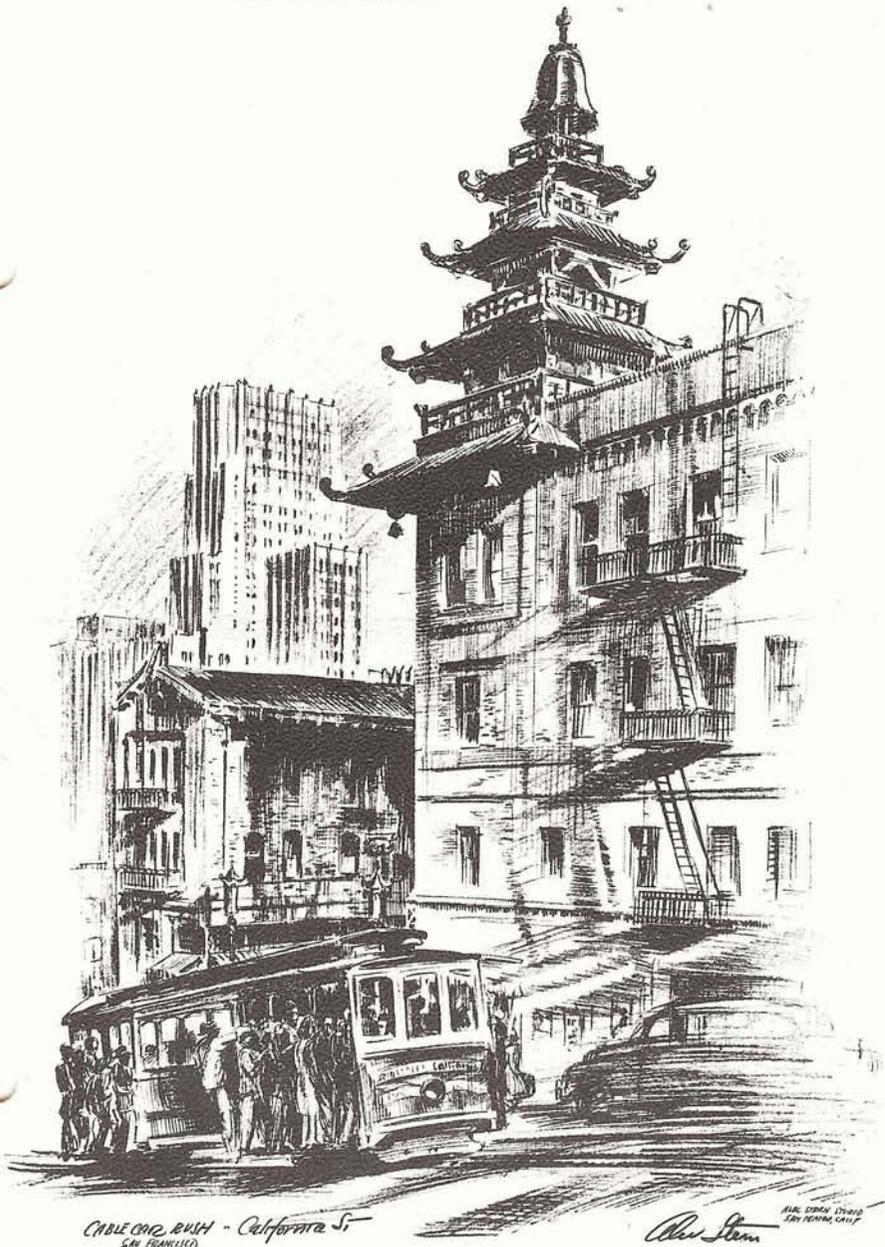

CABLE CAR, RUSH - California St.
SAN FRANCISCO

Program

The program will include presentations on Data Dictionaries, User Experiences, and Current and Future Developments from **software ag**. If you would like to make a presentation or chair a session, please contact Pete Webster, E.I. duPont & Company (302) 774-7060. **This is your chance to make a contribution.**
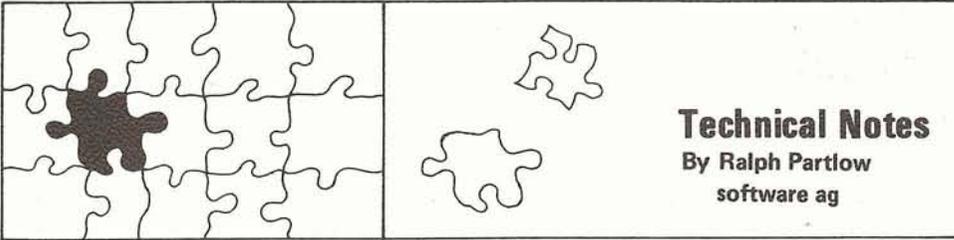
SAN FRANCISCO... MY FAVORITE

My favorite just about everything seems to relate to San Francisco. Like my favorite Japanese Country Style restaurant, or the English beef house, or the best marguerita I've ever had . . . or strolling the grounds of Golden Gate Park, or riding the scenic cable cars . . . or feeling like you're about to drive off the end of the earth as you top a San Francisco hill . . . or shopping in their fascinating Chinatown (or eating there), or rummaging through Fisherman's Wharf on a misty evening (after a scrumptious seafood dinner, of course) . . . or crossing spectacular Golden Gate Bridge to visit scenic Sausilito across the Bay, with its many shops and beautiful homes uniquely wedged into the cliffs . . . or heading North to Muir Woods, home of the giant redwood forest where the splendor and solitude makes one whisper, and even further North through the Napa Valley, center of the California vineyards (oh those tasting rooms!) . . . or the breathtaking beauty of the Pacific as you head South on the Pacific Coast Highway and stop for lunch by the beach and hope to catch the seals sunning on the rocks, then on to the old seaport towns of Monterey and Carmel to catch a last glimpse of the huge orange sun as it dips into the water on the horizon. Yes, my favorite . . . San Francisco.

MASS ADDITION OF RECORDS TO AN ADABAS FILE

by Alex Mayall
ICI Organics Division

As a part of our continuing effort to provide a more end-user oriented system, we are pleased to announce the immediate availability for beta test of an enhanced version of ADASCRIPT. This is the first version of a complete, interactive data query language which we are currently developing. This first version provides many of the capabilities which users have been requesting.

The package will currently run in batch, TSO and CICS. Interfaces to the other TP monitors will be implemented as they are required.

The new features include:

- Page or screen numbers and dates, (including time of day)
- Page titles
- Column headings
- Three levels of control breaks
- Accumulation on specified fields
- Automatic record count and final totals
- Optional supression of detail listing
- Automatic spacing of fields and centering of titles and headings

Two typical inquiries and the resulting reports are shown on pages 5 and 6.

This new ADASCRIPT is in final testing and will be distributed free of charge, to all users in the near future.

Current development plans include:

- COMP (compute) statement
- IF statement with ACCEPT and REJECT clauses, and the ability to include a COMP statement on the TRUE or FALSE side and in the body of the IF statement
- The ability to generate new, calculated, fields for reporting purposes
- Stored queries
- Input other than ADABAS files
- User exits

The above items do not have an estimated completion date as of yet. You will be kept informed of development progress in the Newsletter.

We will be happy to entertain suggestions.

According to the ADABAS Utilities Manual, 'when a large number of records is involved, the use of ADD-LOAD results in a considerable saving in processing time, as opposed to successive execution of the ADD RECORD (N1) command in the ADABAS Nucleus'.

The Manual fails to point out that where a small number of records is to be added, the ADDLOAD Utility can be a grossly inefficient method. This is because the portion of the Associator assigned to the file in question has to be written out to tape in its entirety and then merged with the Intermediate file containing the new descriptor values.

Where the number of records to be added is consistently large, the ADD-LOAD technique provides the obvious solution. But the issue is not always clear-cut.

One project in our Company has an invoice file containing 400,000 records with 12 descriptor fields. Each night an average of 1000 records has to be added to this file, but the actual number can vary between 20 and 2000 plus.

In this case the break-even point (under our charging structure) for the two methods of adding records lies just over 1000 records, and we have already achieved a considerable saving by introducing a manual control on the method to be used. I would be interested in knowing whether any other ADABAS users have encountered this problem and what ideas they might have for automating this procedure.

Our experience has led me to believe that there may be a general formula for determining the break-even point for these two methods in terms of CPU

NEW ADABAS USERS

Thanks to the efforts of **software ag,** and other ADABAS distrubitors around the world, our Users Group continues to grow. We would like to welcome the following new ADABAS users:

Chase Manhattan Bank
1 New York Plaza
New York, New York 10004

Chase is using ADABAS on their 370/168 under OS/MVT. Norm Gittleman, (212) 676-3430, is the Manager of Data Technology Administration.

Auto-Owners Insurance Co.
303 W. Kalamazoo
Lansing, Michigan 48903

Auto-Owners used IMS DB/DC in production for two years. After an ADABAS demonstration showed significant performance advantages for ADABAS over IMS, ADABAS was installed on their 370/158 using VS2. Conversion from IMS DC to CICS is in progress. Initial applications for ADABAS are an Automobile Policy

DATAMANAGER

by Bob Becker Data Administrator
Foremost Insurance Company

The term "Data Item Dictionary" means precisely what it says—a dictionary of data, wherein one should be able to find the total definition of a data item: its name, attributes, derivation logic, value sets, and all places where it is used or referenced. This dictionary should be a data base of data, serving not only as a documentation tool, but also making the actual management of one's data feasible. Benefits incurred from this management capacity include the identification of redundant, inconsistent, or inaccurate data definitions, and the ability to accurately predict the impact of data definition changes. A dictionary may be either manual or automated. After some experience with manual dictionaries, however, we learned that they rapidly become unmaintainable. This is particularly apparent when they attempt to encompass multiple application areas. We discarded the in-house creation of our own dictionary software as being too costly and time consuming. We studied the available packages and chose DATAMANAGER for an in-depth trial.

DATA MANAGER is a new software package produced by Management Systems and Programming of London, England. DATAMANAGER is oriented toward providing total data management capability and information about one's data not only for data processors, but also for non-DP users of the data. It provides in addition to the ordinary dictionary functions of complete data item definition, such features as: complex quiry capability; test file, I/O module, and source language code generation; automatic conversion of source language code to DATA-MANAGER definitions; an ADABAS interface; and accessibility to the dictionary itself. This dictionary accessibility allows the information contained within the dictionary to be used for such purposes as retrieving the value sets for a centralized edit function.

While our initial interest had been only to provide an ADABAS management tool for Data Administration, we quickly ballooned the scope of the dictionary to encompass all data in all systems irrespective of ADABAS usage. We performed a study using a small representative system to create a miniature data dictionary. From this study we were able to predict the total impact of the data dictionary, including training, definition of the data and its interrelationships, and key entry of these definitions, on a project's total development time.

DATAMANAGER installed easily and quickly and has always functioned exactly as advertised. The only major problems we have encountered so far are due to the newness of the package and the enthusiastic response from our programming staff. Everyone is hungry to use some of the features of DATA-MANAGER which have not yet been released. Due to the detail of data definition which we desire to store on the dictionary, we do not use the automatic definition capability of DATA-MANAGER. We are now developing a ROSCOE interface which will allow us to run DATAMANAGER completely interactively, making dictionary inquiry extremely easy. Foremost Insurance has dedicated itself to the concept of accurate, timely, and total data management and with the help of DATAMANAGER this concept is rapidly becoming a reality.

to the topics I want to hear. I also have not had a great deal of response from those willing to give presentations. If I don't hear from you, you'll hear from me. So pick your topic and drop me a note. Thank you in advance for your cooperation.

"The ADABAS Newsletter appears to be largely a mouthpiece for **software ag** of North America." This comment came from an ADABAS Users Group Meeting in England. In my opinion, this was a valid comment regarding the first issue, but each issue has shown a greater user contribution. The Newsletter is intended to be a joint effort of the Users Group and **software ag** so why don't you make your contribution? Please send your articles for the Newsletter to me: c/o E.I. duPont de Nemours & Co. Wilmington, DE 19898

Only about a dozen installations have completed the questionnaire which appeared with the last newsletter. We cannot summarize the information for you if you don't complete the questionnaire. If you need a blank copy, please call me.

As you can see in another article, the UK ADABAS users meets periodically to discuss items of common interest. I was also pleased to hear that the New York City users had a luncheon meeting recently with over 20 people attending. **It can work if you get involved.**

MASS ADDITION OF RECORDS

time and EXCP's. Although a number of factors will obviously influence the outcome, I suspect that only two or three will have any significant influence (e.g. number of records, number of descriptors, average number of ISN's per descriptor value). Peter Schnell has promised to investigate this matter and I have agreed to collect information for him from a number of practical examples. I would therefore be grateful if anyone who has done work in this field can supply me with some figures which should include for both methods: number of records in file, number of records added, number of descriptors, average number of ISN's per descriptor, average

records size, CPU time, EXCP's (if available) and any other information which they consider relevant. I would also need to know the machine configuration and operating system under which the figures were obtained. Please send information to:

Alex Mayall
ICI Organics Division,
Hexagon House New,
Blackley
Manchester M9 3DA
England

UK USERS MEET

The following excerpts are provided from a meeting of the UK ADABAS Users. ed.

Mr. Crabtree raised the question of the reliability of tapes for logging purposes. He felt that a useful option would be a duplicate log facility similar to that provided by IMS. Mr. Horrigan thought that a combination of disk and tape logs would be ideal.

Long response times in the Supply Query System had been found to be attributable partly to VS paging and partly to a poor choice of descriptor fields in the initial stages of the project. An example in the large invoice file was the works field which in the worst case had a list of 90,000 ISN's attached to a single value. ADABAS had to read all the main index blocks in respect of this value in order to determine the number of qualifying ISN's. This problem had been temporarily overcome by creating a pseudo-super-descriptor field created by concatenating the Works field with the invoice value field.

The standard ADABAS WARMSTART procedure requires an operator involvement in producing the ADARES copy function parameter card to indicate the internal tape number of the ADABAS log tape. A three-step job had been introduced which extracts the tape number details from the Associator, produces the input parameter card to the copy step and executes ADARES copy and WARMSTART steps. Mr. Mitchell felt that a utility was needed to analyse the statistics held on the MPM log. Mr. Horrigan saw the need for a user area for insertion in the MPM log record to enable these statistics to include information on transaction ID, etc. This data could perhaps be transferred in an extension of the ADABAS control block.

NEW ADABAS USERS *continued* . . .

Master File (1,000,000 records) and a Direct Collections File. Dewey Doane, (517) 371-4600 x 222, is the Manager of Data Processing and Al Welter, x 223, is the Administrator of the Systems Support Group.

British Railways
Technical Centre
London Road
Derby, England

ADABAS was selected after an extensive evaluation and benchmark of major competitive systems. The British Railways contract calls for the development of ADABAS for the ICL 2900 computer. ADABAS is currently installed on their 370/145 for testing and in the future will be moved to their 370/168. The initial application is for production of time tables. Mike Stewart, (0602) 48531, is the prime contact.

Barclays Bank Ltd.
Wythenshawe
Radbrook
Knutsford, Chesire

ADABAS is installed on their 370/168 near Manchester, England. The initial application is an on-line inquiry system for employee personnel records. Brian Jaques, (0565) 3888, is the Assistant Project Controller.

Imperial Chemical Industries, Ltd.
Plastics Division
P.O. Box 6, Bessemer Road
Welwyn, Garden City

This is the fourth ICI installation using ADABAS. An on-line order processing system is being developed on their 370/145 using OS/MFT and TASK/MASTER. Mr. S. G. Furniss, (07073) 23400, is the prime contact.

Iduna Vereinigte Lebensversicherung AG
Neue Rabenstrasse 15-19
D-2000 Hamburg 36
West Germany

Iduna is a large insurance company which plans to use ADABAS for an on-line insurance portfolio manage-ment system. ADABAS is installed on their two 370/158's using MVS with TSO and CICS. Herr Lasch is the prime contact.

Rechenzentrale Bayerischer Genossen-schaften AG
Pfarrstrasse 14
D-8000 Munchen 22
West Germany

RBG is the data processing center for the largest agrarian and banking cooperative in Bavaria. The initial application is a customer account system on their Siemens 4004/151 using BS 1000. Herr Axtner is the primary contact.

Centrale de Compensation
Rue des Paquis 52
CH-1211 Geneva, Switzerland

ADABAS was selected after a large benchmark of ADABAS and IMS. They are currently converting an existing social insurance system to ADABAS on their 370/158 using VM/DOS and TASK/MASTER. Mr. Mermoud is the prime contact.

Schweizerische Eidgenossenschaft
Hallwylstrasse 15
CH-3003 Bern, Switzerland

This large government agency selected ADABAS as a result of the ADABAS/IMS benchmark conducted by Centrale de Compensation. ADABAS is installed on their 360/65. Mr. Renaud is the prime contact.

A. A. Mutual Insurance
Automomutual House
20 Wanderers Street
Johannesburg 2001, South Africa

A. A. Mutual evaluated ADABAS against their current DL/1 system on one of their insurance systems called Jumbo Monthly Lease. Several other applications are scheduled to use ADABAS. ADABAS is installed on their 370/145 using VS1 and CICS. Bev Edwards, 28-1381, is the Data Processing Manager.

NEW ADABAS USERS *continued...*

State of Colorado
Division of ADP Services
2002 South Colorado Boulevard
Denver, Colorado 80222

ADABAS was selected as the DBMS to be eventually available to all State Agencies. The initial application will be the conversion of a DL/1 Registration and Admissions system for the Metropolitan State College in Denver. ADABAS is currently installed on their two 370/145's using VS1 and CICS. Lee Michelsen, (303) 759-1221, is the Manager of Systems Development and Coordination and Roger Potuzak, (303) 292-5190, is responsible for the application at Metro State College

State of California
Teale Consolidated Data Center
P.O. Box 160247
Sacramento, California 95816

ADABAS is installed on their two 370/165's using VS1 and MVT with CICS. The first two agencies bringing up applications using ADABAS are the Department of Youth Authority and the Water Resources Control Board. A five-day ADABAS training course has been developed by the State's EDP Education Program. Representatives of other government agencies located in California may arrange for attendance. Al Smith, (916) 322-3848, is the Director of Software Systems.

District of Columbia Government
Share Computer Center
300 Indiana, Room 1104
Washington, D.C. 20001

The DC Share Computer Center is a data processing service center for city and some federal agencies. ADABAS is installed on their 370/158 with 3 meg using VS2, TSO, and CICS. The initial application being developed to use the data base is a financial management system. Other applications will be converted to ADABAS in the future. Konstantinos Koutsias, (202) 737-0197, is the Data Base Administrator.

South African Railways
Computer Centre
North Station Building
Johannesburg 2001, Transvaal

SAR conducted a one-year evaluation of DBMS including a two month trip to the USA and Europe to visit DBMS users. A paid demonstration of ADABAS was conducted on the SAR Stores System. ADABAS is installed on their 370/158 and 370/155 using VS1 and will be used for their personnel system for 250,000 employees. Other possible applications using ADABAS are being evaluated. G. Van der Veer, 713-3402, is the Data Pro-

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NEW ADASCRIPT EXAMPLE

```
FIND PERSONNEL WITH STATE EQ C THRU F
COUPLED TO AUTOMOBILES WITH MAKE NOT EQ FORD
OUTPUT TITLE
'SUMMARY BY CITY/OF AGE OF NON-FORD OWNERS'
CONTROL STATE CITY
ACCUM AGE SALARY COMMISSION
SUMMARY DISPLAY  STATE CITY AGE SALARY COMMISSION.
```

14 JAN 76 4:03 AM   PAGE 1

SUMMARY BY CITY
OF AGE OF NON-FORD OWNERS

STATE	CITY	HOW OLD	SALARY	COMMISSION	
CA	BAKERSFIELD 5*	260	46150	11500	*each line is generated by a control break*
CA	CARMEL 4*	158	57300	27800	
CA	SAN JOSE 9*	462	109100	31800	
134*		6636	1264700	377900	

5

cessing Manager and N. Heger, 713-5468, is the Senior Superintendant.

E. I. duPont Company
Engineering Department
Louviers Building
Newark, Delaware 19711

ADABAS is installed on the 370/158 with VS2 in the Engineering Department of the duPont Company. It will be used in development of data bases for engineering systems. These systems are being programmed using ADAMINT. Ted Leininger, (302) 366-3353, is the Data Base Administrator.

*The Church of Jesus Christ
of Latter Day Saints*
50 East North Temple
Salt Lake City, Utah 84150

The Mormon Church is currently consolidating many different sequential files into a data base. This information will be made available to management for on-line inquiry. Based upon the characteristics of data usage, a fully integrated data base will be implemented in the future. ADABAS is installed on their 370/168 with 4 meg using VS2 and TSO with conversion to MVS and homegrown TP planned. Pete Pratt, (801) 531-2408, is the Data Base Administrator.

NEW ADASCRIPT EXAMPLE

```
FIND PERSONNEL WITH STATE EQ A THRU Z
OUTPUT TITLE 'MARITAL STATUS OF PEOPLE/LIVING IN THE UNITED STATES'
CONTROL STATE CITY MARITAL-STATUS
ACCUM SALARY
DISPLAY STATE CITY MARITAL-STATUS NAME SALARY.
```

14 JAN 76   4:02 AM   PAGE 1

MARITAL STATUS OF PEOPLE
LIVING IN THE UNITED STATES

	STATE	CITY	MARITAL STATUS	LAST NAME	SALARY
	AL	BIRMINGHAM	DIVORCED	KUHN	24000
	AL	BIRMINGHAM	DIVORCED	LANNON	5100
minor control break			2*		29100

	STATE	CITY	MARITAL STATUS	LAST NAME	SALARY
	AL	BIRMINGHAM	SINGLE	BIOGIO	6300
minor control break			6*		77300
intermediate control break		17*			156610

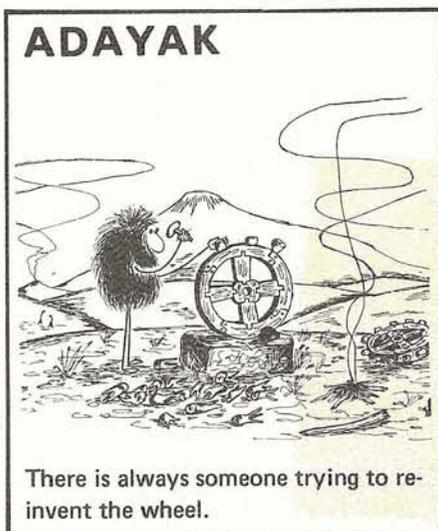|	STATE	CITY	MARITAL STATUS	LAST NAME	SALARY
minor control break			1*		5100
intermediate control break		6*			42100
		17*			170200
final total	994*	994*	994*		9463920

Registration

Enclosed with this newsletter is a registration form for your convenience. A registration fee of $100 per attendee has been set to defer the expenses including meals and meeting rooms. To encourage early registration for the conference, we have set a late registration fee of $25 for registrations received after May 1, 1976. **Please register early.**

When your registration is received, you will be sent a hotel reservation card. We will be staying and meeting at the Hyatt on Union Square. A number of rooms have been set aside and will be held until May 1. The single room rates are $38–$50. For individuals on a limited per diem, some rooms are available for $26. If you need one of these rooms, please note this on your registration form.

Your spouse or guest is welcome at the Users Conference for a registration fee of $35. This includes attendance at the banquet and at Friday's lunch. Tours of San Francisco will be arranged and other activities will be scheduled based upon anticipated attendance and interest.

The conference will begin early on Wednesday, May 19 so plan to arrive on Tuesday. This will allow you to register and meet the other attendees at the Reception. **San Francisco will be better than Toronto.** Register now!

ADAYAK

There is always someone trying to reinvent the wheel.

ANALYSING THE ADABAS HISTOGRAM

By David M. Crabtree
ICI (Organics Division)

The histogram output for a descriptor is voluminous, and often only useful when a specific need for it is recognised. Paradoxically this need cannot usually be predetermined. A method of overcoming these disadvantages is to analyse the histogram itself. This article describes one very simple method that appears to be useful for most purposes.

Step 1 is a program that writes normal ADABAS histogram outputs to a work file for all-descriptors in one or more files specified by card input. Step 2 is an OS sort of each descriptor's sub-file of "data value"/"number of qualifying ISN's", into ascending order of "number of qualifying ISN's". Step 3 is a program that reads the sorted descriptor sub-files and, for each, outputs the number of *sets of values* which have the same number of qualifying ISN's. Columns (a) to (d) below illustrate the analysis from basic file data through to final output (read the figures as **Values: ISN's**).

(a)	(b)	(c)	(d)
20:1	20:2	24:1	1:1
24:1	24:1	20:2	2:2
28:1	28:2	28:2	
20:1			
28:1			

In essence the analysis shows at a glance the nature of values of descriptors chosen for a file. Specifically, consider the results that might be obtained for a 50,000 record file. For descriptor A all values should be unique (say, one record per unique code). The analysis will produce one line, 50,000:1. If it does not (two lines, 49,998:1, 1:2 etc.) there are duplicated codes. Descriptor B may give the results 1:10,000, 1:15,000, 1:25,000. Thus descriptor B is seen to be poorly chosen since the three values may require up to 20, 30 and 50 I/O's to retrieve blocks of 500 ISN's from the normal index. Descriptor B should be concatenated with another field to make retrieval efficient. (While this is being done, time can be taken out to complain to **software ag** about the internal logic used in the ADABAS search algorithms—particularly that in #3). Descriptor C analysis may show a pattern somewhere between the extremes of A and B. Descriptor C analysis may show a pattern somewhere between the extremes of A and B. Study of it will give an idea of the hitherto unknown spread of values, its efficiency in a search, and its efficiency when used with the next descriptor D.
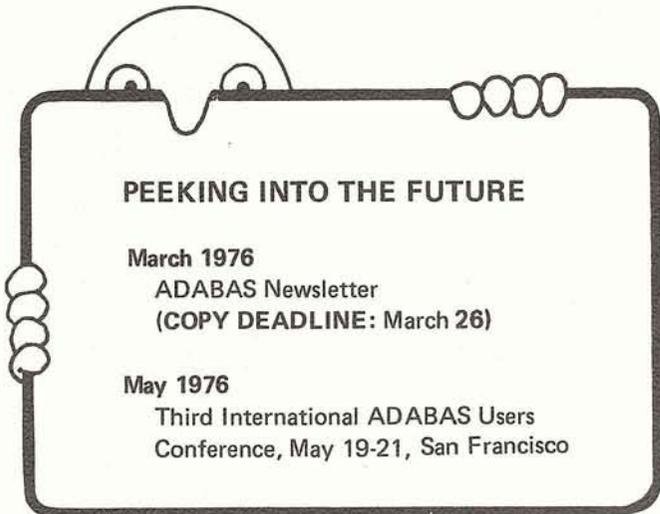
The analysis programs are written for the PL/1 optimizing compiler. Photocopies of JCL and program source code, a fuller explanation of the analysis and explained actual examples, can be obtained from UK User Group representative Alex Mayall, ICI (Organics Division), Manchester M9 3DA, England.

ADASCRIPT ROSCOE INTERFACE

by Bob Becker
Foremost Insurance Company

An ADASCRIPT—ROSCOE Interface which allows ROSCOE users to run ADASCRIPT interactively has been developed and is now available. The software acts as a ROSCOE monitor which loads and monitors an additional module called MADROSCO. This module which is a subtask to ROSCOE calls and is called by ADASCRIPT for terminal input or output. The system requires 4-8K excluding ADABAS and ADASCRIPT, requires no modification to ROSCOE, ADASCRIPT or ADABAS and produces little or no impact on other ROSCOE users.

More information can be obtained by contacting Bob Becker, Foremost Insurance Company, Grand Rapids, Michigan.

PEEKING INTO THE FUTURE

March 1976
ADABAS Newsletter
(COPY DEADLINE: March 26)

May 1976
Third International ADABAS Users
Conference, May 19-21, San Francisco

All ADABAS change/enhancement requests will be posted at the next ADABAS Users Conference. The Endorsement Area can then be used by those who wish to show support for this request. Requests to be posted must be assigned a number by the Users' Group representative in order to be officially sanctioned by the Users Group.

A time slot will be designated during the Users Meeting for the presentation of all ADABAS change/enhancement requests. Each request will be presented in order of request number (except those cross referenced to a request will be presented together). Each person submitting a request will read his request, then entertain any discussion. Finally a vote will be taken to support the request or not. Those requests to be supported by the Users Group will be assigned a priority (high, medium, low). All supported requests will be presented to **software ag**. All responses from **software ag** will be made public.

ADABAS CHANGE/ENHANCEMENT REQUESTS

To this point the method for submitting change or enhancement requests for ADABAS to **software ag** have been haphazard and somewhat chaotic. It is the objective of the Users Group to create a formal mechanism for such purposes. By so doing we can accomplish the following:

- consolidate requests,
- present a united front,
- and expect a formal response from **software ag**

Attached you will find the ADABAS Change/Enhancement Request form. The person submitting the request will fill out: a title for his recommendation, a brief description, his name, company, and address, and the date submitted. This will then be sent to the address indicated on the form. The Users' Group representative will assign the request a number, indicate date received, determine if this should be cross referenced to a similar request, and initial the area marked "Received By".

* These are long-term goals which we expect to see incorporated in some future release of ADABAS. They are not operational problems which require immediate attention.

The Editors

Pete Webster
E.I. du Pont de Nemours & Co.
Farmers Bank Building
Wilmington, Delaware 19898
(302) 774-7060

and

Tom Berrisford
software ag
Reston International Center
11800 Sunrise Valley Drive
Reston, Virginia 22091
(703) 620-9577

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software ag
OF NORTH AMERICA, INC.

Reston International Center
11800 Sunrise Valley Drive
Reston, Virginia 22091

"Buy your hardware from the biggest and your software from the best"

NORTHERN VIRGINIA
MAR 4 1976
220 VA.

MR. LEO J. COHEN
PERFORMANCE DEVELOPMENT CORP.
32 SCOTCH ROAD
TRENTON, NJ   08628