There are four issues of particular importance pertaining to PC SAS System management and distribution at large academic institutions. First, legal matters arise when licensing institute program products. These entail contract negotiations between SAS Institute Inc and the academic institution. Second, distribution issues range from pricing to installation. Third, support issues are both short-term and long-range in scope. Fourth, advertising/notification issues are concerned with disseminating policy and system changes.

SAS Institute recently completed a survey to determine how the academic community distributes and administers the PC SAS System, and also to determine how the user community is notified about availability of PC SAS System products. The results show that there seems to be little difference in the way legal issues and advertising issues are handled. The most significant differences are in distribution and support issues.

Legal issues arise when negotiating a contract with SAS Institute, and the academic institution often makes modifications to the contract. One issue that is particularly difficult to negotiate is the prosecution of a copyright offender. The contract states that SAS Institute has the right to prosecute the academic institution if copyright violations are discovered — the contract mandates that the academic institution prosecute the offender. Since there are various ways to prosecute offenders, procedures are modified to suit the academic institution. These contract negotiations usually take two to four months. The contracts are mailed between SAS Institute and the academic institution with modifications being made by both parties.

By contract, the academic institution should prevent illegal duplication of the licensed program products. Most academic institutions have developed their own license agreement between themselves and the end user. It usually includes statements that reiterate license requirements between SAS Institute and the academic institution. The end user license agreement is usually written by the PC SAS System representative and authorized by the academic institution's legal department. The license agreement is also a useful tool to gather pertinent information about the end user's address, telephone number and hardware specifications (information also required by the SAS Institute license agreement).

Distribution methods are the most varied. The issues involved are pricing, copying, delivery and installation. There are three common ways to deal with pricing the licensed products. The most common: charging for cost recovery of the software only. Since the software is licensed on a yearly basis, the licensing fee can be divided by the number of possible end users. For instance, if the license fee is $2500 and the estimated number of end users is 100, the cost recovery fee is $25 per end user. The next most common approach is distributing the software for free. In this instance, the academic institution carries the cost of the license fee without recovering any monies for the service. A third common approach is to recover the cost of the software, the materials and the support staff. Along with the end user cost recovery fee, there are additional charges for diskettes, the copying service (if one is contracted), the distribution outlet markup, and the services rendered by the support staff. Usual estimates of staff time devoted to PC SAS System support is one hour per end user. There will be some end users who may never need support services. There will, on the other hand, be end users who will need several hours of support.

There are three ways to copy the PC SAS System products. First, a copying service can be contracted to reproduce the desired number of copies. A separate non-disclosure license agreement should be written between the academic institution and the copying service. It should state that the copying service will indemnify the academic institution from loss or damage caused by failing to protect the proprietary rights of the licensed software products.

Usually, the copying service has a high-speed diskette duplicator that can make about 100 copies
per hour. The charge for duplication is usually between $.50 and $2 per diskette. If the copying service provides the diskettes, sleeves and boxes, the charge per diskette can range from $.90 to $1.50. In many cases, the copying service will insist on providing the diskettes, sleeves and boxes. When the copies are completed and picked up from the copying service, randomly selected copies should be test-installed for completeness and accuracy. Problems may arise when duplicating multiple copies of the products (such as two copies of the same diskette in an otherwise complete product, or diskette read glitches in random sets of copied products).

Second, end users can make their own copies on their own diskettes in a controlled setting such as a microcomputer lab. They can copy the products at a time that is mutually convenient to them and the microcomputer lab. If there is a great demand for the products in a limited time period, the microcomputer lab may get congested. Schedules can be developed that provide time-windows for people to complete their copying. But, scheduling requires more support staff resources.

Third, the SAS representative can make the copies. The Base SAS® product (14 diskettes) usually takes 25 minutes to copy on a PC with an 8Mhz clock. If there are fewer than 25 copies to be made, this approach is feasible (this is the least cost-effective approach for a small staff).

The delivery process can be done in several ways. Those who have made their own copies in a microcomputer lab need no delivery service. When the copying is done as a service for the end users, delivery is needed. The most common approach is to have a distribution outlet from which the PC SAS System software is licensed, and the appropriate manuals sold (there is often a person assigned to manage PC software distribution and paperwork). Or, the SAS representative can deliver the software to each end user. Again, if there are fewer than 25 copies to be delivered, this approach may be feasible.

Installation is done in two ways. The most common approach is to have the end users install the PC SAS System products themselves. The installation instructions are easy to read and follow. Or, PC SAS System representative can install the products on each machine (if there are fewer than 50 machines on which to install the products, this approach may be feasible). In sites which have departmental PC SAS System representatives, there would most likely be fewer machines on which to install the products.

Common support issues include staff training, consulting, courses and seminars on the PC SAS System products. Staff training is helpful for both long-range and short-term support, and demonstrations can be given on each PC SAS System product licensed. A preliminary demonstration can be given on the Display Manager System (the interactive facility providing display windows for program input, log messages and output results). Further windowing capabilities are possible and can be demonstrated. Hands-on labs can be provided for more extensive investigation of the PC SAS System products, and methods for reading and writing external data files can be practiced.

There are two videotape series provided by SAS Institute’s Education and Training Department, covering techniques for using the personal computer with the PC SAS System. The first tape, “The PC SAS System for New Users,” covers introductory material pertaining to personal computer file management and various elementary commands. The second tape, “The PC SAS System for Experienced Users,” includes brief explanations of the Display Manager System, the windowing facility, reading and writing external files, using dBASE and DIF files, and using the upload and download procedures to transfer SAS data sets to and from the mainframe. The videotapes are intended as an introduction to the personal computer and the PC SAS System. Hands-on experience is the best teacher.

Consulting support services can range from telephone consulting to one-on-one consulting. Telephone consulting is seemingly more convenient than consulting in person, but the consultant should be expert in the PC SAS System to understand the problem presented by the end user. Visual aids (such as printouts and example programs) are easier to understand than verbal descriptions of the problem.

Consulting in person is an efficient way to provide support for various computing packages. It is
common for the academic institution to provide a computer consulting staff for the campus to support several campus computing packages. If PC SAS System consulting is supported, it is usually provided in addition to support of other computing packages. Dedicated PC SAS System consulting support is desirable, but often not feasible.

Courses can be taught on the various aspects of the PC SAS System. If the SAS Institute videotapes are offered by the academic institution, intermediate and advanced aspects of the PC SAS System can be offered in classes for both staff and students. A lecture/discussion format is a good approach for institutions without a secure PC lab in which the PC SAS System is installed on several machines. Hands-on experience is especially useful in learning the PC SAS System. If the institution has a microcomputer lab in which the PC SAS System has been installed on several machines, a group hands-on lesson can be given.

Seminars on PC SAS System availability can include questions concerning price, installation instructions, hardware requirements, performance and capabilities. This information can be made available in printed form, but the seminar leader can answer other questions.

Advertising and notification can be done by mail. A mailing list can be constructed from the information obtained from completed license agreements. Since the licensed user and machine location are requested on the license agreement, this information can be entered into a data base for later retrieval.

PC SAS System information on an electronic bulletin board or PC network is another common means of disseminating information. Information can be included in the installation instructions about accessing the bulletin board or PC network, allowing end users to contribute comments about their use of the PC SAS System. Sharing information can stimulate experimentation and investigation.

Articles submitted to a campus-wide newsletter have wide spread circulation, being delivered to those who are not on the mailing list constructed from the license agreements. This is a valuable resource for garnering information about potential demand for the PC SAS System. A survey can be included in the newsletter can focus on interest and intended use. Results from the survey will aid in making decisions about pricing and distribution issues.

A SAS User’s Group can be formed to support PC SAS System users. Meetings can be held to exchange information on using the PC SAS System. Participants can give demonstrations on various topics.

As people use the PC SAS System products, information will be passed along about their benefits. Disseminating information by word of mouth is often not efficient, but may be a source of strong support.

PC SAS System management and distribution at large academic institutions requires strategies that involve short-term and long-term planning. Early decisions include pricing, distribution, and support with little or no definite information contributing to the decisions. Adjustments to pricing schedules and distribution modes should be made as needs arise. Maintaining flexibility in the first year of PC SAS System support is important for establishing a well-rounded service in subsequent years.

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