Training & Support:
Why You Can’t Do Without Them

A New Computer System Is Useless Without These Two Key Ingredients

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Once you’ve taken the big step and decided that there is, indeed, a place for a computer in your firm, what do you DO with it? How do you make it work? What happens if it stops working?

No matter how comfortable you might be at constructing high-rise walls and ceilings, you are likely to want—and need—help when it comes to understanding and maintaining a computer system. Even first-rate repairmen can lose their cool attempting to assemble a child’s bicycle on Christmas Eve, if they aren’t expecting such a chore. Similarly, it is critical to know ahead of time what’s expected of you to make your computer system a valuable tool. That’s where training and support enter the picture.

In the “good ole” days of computers (actually, up until just the last few years) a marketing representative paid you a visit and extolled the virtues of the latest “box.” Then, a Systems Engineer helped implement the system you selected and got it up and running for you.

Well, computer times have changed a lot!

Marketing representatives and Systems Engineers still work closely with companies to develop computer installation proposals. But many of today’s products do not require such extensive marketing or technical support. You can buy some products right off the shelf—and, in many cases, follow

The IBM 5080 graphics system offers precision graphics with desk-top convenience. With a high resolution screen and up to 256 color hues or gray shades available, the operator can use a number of input devices, as shown from left: a program function keyboard, alphanumeric keyboard and tablet with mouse-like cursor control device.
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the directions, plug them in and begin working almost immediately.

**More than Price . . .**

But do not be guided by price tags alone. As you know in your own business, what is right today may not be best tomorrow. You want to be assured that vendors you buy a product from can and *will* back up what they sell. And, sometimes getting that assurance can take a little longer. You just need to weigh the trade-offs. And there are some things you should ask yourself—and your vendor.

This is really the second most important part of buying a computer system (the first is to make sure the product will do the job for you). After you’ve found a product you think will meet your needs, you’ve got to look into whether or not the vendor can help you become a happy, productive user.

Before you hide behind the nearest pile of sheet rock in dread of having to spend endless hours learning about computer circuitry, keep in mind the key to your training and support is COMMON SENSE.

At one time training and support were separate concerns. The training came shortly after your purchase, and consisted mainly of your DP people learning how to operate your new terminals. The support was a selling point in that any questions or problems that came up with your system would be handled by your vendor. Training and support have moved closer and closer together, since today you are a much more self-sufficient consumer and user.

Hopefully, by the time you buy a computer, you’ve already thought through some critical questions like: What kind of growth are you planning for in your firm? Where are your critical needs? How might a computer help?

Part of the decision-making process concerning which product to buy includes checking with existing customers (you’re no doubt used to giving references to your own potential customers). Call on these users to ask about the reliability of the vendor in backing up the product. Did they come through in addressing the problems? What kind of training and support was offered? Was it effective?

In many instances, computer maintenance will only be available from a limited number of sources other than the distributing vendor. Since most software for personal computers is offered on an as-is basis, be sure that you feel comfortable that the software works and fits your particular needs.

For larger computer systems, generally speaking, software vendors offer test periods, limited warranties and some amount of service. In any case, it is important to understand the conditions under which warranty and service is performed.

**Training and Support Coverage . . .**

You will have a head start on training if you have already read some books and magazines on computers and perhaps attended a computer concepts seminar, such as those sponsored
by AWCI-International. Regardless, as soon as you’ve made your purchase you should check with your vendor or store on available offerings and enroll in a class for first-time computer users.

You can probably absorb basic knowledge in a two- to four-hour seminar, offered regularly at branch offices, community colleges and computer stores. Many of these are free and require a minimal investment of your time—and they are well worth the effort! Ideally, the person who has made the purchase decision will attend the class with the person or persons who will be operating the system. This approach should help reduce some of the normal apprehension over the training and installation of the system. National construction associations like AWCI-International are good places to seek information about appropriate training courses as well.

Feel free to ask instructors in classes you choose to attend about a product you may be considering. Keep in mind that there are differences in features of products that may cause your support requirements to vary. For instance, integrated software programs will fit together and transfer data between applications, relieving you of the chore of having to manually update each ap-
application. For example, you may want programs that will share information between payroll and job costing. Such applications are modular but integrated; in other words, they can be put on a PC one at a time, but in addition they will transfer newly inputted data to other applications run on the same system.

Similarly, you want hardware products that will be useful to you no matter what direction your data processing system takes. And, once you’ve acquired the basic skills and understanding of one product, ideally you will be able to build on that knowledge rather than having to start over if you move to a new system.

For instance, even if you grow from a personal computer to a mini-computer, that initial PC should be able to serve as a workstation connecting to the larger computer. And you will have already acquired the training and support for using the PC as your standard workstation. This is a good reason to plan for your requirements down the road, and consider a workstation format that will allow all users to communicate and trade information.

**Evaluating Vendor Support . . .**

Support which comes with hardware and software, varies just as other features of the products. The key is to understand the warranty, maintenance and service that are offered. If a product should be faulty, what are the terms and conditions that will govern repair or replacement. There are several good questions to pose to vendors. Do they offer telephone help lines? Can they provide personnel to come to your location if required? How long will maintenance or service be available?

There are important areas of support that you want to understand—not just for today but also into the future. Here are some guideposts for evaluating how well vendors stack up on training and support:

**Maintenance Plans** — The plans usually run about 10 percent of the equipment purchase price. Not only should such a plan cover repairs, it should also assure that the vendor will make necessary modifications to keep the product in good working order. Considerations for maintenance plans should include: will you get parts and/or labor or both; is the support available on a 24-hour, seven-day basis if necessary; how long will the vendor take to respond to your calls (this is especially critical if you are not located in an area where the vendor has an office); and, if the maintenance plan is for a limited period, is it renewable?

Plans vary in price, and you will want to look for the one that is most appropriate for your needs. As you’ve no doubt discovered the labor intensity of service work, the more personal attention you require, the more you are likely to pay for maintenance. Do you want coverage only for working hours and work days? Or do you want 24-hour, seven-day coverage?

There may be several maintenance plans for each vendor or each product. For instance, maintenance for the IBM Personal Computer is offered by IBM under three different options: a user can mail in a PC; the user can take a PC to an IBM specified location for repairs; or IBM will come to the
customer location for on-site repairs. Of course, each plan varies in price.

**Documentation** — Once again, you understand the importance of materials which make your employees as self-sufficient as possible in running your firm’s field equipment. Although it is important to know your vendor will be there if you need help, it is even better not to need outside help. In other words, the product should provide you enough documentation so that you can learn how to use the product by yourself and solve problems that might arise in use. The most valuable tool may be the equipment manual, which should be clear and well-written. You should avoid manuals that are not complete, as well as those that are voluminous and difficult to use.

The software, too, should “talk” you through the program with “prompts” or “aids,” so that you don’t have to constantly refer back to the manual. There should be “help” keys you can call on in case you run into problems. To summarize, the product should be easy to use and its instructions clear.

With the frequent changes in the nature of the construction business and frequent alterations to government allocations for projects, it is important to know something about the level of difficulty in modifying a program. Can you do it by yourself? Is your vendor willing to make the modifications for you?

**Education** — Even after your computer concepts training, you—or at least the people who will be using the system—often need additional training to get full use of a product. This education may be as simple as a thorough equipment manual or a system that “prompts” the new user through an application or it may in-

AWCI Executive Vice President meets with Transportation Secretary Elizabeth Dole in January to assist on the privatization of CONRAIL as a kick-off for future federal privatization as encouraged by President Reagan. The sale of CONRAIL passed the U.S. Senate in January, and is awaiting House action. The sale would raise $1.2 billion for the federal government.
clude extensive two- and three-day classroom sessions. You should evaluate if it is more appropriate and productive for your employees—and yourself—to participate in self-study training or attend classes. While classroom education may seem more personal, it often will cost more and will take your employees away from the office.

The general categories for this training include: tutor training on the machine, classes designed for particular hardware or software, self-study manuals and other written materials, and ongoing workshops designed for different phases of experiences with the product. You may also consider bringing in a consultant; however, do not take yourself out of the loop—use a consultant to keep you involved and knowledgeable of your system.

It is also wise to consider investing in some education software packages, including general applications, that help a new user understand the uses of computers, and specific programs showing how to run particular applications, like estimating or payroll.

Most systems today have computer-aided training, such as the PC Tutor, which allows you to begin testing out your product so you feel more comfortable with the keyboard and its features.

Other fee-paid training includes installation and implementation education, system workshops, operator training and programming language seminars. Naturally, you will need more training if you plan to have your own data processing staff do the programming and if you are buying a more sophisticated, complex system than a personal computer. The least expensive approach is to find existing application programs that fit your needs. The most common method is a combination—taking existing programs and tailoring them to work for your firm. This will involve some programming—either by your staff or a consultant. As a support function, many vendors can recommend consulting firms that can help you match applications to your needs.

A few years ago, IBM developed a new concept in training and support, stressing a multi-faceted approach to education. Called “Customer Support Centers,” this approach brings customers into a centralized location with concentrated resources and allows many computer users to get help at their own pace. Resources include demonstration centers where you can consider new products, installation labs, numerous workshops and seminars on specific products, and user meetings in which new owners of products compare problems and concerns. In addition to the classroom settings, the centers encourage a guided learning self-help approach to education, taking users at their own pace through the instructional process with a combination of programs run on terminals, written materials, and, when necessary, personal assistance.

In addition to these offerings designed more for the day-to-day users, there are special sessions tailored for executives (who, after all, often make the ultimate decisions about computer purchases). One example is an executive conference which covers general topics like the important role of computers as productivity aids in construction, as well as specific application areas using computers; in addition, such a session often includes general planning topics such as the importance of computers a productivity aids in the construction industry.

While such conferences are aimed more at planning, there is also executive education that prepares these decision-makers for a specific new product their firm is about to install.

You Call The Shots . . .

You can see that the levels of training and support today are as varied as the array of computer products. The key to evaluating training and support today is to know up front how much your vendor offers to provide, and if your vendor is able to provide the kind of support that you might need. If you take on some of this responsibility for training, have a clear understanding of where you’ll obtain support. You should do more than just buy a computer that is right for you; you should be sure you are going to receive the training and support to get the most from your computer.