

ADABAS

the Adaptable DAta BAse System

NEWSLETTER

Published by the International ADABAS Users' Software AG of North America, Inc.

Vol. 4, No. 2 December 1978

Sixth ADAGROUP Users' Conference Held in Munich



Munich, Germany: General session of the Sixth International ADABAS Users' Group Conference

6.
INTERNATIONAL
ADABAS
USERS
CONFERENCE

MUNCHEN
78

President's Message

by: Rob Macmillan
ADAGROUP President
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You'll remember all those superlatives we used about Boston; well, they all apply to Munich as well. My congratulations and thanks to those who helped organize the Sixth International Conference. Over the years we have come to expect a high standard at ADABAS users' conferences and Munich was no exception. I must make special mention of Lutz Heymer of the Hessische Landesbank whose efforts ensured the success of this venture - being the first international ADABAS users meeting held in Europe.

Many thanks must go to Rick Josephs, Dieter Keppler and all the others from Software AG of Darmstadt, who helped put the program together.

The agenda included presentations from Germany, the UK, Switzerland, Italy, USA, Mexico and Canada. Even further international flavor was added by a guest

Com-plete

The International Com-plete
Users' Group Newsletter
begins on page 13.

ADABAS Named to 1978 Datapro Software Honor Roll

For the second year in a row, the ADABAS Data Base Management System has been named to the Datapro Software Honor Roll.

Datapro's annual survey polled over 30,000 computer system users. ADABAS was ranked among the top 30 software products out of almost 2,000 products rated. Needless to say, we're pleased!

We wish to thank each of our users who took the time to respond to the Datapro questionnaire. Thank You.

John Norris Maguire
President
Software AG of North America

speaker from Austria. Proceedings were printed in both German and English and presentations were made in both languages.

The entertainment provided by our German friends was fantastic. The highlights included a Thursday night Bavarian evening, a castle tour on Friday, and for those who were still around on Saturday an introduction to Oktoberfest.

I was especially pleased with the progress made by the ADAGROUP Executive Committee in addressing problems unique to European users. Most significant are the changes to be implemented to improve communication between the European and North American users. European users will now receive all North American originated user group mailings direct from Reston (this mail was previously

continued on page 4

International ADABAS Users' Group Representatives

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West Central U.S. Region
Charles Rolls
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Public Transportation
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512-475-7173

Planned Software Product Release Dates

ADABAS V4.1	North American Release to Technical Representatives	April 1979 (General Release 4-6 weeks after Release to Technical Representatives)
ADABOMP V1.0		Available
ADACOM V1.0	OS Release to Technical Representatives	Available January 1979
	OS General Release	
	DOS Release to Technical Representatives	February 1979 March 1979
	DOS General Release	
ADAMINT V1.3		Available
ADASCRIP+ V1.03		Available
ADASCRIP+ V1.1		January 1979
ADAWRITER V1.2		January 1979
Data Dictionary V1.0		Available
DBMOD Reorder Associator Utility		January 1979
MPM 56		Available
Com-plete MVS version		September 1979
Com-plete V3.0		Available
Com-plete VTAM/SNA version		June 1979
ADABAS-M V1.0	Selected Installation	January 1979
	General Release	April 1979
Natural V1.0	OS Release to Technical Representatives	January 1979 March 1979
	OS General Release	
	DOS Release to Technical Representatives	February 1979 April 1979
	DOS General Release	

Newsletter Deadlines Adjusted

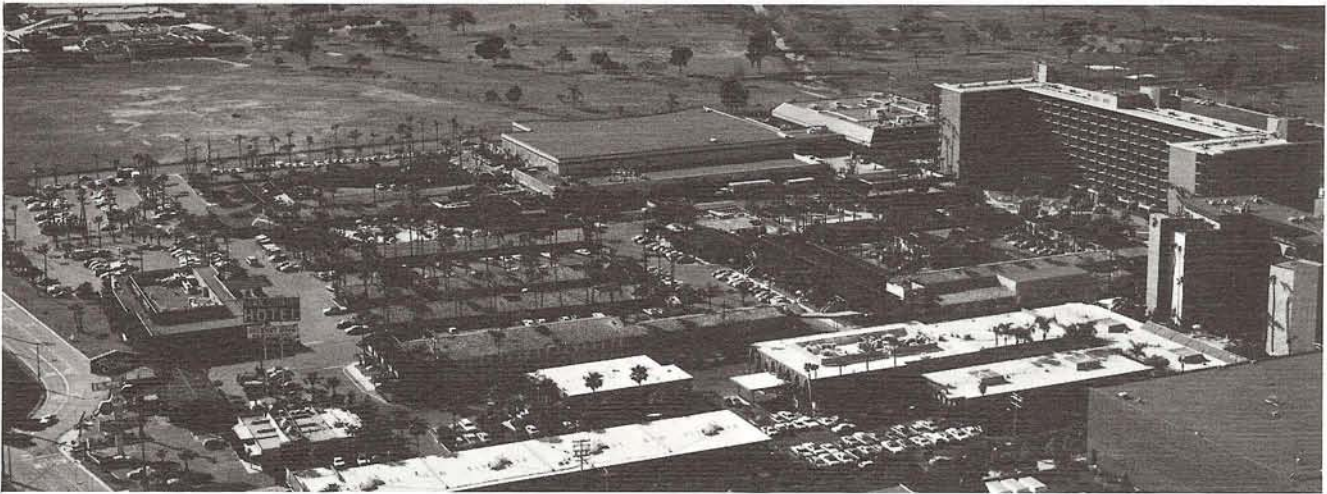
Due to the date of the San Diego conference, the publication dates of the Newsletter have been adjusted. The newsletter will be published during March and May with deadlines of February 1st and April 1st respectively. The contributions of the user community are what make this Newsletter valuable. Please note the deadlines and make your literary contribution.

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South American Region
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Be involved in ADAGROUP. Contact
your regional representative.

Town and Country Hotel Chosen as Site of Seventh International ADABAS Users' Conference, June 13-15, 1979



San Diego, California: Town and Country Hotel and Convention Center site of ADABAS and Complete Users' Conferences

The Seventh International ADABAS Users' Conference will be held June 13 through 15, 1979 in San Diego, California. The annual spring meeting will be headquartered at the Town and Country Hotel and Convention Center in the Mission Valley area of the Southern California city.

The Conference activities will commence Tuesday evening, June 12, with a reception at the Conference Center. Formal Conference proceedings will begin Wednesday morning, June 13 and run through Friday afternoon, June 15. The conference social events will include a "get acquainted" reception Tuesday evening, a formal banquet Wednesday evening and an informal banquet Thursday evening.

The annual International Conference offers a forum for new and established users of ADABAS to share experiences and techniques. Formal papers are presented. Special Interest Groups meet. Future plans of Software AG are discussed. Changes and Enhancements to ADABAS are discussed and formal users' group business is conducted.

Registration fee for conference attendees is \$150. Registration fee for companions is \$50. A late registration fee of \$50 will be charged for registrations made after May 11, 1979.

Registration forms will be available from users' group representatives, Software AG representatives and Software AG headquarters after January 15, 1979.

The Town and Country Hotel and Convention Center is situated on a four-acre site featuring many facilities to make your stay a memorable one. The Hotel complex offers 1200 deluxe rooms from garden cottages to high-rise suites. The Hotel boasts four large swimming pools and a recreation complex with handball/racquetball courts, tennis courts and exercise rooms, saunas, steamrooms and jacuzzi.

The Town and Country facility also contains six restaurants ranging from a 24-hour coffee house to an elegant continental cuisine restaurant called Le Pavillon. Four lounges are a part of the Town and Country facility. Three have live music nightly and the fourth

is a European style discotheque known as "Crystal T's Emporium".

Special convention room rates at the Town and Country are available during the conference as well as two days prior to and two days after the conference. Convention rates for singles will be \$27 to \$33 and will be \$32 to \$38 for doubles.

Of special interest to companions is the Fashion Valley shopping center, one of San Diego's largest and most modern centers, directly adjacent to the Hotel property. Other area activities, including the world famous San Diego Zoo, the Sea World Marine Park, and Mission Bay are just minutes away. And, of course, Tijuana, with its bargains and bullfights, is only a half hour away.

The Seventh International ADABAS Users' Conference promises to be the most productive and entertaining ever. Make plans now to attend.

Forman to Head North American ADABAS Development

Ed Forman has accepted a newly created position, within Software AG of North America, as Manager of ADABAS Development. He will be responsible for all ADABAS-related development in North America. In particular, this includes ADAMINT, ADASCRIP+, ADABOMP and Data Dictionary.

Mr. Forman's responsibilities will include coordination between Reston and Darmstadt for the distribution of new releases of ADABAS and related products; the preparation and coordination of system modifications; the assignment of ADABAS development personnel; and coordination between the support staff and the development staff.

Prior to accepting the position Mr. Forman was the Director of Technical Support for the North East Region.

Full Agenda Featured at ADAGROUP Executive Meeting

A mid-year meeting of the ADABAS Users' Group Executive Committee was held October 27, at Software AG of North America's headquarters in Reston, Virginia.

The committee was represented by: Rob Macmillan, President; Michael Berman, Vice President; Bob Cole, Secretary; Suzan Schultz, Newsletter Editor; Dan Skwarcan, East Central Region; Charles Rollis, South Central Region; and Robert Taylor, Eastern Canada/Upper New York Region.

Software AG was represented by: John Maguire, President; Ken Rardin, Senior Vice President; Scott Watanabe, Manager of Technical Operations; Ann Todd, Liaison Assistant; and Steve Greaves, User Group Liaison.

The meeting began at 9:00 with a full agenda.

Dan Skwarcan explained his work on a new change and enhancement computer system. The system includes new reports and procedures for compilation of ballots and categorizing Software AG responses. The system is also generalized so that it can be run at any ADABAS installation. A suggestion to change the ballot structure was rejected.

A suggestion was accepted to ask Special Interest Group Chairmen to assist Dan in the review of Change and Enhancement Requests.

The group also discussed the San Diego Users' Conference. Various plans for conference formats and themes were brought up, but it was decided to generally follow the pattern of previous years.

It was decided that Special Interest Group Chairmen would be asked to be responsible for a conference session. The chairmen would solicit and review papers where possible, for inclusion in their sessions.

The Executive Committee also decided to begin discussions with the Complete Users' Group Executive Committee at San Diego to explore the merging of the two groups.

A discussion of Software AG's problem reporting and resolution procedures expressed the concerns of the Users' group. The general feeling was that some areas of the procedure were unclear and needed elaboration. Software AG agreed to rewrite the procedure.

A discussion of product release dates followed. It was generally felt that better communication was needed. The better communication would include expanded commentary by Software AG as to what phase of development a product is in and what phases remained.

The better communication would allow users to better plan for the use of the new product or release. Software AG agreed to revise the way it communicates release dates.

A general discussion on communication between Software AG and the individual user followed. Several suggestions will be tried by both the user group and Software AG.

Communication within the user community was
Page 4

Best Speaker Award Boosted to \$1000

Software AG has boosted the size of the "best speaker" award to \$1000. The award will be presented for the best speaker at the Seventh International ADABAS Users' Conference in San Diego, June 13-15, 1979.

To be eligible, the speaker must make a formal presentation, submit an outline and paper at the appropriate deadlines and be a user of ADABAS.

The award, previously \$500, is presented by Software AG to assure top quality informative conference proceedings. The award is in addition to a \$100 bonus awarded to each speaker making a formal presentation. Best speaker is determined by ballot of the conference attendees.

President's Message

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redirected by the Darmstadt office). In particular, this should reduce the time it takes for European users to receive newsletters and change/enhancement literature.

European users are planning meetings of special interest groups over the next year. The coordinators of these groups will exchange information with the international chairman to ensure there is as little duplication of effort as possible.

The open discussion with Software AG during the conference illustrated once again the value of a strong user community. The New York regional group raised the question that advanced documentation of Version 4.1 suggested that some users may have major application program changes to make when implementing the new version. Peter Page allayed these fears and reiterated Software AG's policy of ensuring upward compatibility wherever possible. Software AG made major announcements on release dates for Version 4.1, ADABAS-M, ADAMINT logical coupling and the reorder associator option of DBMOD (see elsewhere in this newsletter).

This is the last newsletter you will receive before the deadline for submitting new change/enhancement requests. Please give this your attention in the immediate future and forward your requests to Dan Skwarcan.

also brought up, particularly communication outside of North America. Rob Macmillan commented on the need to communicate between European Special Interest Groups and North American Special Interest Groups.

The topic of regional boundaries emphasized the need for more accurate user profile information.

The final agenda item concerned revisions to the ADAGROUP constitution. It was generally felt that the constitution is out of date and should be revised to reflect how the group really operates. Secretary Bob Cole suggested a process for revisions and balloting by the users, with results known prior to the next conference.

The meeting was adjourned at 6:15 p.m.

Sixth International ADABAS Users' Conference Held in Munich, Sept. 12-16, 1978

The Sixth International ADABAS Users' Conference, the first outside North America, was convened in Munich, Germany September 12-16, 1978.

Nearly 200 conferees, representing ADABAS users from Western Europe and the rest of the world participated. The conference headquarters was the Hotel Vier Jahreszeiten. Presentations were made in either English or German. Proceedings were available in both languages.

During the course of the conference, several meetings were held between representatives of European and American regions of ADAGROUP. Lutz Heymer, representative of the European users and host of the Munich conference met with ADAGROUP President Rob Macmillan and ADAGROUP Vice President Michael Berman. It was decided to take steps to improve communication between the various worldwide regions and North America.

The conference presentations were highlighted by two guest speakers: Professor K. Bauknecht of Switzerland on "Data Base as a Management Tool" and Professor F. Neeb from Austria on "Decentralization: Trend or Mode".

The opening sessions included presentations by Peter Schnell on Version 4, by Richard Josephs on Documentation, and by John Maguire on Software AG future plans.

Companions (and some conferees) were treated to bus tours each day of Munich and the surrounding area.

A press conference was held in conjunction with the conference to announce the status of the new products: Natural, ADACOM and ADABAS-M.

The first day of the conference was capped by a formal banquet at the Hotel. Banquet guests were serenaded by a string ensemble. Lutz Heymer made presentations to those present who had made contributions to ADAGROUP during the past year.

The banquet Thursday night was a complete contrast. The banquet was a very informal "Bavarian Evening". The banquet room was transformed into a Bavarian mall surrounded with stands each with unique Bavarian delicacies. The meal was topped off with Bavarian dancers, dancing and ample quantities of Bavarian beer.

Many conferees found time to visit the many nearby restaurants and beer gardens.

At the close of the conference conferees were invited on a bus tour of King Ludwig's Neuschwanstein Castle in the Bavarian countryside.

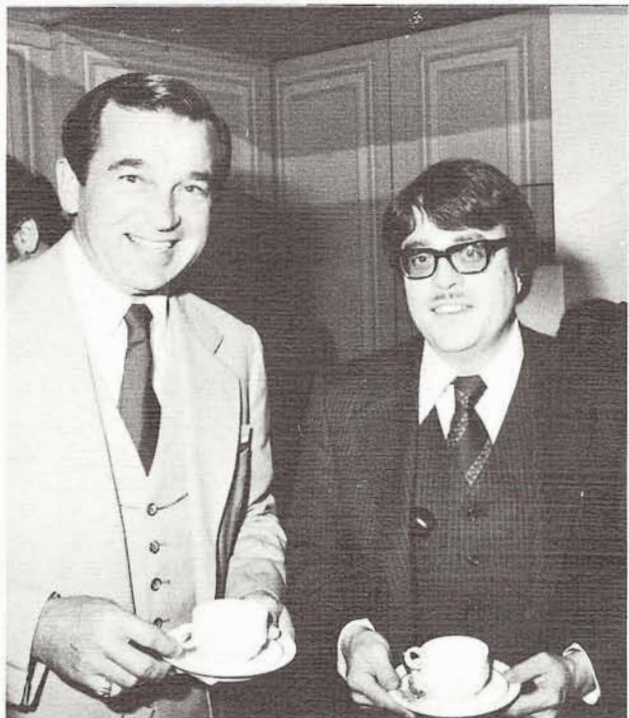
The conference and the many social events were all carefully planned and orchestrated by the hard working conference staff of Dieter Keppler, Wolfgang Jung and Irmgard Fritzler of Software AG, Germany.



Munich, Germany: Breakout session at Sixth ADABAS Users' Conference



Munich, Germany: Morning break between sessions



Munich, Germany: Software AG of North America President, John Norris Maguire, (left), and Vice President of ADABAS-M Development, John Taft, during break in conference sessions.

other pictures from the Munich Conference on pages 7 & 11

Special Interest Group Reports

CHANGE/ENHANCEMENT REQUEST COMMITTEE

by: Daniel R. Skwarcin
Associates Computer Center
1720 Ruskin Street
South Bend, Indiana 46604

C/E Request Procedure

The Change/Enhancement Request Procedure has been revised. A copy of the new Change/Enhancement Request Procedure has been sent to each Regional Representative. Copies of the new Change/Enhancement Request Procedure may be obtained from your Regional Representative.

Change/Enhancement Request Schedule

To facilitate the Change/Enhancement Request proceedings at the next conference, a schedule of events has been developed as follows:

- 01/01/79 - Deadline for submission of Change/Enhancement Requests
- 01/26/79 - Change/Enhancement Requests forwarded to SIG chairpersons for review
- 02/16/79 - Deadline for responses by SIG chairpersons
- 03/01/79 - Consolidated/collated Change/Enhancement Requests with ballots distributed to users
- 04/01/79 - Deadline for return of ballots
- 04/20/79 - Change/Enhancement Requests with ballot totals submitted to Software AG
- 05/11/79 - Deadline for Software AG responses to Change/Enhancement Requests
- 05/23/79 - Complete Change/Enhancement Request Package distributed to users

Please try to submit your requests as soon as possible.

Each Regional representative should ensure that a certain amount of time at Regional meetings is spent in the area of Change/Enhancements.

A copy of the Change/Enhancement Request has been included in this newsletter. Please send all Change/Enhancement Requests to:

Daniel R. Skwarcin
Associates Computer Center
1720 Ruskin Street
South Bend, ID 46604

DATA DICTIONARY SPECIAL INTEREST GROUP

by: Richard Tannor
INCO, Ltd.
One New York Plaza
New York, New York 10004

As of this writing the ADABAS Data Dictionary package is ready for release, only awaiting the arrival of its reference manuals from the printer.

I would like to devote this column in the next newsletter to users' comments and criticism of the Dictionary package. Is the system a welcome enhancement to your data base installation? What elements are of little or no use? What facilities should be added to the package?

In addition, please let me know if your organization would be interested in sending a representative to a meeting, perhaps to Software AG's Reston office, for the purpose of discussing the usefulness of the ADABAS Data Dictionary and its future capabilities.

Software AG Offers ADABAS Instant On-Site Support

Instant On-site Support, a new support enhancement product, was announced November 6th in "COMPUTERWORLD". The product allows full dial-up support of Software AG products.

Virtually any support function available in the computer room can now be performed from any remote location by the installation's support staff or, with your permission, Software AG's staff.

Debugging functions range from displaying on altering memory to scanning system queues to applying zaps. All this and much more is available to support the computer system remotely.

Instant On-site Support contains all the features of the Complete Interactive Program Development Subsystem limited to a network of one user terminal and one dial-up (support) terminal.

For current ADABAS users, Instant On-site Support is available to augment the DBMS support. The product is available for a \$2,000 installation fee and a rental fee of \$350 per month payable in advance annually.

To introduce current ADABAS users to the facility Software AG offers a free 90-day trial period for the product, (installation fee not included).

For further information contact your local representative or Software AG headquarters at 703-860-5050.

Wanted: Information on Order Entry System

We are implementing an Order Entry System at Evans Products under ADABAS and Complete. I'd like to talk to anyone who has set up such a system or a similar one.

Please contact me:

Jeff Crain
Evans Products
503-222-5592

ADAGROUP Regional News

HAWAII REGION

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ADAGROUP-Hawaii held a meeting on June 28, 1978 to review the International ADABAS Users' Conference for those unable to attend. Thirty-one users and Mr. David Del Rio from Software AG attended, as Ken Kojima of Honolulu Federal Savings and Roger Angell and Pat Gilbert of the University of Hawaii discussed ADABAS Futures, new products, and Version 4.1 features and documentation.

At the start of the meeting, a representative of each active ADABAS user agency made a brief presentation to inform the attendees of the status of their planned and current ADABAS projects.

Since all installations have ADAMINT, and it will be used heavily in many applications, a future ADAGROUP-Hawaii meeting will be held to discuss ADAMINT experiences and Version 1.3 differences.

Mr. Ken Rardin of Software AG and his family vacationed in Hawaii in July, and Ken may return later in the year, at which time we hope to hold an ADAGROUP-Hawaii meeting to discuss Com-plete with him.

NORTHWEST REGION

Rob Macmillan, ADAGROUP President
Computing Center
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604-291-4898

The Northwest region held its first meeting of the year in Olympia, Washington on September 8, 1978. Joe Coogan of The State of Washington Data Processing Authority co-ordinated the meeting which was attended by seventeen users or prospective users of ADABAS.

Douglas Hart opened the meeting with a discussion of the use of ADAMINT in the Courts System. Doug outlined the standards for ADAMINT usage they have adopted and the benefits they have realized through using this product. He also shared his ideas on how best programmers can communicate their requirements to the DBA.

Keith Newson of the Washington Data Processing Service Center presented some programs he has written to extract data and report statistics from the MPM log. Keith is something of a rarity in the DP world; he still writes FORTRAN programs.

Bob Preger of Software AG gave us an introduction to ADABAS-M and also presented an update on development activities and release dates.

Steve Carter of Software AG outlined the conversion procedure for changing from 3330 to 3350 disks. Steve assured us that it was

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Munich, Germany: Conference registration desk — from left: Bob Becker, Dieter Keppler, Wolfgang Jung, Irmgard Fritzler, and Marlies Lenzian



Munich, Germany: Formal Banquet, Rob Macmillan, (left) ADAGROUP President, confers with Michael Davies, United Kingdom representative.



Munich, Germany: Lutz Heymer, (right) Users' Conference host, makes presentation to Irmgard Fritzler.

more pictures on pages 5 & 11

ADAGROUP Regional News

Northwest Region continued from page 7

relatively straightforward and not likely to cause users any problems.

Alan Martin and Rob Macmillan from Simon Fraser University discussed the use of ADABAS security. It seems that the manuals do not tell the whole truth in this area and results can be unpredictable.

Phil Boyer from the Washington Library Network discussed some of the problems they have encountered in processing a large data base. They have developed an Associator check program to ensure all indexes are in order apparently as a result of a previous problem. They also have several programs to analyze the performance of ADABAS.

The group wishes to thank Joe Coogan for once again preparing a full and interesting agenda and arranging a delightful lunch at the Oyster House. Our next meeting will be in Seattle on December 8, 1978. The tentative agenda includes a demonstration of ADABAS-M, a discussion of change/enhancement requests and some workshop sessions.

NEW YORK CITY/TRI-STATE REGION

Michael E. Berman
INCO, Ltd.
One New York Plaza
New York, New York 10004
212-742-4180

The New York ADABAS Users' Group began its third year with a meeting at Prentice Hall on July 12, 1978. The topics of the meeting were, a review of the Fifth International ADABAS Users' Conference and discussion of topics for future meetings.

Norman Dutton our long awaited new technical representative was introduced to our group.

Discussion of the Boston conference, its format and content was very positive.

Proposed topics for future meets are:

- Recovery
- Release 4.1
- Review of the Munich Conference
- ADACOM-Natural
- Data Dictionary

The next meeting will take place on September 6, 1978 at INCO Inc., 1 New York Plaza, NYC. A review of the Version 4 Planning Guide and discussion of the Munich Conference are planned.

The second ADABAS users meeting was held on September 6, 1978 at INCO Inc. The topic of the meeting was Version 4 and the Planning Guide.

We welcomed Steve Greaves of Software AG to our meeting

The next International ADABAS Users' Conference is planned for June 12-15, 1979 at the San Diego Town and Country Hotel.

The discussion began with points about ADAM. A number of installations are already

designing applications that can be upgraded to use ADAM.

Upward compatibility between releases was discussed. It was suggested that instead of relying on programs to handle differences between releases, it would be advisable to convert the application to the new release. Upward compatibility will be a topic that will be brought up in Munich.

The next ADABAS users meeting will take place on October 5, 1978 at the CUNY/University Computer Center at 555 W 57 Street, NYC.

ANTONIO AMARAL
SOUTH AMERICA REGION
Av. Presidente Varga, 642 - 3 andar
20.000 Rio de Janeiro Brasil

The Fifth Regional ADAGROUP Meeting was held on August 15th, in Sao Paulo Hilton Hotel, Brasil. In the first section, a number of users made some presentations about their work. In one of these, Mr. Sergio Rosche from SERPRO described the combined indexes applied to ADABAS, proposed by Mr. Ben Shneiderman's paper.

Antonio Amaral described the information structure design with emphasis on the DIAM technique proposed by Mr. Senko. Finally Mr. Natalio Friedman, sales representative for SAG in South America, made a brief presentation of some technical topics that were previously presented at the Boston Conference.

In the second section, the South America ADAGROUP Executive Committee met to discuss current problems concerning ADABAS users. A letter was sent to the ADAGROUP Executive Committee containing what was discussed.

The next annual meeting was scheduled for March 1979 and the city will be Salvador, Bahia, Brasil. Before this, a meeting of the South America Executive Committee will be held on October 17th.

EAST CENTRAL REGION

Daniel R. Skwarcan
Associates Computer Center
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The fourth East Central Regional Meeting was held July 25, 1978 at the Kansas City Crown Center Hotel in Kansas City, Missouri.

Item number one on the agenda was a recap of the Executive Committee meeting held at the Boston Conference.

The first presentation was made by Tom Magel from the Associates. Tom presented his thoughts on the roles of various areas in supporting system development in a DBMS environment.

John Kaye from the City of Milwaukee presented an ADASCRIPIT dictionary generator. The dictionary is really an end user aid for the use of ADASCRIPIT+.

Following lunch, Steve Rollins from Kansas City Southern Industries presented a document which he developed on ADAMINT 1.3.

ADAGROUP Regional News

East Central Region continued from page 8

John Kaye then presented his thoughts in the area of a Nested Histogram program.

Data Base File Design was the subject of a presentation by Dan Skwarcan from the Associates. The control file concept was discussed at great length.

The featured session of the meeting was a discussion of SAG Future Directions by Tom Berrisford from Software AG. Tom outlined some of the activities of Software AG relative to IBM.

The final session of our meeting was a split session. DOS and OS users divided into two groups. Subjects discussed were Restart/Recovery, Version 4.1, and Performance Monitoring.

The next East Central Regional Meeting will be held November 9, 1978 in Indianapolis, Indiana.

Education News

DATA ADMINISTRATION CLASS

In response to requests from ADABAS users for a non-technical Data Administration class, Software AG offers a new 'Data Administration and Control Seminar'. This three-day seminar provides an in-depth discussion of the responsibilities of the Data Administrator. Particular emphasis is given to the environment in which the Data Administrator is most effective and to the lines of reporting and authority which permit proper communication and control. This seminar provides attendees with useful tools and related information to enable them to function effectively as Data Administrators. Procedures for collection, analysis, and usage of data are presented, and the content and form of data documentation are discussed. This seminar addresses standards and procedures which are vital to a data base operation: security, integrity, recovery, control - all intended to allow organizations to move forward in a planned, carefully controlled manner.

The 'Data Administration and Control Seminar' is appropriate for data processing management, data base designers, and systems analysts, as well as data administrators.

Com-plete COBOL APPLICATIONS WORKSHOP

Software AG's education staff is pleased to announce a week-long 'Com-plete COBOL Applications Workshop'. This workshop-oriented course is designed to present the application programmer with a working knowledge of Com-plete programming concepts, online program development, and RJE features. This is accomplished by explaining Com-plete architecture, high-level language

interfaces, programming considerations, and utilities usage. Each classroom presentation is reinforced by hands-on interactive programming. At the completion of the course each student will be able to write online Com-plete applications which take full advantage of mapping, as well as normal screen I/O. Since most of the program development is done using Com-plete's online utilities, these become the programmer's tools which aid in testing and tuning applications for maximum performance.

The Com-plete COBOL Applications Workshop would be of interest to application programmers or system programmers unfamiliar with the course content. Although the only prerequisite is a functional knowledge of COBOL programming techniques, it would be helpful prior to class to become familiar with the Com-plete online utility programs. Registration in the course is not limited to current users of Com-plete.

RECENT ADDITIONS TO ADABAS COURSE OFFERINGS

As promised in the previous newsletter and published in the July - December ADABAS training catalog, Software AG recently has added two new classes to its ADABAS training program: 'ADACOM Usage' and the 'ADABAS Design Workshop'. These new classes are available for presentation at user sites as well as publicly. For a full description of these classes, please refer to the ADABAS Training Catalog. If you are interested in scheduling an in-house presentation of either of these classes, contact our Registrar in Reston.

FUTURE ADDITIONS

During the first half of 1979, Software AG is planning to augment its education schedule with several new classes. Scheduled for February will be the first public offering of the 'Com-plete Internals' class. Full details of course content will be announced soon in a separate announcement to be mailed to all Com-plete users. Also under development for presentation early next year are the following:

'ADABAS Version 4 Seminars,' during which the significant enhancements of Version 4 will be explained in detail

'Natural Usage,' which will provide full details of the syntax and use of Software AG's new interactive programming language.

'ADABAS Version 4 Internals,' which will provide ADABAS users full details of the ADABAS Version 4 architecture, and an overview of the internal processing logic of the Version 4 nucleus.

For further information or registration contact the Software AG Class Registrar at 703-860-5050.

TRAINING SCHEDULE – JANUARY - JUNE 1979

CLASS MONTH	USING ADABAS	ADABAS INTERNALS	DBA	DESIGN	ADACOM	Com-plete APPLICATIONS WORKSHOP	Com-plete INTERNALS
JANUARY	RESTON Sheraton Inn & International Conference Center January 8 - 11	RESTON Sheraton Inn & International Conference Center January 22 - 23		RESTON Sheraton Inn & International Conference Center January 24	RESTON Sheraton Inn & International Conference Center January 12		
FEBRUARY			RESTON Sheraton Inn & International Conference Center February 22 - 23			RESTON Sheraton Inn & International Conference Center February 5 - 9	RESTON Sheraton Inn & International Conference Center February 14 - 16
MARCH	SAN FRANCISCO Sheraton Palace March 12-- 15	SAN FRANCISCO Sheraton Palace March 22 - 23	SAN FRANCISCO Sheraton Palace March 19 - 20	SAN FRANCISCO Sheraton Palace March 21	SAN FRANCISCO Sheraton Palace March 16		
APRIL	RESTON Sheraton Inn & International Conference Center April 17 - 20	RESTON Sheraton Inn & International Conference Center April 25 - 26		RESTON Sheraton Inn & International Conference Center April 24	RESTON Sheraton Inn & International Conference Center April 23	RESTON Sheraton Inn & International Conference Center April 2 - 6	
MAY	NEW YORK Sheraton St. Regis May 14 -17	NEW YORK Sheraton St. Regis May 24 - 25	NEW YORK Sheraton St. Regis May 21 - 22	NEW YORK Sheraton St. Regis May 23	NEW YORK Sheraton St. Regis May 18		
JUNE		SAN DIEGO Town & Country Hotel June 11 - 12				RESTON Sheraton Inn & International Conference Center June 18 - 22	

New ADABAS Users Around the World

State of Delaware
Central Data Processing
Highway Admin. Bldg. Rt. 113
Dover, Delaware 19901

Technical Contact:
Mr. Richard Iovino
(302) 678-4678

Installation: July 1978

Software: ADABAS

Hardware: IBM 370/148

Operating System: VM

Teleprocessing Sys: CICS

Applications: Criminal Justice
System

Center for Disease Control/Atlanta
1600 Clifton Road, N.E.
Atlanta, Georgia 30333

Technical Contact:
Mr. Al Barber, Chief, Sys.
Development Branch
Mr. Pete Smith
(404) 329-3723

Installation: March 1978

Software: ADABAS/ADAMINT

Hardware: IBM 370/158

Operating System: OS/MVS

Applications: Auxiliary System to
their personnel queries, education;
Epidemiological Laboratory function
such as analysis and update

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'Using ADABAS' Classes Scheduled in Canada by Data Logic

Software AG of North America is pleased to announce the availability of several new 'USING ADABAS' classes for Canadian ADABAS users. A recent agreement has been worked out between Software AG and Data Logic Division of Computel Systems, Ltd., allowing Data Logic to schedule public 'USING ADABAS' classes in Canada. With assistance from Software AG, Data Logic presented its first public class in Ottawa at the Data Logic training center on December 11-13. Two additional classes have been scheduled for the first half of next year. Data Logic has expressed interest in presenting ADABAS classes in Toronto and Edmonton also, at its regional offices in those cities. For further details contact Data Logic in Ottawa by calling 613-238-4791, or writing to:

Director of Education Services
Data Logic Division
Computel Systems, Ltd.
130 Slater Street
Ottawa, Ontario K1B 3Y4



Munich, Germany: Bavarian Evening banquet



Munich, Germany: Bavarian Evening entertainment



Munich, Germany: Bavarian Evening, from left, Rob Macmillan, Sandra Lou Silva, Michael Davies



Munich, Germany: Bavarian Evening toast to ADAGROUP

New ADABAS Users Around the World

continued from page 11

Federal Intermediate Credit Bank
Suite 600 Northern Federal Bldg.
386 North Wabasha
St. Paul, MN 55102

Technical Contact:
Mr. Pete Peterson
(612) 291-8462

Installation: March 1978

Software: ADABAS

Hardware: 370/145

Operating System: DOS/VS

Teleprocessing System: CICS

Applications: An "AGRIFAX" File

(Acts as a Service Bureau for
6 other Federal Banks)

Shimizu Construction Co., Ltd.
Computer Center
4-17 Etchuzima 3-chrome, Koto-Ku
Tokyo 135

Technical Contact:
Mr. H. Yokota, Computer Mgt. &
System Programming Group
(03) 643-4311

Installation: June 1978

Software: ADABAS

Hardware: 370/158

Operating System: MVS

Teleprocessing Sys: TSO

Applications: Construction Work
Information Sys; Personnel
Information Sys.

Taisei Corporation
Computer Center
5-11, 2-chrome, Ginza, Chuo-ku
Tokyo, Japan

Technical Contact:
Kozo Sakao, General Manager
Akira Higuchi, Manager, Computer
Section
Teruo Ikegami, Sub-Manager
Tadaharu Yanai
(03) 563-6611

Installation: July 31, 1978

Software: ADABAS

Hardware: IBM 370/158

Operating System: MVS

Teleprocessing Sys: TSO & CICS

Applications: Asset and Accounting
Management System; Personnel
Information Retrieval using
ADASCRIP+

Wayne State University
5925 Woodward Avenue
Detroit, Michigan 48202

Technical Contact:
Mr. Kelly Dazsi
(313) 577-2090

Installation: October 1978

Software: ADABAS

Hardware: Amdahl V6

Operating System: MVS

Applications: Payroll, accounting,
and student applications.

Leo Burnett Co.
Prudential Plaza 8th Floor
Chicago, IL 60601

Technical Contact:
Mr. John Miller
(312) 565-5959

Installation: February 1978

Software: ADABAS

Hardware: 370/145

Operating System: DOS

Teleprocessing System: INTERCOMM

Applications: Personnel, Accounting

Outboard Marine Corporation
180 Seahorse Drive
Waukegan, Illinois 60085

Technical Contact:
Mr. Emory Washington
(312) 689-5217

Installation: June 1978

Software: ADABAS

Hardware: Amdahl 470 V6

Operating Sys: OS

Applications: Corporate Warranty
System.

State of North Dakota
University of North Dakota
Computer Center
Grand Fork, North Dakota 58202

Technical Contact:
Mr. Con Deitz, Director,
Computer Center
(701) 777-3171

Installation: May 1978

Software: ADABAS

Hardware: 370/148

Operating Sys: VS1

Applications: Developing uniform
acct'g system for the State
Board of Higher Education

Com-plete

the Complete Communications System

NEWSLETTER

Published by the International Com-plete Users' Group and Software AG of North America, Inc. Vol. 1, No. 2 Dec 1978

President's Message

by: Roy Decker, Com-plete Group President
Foremost Insurance Company
5800 Foremost Drive, S.E.
Grand Rapids, MI 49501
616-942-3369

While many of us have experienced a slow down and enjoyed the pleasures of summer and fall, it is evident that the folks at Software AG have kept up a torrid pace in their efforts to meet the release date for Release 3 of Com-plete. Foremost, being a beta test site, installed Release 3 during the last week of August and after the first week shake-down the system appears to be stable.

Release 3 brings a number of enhancements including some new system utilities which are very useful. But what I like best about Release 3 is that it will put us, the user community, all on common ground. Everyone running the same level of nucleus and utilities. This will allow us to communicate more effectively with one another. I certainly recommend installing Release 3 as soon as it is available. End of Commercial.

What with the year end approaching rapidly many of us are busy with planning for next year. It is also not too early to begin laying plans for our second conference. Com-plete Release 3 provides plenty of opportunities for our individual research and reporting to the group our findings, success and failures. I'm sure when the call for papers is issued each one of you will be ready to participate.

Don't forget the change/enhancement procedure! I know Release 3 will have answered many of the requests already submitted and we will have to reevaluate those. However, there are many instances which Release 3 didn't address and we need to register our wishes through the change/enhancement procedure. So keep them cards and letters coming.

I would also like to suggest that if there is something you have developed at your installation that may be of general interest to the user community and you would like to make it available, contact your SAG representative or Al Routhier, our editor and we can get the word out. Likewise, if there is something that you might need, make that known also, maybe someone already has what you are looking for and is willing to share it. That would be super.

Second Users' Conference Set for San Diego, June 11-12, 1979



San Diego, California: Town and Country Hotel and Convention Center; palm trees and one of four swimming pools

The Second International Com-plete Users' Conference will be held June 11th and 12th, 1979 in San Diego, California preceding the Seventh ADABAS Users' Conference. The convention headquarters will be the Town and Country Hotel in San Diego's Mission Valley area.

The annual International Conference offers a forum for new and established users of Com-plete to share experiences in the form of papers and presentations. The Conference will also include sessions on Changes and Enhancements to Com-plete, Software AG's future plans and formal users' group business.

The registration fee for conference attendees is \$100. The registration fee for companions is \$35. A late registration fee of \$50 will be charged for registrations made after May 11, 1979. Registration forms will be available from Users' group representatives, Software AG representatives and Software AG headquarters after January 15, 1979.

The Town and Country Hotel and Convention Center offers excellent conference facilities in a resort setting. The four-acre grounds offer four swimming pools and complete recreation facilities including handball, racquetball, and tennis courts.

The Hotel and Convention complex is situated adjacent to the Fashion Valley shopping center and is minutes away from the Sea World Marine Park, the San Diego Zoo and Mission Bay. Tijuana, Mexico is only a half-hour

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International Com-plete Users' Group Representatives

Roy Decker, President
Manager of Technical Support
Foremost Insurance Company
5800 Foremost Drive, S.E.
Grand Rapids, MI 49501

616-942-3369

Don Sickle, Change and Enhancement Chairman
North American Life Assurance Company
105 Adelaide Street W.
Toronto, Ontario M5H 1R1

416-361-6011

Jack Plowman, Security and Accounting Chairman
Systems Programmer
Evans Products
1411 S.W. Morrison
Portland, Oregon 97208

503-222-5592

Jeff Chroman, Utilities Chairman
Data Base Administrator
City National Bank
1801 W. Olympic Boulevard
Los Angeles, California 90006

213-480-7380

Tom Sloggett, Performance Chairman
Software Supervisor
Dow Chemical
14955 Sprague Road
Cleveland, Ohio 44136

216-826-6206

Alan Routhier, Newsletter Coordinating Editor
Systems Programmer
Sacramento County
Systems and Data Processing Department
827 Seventh Street
Sacramento, California 95818

916-440-6301

San Diego Conference

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away. The Hotel offers six different restaurants from continental cuisine to a 24 hour coffee shop. For evening entertainment the Hotel has four lounges, three with live music and the fourth is a San Diego "in spot" discotheque.

Special Convention room rates are available to Com-plete conference attendees. Singles will be \$27 to \$33. Doubles will be \$32 to \$38. These rates also apply two days before and after the conference.

Make plans now to be part of the Second International Com-plete Users' Conference.

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*UM.message from the *UEDIT.or

by: Alan Routhier
Newsletter Coordinating Editor
Systems & Data Processing Department
County of Sacramento
700 H Street
Sacramento, CA 95814
916-440-6301

Com-plete 3.0 Beta Test at Sacramento County

On August 12, 1978, Com-plete Version 3.0 was installed at Sacramento County in beta test. Prior to this date, Com-plete 1.1 was running on the County's one megabyte IBM 370/145. The reason Sacramento County became a beta test site was that disk errors were causing Com-plete 1.1 to have problems. Com-plete 3.0 has improved error recovery routines which increase its reliability. After talking to Software AG we decided that an early release of Version 3.0 would probably solve our problems. We were willing to allow them to spend time using our system to correct any bugs which were found, since better performance and reliability would quickly pay us back. To make a long story short, Version 3.0 was up and running with most bugs fixed in less than a week, and our online system reliability is significantly improved.

Besides reliability, the most immediate benefits of Version 3.0 are the new utilities and enhanced utilities. We made immediate use of these, especially our Operations personnel. They make extensive use of UQ, UDS and UPDS to run and maintain the OS/VSI system.

Of the new facilities, we have made successful use of the ADABAS interface, and we will soon try the TTY terminal support. From a system programmer's standpoint, it is much easier now to change Com-plete system parameters and maintain the online system.

Overall, we are satisfied with the new release. New documentation did not arrive with Version 3.0, but that did not slow us down very much. There are several bugs which are still being worked on by Software AG and we are doing our best to find some more. When the general release of Version 3.0 is distributed we are sure that other users will be as satisfied as we are.

Special Features SIG Chairperson Needed

Gordon Cochrane has left employment with R. T. French. Gordie was instrumental in the organization of the Com-plete Users' Group and was chairperson of the Special Features Special Interest Group. We're looking for a volunteer to chair this SIG. If you're interested, please get in touch with me.

Roy Decker
Com-plete Group President
616-942-3369

Controlling Concurrent Access of Shared SD Files

A Special Report to the Complete Users' Newsletter

by: Donald E. Brown
Systems and Data Processing Department
County of Sacramento
700 H Street
Sacramento, CA 95814

Sacramento County has developed an online application which utilizes shared SD files. The environment is Com-plete running under OS/VSI on a one megabyte IBM 370/145. The application requires nearly 24-hour-per-day access to data which is stored in eight ISAM files. Online update of these files by the user at the terminals is also desirable. However, because of the complex nature of the file update and the difficulty of recovering from any problems which may occur during an ISAM update, it was decided that initially the ISAM files should be updated daily by a batch job and that the data which would be used to update the files would be entered online and collected on a shared SD file.

All the online users enter data sequentially on the single data collection SD file. The next available slot in the data collection SD file is found using the SD open function. Each data collection transaction places data in this slot without doing intervening rollouts. The application is thread locked to a single thread, thus there is no problem with concurrent update of the data collection SD file by an online user.

A conflict occurs during the time when the data in the SD file is used to batch update the ISAM files. First, during the batch update the online users will not be able to access either the SD file or the ISAM files. They must be notified of this situation when it occurs and again notified as soon as the updated files become available. Second, because of the critical nature of the application, the time that the files are unavailable to the online users must be as short as possible. Thus, there must be a minimum of operator intervention.

To control this situation, another SD file was created with a length of one record. This file control record has two values, one which indicates that the batch job is not accessing the files and one which indicates that it is.

Each time before an online program accesses the data collection SD file or an ISAM file, it reads this record to see if the files are available to it. If the file is available, the transaction processes normally, otherwise a message is displayed to the user which explains the situation. The batch job is scheduled so that the users will expect the system to be unavailable around the same time each day.

The file control record is only changed by the batch update job. (It is even possible for

Best Conference Speaker Offered \$1000 Award

\$1000 will be awarded by Software AG to the "best speaker" at the Second International Complete Users' Conference in San Diego, June 11 and 12, 1979.

Speakers, to be eligible, must make a formal presentation, submit an outline and paper at the appropriate deadlines and be a user of Com-plete.

Software AG, has presented a similar award at the ADABAS Conference previously, doing so to assure that conference proceedings are informative and well prepared. The award is in addition to the \$100 bonus awarded to each speaker making a formal presentation. The best speaker is judged by the conference attendees at the conclusion of the conference.

Watch for a special "Call for Papers" bulletin in the mail soon.



Darmstadt, Germany: Jutta Richards and Klaus-Martin Schwuchow of the Software AG Development staff in front of Software AG's IMB 370/135. Com-plete is used on the computer to support program development.

the job to place a message in this record to be passed to the users when the online program notifies them that the files are not now available.) The first step of the job changes this record, requests that the operator batch the ISAM files (this still requires manual intervention), and waits for the operator's acknowledgement that this has been done. The wait and subsequent delay between the job steps allows any online program already accessing the files to finish. The following steps update the files. The last step deletes the data collection SD file (it will be reallocated by the first online program to use the file), requests that the operator online the ISAM files, waits for his acknowledgement, resets the file control record, and then outputs a message to the users indicating that the files are now available.

The file control record may also be used any time the programmers wish to perform special maintenance on or backups of the files. It is possible to selectively turn off files to the online application in this manner.

Programming Using the Com-plete Utilities

A Special Report to the Com-plete Users' Newsletter

Mike Blaauw
Systems & Data Processing Department
County of Sacramento
700 "H" Street
Sacramento, California 95814

The online programming support offered by Com-plete furnishes a challenge as well as an assist to the applications programmers. Just as the transition from wired panels to symbolic programming and coding sheets caused a major change in the nature of our work, the evolution to an online, RJE environment changes our approach to work. It is most of all a challenge to personal organization - a game of personal efficiency which anyone can play with satisfaction and win. The key is understanding how each utility works, and intergrating this set of tools into an overall approach to building programs and systems. The observations below come from use of Com-plete to implement a medium-sized batched system design, including new and revised programs.

UEDIT

(This is a full-screen text editor working in an SD file, with access to and control over members in connected partitioned data sets.)

The first thing to do is to stay away from UEDIT until you have defined your application down to the sub-routine level - on paper, in flowcharts, in pseudo-code, or however you work. The old maxim "paper changes are cheap" has an online corollary, "planning time saves tube time". Resist the temptation to grab a keyboard (previously a coding sheet) and start coding - especially you fast typists.

Once you know enough to get "on the tube", the first step can very often be to find a program somewhat similar to the one you are building and copy it. The cannibal is king, especially in online work. The obvious benefits are:

- 1) The code has been previously compiled.
- 2) The existing formatting and syntax are valuable guides and timesavers.

In this context, the MOVE, COPY, and DELETE features of UEDIT are most valuable. Each uses "tags" to identify lines: one-to-eight-character identifiers starting in position 1 and terminated by a blank. If you want to quickly MOVE one or more statements, slap a tag on the first and last statements (I user 'A' and 'B' mostly), and type: 'M A-B' on the control line. Of course, existing tag characters are useful too, but if they are not unique remember that

the first one encountered, starting from the beginning of your module is used. And if you use A, B, etc., don't forget to obliterate them when you're finished with them. A quick label scan ('/A' for example) will tell you if a tag exists.

Another time-saver is the COPY feature. If you have a series of similar statements, you can multiply a single set of them exponentially as in the following JCL example:

- 1) You start with:

```
//FILE01 DD DSN...,  
// DISP=(OLD,KEEP,KEEP),  
// UNIT=TAPE....
```

- 2) Put on tags (using insert mode in this case):

```
A //FILE01 DD DSN...,  
// DISP=(OLD,KEEP,KEEP),  
B // UNIT=TAPE....
```

- 3) Position on 'B' and copy:

```
(control line:) C A-B....1....+....2  
B // UNIT=TAPE....
```

- 4) The result is (displayed from first 'A'):

```
....+....1....+....2  
A //FILE01 DD DSN...,  
// DISP=(OLD,KEEP,KEEP),  
B // UNIT=TAPE....  
A //FILE01 DD DSN...,  
// DISP=(OLD,KEEP,KEEP),  
B // UNIT=TAPE....
```

- 5) You now have two versions of this JCL. By removing the middle tags (delete the first two characters on those lines) and re-positioning at 'B' you can copy again giving 4 sets of this JCL; and so on, 8, 16, 32....

- 6) Once the desired copies are made, only essential changes (i.e., DD name and DSN) need be made.

When the "cannibal technique" is not available, you are faced with somehow creating a volume of code for new or extensively revised programs. A question you must address here is "How is my time best spent?" You can code on coding sheets or you can enter new code online. (If your installation has contention among programmers for terminals, you could lose popularity at least by spending hours entering your new code. If this is a limiting factor, coding sheets may be the answer regardless of efficiency.) Given ample "tube time", typing speed may well decide when entry method is best. But remember, even new code can be quickly multiplied by the COPY feature, and there seems to be a constant serendipity when coding online if you let yourself see it. So, slow typing can be mitigated by fast thinking and imagination.

Another time (and finger) saver is the SCAN/REPLACE feature of UEDIT. While coding new material, you can abbreviate lengthy

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Programming Using the Com-plete Utilities

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names and expand them all at once using this feature. The tricks here are:

- 1) Leave room for expansion on the lines where abbreviations appear.
- 2) Be sure your abbreviations are unique. Keep a record of them.

An example:

COBOL data names

```
"ACCOUNT-NUMBER OF ACCOUNT-MASTER
-RECORD-IN" and
"CUSTOMER-CODE OF ACCOUNT-MASTER-
RECORD-IN"
```

could be abbreviated

```
$AN$ OF $AMRI$ and
$CC$ OF $AMRI$
(your limit is 40 characters
for replacement).
```

(You can even have shorter abbreviations to save entry time, but don't get lost in a bevy of confusing symbols.)

As with program development, UEDIT is also very useful for creating and executing utility JCL. While Com-plete's family of utilities is growing, there are still many applications requiring initiation of batched jobs, such as:

- 1) Program compiles, catalogues
- 2) PDS transfer (outside of Com-plete's control)
- 3) Submission of operator commands (check your installation's standards and don't get any operators mad at you!)
- 4) File utility execution (dumps, file fixes, etc.). My installation has QUIKJOB which is an easy-to-use, COBOL-like, load-and-go, file-to-file utility. I frequently copy and modify QUIKJOB RJE modules (using UEDIT) for a variety of applications.

Perhaps the most useful application for UEDIT is testing. As mentioned earlier, I used it to assist development and programming of a batched system. This system has several tape inputs and creates a large number of tape files during execution, requiring much operator attention. With UEDIT, I was able to bypass operations' involvement during program unit and interface testing, using the following techniques:

- 1) All production JCL is on OS PROC's (a shop standard).
- 2) I put large input files, including a test master, on permanent disk areas.
- 3) Invoking JCL for testing was on UEDIT modules for RJE. This JCL called production PROC's, with overrides to change all tape files to disk or, for spool and microfiche files, to sysout.

- 4) Small file inputs normally on tape were generated within the test job by utility card-to-disk (QUIKJOB) steps. The JCL for these steps was in special test PROC's or in the JCL stream. (To limit the number of RJE statements, I put as much as possible in PROC's. Card image inputs and utility parameters were in PDS members and managed via UEDIT.)
- 5) Utility steps in the test JCL printed all disk test files to sysout.

This enabled me to initiate a batched system test from a terminal and to run with no tape handling. Results were available immediately on sysout which I could review, print, or cancel (see the section on the UQ utility below). With no operator attention, I could run the entire system - frequently executing five to ten system tests per day. This found all gross program errors, tested much of the production JCL, and allowed later batched testing with tape to concentrate on data conditions and JCL refinement. As a programmer, my use of time improved an estimated 500% during this phase of system testing, over what I would have achieved submitting batched jobs using cards and waiting for printout.

Some final observations regarding UEDIT:

- 1) Your screen entry is not written to the SD file until you hit "ENTER". A message sent to your terminal will wipe out everything keyed since you last hit "ENTER" - so will a loose finger on PF10 or TEST REQ. The moral is to "ENTER" frequently.
- 2) Develop and use library naming standards for your PDS members. Any OS shop should have standards already, and extension of these to Com-plete programs and PDS members is an organizational must. Whatever your standard, keep a brief record of your PDS members. You may, as I did, have ten to twenty utility JCL members but not be able to remember which does what.
- 3) Watch out for the new disease, "Tube Fatigue". Give yourself a break frequently during long stretches at the terminal, or your eyesight and productivity will both suffer. (If you use your key entry operators' schedule, you will get adequate breaks and may make some nice new friends!)

UQ

(This utility can display a number of OS components including active modules, system queues, tape and disk status, etc.)

You can see what your job is doing and review all spooled output via this utility. The primary advantage to the online programmer is instant access to printed outputs from compiles, test jobs, etc. Proper use of

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Programming Using the Com-plete Utilities

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SYSOUT and MSGCLASS classes in combination with UQ control features can save some paper, too.

For online tests and program compiles, there are three general options once you see your results:

- 1) Results are good. In this case you can release a sysout "HOLD" status or route your report from a non-printing to a printing class.
- 2) A small number of errors in results. Here, you can jot down notes regarding error or, if provided by your installation, print your diagnostic page(s) on a remote printer, correct and re-run. In this case, UQ cancellation of sysout can save printing the bad listing. Be sure not to destroy your sysout until you're sure you don't need it.
- 3) You really goofed. Don't try to do too much error correction via UQ. If you have a lot of errors, print your whole listing as in (1) above, take the listing to your desk, and find all the bugs.

When submitting several jobs in the same time period, be sure to give them different names. Most UQ commands which change the status of spool elements will affect all identically named modules. You might cancel or print the wrong sysout if duplicate names exist in the output queue.

Sometimes you will want to review your system messages (JCL statements) online, but then not print them. UQ will not cancel system messages, only sysout, so the following technique is advised:

- 1) Assign MSGCLASS (for system messages) to a "vanishing" class - one which "prints" to a non-existent device (your installation should make one available).
- 2) Assign sysout to HOLD status in a printing class, or to a non-printing class which you can later change.
- 3) Cancel, release the hold, or change sysout to a printing class, depending on your need.
- 4) When sysout is printed or cancelled, system messages will vanish.

This method makes system messages available only to UQ and only if there is sysout, so if you want to be sure to have system messages available, assign MSGCLASS to the same class as sysout. The disposition of sysout and system messages will then be the same.

The two utilities discussed above - UEDIT and UQ - are the most frequently used and generally useful of Com-plete's utilities from an application programmer's viewpoint. UDS is very powerful for managing the OS

catalogue and handling data sets on disk. It gives the programmer a chance to be responsible for files he has created and catalogued, and to research file status instantly. There is little to say about UDS in the way of technique except, "be careful!". Other utilities are described in documentation and easily learned.

A little time spent with a Com-plete Utilities Manual - and a terminal handy - combined with the above tips, could turn a hum-drum job into an adventure. You might not know you had so much in you!

— Mike Blaauw

New Features Available in Com-plete Version 3

by the Com-plete Development Team

Very shortly (if they haven't already), Com-plete users all over the world will receive in their mail the latest release (Version 3.0) of Com-plete. This system contains many of the enhancements requested by users at the Boston conference and some fixes to outstanding problems. In fact, our beta test sites report that the new system is even more stable than any previous release of Com-plete. This is not surprising to us, in view of the extensive testing performed on the system before it was even beta-tested.

As you know, many changes take place in a product during the software development process; new features are added, others deferred - based on priority and time constraints.

The development of Version 3.0 was no exception to this rule. During our testing efforts we discovered that several new features had "snuck" into the finished product.

Here, therefore, is a Christmas present for Com-plete users - a list of new, not-previously-known features of Com-plete Version 3.0

- o UEDIT Dynamic Allocation: In the integration of LIBRARIAN support into the system, it was decided to use the same access-method routines for both UED (the line-oriented editor) and UEDIT. Therefore, UEDIT now uses the UED access method routines and source libraries no longer require DD cards in the Com-plete JCL, or special I/O MODS. Libraries are allocated dynamically by UEDIT when referenced. This enormously simplifies library maintenance; Com-plete no longer has to be taken down to add a new library, no ULIB commands are needed to batch or online the file, and Com-plete comes up much faster due to reduced device allocation time.
- o Expanded PDS User Information: UEDIT has always had an optional feature of STOWing user data (date, time, TID) into PDS

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New Features in Com-plete Version 3

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directories at update time as a way of recording source library updates. This feature is now automatic in both UED and UEDIT, and the data has been extended to include the compressed userid, if logon/logoff is in effect. Both UPDS (LIST command with the USER=Y option) and UED (READ command) will display the extended user data information if it exists.

- o Message Switching Warm/Hot Restart: This feature was documented in the Version 3.0 Guide, but not announced at the User's Conference. Two new bring-up options are available to Com-plete Version 3.0 users to allow the automatic requeuing of incomplete messages and printouts, respectively. A "warm" restart causes all incomplete messages/printouts to resume printing from the first line; "hot" restart causes messages/printouts which were in progress to be restarted from their last checkpoint (approximately one page prior to the interruption). New class codes are provided to suppress these autorestart options for selected messages/printouts.
- o Autorestart for Remote 328x Printers Also not mentioned at the User's Conference this feature eliminates the need to use the UM utility to restart a printer after an equipment check condition (out of paper, forms jammed, removed from "ready", etc.). Upon receiving sense/status information from the printer that it is again operational, Com-plete will attempt to reschedule printing. The interrupted printout will "hot" start, i.e., will resume printing at approximately a page before the interruption. The UM utility (RESET option) may be used to restart a message/printout from the first page.
- o New UM Options: The UM message-switching utility has two new options, allowing the user to HOLD (prevent scheduling) and RELEASE (schedule) selected messages and printouts.
- o New GETCHR Field: The GETCHR function will now return, if requested, the number of printouts/messages queued for delivery to the designated or implied terminal. This information may be used by the application to display a warning message, as a criteria for termination, or to determine the feasibility of queuing another message/printout to the terminal.

- o Program Start Time for Accounting: Foremost Insurance observed during our beta tests there that it was difficult to determine, via SMF, the total time a program was in use because although Com-plete furnished the time of termination, the program start time was never provided in the SMF records written by Com-plete. We agreed that this was a critical deficiency in the accounting system, and the time the program was loaded by Com-plete, or FETCH'd by another program, has been added to the checkpoint and program termination records.
- o TESTAT Extention to TTY's The TESTAT function is now available for programs running on teletype terminals. This allows the program to, after a write function, determine if the BREAK or ATTENTION key was depressed to terminate the write operation.
- o New Simplified SVC: A new simplified supervisor call is provided with the Version 3 system. The primary SVC module simply transfers control to the correct module and is not dependent on the Com-plete version running. These means that, in releases after Version 3.0, it will be no longer necessary to IPL in order to install or bring up a version of Com-plete which uses the same SVC number. This should aid conversion to new versions of Com-plete.
- o Simplified Installation: Version 3.0 is installed in a process similar to OS system generation; the installation tape's first file is a macro which generates the JCL to install Com-plete and tailor it to the installation. Pattern JCL is also provided to aid in installation at a site which has a previous version of Com-plete.



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