I. Introduction

The University Computing Center at the University of Massachusetts, Amherst Campus has been coordinating a SAS/BASE and SAS/STAT site license for microcomputers since the initial release in January of 1986. The University Computing Center has Control Data Corporation (CDC) mainframe equipment. We serve a student body of approximately 16,000 undergraduates, 3000 graduate students and 1500 faculty. We coordinate and support many popular mainframe statistical packages such as BMDP, SPSS, MINITAB, IMSL, and TSP.

Currently, the SAS System is not available on CDC equipment so the Computing Center was very eager to obtain a site license for the SAS-PC System to make it available to our users. However, we were unprepared for many of the issues encountered when coordinating a PC site license. We will present these issues below and discuss our solutions.

II. Issues

A. Distribution

Distribution of a mainframe program is not an issue since the concept of a mainframe is makes for microcomputers since the initial release of the SAS-PC System to the users. However, we were unprepared for many of the issues encountered when coordinating a PC site license. We will present these issues below and discuss our solutions.

B. Installation

Installing a program on our mainframe is always performed by one group specifically trained and experienced in performing the task. Consequently, the task is usually straightforward and uses minimal resources. The SAS-PC System comes with very clear installation and testing instructions. As long as the user is familiar with PC-DOS and PCs, there is no problem. However, we have many new users buying a PC just so they can use the SAS-PC System and who therefore have no prior PC experience. We find these users are taking an extraordinary amount of consulting time, not necessarily to install the SAS-PC System but usually to install and explain the PC-DOS operating system. We are trying to solve this problem by requiring that these people attend a PC-DOS class before they attempt to install the SAS-PC System.

C. The Cost of a Site License

Does the site licensor pick up the total cost or should one try to recover some of the cost from the users? Because of the high cost of a site license and the additional strain on an already stretched mainframe software budget, it seems reasonable to try to recover the cost. Also, there is a mechanism for charging; that is, when the diskettes are distributed, a fee can be collected. We have decided to try to recover our cost. We charge $50 per module and the users make their own copies.

If you have decided to charge the user initially, then the next question is who pays the yearly renewal cost. This is more difficult to collect because the incentive is no longer there, the user already has a working program. For this reason, the Computing Center has decided to pay the yearly license fee on the premise that we will continue to sell enough new copies each year to pay for the renewal costs.

D. Updates and Bug Fixes

Updates and bug fixes are easily implemented on a mainframe. The specially trained software group performs the task and then it is announced to users via a message at log on time. This task is not so easily accomplished with a PC program. First of all, how do you notify the users that an update or bug fix is available? Do you notify them by a news item on the mainframe computer, through the electronic mail system on the mainframe or by sending a letter to each of the SAS-PC System users? We have chosen the last method since many of our SAS-PC System users are not regular mainframe users.
Secondly, there is the problem of distributing the update or bug fix to the user. That is, do we make all the copies, do we have a copy on our mainframe that the user can download to his microcomputer or do we have loaner diskettes available? Again, we have chosen the loaner diskettes method for distribution of updates and bug fixes. However, if it is a bug fix and small enough, one can include a paper fix with the letter announcing the problem.

Thirdly, how do you get the user to install the update or fix? Notification does not necessarily assure that the user will implement the update or bug fix. We have trained our consultants to always ask first if the update or bug fix has been implemented before they ask or answer any other questions.

E. Complying with a Site License Agreement

Our site license agreement specifically states that we may only distribute copies to employees of the University and they are to return copies of the program when they leave employment. What about students who are also part time employees of the University? We have chosen not to distribute a copy to anyone unless he/she produces identification that shows he/she is a full time employee of the University.

As far as returning the copy when they leave employment, the SAS-PC System has a programmed in yearly expiration date that has taken care of this problem. Each year when we renew our site license, we are sent a password that when typed into the program allows usage of the program for another year. All users who leave employment will no longer receive the password and supposedly can no longer get it from the colleague next door. Therefore he/she will be unable to use the program beyond one year.

F. Illegal Copies

How do we prevent illegal copies from being made? This is virtually impossible but we try to discourage this by only consulting with legitimate users, only supplying updates and bug fixes to legitimate users and only supplying the updated password for the expiration date to legitimate users.

E. Support for the User

Support for the SAS-PC System user is similar to the support we offer for all our major mainframe statistical package users. We have a specially trained group with experience with both the SAS-PC System and statistical analyses to answer questions, we offer mini-courses and an in-house-users group that meets twice a year. The major difference between the support we offer to the mainframe statistical package user versus the SAS-PC System user is turn around time. For a mainframe statistical package we have the ability to get on the mainframe via terminal, find and usually fix their problems. We find it is often necessary for the SAS-PC System user to bring a diskette with his data and program control information before we can debug it. Another technique we use is to have the user bring a hard copy of his log file and program control file. This is a slow and painful process for the user compared to getting on a terminal and determining his problem.

III. Conclusion

We have learned that coordinating a PC site license is a task that a mainframe-oriented Computing Center should not take lightly. There are several new issues involved which take resources and coordination that are not necessary when coordinating mainframe packages. Some of these problems we were aware of ahead of time and some we were not.

Since we were not given additional funds to coordinate a PC site license, we have tried to find economical solutions that require only minimal resources. Some of our first attempts were not the best and we have had to rethink the situation and come up with new ideas. But we are learning, just as we did years ago when learning to coordinate mainframe packages. We are surprised that with 20 years experience we feel we have to reinvent the wheel. But we have found that the issues are different with PCs, and therefore need new solutions.

The primary purpose of presenting this paper is to discuss these issues and hear from other sites how they are handling some of these problems. We feel the learning process will be smoother, if we all share our experiences. I would be very interested in hearing from other sites and can be reached by writing to:

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