III)   Budget:

    a)   Expendables (paper, floppy disk, ribbons, etc.)
    b)   Accounting method (Averages, User Dept?)
    c)   Hardware and Software purchases
    d)   Support cost

Management Recommendations

This area must be addressed first because of its high impact on how technical areas will be implemented. We must establish and publish a policy, before we are placed in another "Reactionary Mode" situation.

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SHARE SESSION REPORT

61	M378	Product Selection & Products In Use	135
SHARE NO.	SESSION NO.	SESSION TITLE	ATTENDANCE
Information Center		Sharon Woelfling	AMP
PROJECT		SESSION CHAIRMAN	INST. CODE

AMP Inc., P.O. Box 3608, Harrisburg, PA 17105   (717) 986-7292

SESSION CHAIRMAN'S COMPANY, ADDRESS, AND PHONE NUMBER

PRODUCT SELECTION AT KINNEY SHOE

Jerry Creaven

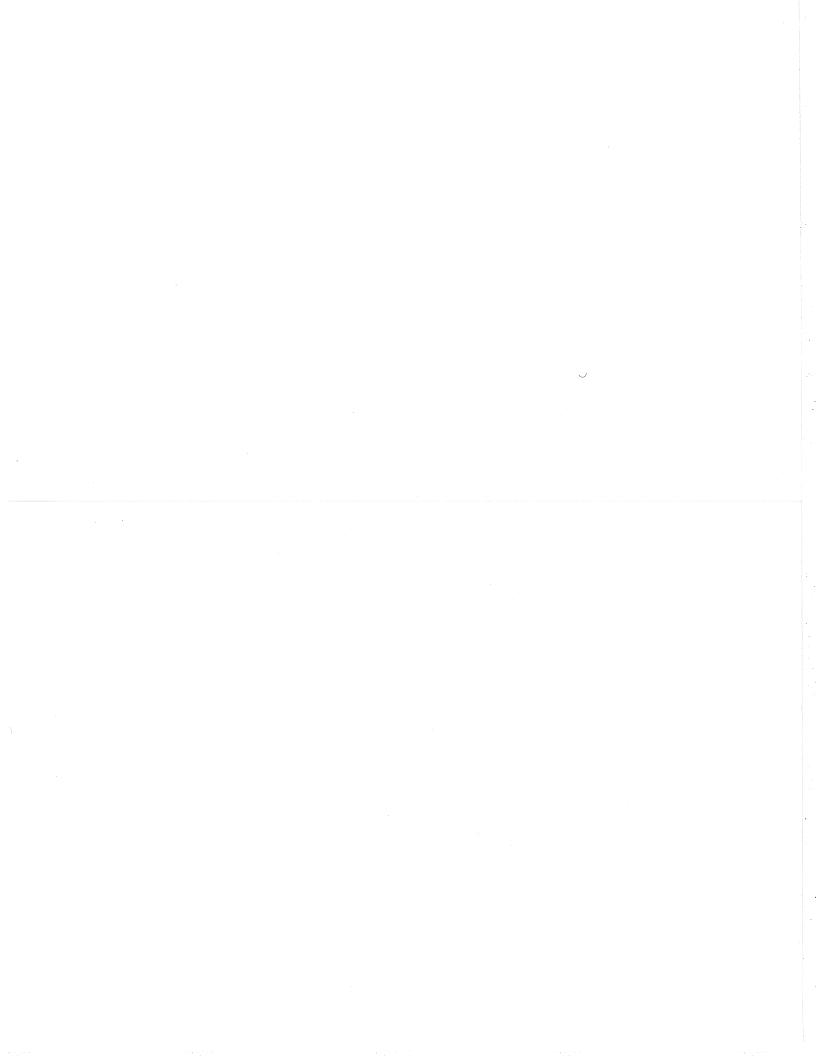Kinney Shoe Corporation
P.O. Box 2437
Harrisburg, PA 17105

Installation Code: KSC

Information Center Project

M378

4/b/pal/3

PRODUCT SELECTION AT KINNEY SHOE

Jerry Creaven

Kinney Shoe Corporation
P.O. Box 2437
Harrisburg, PA   17105

Installation Code: KSC

Information Center Project

M378

Good Afternoon

I am happy to have the opportunity to speak to you today. We at the
Kinney Shoe Corporation have gone through the same product selection
dilemma many of you have, or are about to experience. My intention is
not to offer a tutorial in product selection techniques but simply to review
some of our own history, and to discuss some guidelines. Preparing this
speech has, in fact, been somewhat of a review or audit of our product
selection procedures. I will describe in some detail the technical
environment in which our Information Center resides, and also give you a
brief history of the Kinney Information Center. This background
information should give you a little more perspective as you consider our
evaluation techniques and decisions. Finally, I will present what we
consider some good guidelines to follow in product selection - not that we
always follow them. First, I would like to take just a few minutes to
introduce our company.

In the past 17 years, the Kinney Shoe Corporation has grown from annual
sales of 100 million to a billion dollars. We have grown from 600 stores in
one division to 2400 stores in seven retail divisions.

Our manufacturing division operates 11 factories with an annual capacity of
25 million pairs of footwear. As you may know, the Kinney Shoe
Corporation is wholly owned by F.W. Woolworth.

Woolworth has 15 data processing centers, 5 of which service the
Kinney Shoe Company.

In the United States, the Kinney Shoe Company is basically a centralized
organization. In each of our retail divisions, we have one group of
buyers located in New York City. Our buying and merchandising
function, our retail process, is a "push system". The individual store
manager has very little ability to select his merchandise assortment. The
store manager's job is to sell merchandise.

Many of our inventory items are replenished as sales are recorded in the
Inventory System. We operate centralized warehouses for each of our
nationwide divisions. Almost 95% of our merchandise passes through these
distribution centers.

We operate a centralized data center to support all of our U.S. retail and
financial functions. It is located in Harrisburg, PA. Sales, expenses,
and payroll transactions are entered at the stores on IBM 3680 Point of
Sale registers. These registers are polled nightly from our central computer
site and feed our financial and retail systems. We have three IBM 4341
computers. One computer, running under MVS, is used for our growing
number of IMS on-line systems. A second computer, running under VM,
supports program development and also handles our older DOS applications.
The third IBM 4341, again running under VM, is devoted to Information
Center products. The three computers share DASD, thus making the
transfer of data to the Information Center relatively easy.

In addition to the hardware I have already mentioned, our 125 District Managers have been given portable hardcopy terminals. They use these terminals to print weekly sales and expense reports for their stores - information previously gathered manually via thousands of phone calls. Incidentally, this application was initially proto-typed with Information Center products, and the final report generation is still being done by these products.

The Information Center was created at Kinney in 1978. At that time, it was called 'Personal Computing' and resided with our Systems Support group. The group, initially staffed by two recent Computer Science graduates, offered support, education, and consulting for ADRS. The Information Center software originally resided in a 370/158 along with program development and most batch production. The Personal Computing group was shifted to the Applications Development staff in late 1978. We acquired Query-by-Example (QBE) as a report-writer and installed it in early 1979.

The use of Information Center products grew steadily at Kinney through the years. Currently, we have over 600 User ID's with a prime-time average of 70 users logged on. Our Information Center is currently staffed at 4 and is responsible for product support, education, consulting (including a Hot Line) and monitoring of our extensive extract, format and bulk-loading sub-systems. While we have suffered the problems associated with rapid, and-- in some cases,-- unjustified expansion, our overall stability over the years has been greatly aided, in my opinion, by sticking with a few products and concentrating on their use and administration. We have tended, in most cases, to be conservative about the acquisition and use of new Information Center type products.

I will discuss in some detail several of our experiences with product evaluation. In some cases these evaluations were comparative in nature. Please keep in mind that the evaluations and our resulting decisions are Kinney decisions. I hope my speech and your attention focus on the nature and methods of the evaluation rather than conclusions. We have really looked at many different products over the years. I have selected what I hope will be an illustrative cross-section. The evaluations I will discuss cover the following products:

> Query-by-Example
> An ADRS Replacement Software Package
> EASYTRIEVE
> PROFS

QUERY-BY-EXAMPLE

We became aware of this product in the Fall of 1978 at a James Martin Seminar. The product was installed at our site in November of that year, and our evaluation of the product was comparative in nature. We compared QBE to APL/DI--also an IBM product which provided free-form reporting of inverted data. Our test consisted of extracting data from a newly-installed IMS Purchase Order data base. The extracted data was prepared for bulk-loading to QBE, and for inversion within the APL/DI environment. The head of the Buying Budgets Department who would use this data constructed several "typical" business questions he would want to ask of this data.

Incidentally, it took a little while to convince him that he could ask such questions without waiting weeks or months to get the answer! The questions were converted to both APL programs and QBE queries. We then measured both the load times of the two products and the resources needed to answer the questions. The resources utilized by each product within the context of our tests appeared to be equal. Each product was superior in different areas technically but neither really dominated the other. The factor that led to the selection of QBE was the reaction of the initial test user to the product's table presentation and relatively low amount of syntax. This proto-type application became the first production QBE System at Kinney and has been running for almost 5 years with little modification. The end user has centralized his department's activities around these tables, and has generated hundreds of stored programs, or queries, to serve his needs. During the life of this particular system, there has not been one request for additional reporting from the base IMS system. The use of this product spread rapidly and we currently have over 30 production QBE data bases with more than 150 production files being loaded on a regular basis.

However, we have found that QBE, as valuable as it has been in certain situations, has definite limitations. Quite frankly, we have probably used the product in ways the authors never dreamed of, at the cost of large utilization of computer resource. This situation led to the second product evaluation I am going to talk about.

EASYTRIEVE

Again, I'd like to remind you that we are not trying to endorse products, but rather share specific experiences with you. EASYTRIEVE was first used at Kinney by the Internal Audit Department. The product was in our environment for some time before we realized that it offered a solution to our Information Center resource crunch. This realization was heightened by a visit from the Manager of Systems Development at Heineken Beer in the Netherlands. He ran an Information Center in which this product was the primary end-user reporting tool. We began a rather informal look at the product. We compared it to several other report-writers we had in-house. We found EASYTRIEVE to be as efficient as any competitor, and we also felt that it really was quite simple to use. We also saw application development uses for EASYTRIEVE. The product, and its hope for resource reduction, could not have come at a better time. Since we had no chargeback system, the control of Information Center usage was difficult. Our System Support group, Operations staff, and IC staff were searching for anything that would keep us from melting the computer down!

We proto-typed the use of this product by rewriting a set of queries that had been generated by our Accounting Department against our QBE Cash Book data base. They ran these queries at night, via a deferred processing facility we had built for QBE. As the Cash Book grew across the month, the run times rose accordingly. The resource utilization varied from $\frac{1}{2}$ hour clock time in the beginning of the month to 8 hours of clock time by the end of the month. The EASYTRIEVE equivalent ran between 5 and 15 minutes of clock time.

We have since decided to make this product available to the end-user community. We have implemented a series of DMS panels driven by COBOL programs that eliminate any need for the user to learn the EASYTRIEVE language, but, know only his business and data. In fact, we made the presentation somewhat like QBE in nature so that the change for the end user community would be as easy as possible.

We have provided access to the data sources of 8 of our QBE data bases. Our goal is to cut down or eliminate usage of QBE for data reporting. This product will also allow us to access larger data files than is practical with QBE.

ADRS REPLACEMENT

The resource crunch led us to another extended evaluation.

At Kinney, ADRS is used heavily. Across a year, over a 1,000 workspaces are created by more than 200 users. This product is used in all departments with a heavy concentration in finance and accounting. Some departments depend on it for day-to-day operations. The number of users and workspaces has been constantly increasing.

Therefore, we became very interested when we discovered a new product which was supposed to be a "souped-up" version of ADRS, written in a more efficient APL.

The product's vendor showed us benchmarks of several commands that indicated vast improvement in execution times and required CPU. For example, the CALCULATE command improved by 77%, the SELECT command by 90% and the SETUP command by 47%.

Given our resource crunch, and given that we had just learned that planned computer upgrades had been postponed, we were very enthusiastic about this product. It was expensive, but it gave every indication that it could effectively extend the lifetime of our current CPU.

Despite our enthusiasm, we decided to test the product thoroughly. A benchmark team was assembled, consisting of two IC personnel, one System Support person (part-time), 2 technical personnel from the vendor, and a marketing representative from the vendor.

The testing took two weeks. A week was needed to compile the statistics, generate a report and recommendation. We created test command strings that contained almost all ADRS commands as well as several programs and reports that utilized groupings of ADRS commands. The tests were run against both small and large workspaces. We automatically stored execution and elapsed times. All elements of the benchmark methodology and execution were agreed upon by both Kinney and the vendor. At this point most people involved felt that the benchmark was really only a formality necessary to support the recommendation to purchase the product. We felt that this product would really help us.

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All tests were performed at least three times to average out differences. Some tests were run as many as nine times to smooth variances in results. In total, we conducted over 650 tests. The test results were mapped into a command frequency table we had constructed to represent distribution of command usage at our facility. From this, we were able to project the product's affect on our environment.

I should mention one other factor. The tests were run through the vendor's software, IBM's ADRS, and ADRS with several commands "fixed". Fixing commands in ADRS involves storing ADRS commands (and associated APL code) in workspaces. This eliminates load times for frequently used commands. Fixing commands utilized more disk storage as it increased workspace size. If used carefully, it can reduce CPU utilization. We had just begun playing with this technique - the vendor hadn't been aware of it. As the testing proceeded, we were able to duplicate the vendors numbers on certain commands. However, other commands were equal - and some frequently used commands took 3 or 4 times more resource with the vendor's product. Our final projections showed that the use of the vendor's product would at best save 4.82%, as compared to ADRS with several key commands fixed. These savings would not have warranted us converting to the product, even if it were offered free. Needless to say, the vendor was surprised and disappointed. However, our last contact with them indicated that they were re-working the product.

PROFS

The final product evaluation I'll share with you involved Kinney's detailed look at IBM's Professional Office System package (PROFS). For those of you who are not familiar with this system, PROFS is an integrated office systems package that runs from a Host. It provides a wide range of services from simple message handling to formal document preparation services. It also includes mail box services and has a personal scheduling facility. At Kinney, a decision was made to pilot test PROFS through our Office Systems group. The study was led by the manager of that group, Tony Salerno. Tony and his associate, Bob Simpson, put together a pilot test plan with several key objectives:

> To gauge user acceptance in our environment
> To gather resource usage data
> To refine the system
> To estimate computer resource
> To establish support requirements
> To establish training requirements

A pilot user group was assembled, consisting of 7 business users from non-DP departments, and 35 data processing professionals. Among other requirements for the pilot group, individuals were sought who:

- Had previous experience with Information Center products, and had reasonable access to terminals.

- Were somewhat enthusiastic about the concept of the product, or at least not negative.

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The group consisted of managers, supervisors, and technical staff supported by members of the Administrative Support staff.

The product was customized slightly for the proto-type study. A user Hot Line was established and the project team visited or called users to gain more insight. Johnson Job Accounting was used to record usage statistics, and user satisfaction was measured by a formal questionnaire submitted to users at the end of the study. Most of the questions were geared toward determining:

- How users utilized the product daily
- Was their time on PROFS affected by availability of CRT's?
- The applicability of different PROFS functions to user job requirements
- Their general impressions on its usefullness

The study was conducted across 3 months, and the resulting report and recommendation submitted in January, 1983. The study was thorough and professional - Here we see some of the statistics generated during the study:

- Monthly usage
- Monthly usage by job responsibility
- Monthly usage by function. The report and recommendation were positive toward the use of PROFS in the Kinney environment.

However, because of resource considerations and focus on other projects, full implementation of PROFS in the corporation has been postponed.

SUMMARY

In summary, these evaluations were guided, or driven by, certain formal and informal guidelines. As I had noted earlier, our guidelines are probably typical of what's done in most data processing facilities and would duplicate, or at least be a subset of, an industry standard (if such a thing existed). Included in the criteria we use to evaluate Information Center products, are:

- The products functionality measured against our requirements
- The products functionality measured against competitors
- User reaction to the product
- Coordination to existing corporate software
- Coordination with overall Information Center and Application Development strategy
- The products resource efficiency in at least two areas:

    . Bulkloading or inversion times
    . Standard query or question operations

- Product reliability
- Product limitations
- Product maintenance
- Product future - is this a dead-end, isolated piece of software?

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- Is this product in the mainstream of technology or will we be in danger of cutting ourselves off from new directions in the future? With all the techniques and software available, this is a really difficult subject to deal with. For example, consider the bewildering array of products, and underlying Information Center strategies, presented by just one vendor - IBM.

Last, but certainly not least, a good look at the vendor is always in order.

So that is at least a few of the product evaluation experiences and guidelines we have had at Kinney. I don't know if they are any different, better or worse, than those you have in your environment. Certainly, we all face the same challenges, and hopefully through SHARE and other formal or informal communications, we can help each other in these areas.

Thank you for your time and attention.

Are there are questions from the floor? If not, good afternoon!

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