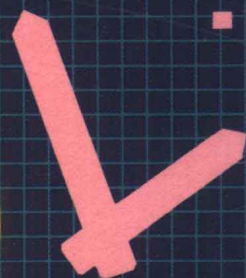


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FOR BUSINESS COMPUTING SMALL CONTRACTORS

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GARY GROUT

Business Computing For Small Contractors

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BUSINESS COMPUTING FOR SMALL CONTRACTORS

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INTRODUCTION

Using a computer in a construction business is a challenging endeavor. Although you may recognize the value of using a computer, you may be unfamiliar with hardware, program usage, and computer terminology. This can present quite an obstacle to construction managers who are inexperienced with computers. Assistance in installing the computer, setting up programs, and learning program operation is often insufficient through normal channels.

This book is designed to help you through the early stages of integrating a computer into your construction business. It introduces you to useful business applications, such as general ledger, payroll, and other accounting programs; it also explains how to install and use those programs and provides guidelines to help you evaluate your choice of programs. The book's goal is to provide a generalized view of program operation while avoiding complex explanations of program procedures that often confuse new users.

Use this book to preview program installation and operation when you are implementing a new business application. It covers the basic concepts you must know to operate accounting and other business programs; it will help you interpret program documentation and quickly learn program usage.

ASSUMPTIONS

This book assumes that you have already purchased a computer. You should already know the basic operation of the hardware and how to start the computer, copy files, and handle floppy diskettes. You should also have a basic knowledge of construction company operations, office practices, and bookkeeping. The mate-

rial in this book assumes that the majority of its readers operate residential construction companies; the book's discussions are focused on topics that pertain to this type of business.

SCOPE

This text discusses accounting software, business analysis, and special applications that may prove useful to a construction company. Because the computer provides the most benefit to a construction company in the area of accounting, general ledger, accounts receivable, accounts payable, payroll, and job-costing programs are covered in detail. Chapter 6 explains how to evaluate the financial health of your business based on the information you receive from your accounting software. Several special business applications that can benefit a construction company are also discussed. These include computer-aided design, project management software, database management programs, and electronic spreadsheets and word processors.

APPROACH

The chapters in this book may be read independently of each other. You do not have to read each chapter in sequence; simply refer to the chapters that cover the application you are interested in. Chapter 1 presents an overview of the computer programs covered in this book and discusses these programs in general. This chapter can prove useful when you examine the need for an application. Chapter 2, about the general ledger, presents enough basic accounting information to be of benefit if you need to brush up in that area. The other accounting chapters focus on specific aspects of using those programs and do not require you to read the preceding chapters. Chapter 9 presents ideas on how to use a computer in the construction business, as does the chapter on project management software, Chapter 7. Generally, you will find that specific applications are presented as follows:

- Overview of program usage
- Procedures used to install the software and provide initial information

- Routine program operations
- Examples of program reports
- Recommendations of practical ways to use the program.

As you become familiar with hardware and software, keep in mind that they are a means rather than an end. Your goal is not to become a data processor but rather to improve your ability to control and maintain your company and, ultimately, to make your business successful. This book and your computer are but tools for reaching that goal.

TABLE OF CONTENTS

	Introduction	xiii
CHAPTER 1	HOW A COMPUTER CAN HELP YOUR CONTRACTING BUSINESS	1
	Evaluating the Needs of Your Business	
	Previewing Major Business Applications	
	Using an Application Program	
	Computerizing a Small Business	
	Summary	
CHAPTER 2	THE GENERAL LEDGER AS THE CORE OF BUSINESS	23
	Basics of the General Ledger	
	How General Ledger Software Works	
	General Ledger Terminology	
	General Ledger Reports	
	Setting Up a General Ledger	
	Posting Transactions to the General Ledger	
	Routine Operation of the General Ledger	
	Performing a Trial Balance	
	Closing the Books	
	Security and Safety	
	Summary	
CHAPTER 3	ACCOUNTS RECEIVABLE: THE PROCESS THAT PAYS	55
	Overview of Accounts Receivable Operations	
	Initializing an A/R Program	
	Posting to Clients' Accounts	
	Maintaining an A/R Program	
	Accounts Receivable Reports	
	Month-End Procedures	
	Common Problems With Client Accounts	
	Summary	

CHAPTER 4	CONTROLLING THE PAYROLL	83
	Overview of the Payroll Program	
	Initializing a Payroll Program	
	Routine Payroll Operations	
	Closing the Period	
	Payroll Reports	
	Payroll Information Security	
	Practical Recommendations	
	Summary	
CHAPTER 5	ADVANTAGES OF AN AUTOMATED ACCOUNTS PAYABLE SYSTEM	109
	Overview of the Accounts Payable Program	
	Initializing Your Accounts Payable Program	
	Posting Invoices	
	Accounts Payable Reports	
	Reconciling Bills and Statements	
	Payment Approval	
	Check Writing	
	Special Features of the Accounts Payable Program	
	A Practical Application	
	Summary	
CHAPTER 6	THE COMPUTER AND MANAGERIAL CONTROL	141
	Making Decisions Based on Fact	
	Ratio Analysis	
	Breakeven Analysis	
	Spreadsheet Overview	
	Comparative-Period Analysis	
	Managing Your Accounts Receivable	
	Summary	
CHAPTER 7	PROJECT MANAGEMENT AS THE ART OF CONTRACTING	185
	Project Management Software Overview	
	Benefits of Using a Project Manager	
	Managing Information	
	Program Requirements	
	Basics of Operation	
	Task Preparation	
	PERT Charts and Gantt Charts	

	A Closer Look at the Task Form Project Management Reports Project Management Techniques Summary	
CHAPTER 8	JOB-COSTING IN A COMPETITIVE CLIMATE Job-Costing Overview Setting Up a Job-Costing Program Routine Operations Job-Costing Reports Practical Recommendations Summary	211
CHAPTER 9	SPECIAL PROBLEMS IN CONTRACTING Using a Desktop Manager for Small Tasks Producing Change-Order Documentation Drafting With Computer-aided Design Software Creating Bank Proposals Investor Presentations Bonding Creating Standard Forms Bidding a Job Standard Packages Marketing Summary	235
CHAPTER 10	DATABASE MANAGERS Overview of Database Managers Fundamentals of a Database Manager Controlling the Database Manager Designing a Database Spreadsheet Database Management Programs Applications for Database Managers Summary	269
APPENDIX A	GENERAL LEDGER CHART OF ACCOUNTS LIST	297
APPENDIX B	dBASE II COMMANDS File Creation Commands Addition of Data	301

Editing of Data
User Assistance Commands
Data-Displaying Commands
Positioning Commands
File-Manipulation Commands
Memory Variable Commands
Command-File Commands
Device-Controlling Commands

Index

309

CHAPTER 1

HOW A COMPUTER CAN HELP YOUR CONTRACTING BUSINESS

A computer *can* increase your income. But it can only do so indirectly — since you are a contractor, no one pays you money just to operate your business computer. Computers make money for a construction business by saving time and providing services that may not otherwise be available. When a computer does your accounting, for instance, it puts reports and information at your fingertips that you would usually have to wait until the end of the accounting period to receive from your accountant. A computer also does your accounting faster and usually more accurately than does a manual system. It allows you to devote your time to managing other areas of your business. That's not to say it will take no effort to operate and set up a computer, but the benefits you receive by integrating a computer into a construction business far outweigh the difficulties you might encounter as you learn to operate it.

In order to train and supervise your office staff, you, as the owner or manager of a construction company, should familiarize yourself with the operation of all your computer software. The degree to which you personally get involved with using the computer will vary with the size and abilities of your office staff. To make the most effective use of your time, however, you should delegate the routine operation of your accounting software (such as the general ledger or accounts

payable) to your secretary or bookkeeping staff. Word processing and other office uses of the computer (for example, maintaining an appointment calendar) should also be entrusted to your employees. You should learn to use the computer software that enhances your ability to manage the company. This includes

- Learning to use a spreadsheet program to analyze your business and to prepare construction project proposals.
- Creating and reviewing accounting reports that keep you up-to-date on your financial status.
- Working with the job-costing program to estimate new projects and to supervise ongoing work.
- Using project management software to schedule and keep track of work in progress.

One challenge often faced by a construction firm is discovering when it should and when it should not use the computer. You must evaluate the tasks assigned to the computer in terms of the time they save you and the information they provide. Ideal tasks for a computer to handle are those that are repetitive and time-consuming. Preparing your payroll and paying your bills are two such tasks that the computer can help you with, but there are also many others, specifically for the contracting business. Computers don't tire from performing duties repeatedly, and they can also organize, store, and process information with incredible speed.

Integrating a computer into your construction business requires that you evaluate the computer's capabilities to do the tasks you desire. Simply because a program exists to do a particular task does not automatically mean that your business may benefit by using it. Sometimes the installation and routine operation of a program can demand so much time that the computer actually consumes more time than it saves. If the computer doesn't save you time, and if the information it provides isn't critical to the operation of your business, don't use the program for its own sake.

When a computer is efficiently used, however, it can be the most valuable asset your company owns. This book is designed to help you evaluate, set up, and operate computer business applications, with emphasis on accounting programs. Accounting programs are one area in which the computer can effectively assist you in achieving new levels of success for your business.

This chapter explains how to evaluate computer applications in relation to your business operation. It discusses the capabilities of the computer and the areas

of your business in which the computer might provide a benefit. The chapter also introduces programs that can provide a service to your business. You'll learn about accounting programs, spreadsheets, word processors, project managers, and other programs in order to prepare you for a detailed coverage in the later chapters of the book. The chapter ends with recommendations on choosing software and operating your computer.

EVALUATING THE NEEDS OF YOUR BUSINESS

It's easy for a construction manager to be overenthusiastic, at first, about the capabilities of a computer. By focusing on its speed and ability to handle large quantities of information, a manager might be led to think that he or she can calculate the price of a construction project right down to the last nail. Because extremely accurate cost estimates can make a construction company more competitive, it's easy to overemphasize the value of that information and to ignore what is really necessary: to count all the nails that go into building a project, enter that information into the computer, and instruct the computer to analyze it in a meaningful way. It's true that the computer can accurately calculate building expenses, but the value of such accuracy may not be worth the time it takes if you have to spend hours inventorying all the components of a building project.

What we would like to present is a brief guideline that you can use as criteria for evaluating an application. Here's what a computer does best:

- *Stores and retrieves information*
- *Accurately processes mathematical calculations*
- *Works independently*
- *Performs complex procedures*
- *Provides reports about the status of the information it handles.*

In conjunction with a computer's capabilities are the requirements for what you have to do to operate and maintain it. You must

- *Learn computer usage*
- *Learn program usage*
- *Enter data*

4 BUSINESS COMPUTING FOR SMALL CONTRACTORS

- Troubleshoot errors
- Maintain files and disks.

To determine the value of a computer application for your business, you can categorize the job requirements of your business into the areas of accounting, administration, and special applications. Here's what your list might look like:

Accounting	Administration	Special Applications
General ledger	Personnel management	Cost estimates
Payroll	Bank proposals	Material takeoff
Accounts receivable	Client contracts	Computer-aided design
Accounts payable	Financial analysis	
Job-costing	Project management	
	Marketing	
	Bonding	
	Change orders	

Review the tasks you might wish to computerize. Can a computer handle them for you? For example, if you were thinking about using a computer to do cost estimates, the evaluation might proceed like this:

- Does producing cost estimates require the storage and retrieval of information?
- Are mathematical calculations of significance?
- Can the computer perform this task while I do other jobs?
- How complex are the procedures needed to create a cost estimate?
- Do the reports the program provides suit my business?

When you have determined whether the computer can handle this application, examine what you need to do to use it:

- How much background information is needed to learn program usage?
- How difficult is the program to set up?
- How much data entry is involved?
- Are errors easily tracked down and corrected?
- How much routine program maintenance must be done?

Look closely at the amount of work required for data entry and for routine operations. First consider how much labor is required to set up and operate the

program normally. Then compare the routine labor you must supply to operate an application manually to the amount you must use to operate a program. Also determine whether the information the computer processes requires you to update it frequently. The need to change computer information regularly can necessitate a significant labor expense.

Finally, examine the benefits the application provides. Determine if the application cuts your labor expense by doing a task faster and more efficiently than before. See if the financial control of your business is increased by the availability of up-to-date and accurate information. Especially in the area of accounting, the computer can provide information that extends your ability to manage your company. By providing quick access to your balance sheet and income statement, along with the tools to analyze these business documents financially, the computer can let you manage your business in a more sophisticated manner than you currently might achieve.

PREVIEWING MAJOR BUSINESS APPLICATIONS

The major applications your construction company may be able to take advantage of fall into the following general areas:

- Accounting
- Spreadsheets
- Word processing
- Project management
- Computer-aided design
- Database management.

Let's briefly examine each of these types of programs to introduce their major features and benefits.

Accounting Programs

The greatest benefit of integrating a computer into your construction company comes from using accounting software. The applications you should consider using are the general ledger, payroll, accounts payable, job-costing, and accounts

receivable. In later chapters, each of the accounting programs will be discussed in detail. Here's a quick description of these accounting programs and some of the features that are common to most of them.

General Ledger

The general ledger is the primary computer business application you should consider operating. It keeps track of all your ledger accounts and provides reports on their status and the profitability of your company. You can use this program to help you analyze and manage your business, as well as to document your activities for the IRS and other government agencies.

To operate a general ledger program, you basically type in accounting entries. The program takes this information and distributes it to the proper ledger account. During normal processing, you print reports that show the accounting entries you made, edit your accounting entries if errors arise, and perform period-end operations that close the books. In addition, you usually print such reports as the balance sheet and income statement, which show how your company is doing.

Accounts Receivable

If you bill a substantial number of clients each month, an accounts receivable program may benefit your company. You will want to evaluate carefully the need for this application, because many builders carry only a few client accounts at any one time.

An accounts receivable program keeps track of the expenses that are to be billed to your clients. You log the expenses against your client's accounts; the program provides billing statements and reports that show the status of your accounts receivable.

Payroll

A payroll program prepares your employees' checks and records the information you need for keeping track of the withholding amounts you are accountable for. A payroll program can easily pay for itself through the time it saves during routine operation. The amount of information that you are required to supply is small, while the amount of processing the payroll program does is substantial.

The routine operation of a payroll program requires that you provide information such as the number of hours an employee worked. The program then takes over and calculates the withholding of federal income tax, social security, workers'

compensation, state income tax, and voluntary deductions, just to name a few deductions. Because a payroll program does so much work and must be flexible enough to handle the payroll in any of the states of the Union, it is complex to operate and to set up. But once you initialize payroll information and learn the program's operation, the payroll program provides you with employee checks, W-2 forms, and reports to help you fill out your quarterly estimated income tax and other managerial reports.

Accounts Payable

An accounts payable program keeps track of the bills you owe your creditors. It prints checks and helps you manage your bills to take advantage of credit terms offered. This can be a valuable business application because of the high volume of purchasing you must do.

To operate an accounts payable program, you enter the bills you receive from your creditors into the computer. The accounts payable program then keeps track of them, provides reports about cash needs, and prints checks to the vendors for which you have approved payment. An accounts payable program can streamline the amount of paperwork your bookkeeper must do at the end of the month to pay the bills, and it can help you fine-tune your cash flow.

Job-Costing

Job-costing software allows you to keep track of, and to separately identify, the accounting of your individual building projects. It lets you break down your labor, material, and other expenses for each job you are doing. It is used to bill clients, to budget projects, and to provide managerial information for controlling job expenses.

Job-costing software is often run in conjunction with other accounting software like payroll and accounts payable. These other programs feed job-expense information into the job-costing program. It then provides reports about the status of the jobs currently under construction. Although most job-costing information is based on past transactions, job-costing programs usually offer some form of a budget or estimating facility to predict the expense of future jobs.

Integrated Accounting Packages

Many software companies offer integrated accounting programs. Integrated software allows programs like the general ledger and payroll to share accounting