MANAGING OFFICE AUTOMATION
A Complete Guide

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FOREWORD

This book is designed to help you understand the principles of managing in the office environment as it becomes increasingly automated. That management skill will be an indispensable responsibility in every organization as the demand for white-collar work grows and as long as the need to increase productivity in the office exists.

This is not merely a book about computers, or about data processing in the office. Rather, it strives to explain how all technologies can be combined to improve the work done in the traditional office. It especially emphasizes the development of applications and systems that address managerial, secretarial, and clerical functions formerly handled manually or by simple electromechanical devices.

The term *office* is rapidly becoming outmoded and archaic. It no longer fits its old description of a room in which the business of an organization takes place. The office function now exists wherever business information is created, stored, replicated, and distributed.

The computer-based word processor was—and is—far more than just a faster typewriter. It was the first integrator of office functions. It opened the door to the electronic office, first by enabling two devices to exchange information electronically, eliminating the need to recreate data each time. Soon computers were working hand-in-hand with word processors and phototypesetters. Software-based systems then became prevalent, enabling word processors to perform computing functions and computers to type. By the end of the 1970s, an avalanche of other breakthroughs inundated the office: communications, personal computers, shared resource systems, OCR, intelligent printing, local networks, and intelligent typewriters.

Although these technological strides will continue to be of importance in the 1980s, much of the technology is now in place for a springboard into the 1990s. The future challenge for those who work in the information processing environment will involve, first of all, analysis of office tasks, applications, and procedures. Then, systems and software must be designed to perform them faster, at lower cost, and with higher quality and accuracy, and to present information to all who must use it in a manner that is easy to find and easy to use. That is the mission of the information manager of today.

Today's offices look different. Open-plan layouts are prevalent. Employees' workstations are now tailored to individual job needs and to accommodate the tools of the electronic office.

Techniques of management and working patterns have shifted. More management time is spent in planning and in long-range problem solving and less in day-to-day operation (because many of those functions are automated).

The skill levels of white collar workers are becoming more highly specialized. Those who work in future offices will need both the skills and the tools to be far more productive than are their counterparts of today.

Perhaps the biggest opportunities for productivity improvement lie in the area of making managers and executives more productive and more effective. The first area includes the automation of routine administrative duties; the second area deals with providing executives with the means to solve problems and to retrieve the information needed to complete assignments. Automation of the above-listed tasks will continue to reduce the amount of executive time spent performing them, and thus allow more time to be spent on priority matters.

The authors' purpose is to provide you with the basic knowledge and requirements of management, personnel, procedures, and systems in this dawning era of the integrated office.

John B. Dykeman
Executive Editor and
Associate Publisher
Modern Office Technology

PREFACE

The maxim "Nothing is more certain than change" is applicable to all aspects of our lives, but it is particularly meaningful in the office world of work. In order to adapt most effectively to this change, we must examine continuously and carefully the extent of change and its consequences. At the same time, if we are to have any control over change and the working environment, we must determine our goals and desired outcomes and plan for them to progress in the most appropriate and orderly way. Without goal setting and planning, change is often piecemeal and disruptive.

Managing Office Automation is designed to provide you with an overall approach to managing the changing office; identifying present and evolving technologies; and achieving an integrated automated office.

The rapid change in technology and the need to maintain a competitive edge have necessitated embracing new concepts of operational policies and procedures and new management styles and philosophies within the automated office.

Managers who are both flexible and farsighted will survive the changing times. Our goal is to provide direction and a plan so that you will be able within your work situation to

—improve productivity by maximizing staff and technology;
—receive information more rapidly at the point of need;
—enhance your decision-making skills;
—plan for integrating technologies;
—accept the changing environment and provide training to promote such acceptance;
—study existing workloads;
—present your thoughts to others;
—incorporate human considerations into plans for change;
—ergonomically design your office;
—select equipment that best fits the application (from word processing to global networks);
—prepare procedures for greater effectiveness;
—budget for ongoing success;
—consider some future trends, both sociological and technological in nature.

Part One provides a history of and an evolutionary perspective on the traditional office and its transition to automation. Part Two opens with an

overview of changing career patterns and the opportunities available in most office-related organizations. Part Two continues with a complete overview of the information processing flow and all its major parts—input, processing, and telecommunications (which will make integration possible), together with replication and distribution. In addition, records management and administrative functions and their role in the office of the future are examined.

The full potential of office automation will not be achieved easily. Part Three focuses on the issues of office automation, including such necessary steps to achieve automation as conducting feasibility studies, presenting these results to management, and considering the ergonomics of the working environment.

Part Four centers attention on major management considerations—strategies for implementing the integrated electronic office; an in-depth look at the human, structural, procedural, and technological issues involved in office automation; and the very important people aspects involved with change. An understanding of such personnel aspects as selection, evaluation, compensation, and training will help today's manager become more promotable. Supervisory/management techniques and human relations, together with an understanding of the importance of continuing development and growth, will help managers to successfully undertake new roles. The last section of Part Four discusses measuring and budgeting productivity.

In addition, to help readers attain a broad outlook, the book closes with a chapter concerning the future of office automation. Finally, the last section of the book lists tools to assist the information manager in implementing an office automation program.

The appendices include sample forms for developing office automation objectives; preparing project proposals; conducting feasibility studies; determining implementation schedules; designing job descriptions and performance appraisals; creating equipment requests for proposals and equipment evaluation checklists; producing procedures manuals and control forms; and scheduling training and continuing education seminars. Lists of professional organizations and trade journals for professional development are also provided.

We, the authors, recognize the need for improving communication and the use of information in the office. Only through attention to these factors can improvement in overall productivity be achieved. We sincerely hope this book will assist management in planning for the "office of the future" and moving on to total automation in a logical, budgeted manner.

With a clear understanding of the transition to automation, a positive approach to change can result.

We have been extremely fortunate to have had the assistance of so many interested individuals in creating this book. Although the "office of the future" seldom evokes the same image in all minds, we received many

helpful ideas from the feedback provided by our reviewers We wish to express our thanks to the following educators:

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Mary M. Ruprecht
Kathleen P. Wagoner

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PART ONE

INTRODUCTION

CHAPTER 1

THE INTEGRATED AUTOMATED OFFICE

OBJECTIVES

In this chapter you will learn about

1. The development of the traditional office function.
2. The traditional office and its costs.
3. The need for more effective management of resources.
4. The evolution of specialized work within the office.
5. The need to delegate administrative work to make management personnel more productive.
6. How the convergence of word processing, data processing, and telecommunications will develop into the integrated office.
7. The total support approach and the part it plays in the integrated office.
8. The need for total support in today's business world.
9. The benefits of integrated technologies.
10. The components of the electronic office and the framework of total support systems.

As office technology advances, it is important to understand and to recognize both the differences and similarities between the traditional office of yesterday and today and the integrated electronic office.

THE TRADITIONAL OFFICE STRUCTURE

Traditionally, the office has been the place where business paperwork is handled. The traditional office usually includes secretaries, stenographers, typists, and clerks who support people who work at specific office tasks.

Traditionally, top and middle management personnel frequently had full-time secretarial support on a one-to-one basis. Although these full-time assignments should have been justified based on work volume, they more likely were related to the manager's level in the organization. A full-time secretary has long been a status symbol of a high-level management position in the organization. Secretaries, typists, and clerks seldom appeared on organization charts, because their service was to assist others in carrying out their duties and functions.

In addition, office services generally existed as separate, unrelated operations—such as the mail room, printing services, or typing pool.

As office systems became more sophisticated and the volume of business information exploded, this traditional structure encountered an increasing number of problems and disadvantages. This explosion, along with the urgent need to increase white-collar productivity, caused many executives and managers to look for ways to restructure their secretarial and clerical support at all management levels.

PROBLEMS WITH THE TRADITIONAL OFFICE

There are several disadvantages to the traditional one-secretary-to-one-manager structure. While many managers may be expert in their own work, they usually are neither concerned with nor familiar with secretarial work and what makes a secretary productive. The manager's main concern is that the secretary get the work done. Another disadvantage is that much of a manager's time is spent working with other people or away from the office. In both cases, a lack of competent supervision exists.

In addition, secretarial work is relatively unstructured, differing greatly from one setting to another. Some secretaries perform clerical tasks such as filing, photocopying, handling mail, and running errands, while others have considerable responsibility assisting their employers with higher-level tasks such as arranging meetings, preparing itineraries, researching needed information, and recordkeeping.

Secretarial workloads vary. Some are overloaded with work; others have such light duties that they have idle time. Other secretaries have peak and valley workloads, and still others may have work so diverse that

they find it difficult to perform one task without being interrupted by a new one, making it hard to complete any of their tasks promptly.

Idle time and interruptions have often characterized the traditional office structure as an environment that fosters a low level of productivity. According to a research study of 13 companies, idle time (waiting-for-work time) amounts to approximately 18 percent of traditional secretarial time.[1] When managers become involved in other duties, meetings, or telephone calls, they may not be able to organize work for their secretaries to perform. For example, a sudden meeting might prevent a manager from preparing a report that the secretary has to type and mail the following day. The secretary must wait for the report to be readied or use that office time to do other tasks.

Today's management can no longer afford such costly routines. Business has recognized the need for a new approach to increased productivity through supervised office procedures and electronic office systems.

The traditional office is one of the last frontiers that business must study for the specific purpose of increasing productivity. The first advances in technology were directed at improving secretarial/clerical staff duties, which are often unsupervised and labor-intensive. The work (e.g., typing, filing, and calendaring) has been performed manually by office personnel—a time-consuming, inefficient, and expensive process

ECONOMICS OF THE OFFICE FUNCTION

Because clerical and secretarial work was secondary to the principal purpose of an organization, management in the past did not pay much attention to the office's organization, control, and purposes. The cost of running an office has continually risen, but office productivity has not increased at a corresponding rate. However, the need to control costs has forced management to reevaluate office functions in terms of their contributions to profitability and effectiveness.

During the 1960s, factory-worker productivity jumped 80 percent; farm workers enjoyed similar productivity growth through mechanization. During the same period, office-worker productivity rose a mere 4 percent.[2]

Today, the office is the most labor-intensive sector in our society, and labor costs have continued to go up at a rate of 7 percent annually during the latter part of the seventies and even higher during the early part of the eighties.[3]

[1] Harold Tepper, "The Private Secretary: A Company Liability," *Management Review*, February 1973.

[2] "Productivity and Information Management," Fortune, special advertising section, March 12, 1979.

[3] John Dykeman, "The Need to Automate. Greater Than Ever," *Modern Office Procedures*, April 1980, p 8

According to the Automatic Data Processing Reorganization Project, the information industry now accounts for more than half the Gross National Product (GNP). In 1955 this information industry was only a quarter of the GNP.[4]

The office work force now represents about 22 percent of the U.S. labor base, and the percentage is growing. The total white-collar work force accounts for about 53 percent of adult employment and more than 70 percent of the nation's salaries and wages. Both percentages are projected to increase dramatically in the years ahead.

The U.S. Bureau of Labor Statistics estimates that white-collar workers will account for 55 percent of the total employment by 1985, and some observers believe that the figure will rise to 90 percent by the end of the century.[5] The white-collar work force is broken into four categories: (1) managerial/administrative; (2) professional/technical; (3) sales; and (4) clerical. The clerical work force amounts to about 22 percent of the total.

Attrition contributes to increasing overhead costs because training new employees takes a long time. It also takes a long time for a trainee to become a fully productive and contributing employee. The U.S. Bureau of Labor Statistics reveals that the average employee turnover ranges from 19 percent to 28 percent annually.

While office employment and overhead costs have soared, prices of office hardware have decreased about 10 percent annually, bringing computers within the reach of the smallest businesses. It is estimated that the performance of computers has increased 10,000-fold in 15 years, while the price of each unit of performance has declined 1,000,000-fold since 1960.[6] It should be noted, however, that software costs are increasing because of the highly skilled labor necessary for development requirements.

The automation approach to increasing productivity has been aimed at the repetitive and routine tasks of office-support employees. However, functions such as sorting, compiling, accounting, filing, mailing, and billing are being taken over by microprocessors that handle both words and numbers efficiently and at less cost.

MAKING MANAGEMENT MORE PRODUCTIVE

Management has become aware of its own needs to become more productive. Too often management expends excessive effort and time on routine clerical tasks that could, with proper planning, be delegated to an office

[4] "Productivity and Information Management."

[5] "White Collar Productivity—The National Ch[illegible]e," *Philadelphia Inquirer*, February 7, 1983, p. 2.

[6] Howard Anderson, "Office '80s—The System[illegible]," *The New York Times*, special advertising section, October 1979.