

The Cincom Linkage

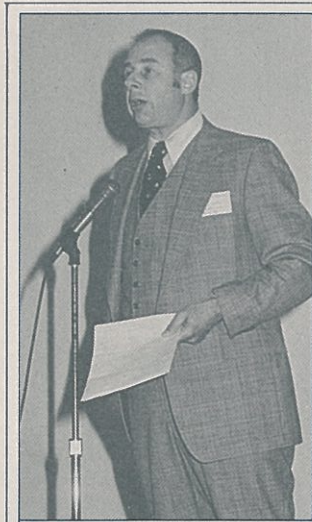


SUMMER 1978

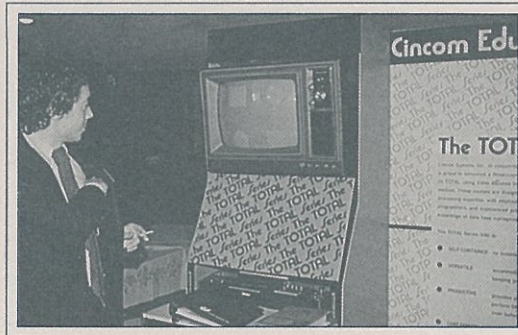
CINCOM SYSTEMS, INC.

Spring Knock-About '78

User Group President, Stu Sanfield of Wyeth Laboratories during the Back-up/Recovery Special Interest Group Session.



TOTAL audio/visual education series on display.



James Brown of Navy Federal Credit Union and Tom Nies exchange ideas.



Crowd pleaser. Keynote speaker Dr. Herb True, during his presentation, "Leading the Way for Change."

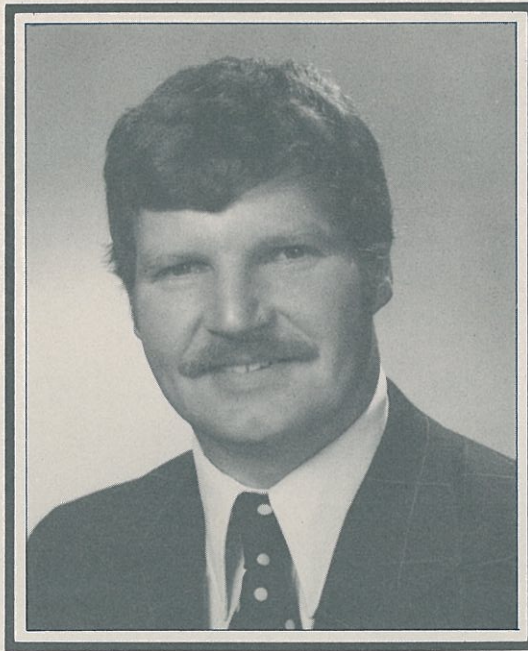
Penny Hill of Cincom Systems demonstrates T-ask, Cincom's new on-line query. Demonstrations were conducted throughout the seminar and accommodated approximately 480 attendees.



Don Leavitt of Computerworld takes a break to review the Knock-About Proceedings.

Speaking of Knock-About Plan now for the fall KNOCK-ABOUT (October 2-4) in Cincinnati. We guarantee this to be the biggest and most exciting meeting to date (anticipating 1000 attendees). In addition to the standard multi-thread format of topical presentations, major new product announcements will be made . . . and a few surprises are planned.

Watch for more information.



This year Cincom Systems is celebrating its tenth year of business. When I look back to 1968, it is with a mixture of nostalgia and satisfaction: nostalgia for the pioneering days of data base, satisfaction with the accomplishments of our clients and of our own people. When I look ahead to the next ten years, it is with eager anticipation.

Cincom was founded on a dream. A dream that we might take the data base concept to the data processing world. A dream that we might participate in solving the problems of data management. A dream that we might establish a foundation for the growth of information systems into the eighties.

It is with some pride, but mostly a sense of gratitude to our fellow data processors that much of the dream of a "data base decade" has been realized. And now that the essential first step of developing a data base environment has been successfully accomplished by so many Cincom clients, we are all now in a position to see our data base dream give birth to an evolutionary and even more exciting opportunity.

Just as the decade of the seventies was dedicated to the implementation of data base and on-line systems, our next decade will be devoted to the transition toward the TOTAL Information Systems and its successful implementation.

The experience of data base will be the foundation for this future.

Thomas M Nies

Tom Nies

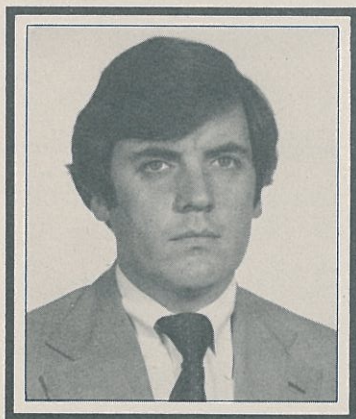
President, Cincom Systems, Inc.

USER GROUP DEVELOPMENTS

New President for CUG Board of Directors

Mr. Terry Nathan has assumed the responsibilities of President of the CUG Board of Directors effective July 10, 1978. Terry replaces Mr. Stu Sanfield who has resigned from Wyeth Labs and is no longer a member of the Cincom Users Group.

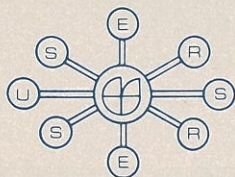
Stu Sanfield was the Data Base Administrator for Wyeth Labs and has been President of the Board



Mr. Terry Nathan,
President of CUG Board of Directors —
The Texas Education Agency,
Austin, Texas

since October, 1977. His new position is Data Administrator for Certain-Teed Corporation in Valley Forge, Pennsylvania. Stu has done an excellent job serving the CUG during the past year and a half and we wish him much success in his new endeavor.

Terry Nathan was Vice President of the Board prior to assuming the position of President and has served as a member of the Board since October, 1976. Terry is the Manager of Systems and Programming from The Texas Education Agency in Austin, Texas which has been a Cincom user since 1974.



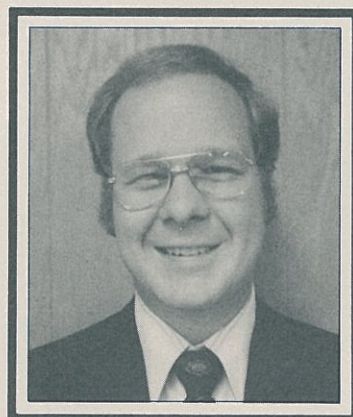
Mr. Stu Sanfield

Terry also served as the Knock-About Chairman for the very successful Spring 1978 Knock-About. The Board of Directors and Cincom wish Terry the best of luck in his new assignment. ☘

Newly Formed System/3 Total User Group

During the SIG (Special Interest Group) session for System/3 TOTAL users, the participants discussed the possibility of establishing a System/3 User Group. All present voted to have such a group established.

Mr. Bruce Harrison of Edmont-Wilson was voted President of the group. For further details Mr. Harrison may be contacted at 614/662-4311. ☘



Mr. Bruce Harrison
of Edmont-Wilson

CUG Board of Directors Meeting

The CUG Board of Directors met recently in Dundee, Illinois and finalized plans for the Fall Knock-About to be held in Cincinnati October 2 through October 4, 1978. All sessions have been scheduled with speakers and Fall Knock-About Program Chairman, Russ Stefany, expressed his appreciation to all users who have assisted with planning for this Knock-About.

Several items were acted upon by the Board including matters related to Special Interest Group (SIG) activities, Software Exchange Directory, Enhancements Procedure and Local User Groups. A special session was held with Walt Muir, Director of Marketing, Cincom Systems, Inc. to review Cincom's position relative to the DLRS 2,000 installation charge for TOTAL 8.0. The Board also began the establishment of a Policy and Procedure Manual to clearly define the functional responsibilities of each member of the Board of Directors and provide a road map for the future development of the Cincom User Group.

A CUG business meeting will be scheduled in conjunction with the Fall Knock-About to report on the Board's activities in greater detail and to solicit input from the user community. ☛

The Software Exchange

The Software Directory has been so well received that the telephones are still buzzing with software exchanges.

Two new submissions have been added to the Software Directory since the last Knock-About. Cincom Systems will continue to publish and mail the updated Software Directory to all U.S. customers and foreign offices free of charge. These mailings will take place approximately one month before each Knock-About.

Our Directory has only scratched the surface of what is available. Please take a few minutes and put together a submission of your own. The contacts you will develop from your entry will more than pay for the time you spend.

Also, we have made several changes to our Knock-About sessions based upon feedback received at the Spring Knock-About. The two sessions will now be titled On-line and Batch to encourage the inclusion of CICS with ENVIRON/1 and to draw batch related software from not only IBM but all

systems supporting Cincom software. The two sessions will run back-to-back to allow more people to attend and to give everyone an opportunity to ask questions and talk informally with others in attendance.

See you at Knock-About. ☛

Alan J. Feldmeier

Software Exchange Coordinator

Large User SIG

The next meeting of the large user SIG will be held in St. Louis at the Sheraton West Port Inn, Page and I-270, on August 7th and 8th.

This group is moving from a discussion of current problems and use of Cincom products to future data base design and implementation.

The topics at this meeting will include:

1. Design and approach of data base back-up and recovery.
2. The approach to directory and dictionary-driven data base.
3. The design and approach to distributed data base processing within the on-line environment.

The meeting's objective is to clearly define these topics and state them in the form of a position paper.

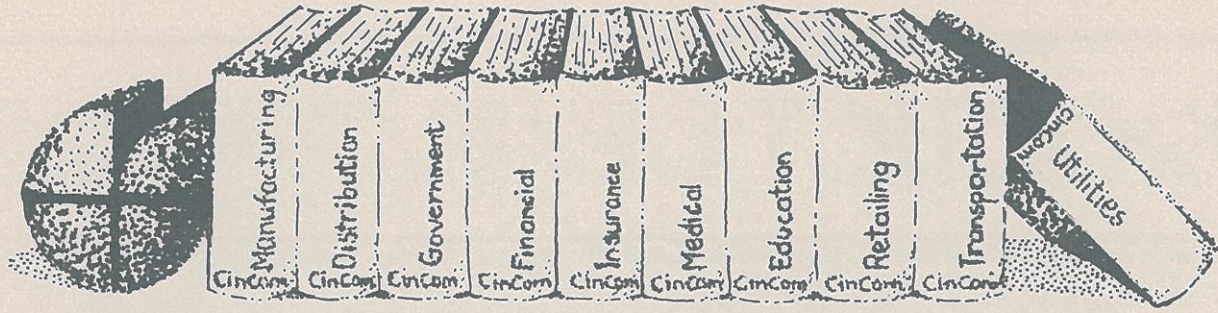
Please come prepared to participate in a discussion of these topics. ☛

Fall Knock-About

Something special is about to happen at the Fall Knock-About which will be held October 2nd through the 4th in Cincinnati. Cincom Users Group Board of Directors in conjunction with Cincom are planning a special agenda to celebrate Cincom's Tenth Anniversary.

Our Keynote Speaker will be Dr. Richard Nolan of D. P. Management Corporation, Lexington, Massachusetts, who authored the "Four Stages of EDP Growth." Also planned are a host of outstanding presentations from our user community featuring again our ever increasingly popular management track.

So jot down on your calendar the above dates and plan to attend and share in the year's most exciting event. ☛



CUSTOMER PROFILE

On-Line Query Assists End Users

Atlanta Housing Authority—Atlanta, Ga.

AHA is a non-profit agency responsible for the building, leasing, and maintenance of all low-income housing projects in the metropolitan Atlanta area. Their equipment currently consists of two NCR Criterion 8570's running under the VRX operating system. All 40 projects are on-line to the central computer facility and actively use the Interactive Query Language (IQL)* system daily to query the data base regarding tenant accounting, facility maintenance, current account status, etc. They were the first NCR IQL users in the country as well as the first VRX TOTAL user in the NCR customer base. ❖

McInnes Steel Co.—Corry, Pa.

McInnes is a company specializing in "nuclear grade" forgings for the transportation and energy industries. Their current equipment is on NCR Criterion 8550 running under the B-3 operating system. The IQL/TOTAL software supports the main facet of their business; Customer/Production Order Status System. The Production and Sales departments use the IQL daily for order delivery projection, WIP tracking, order costing, and material test scheduling. This system involves more than 20 terminals tied to the IQL system using TOTAL to control their data base. ❖

*IQL (counterpart to T-ask, the query language for IBM) serves users in the NCR hardware environment.

Total and Environ/1 Assist User with Timely Management Decision Making Information

Excerpted from the July issue of INFOSYSTEMS

Signode Corporation manufactures and distributes strapping systems used for packaging and materials handling by a broad range of industries throughout the world. In addition to the operation of manufacturing plants across the country, Signode also maintains five order entry locations and 25 warehouses from which products are shipped to customers.

Signode's network of 150 terminals runs under VTAM on a two-megabyte IBM System 370 Mod. 158 with TOTAL and ENVIRON/1. The network presently supports 35 locations across the U.S. for such applications as order entry, on-line inquiry and update, customer master file, product inquiry and administrative message switching.

Data Communications Manager, James Cornille reflected that the order entry system is the heart of their on-line network. "No matter where you are in the country you can call in an order, using inbound WATS, to any one of five order entry locations and the order is entered into the system immediately." In addition to supplying faster service to customers, the order entry system provides a number of other benefits to Signode, such as shorter turn-around time in billing, maintaining lower stock in inventory and a consistent means of shipping from nearest point to destination. Cornille says the order entry system is probably the pioneer in producing meaningful information to upper management. "Prior to the system, most reports to management were produced in a batch-type mode capturing the data for about a month and then producing the reports. Now management can see actual demand day by day!" ❖

PRODUCT DEVELOPMENT

Environ/1 Product Development

Task Level Checkpoint (TLC) feature for ENVIRON/1 is currently under acceptance testing with targeted release this fall. The Department of Public Safety—Missouri State Highway Patrol have installed the feature as a controlled release site with excellent results to date. (See article on page 7.) ☛

Available Soon— Data Dictionary 8.0

Operating exclusively with TOTAL 8.0 this new release of the dictionary product features:

- A TOTAL 8.0 DBGEN source scan to gather all data base, file, and element information and relationships. Information is then automatically loaded into Data Dictionary files. The DBGEN source can thus be recreated via the data definition language (DDL) generator facility.
- A COBOL source scan to search COBOL programs for TOTAL 8.0 element names, establishing the relationship between program and data element on the data dictionary.

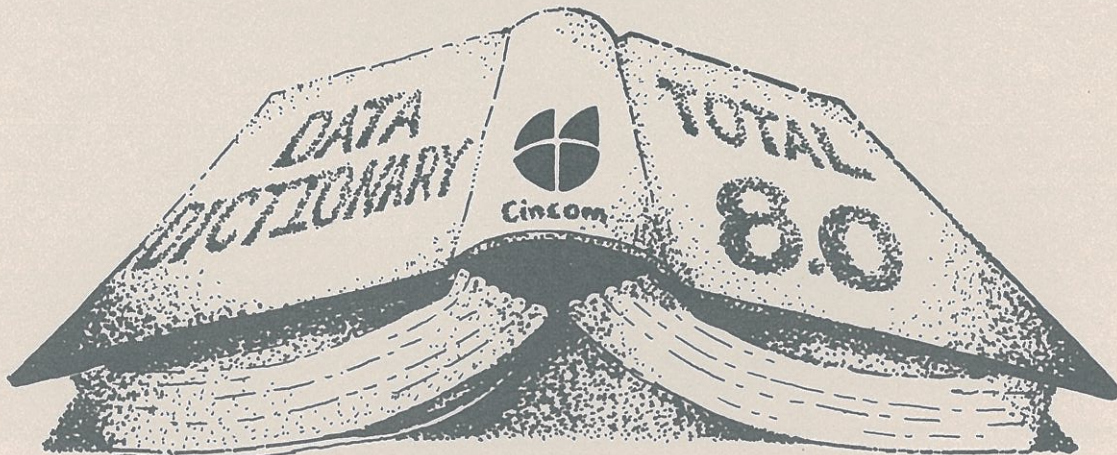
(Watch for more information.) ☛

New Release— System/3 CCP Interface

Available now Release 2.0 of the TOTAL-CCP Interface System provides greater ease of use and more economical use of system resources. Features include:

- Core-Core Data Transfer replaces disk queue and reduces throughput time 50-80% depending on function type.
- Extended DBMOD capability—allows maximum size of up to 17K bytes in the CCP partition.
- Use of an RPGII "Special" Device Handler which performs data conversions during standard RPGII program cycles.
- Additional DML functions for TOTAL-MULTITASK (TOTMT) including record holding logic.
- Expanded Logging Support Module to allow logging of all functions or selectively those with successful return status.
- Support of multi-volume TOTAL files on 3340 and 3344 disk devices.
- Support of tape or disk Before Image and Function Logging.

Contact your local support office for additional information. ☛



CUSTOMER DEVELOPMENTS

New DB/DC Slashes CPU Utilization and Message Response Time

Don McCollim

Assistant Director of Data Processing
American Sterilizer Company

At American Sterilizer Company (AMSCO) in Erie, Pa. we recently realized reduction in CPU utilization (from 92% to 64%) and in message response time (from 2.5 seconds to .7 second average). These results were not achieved by increasing memory or upgrading hardware but rather by installation of the new TOTAL 8.0 and ENVIRON/1 8.0 combination. The results were so impressive at our installation that I'd like to give you some background and relay the circumstances.

Like all product and service organizations customer satisfaction is paramount to our success. We strive not only for utmost quality of products but also quality of service which includes the availability of products and prompt delivery. The data base concept of data integration and relatability appeared to address our needs in 1969 when TOTAL was acquired and installed on our 256K 360/40. Over the years our data processing operation has grown substantially to include the establishment of remote locations in Montgomery, Alabama and in Jamestown, New York. ENVIRON was acquired and installed on our 360/40 in 1972 to assist in on-line operations.

In retrospect, our decisions in 1969 and 1972 were valid. As a result, we've been able to expand our services to the organization and maintain a competitive edge while keeping overhead down. Compared to our operation the data processing staff is relatively small (12 programmers and analysts). While we boast an excellent professional staff, a good deal of credit must certainly go to our selection of DB/DC software which is easy to install, maintain and use. For example TOTAL 8.0 and ENVIRON/1 8.0 were installed in March of this year and within a week we went into production.

Today we operate batch and on-line with 106 stations (remote and local 3270's). Our current configuration consists of 370/435, 438 and 445 utilizing

DOS VS and VM, TOTAL and ENVIRON. The TOTAL data base has grown to 96 integrated files to encompass Manufacturing, Order Entry, Accounts Receivable, Payroll and Equipment Inventory applications.

As in all growth situations it recently became apparent the 370/445 would not handle growing data and operational requirements. Our production CPU (445) was running at 92% CPU utilization and message response time was deteriorating. After careful consideration it was decided to upgrade from 445 to 455 Mod II. Although we anxiously await the hardware delivery, installation of TOTAL 8.0 and ENVIRON/1 8.0 has added an interesting twist. With the realization of decreased machine requirements it now appears the 455 will afford us the opportunity of replacing the 435 as well as the 445!

We look forward to continued growth, new applications, expanded operations and support from Cincom.

American Sterilizer Company American Sterilizer Company (AMSCO), founded in 1894, is well established in the health care industry as a major designer, manufacturer and distributor of BASIC hospital equipment. Included are products for nursing, infection control and surgical technology. In addition to BASIC hospital equipment, the company also offers laboratories and non-hospital products including contact lenses and accessories and electronic vital signs instruments. ☛

Cincom Systems Environ/1 Task Level Checkpoint—Operating Characteristics

Dr. Robert J. Bradley

Director, Information Systems

Mr. Bill Goeke

Sr. DP Technician, Information Systems

June 9, 1978

The Missouri State Highway Patrol operates a very large telecommunications system which utilizes ENVIRON/1 and TOTAL on one of its IBM 370/455 computers. There are 24 telecommunications lines with 103 remote devices and 20 local devices currently accessing 20 separate systems and 171 on-line files. All of these systems support on-line file maintenance as well as file inquiry. The system is operational about eighteen hours a day with the bulk of transactions being processed during the 8 a.m.-5 p.m. time. On an average day, there are approxi-

mately 27,500 requests for service (transactions) and a response to each. For each request, the system generates approximately 8.2 database calls. The average request is about 250 characters and the average response is slightly over 1,000 characters.

In 1975, the MSHP requested CINCOM to develop a new recovery routine to replace the current checkpoint recovery technique.

The first version of the Task Level Checkpoint (TLC) feature of E/1 was received by the Missouri State Highway Patrol in December, 1976. Bill Goeke, Senior Data Processing Technician, was given the assignment to test the TLC software and work with CINCOM staff to complete all Beta testing of this feature. The TLC software was installed on our production system on March 27, 1978, and has been operating continuously since that time.

Our experience with TLC so far indicates the following:

- CPU utilization appears to be the same with TLC as with the standard E/1 7.7 checkpoint software.
- When the E/1 System is brought down because of a hardware or operating system problem, it takes from 17-20 minutes to restart using the TLC disk log file.
- The mean downtime incidents per month have decreased from 28.6 to 9.5 with TLC—a 67% reduction.
- The mean minutes of duration of downtime incident for all causes have decreased from 57.1 to 26.3 minutes—a 54% reduction.
- The amount of time required for technical support staff to analyze system failures and help computer operators restart the system has been reduced by 10-20%.
- We have not experienced a system crash which destroys the TLC disk log file, but if (when) that occurs, we will use a new After-Image processor and the Tape Log Files to restore our database.
- Dynamic Task Level Recovery is being invoked an average of 1.5 times each working day.
- Weekly system uptime has averaged 98.8% since the installation of TLC as compared with an average of 92.7% for the previous twelve months. This includes 2 weeks of 100% uptime.

In a separate analysis of response time before and after installation of TLC, two 2-hour samples of before-transaction volumes and four 9-hour samples of after-transaction volumes were analyzed using SPSS. While the size of these two samples was

quite different, it appears that the following conclusions can be made concerning the impact of TLC on E/1 performance:

- Mean number of transactions per TP line dropped by 15% probably due to an inadequate Before sample. However, the standard deviation (SD) of the mean transaction volume per sample interval also dropped by 3% indicating less variation in system performance.
- Mean response time in seconds for both local and remote terminals dropped after TLC from 8.7 to 7.7 seconds—a 12% reduction. The SD dropped by 26%.
- The percentage of total transactions with less than 5 second response time increased from 15.5 to 20.0%.
- The percentage of total transactions with less than 11 second response time increased from 78.9% to 86.1%. All but .3% of this increased volume occurred on remote lines.
- The peak volume of transactions for a 30-minute interval was 1674—a rate of .93 transactions per second. The average response time during this same interval was 7.8 seconds for both local and remote terminals.

In summary, while our experience with TLC in a production mode is still quite limited, we have not encountered any negative or troublesome situations. Other users could expect to receive the following benefits from using TLC:

1. A reduction in the amount of staff time required to support an operational E/1 system.
2. Much less manual intervention to restore portions of data base—we have over 170 on-line files.
3. Users can expect an immediate increase in system uptime and with the absence of hardware failures, many instances of continuous 100% uptime.
4. Much less variation in response time and, on the average, a reduction in response time. This is probably due to the elimination of the backlog of transactions immediately before and after a checkpoint.
5. A much more consistent, stable, operating environment.

While there are still a few enhancements which should be added to the TLC software, MSHP staff consider it to be stable, reliable, and very efficient. ☛

CONSIDER

The Data Base as an Integrator of People

Data base management systems are often sold on the merit of maintaining a common repository for company data. Non-redundancy of data is a step up the ladder considering data as a company resource. This can ultimately lead from operations and control tape systems to the planning systems so desperately needed.

The concept of data base, however, can serve another critically important function—that of serving as a 'people integrator.' A prerequisite to integrating people and functions is to develop a common means of communicating, a common dictionary with a minimum of obfuscation and confusion.

Data base provides that vehicle through a level of data element naming which enables different functions of an organization to define their data and informational needs via a common groundwork.

Also, from a systems development and programming viewpoint, the concept is beneficial. I view programmer and design productivity as directly proportional to the amount of communications between individual staff members. When vocabularies are consistent then cross-examination can proceed directly to the logic of the problem without aimless wanderings through the 'what I mean' / 'what you mean' forest.

My viewpoint of data base as a people integrator then consists of two facets, that of acting as a catalyst to bring functional areas into closer harmony and that of increasing the communication (and productivity) among analysts and programming staffs. ☛

Wally Knapp

Director of Systems Development
The American University
Washington, D.C.



Mr. Wally Knapp of The American University expanded the definition of data base to include "an integrator of people." Mr. Knapp refers to improving communication among analysts and programming staffs. We agree, now let us expand a bit further.

As an integrator of data processing professionals, data base is also the foundation for integration of end-user and data processing. Several articles have recently appeared regarding the move toward end-user involvement in data processing. The increasing user demand for information and the need for more and possibly better communications between user and data processing departments quite naturally lead to a requirement for better information tools. We believe that in the user/data processing environment both groups must be supplied with necessary tools.

Our goal is to continually assist you, our customers, in realizing the maximum potential of people and computer resources. In producing data base and data communication related products; and now with end-user information tools; and a series of powerful new products in development; we are committed to addressing your needs with people-oriented products.

Thank you, Mr. Knapp. It's encouraging to realize that Cincom's people-oriented philosophy has been recognized by the products we produce. ☛

cin·com·ment

Thank you Customers for making the LINKAGE a success. Your response with articles and information regarding your particular environments are received with enthusiasm.

We think a continuing editorial section and reader response would further serve to inform other customers, as well as afford an on-going dialogue between customers and between Cincom corporate.

We'd like to know if 'Consider' is something to pursue. If so, what topics would be of interest to you?

Address your communication to:

Cincom Linkage Editors
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2300 Montana Avenue
Cincinnati, Ohio 45211

Internationale



Custom Systems Europe Expands Its Horizons

Larry Lloyd

Manager, Custom Systems and Consulting Services, Europe

In ten years time, the concept of software systems development will have changed. Packaged application software will be the rule in the not too distant future but the software will be quite different from our notion of it today. The software system of tomorrow will resemble an inventory of existing application modules, some being application nucleus modules or frames which can fit together and others being specific function modules that connect with the central nucleus to yield a desired result, or option. The organization wanting a given application with specific requirements will order a set of interlocking component modules. In fact, it will be similar to ordering an automobile on a made-to-order basis.

For the data processing department, this means that generalized software packages, such as manufacturing packages, will represent approximately 80 percent of their entire system. The remaining 20 percent will be customized to meet a corporation's specific requirements. With time, an inventory of these customized software systems will be available for marketing and thus reduce the need for customizing over and over again.

In the European market today we are making the transition to this software technology. In addition to our range of software products, we are expanding the area of customized software systems to meet the growing needs of our customer base. We are providing the ideal complement to Cincom's system and application software activities. In many cases, our products represent the first step in the total solution to our customers' data processing problems. The custom systems and consulting services division will complete the picture.

Feasibility studies, user requirement analysis, project definitions, project management and project planning will constitute some of the new functions associated with the major transition from the

original mandate of system design and programming. These services will be available primarily for the existing Cincom customer base for the next two years after which it will provide such services to the industry at large.

We must direct our energies to the consultancy business since the technician and programmer function currently responsible for developing customized application systems will gradually become redundant. Although greater numbers of trained technicians are becoming available, the demand is growing more rapidly than the supply and the cost of those who are available will become prohibitive. Hence, forcing us to seek more economical solutions.

During the next five years, the custom systems and consulting services division in Europe is expected to expand at 60 percent per year. Most of the division's professional staff are based in the United Kingdom. Within the next 18 months, however, three more districts will be established in Continental Europe. These district offices will staff consultants, project leaders and analysts and be responsible for customers within their geographic area. Each of these nucleus groups will have the ability to draw upon a central resource pool for additional manpower and specialized skills.

We are no longer in an era where data processing users are interested in bits and bytes technology. They want information for decisions and solutions to problems. They want organizational effectiveness and efficiency. Since more organizations don't possess the necessary skills in sufficient numbers, and since most users want the systems immediately, outside consultancies are providing the solutions. With a customer base in excess of 500 and ten years experience in building the most successful data base management systems, we feel our qualifications to enter the consultancy area and provide superior service are excellent.

It is our aim to see that, in ten years time, the concepts of software systems change dramatically so that the information processing user achieves his desired results quickly, economically and with a minimum of effort. ☛

**In our last issue we told you about the new CONSIDER CINCOM
campaign and you've probably seen our ad placements.
Thought you might like to have souvenir copies of the first CONSIDER advertisements.**



Cincom Systems, Inc.
2300 Montana Avenue
Cincinnati, Ohio 45211

Our New Look

From your comments and our review of past issues it was felt the LINKAGE needed a new look. The first step has been to bring a softer look more conducive to readability. Hope you agree.
