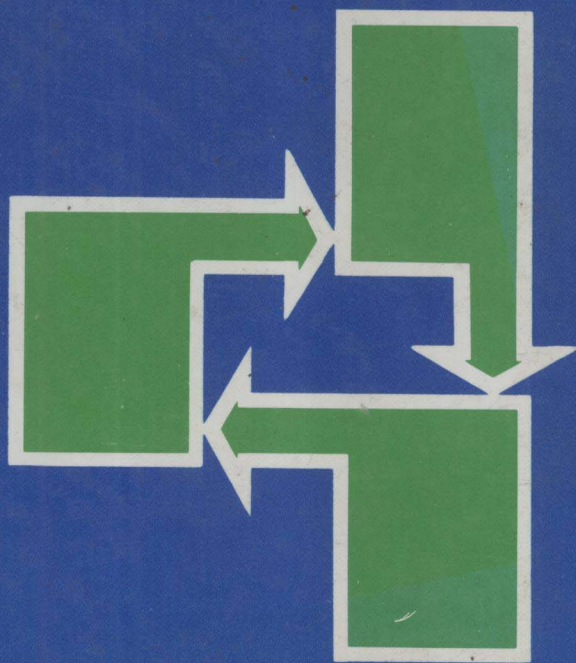


**a guide
to effective planning,
processing, and performance**

DATA CENTER OPERATIONS

HOWARD SCHAEFFER



HOWARD SCHAEFFER
Data Processing Consultant

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TO THOSE WHO HELPED

To my Alice and to my son Rob,
who innocently accepted many chores and tolerated
considerable clutter.

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an idea-provoking friend and editor, who occasionally
prodded during our delightful discussions.

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who remained thoroughly and encouragingly convinced
of the value of this book.

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who enthusiastically contributed information and ideas.

And finally to our two Siamese cats who, while frantically
running from our German Shepherd, scattered reference
material and drafts, unknowingly providing badly
needed random rest periods.

INTRODUCTION: PRECEPTS AND PRACTICES

Although *Data Center Operations* is directly addressed to the data center manager, it is also intended for data center staff personnel and for those who intend to work in a data center. Each reader can expect to obtain from this book:

1. a framework and a perspective for all data center activities;
2. clarification of data center objectives, functions, concepts, and techniques;
3. guidelines and checklists for experienced personnel, as well as for those new to data center activities;
4. tutorial for those approaching aspects of the data center for the first time, or to the depth presented;
5. typical forms and reports used in data centers, which can be adapted to the needs of a specific data center;
6. awareness of the pitfalls and the opportunities present in the various data center activities; and ultimately
7. a guide to help:
 - establish standards and procedures
 - utilize resources effectively and efficiently
 - minimize data center costs
 - develop and maintain rapport with users

- coordinate user and data center activities
- control data center activities and performance and
- plan for improvements and for future needs

From this list, it is apparent that this book must cover a considerable number of topics. To provide a comprehensive treatment of data center functions and activities, it is necessary to include such topics as organization structure for effectiveness, managerial rapport with staff, personnel administration, financial control, site security and safety, hardware and software acquisition, documentation of standards and procedures, workflow and scheduling, data communications reliability and security, and performance evaluation of computer processing and data center activities in general. Truly, as intended, this book should be a helpful companion and guide for confident management and staff actions.

Most data center personnel have had no opportunity to become acquainted with many of the topics discussed. They understandably will be hesitant to perform the new techniques introduced without adequate guidelines. This applies also to the very experienced personnel in the data center.

They may be aware of the topics discussed, but have not had the opportunity or time to obtain any depth of knowledge; in fact, they may not even realize the benefits (as well as the difficulties) associated with the various techniques. The explanations in this book should remedy these situations to a large degree and should stimulate confidence.

Some managers may be hasty in rejecting recommended techniques because of poor prior experiences. For example, one recommendation made several times throughout this book is a plea for establishing a data center steering committee. In face-to-face conversations with data center managers, this recommendation has initiated grunts, suspicious side glances, clenched jaws, or other more subtle signs of disagreement. In many instances, their reactions were justifiable. These managers had had bad experiences with committees. However, in most cases, if not all, the problem was not with having committees to coordinate activities, but with how the committees were established and how the committee meetings were conducted. Some of the most common problems were poor selection of members for cooperative effort, poor choice of a chairperson to provide definite leadership without being overly aggressive, and poor or no guidelines for conducting and controlling meetings. In any case, recommendations such as this have been applied and have been effective in some data centers; therefore, they should not be casually rejected.

This brings us to the main point of this introduction. To be of value to a data center, it is not enough to intellectually agree with the worth of what is presented: to be of value, *precepts must be put into practice*. Precepts not put into practice are as useful as a road map locked in the glove compartment of a car.

Putting precepts into practice, however, is more easily said than done. For example, several reviewers of this book enthusiastically agreed with various recommendations—but then continued to manage their data centers as in the past. Their intentions were admirable, but they were too involved in daily operational activities and problems to consider new programs and long-term benefits. As a result, several techniques that they agreed

were desirable were postponed. The techniques often neglected include management by objectives, personnel career paths, zero-base budgeting, charge-out of data center expenses, functional and financial analysis of hardware alternatives for acquisition, and the means for evaluating computer and data center performance.

Thus, a manager's attention must focus on both being aware of precepts and finding the time to put these precepts into practice. A few ideas may be helpful at this time on how others have obtained some control of how they utilize their time. An excellent technique for controlling time utilization is to set aside 1½-hour time periods, possibly as many as four a day, but at least one a day. (This may sound more like prescribing a vitamin, and in fact, it may have the effect of bringing new vitality to the data center.) Each time period is allocated for a specific purpose and is not to be interrupted except for a real emergency. Any noncritical telephone calls and other distracting interruptions should be attended to after each time period. Thus, for example, a half-hour can be set aside following each time period for the purpose of attending to these matters, instead of permitting them to dominate the day's activities.

Another technique used by most data center managers, as well as most people who seek to avoid being overwhelmed by many activities, is the preparation of "To Do" lists. The lists that are usually prepared, however, are not as useful as they could be, because they tend to be merely lists of reminders. These lists can be made more useful by indicating priorities, that is, by indicating which activities must be done before all others, and which may be left uncompleted. But another problem arises. Often, the urgent but unimportant activities receive immediate attention, while the truly important, but less urgent, activities tend to be ignored. Thus, the activities that would provide significant long-term benefits are allowed to slip from day to day, from year to year. Urgent activities cannot be ignored, but they must be put into perspective with the truly important activities that can provide greater overall benefits. The form shown in this introduction suggests a rather formal means for assigning a higher priority to important

activities than to urgent activities. If nothing else, this distinction will make managers conscious of the important activities pushed aside because of less-important but urgent activities; this awareness may encourage the delegating of distracting activities to others.

An attitude that helps to limit the number of activities that receive priority attention, reducing hectic activity and at the same time increasing the benefits received, is represented by what is called the "20/80 rule." This rule states that 20 percent of the activities provide approximately 80 percent of the benefits. Thus, if there are 10 activities on a list, it is likely that 2 of these activities will provide 80 percent of the benefits anticipated for all 10 activities. This rule may appear arbitrary, but it is uncanny how accurate it is as a general guide. For example, 20 percent of the computer programs provide about 80 percent of the problems, 20 percent of the systems provide about 80 per-

cent of the benefits to the company, and 20 percent of the personnel account for about 80 percent of the productivity, or the problems, or the latenesses, or the absenteeism. Therefore, in the case of time management, the goal is to locate those 20 percent of the activities that provide the most benefits, and to postpone (if not totally avoid) the remaining 80 percent of the activities that consume considerable amounts of time but provide little in return. (Observe that the "To Do" list illustrated includes this suggestion.) The desirable small group of activities are often referred to as the "vital few," and the large group of less-beneficial activities are often referred to as the "trivial many."

Superior performance for managers and staff becomes possible when they know what should be done and how, but it becomes a reality only when time is allocated to take action and then action is taken—to be effective, *precepts must be put into practice.*

To-Do List

Date _____

1. List all activities.
2. Enter two asterisks (**) for each important activity, but for no more than 20% of the listed activities.
3. Enter an asterisk (*) for each urgent activity.

Note: The resulting priority categories are:

*** Important and urgent

**** Important**

* Urgent

[illegible]

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