

1948

Mastering

Symphony™

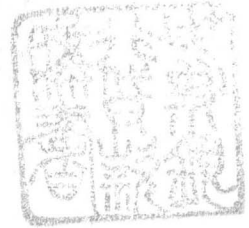


David Bolocan

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Mastering Symphony™

David Bolocan



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TAB BOOKS Inc.

Blue Ridge Summit, PA 17214

Also by the Author from TAB BOOKS Inc.

No. 1748 *LOTUS 1-2-3™ Simplified*

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FIRST EDITION

SECOND PRINTING

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Library of Congress Cataloging in Publication Data

Bolocan, David.
Mastering Symphony.

Includes index.

1. Symphony (Computer program) I. Title.
HF5548.4.S95B65 1985 001.64'25 84-26724
ISBN 0-8306-0948-2
ISBN 0-8306-1948-8 (pbk.)

Cover illustration by Larry Selman.

Preface

Mastering Symphony™ is a tutorial designed to replace the Lotus™ Symphony electronic disk tutorial and the Symphony manuals. *Mastering Symphony* will teach you how to exploit the amazing powers of Symphony in a simple, straightforward, no-nonsense method. The book starts with the most basic computer topics, including turning on the power and loading the disk operating system. Later chapters explain how to run Symphony, build a spreadsheet, print the spreadsheet, and save it. The final chapters dip into some of the hidden powers of Symphony, including macros and windows. I believe it is important to understand the basics.

Each topic is explained thoroughly and deliberately. The book includes many examples, which further illustrate the Symphony commands and functions. If you are using the book as a reference source, you may skim the examples. If you are using the book as a tutorial, follow through the ex-

amples, and then experiment on your own with Symphony.

The book lets you study the Symphony environment of greatest interest to you, whether it be word processing, spreadsheets, databases, graphics, or telecommunications. You may completely ignore sections outside your interest. If you want to learn the word-processing package, read that section first. If you want to learn the telecommunications package, read the communications section first. To use the graphics environment or the database environment, however, you must be proficient in your use of the Symphony spreadsheet. Thus, it is best to read the chapters on the spreadsheet environment before attempting other sections.

Mastering Symphony represents an excellent means to learn how to use Symphony at your own pace. After finishing the text, you will be a Symphony grand master.

A Note to Lotus 1-2-3™ Users

Users of 1-2-3 will find many similarities between it and Symphony. In particular, the spreadsheet, graphics, and database commands are similar in function but different in name. Thus, the Worksheet Global Format command in 1-2-3 is the Settings Format command in Symphony. Some commands, such as the Copy and Move commands, are identical in each program.

Experienced 1-2-3 users will be able to skim the spreadsheet and graphics sections. 1-2-3 users will get the most benefit from reading sections covering word processing, telecommunications, file operations and printing, the first five chapters of the database section, and the chapter on window operations. These

sections comprise 50 percent of the book and make *Mastering Symphony* a worthwhile investment for spreadsheet novices and 1-2-3 users alike.

Most 1-2-3 spreadsheet files can be used by Symphony. The filename of a 1-2-3 file must be changed to translate the file into a Symphony spreadsheet file. 1-2-3 places the ending .WKS on all spreadsheet files. The ending should be changed to .WRK for Symphony's use. Use the DOS rename command to make the change. While in the same directory as the 1-2-3 file, type:

RENAME filename.WKS filename.WRK

to translate the file.

Introduction

Symphony is a revolutionary integrated software package capable of performing a multitude of tasks. Symphony handles spreadsheets, databases, word processing, business graphics, and telecommunications, all at electronically fast speeds.

In addition, Symphony also offers an avalanche of features that facilitate these basic tasks. These options include: windowing to organize the display of data, programming with macros, an electronic online help file, utilities to transfer data between Symphony and other software packages, and a range of disk operating system commands.

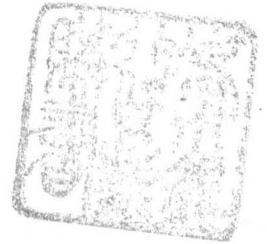
Symphony runs on a number of different computers, including the IBM PC, PC/XT, PC-AT, IBM

PC portable, and many IBM-compatible computers. Symphony will also be adapted to run on additional computers in the future. Symphony supports a number of different computer peripherals.

Symphony is an immense and complex program. Even using the electronic tutorial is a lengthy procedure that will prove difficult for those who are not computer consultants. The aim of this book is to demystify the Symphony program. This book starts at an elementary level, examining the different parts of the computer. The book then teaches you how to install and use the Symphony program.

Special Keys, such as <Return> and {Down}, appear in brackets or braces.

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Contents

Preface	v
Note to 1-2-3 Users	vi
Introduction	vii
1 101 Uses for Symphony	1
2 Symphony System Requirements	6
3 The Keyboard and Loading the Disk Operating System	14
4 Installing Symphony	22
5 Entering Symphony	25
6 Saving and Retrieving Files	30
7 Labels, Values, and Formulas	35
8 Essential Spreadsheet Commands	43
9 Adding Aesthetic Appeal to Your Worksheet	55
10 Rows and Columns	62
11 Manipulating Large Worksheets	69
12 Constructing a Time Card	85

13	Accounts Receivable and the Date Function	89
14	Advanced Functions for Statisticians, Mathematicians, and the Curious	94
15	The Lookup Function	95
16	Creating a Printout	102
17	Advanced Printing Techniques	109
18	Entering a Document	114
19	Working with Blocks of Text	124
20	The {CENTER}, <Insert>, and {COMPOSE} Keys	135
21	Format Lines	140
22	Searching and Replacing	148
23	Creating a Database Form	155
24	Adding, Deleting, Editing, and Sorting Records	161
25	Searching a Database	165
26	Changing the Database Parameters	170
27	Working with Numeric Fields	174
28	The Spreadsheet Data Commands	177
29	Advanced Data Commands	185
30	Creating Graphs with Symphony	197
31	Printing Symphony Graphs	208
32	Getting Started with Telecommunications	216
33	Sending and Receiving Data	222
34	Programming with Macros	226
35	Windows	235
	Glossary	240
	Index	244

Chapter 1

101 Uses for Symphony

Symphony performs five separate tasks: word processing, spreadsheet calculations, database management, business graphics, and telecommunications. These different tasks are integrated via Symphony's electronic spreadsheet.

SPREADSHEETS

Lotus Symphony was designed around a spreadsheet. Normally, a spreadsheet is employed to keep track of figures. Some functions performed by spreadsheets are: analyzing budgets, keeping track of stocks, handling accounting, and building timesheets to calculate employee paychecks.

Shown in Fig. 1-1 is one of the many possible spreadsheets you could set up with Lotus Symphony. In this worksheet, each row represents the total expenses of a month. Each row is in turn broken down into individual categories, such as rent, wages, phone bills, supplies, and gas and light costs. The spreadsheet enables you to conveniently arrange these numbers on a table. It is very easy to compute and compare figures when they are neatly organized in columns and rows.

Spreadsheets have become very popular in business because of their usefulness. In particular,

electronic worksheets have been recognized to be very serviceable due to their tremendous advantages over paper spreadsheets. The new spreadsheets are easier to set up, more accurate than their paper ancestors, and far more flexible. One of the foremost and most powerful of these computer spreadsheets is incorporated in Lotus Symphony.

When using Lotus Symphony, you may change or add figures in various locations in the spreadsheet and immediately determine the effects. This instant feedback is possible because Lotus Symphony automatically updates all information in the spreadsheet based on the changes made. For example, a change in the prices of raw materials in a spreadsheet would be reflected elsewhere in such items as total cost, product cost, and profit margins. In Lotus these modifications are made almost instantaneously throughout the spreadsheet, sparing you the long and tedious process of calculating the changes.

BUSINESS GRAPHICS

Symphony may be used to construct beautiful eye-catching graphs. In fact, designing graphs is Lotus Symphony's forte. These graphs may have titles, different colors, or be scaled, and come in either

AIRLINE RIDERSHIP -- NEW YORK REGION HUB
millions of passenger miles

	1983	1984	pass. miles	Increase In	
				%	% of total
Atlanta	30,178	31,876	1,698	5.627%	24.985%
Boston	8,902	9,785	883	9.919%	12.993%
Chicago	39,789	41,008	1,219	3.064%	17.937%
Dallas	15,284	16,481	1,197	7.832%	17.613%
Detroit	7,348	6,957	(391)	-5.321%	-5.753%
St Louis	6,050	6,783	733	12.116%	10.786%
Washington	16,780	18,237	1,457	8.683%	21.439%
Totals	124,331	131,127	6,796	5.466%	100.000%
Average	17,762	18,732	971	5.466%	14.286%

Fig. 1-1. An example of a spreadsheet used to handle accounts for a small business.

line, bar, XY, high-low, or pie chart form. Furthermore, if a paper copy is desired, you may achieve amazing resolution by printing these graphs with a dot matrix printer.

Lotus Symphony is also adept with figures; graphs are a fantastic way to visually represent the relationship between groups of numbers. One glance at a graph designed by Lotus Symphony will convince even the competition of the sophisticated nature of Symphony. Figure 1-2 is a graph constructed by Lotus Symphony.

DATABASE MANAGEMENT

Lotus Symphony may also be used as a database management system, which enables you to quickly search through large volumes of data for important information. Lotus Symphony was not designed specifically as a data management program; however, it competently handles light data management jobs (Fig. 1-3).

There are many applications possible for the Lotus Symphony data management system; it can be employed as an element in an accounting spreadsheet, an inventory system, or a card catalogue. If you wish to know which clients had not paid their bills in the last three months, Symphony can sift through your accounting spreadsheet to find them. Likewise, if you need to know which stocks and materials the company is running low on, you can get a printout of the stock numbers and the distributors of the goods that are in short supply.

A minor limitation of the Lotus Symphony data management system is its limited capacity. Lotus Symphony cannot handle large volumes of records because its capacity is limited to the amount of RAM available on your computer. Thus, Lotus databases are usually limited to a few thousand records.

Nevertheless, you will definitely be interested in using the database functions with Lotus Symphony's spreadsheets. These properties, although impractical for complicated data management applications, greatly enhance the power of Lotus Symphony when used in conjunction with spreadsheets.

WORD PROCESSING

A large portion of Symphony is devoted to its word processing program. What is the word processing program and for what is it useful? To answer this question you must look at the fundamental difference between word processors and other tools for producing documents (Fig 1-4).

Both word processors and typewriters are used to write letters, memos, papers, and other documents. Furthermore, both machines utilize a keyboard to enter text. The surface similarities between typewriters and word processors end there, however. A typewriter records information on sheets of paper, while a word processor records information in the memory of a computer. From this subtle difference evolves all the advantages of word processors.

Typewriters are useful for writing short documents. They are simple, easy to use, and direct. When simply

dashing off a memo, filling a form, or typing an address on an envelope, it would be drastic overkill for you to use Symphony's word processing feature. While typewriters may be more efficient with small writing jobs, however, word processors possess many significant advantages when writing longer documents.

First, since word processors store information in an electronic memory, you can edit your writing with incredible ease. With a word processor, you can dump the correction fluid, forget about the half-space key, and put away your pencil and ruler. Instead of leaving drops of white liquid all over a document, you can cleanly erase any typographical errors from memory. The computer will automatically fill in the space formerly occupied by the error with new text.

Similarly, you no longer need to retype a document to make space to insert text. Instead, you can simply type in the new text wherever you wish.

The computer will then automatically make room for the incoming text. Word processors will copy, move, format, and replace text at the push of a few keys. After the document has been edited, the document may be printed with a printer.

The Symphony word processor is not as powerful as some of the new generation of word processors sold for the IBM PC. Symphony's word processor, for instance, does not possess Microsoft Word's abilities to perform on-screen character formatting and employ style sheets. This is not to say, however, that Symphony is not a competent word processor in its own right.

Symphony does supply all the fundamental and many advanced word processing functions which you will come to love. Symphony even offers many very useful features which are not contained in the popular IBM Displaywriter software. One such feature is the ability to move through the text one word at a time.

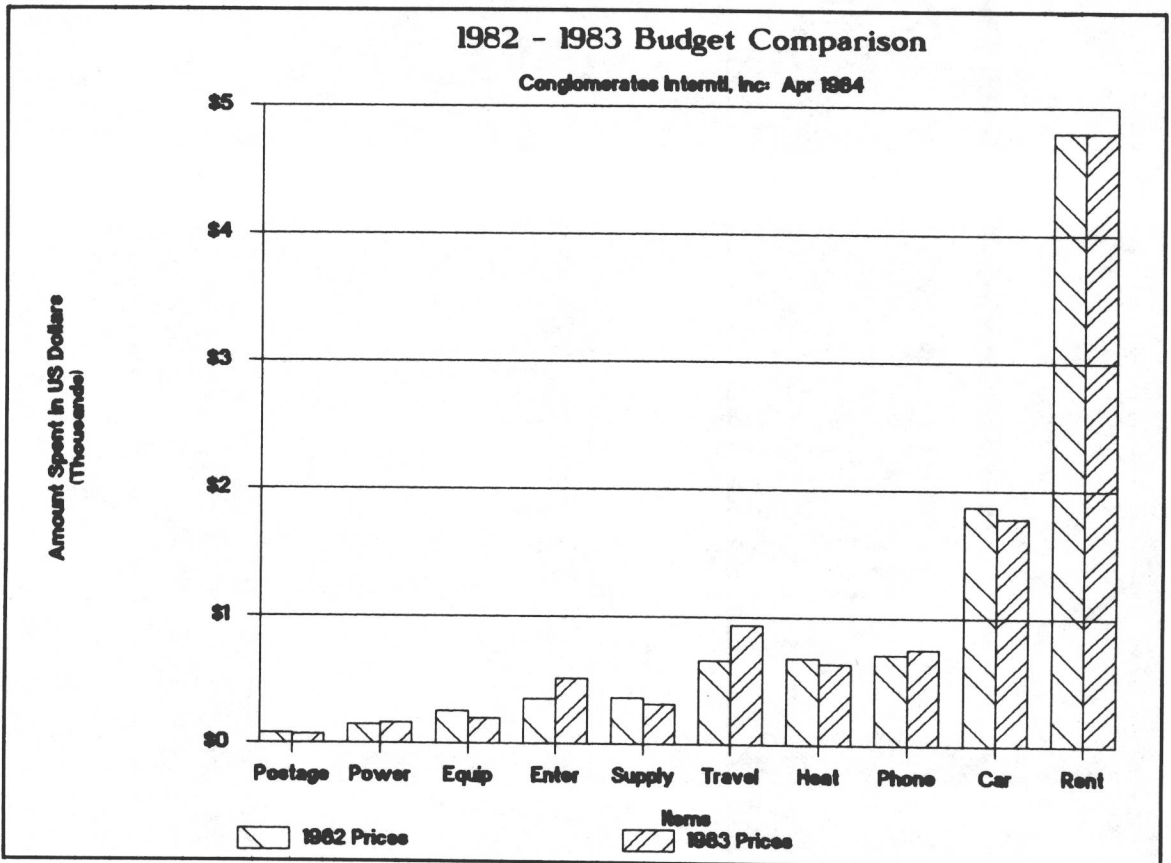


Fig. 1-2. A bar graph created with the Symphony graphics package.

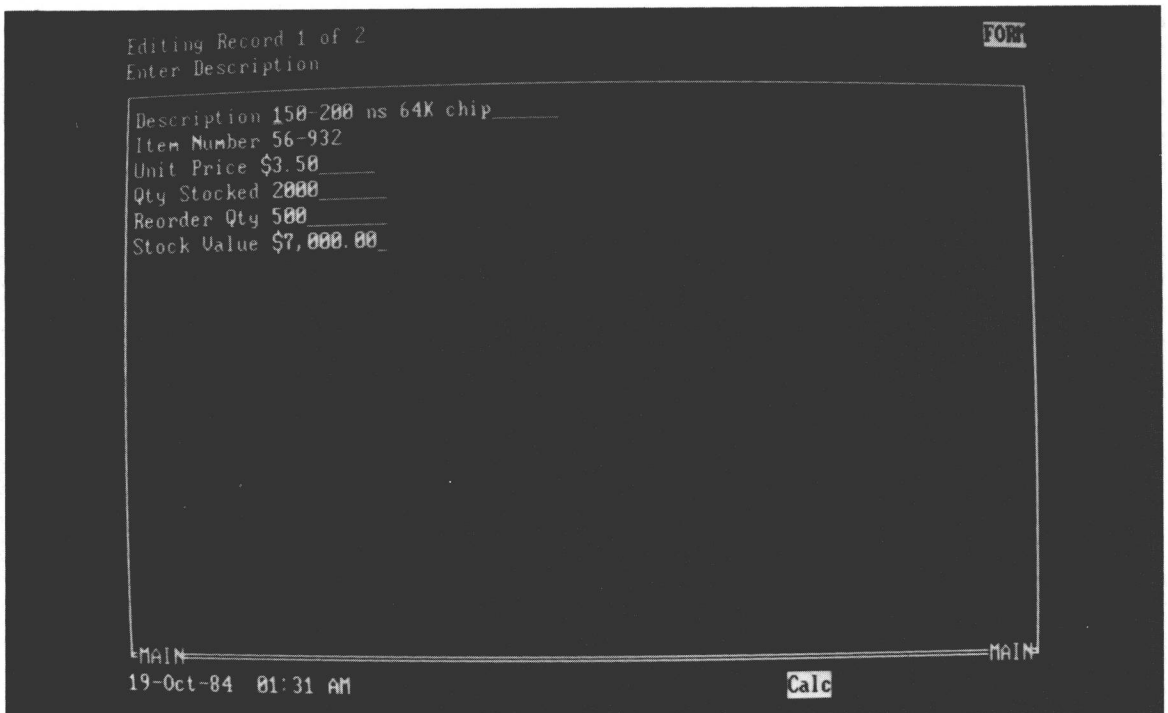


Fig. 1-3. The FORM environment is used to enter and edit records in a database.

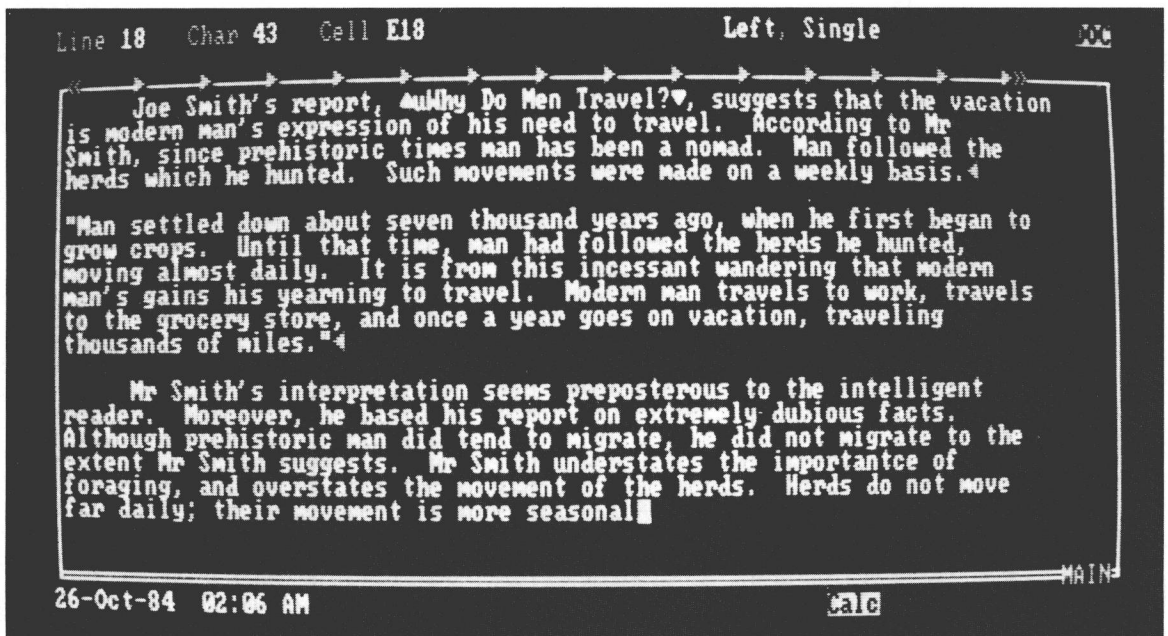


Fig. 1-4. Editing a document with Symphony's word processor.

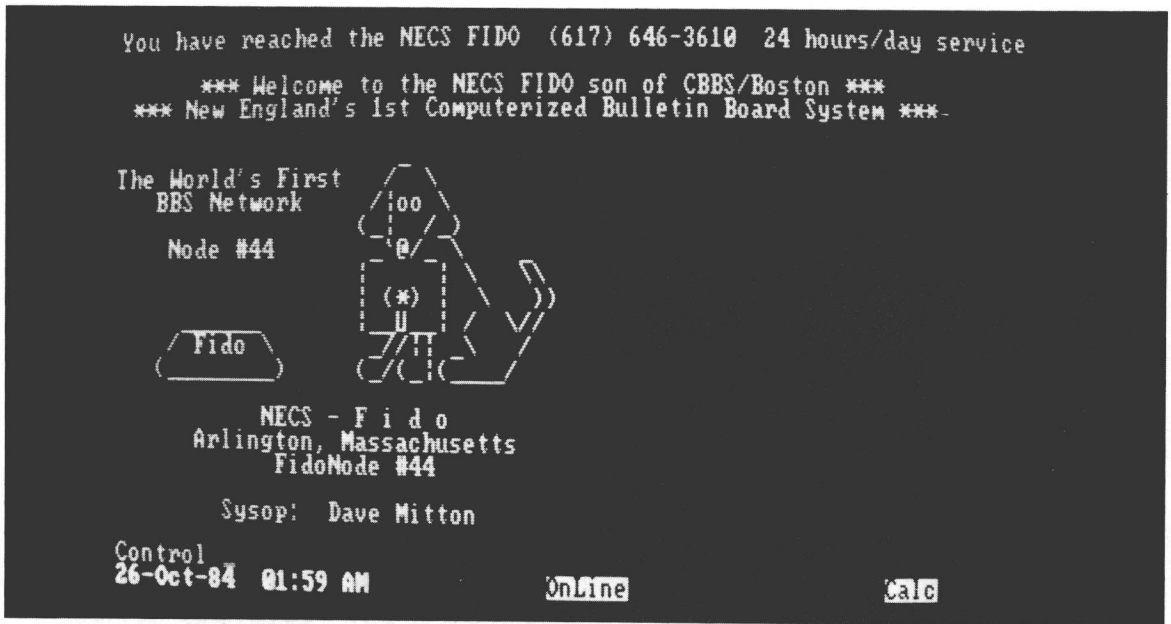


Fig. 1-5. The opening screen of an electronic bulletin board system. Messages can be sent to and received from hundreds of different computers via Symphony's telecommunications package.

Furthermore, the Symphony word processor is much faster at printing and formatting documents than the IBM Displaywriter software.

The major attraction of Symphony's word processor is that it is part of an integrated package. The same commands used to erase text, print documents, and store files by the word processor are also used by the spreadsheet and all other Symphony programs. Thus, Symphony's word processor is easier to learn and use than word processors not part of an integrated package. Furthermore, you will find it simple to integrate the documents, spreadsheets, graphs, and database in the Symphony environment.

TELECOMMUNICATIONS

Modems are devices which allow computers to transmit data over telephone lines. Symphony includes a telecommunications package that allows the use of a modem with Symphony. This package may be used to dial the modem or answer incoming calls. Information received via the modem may be dumped onto the Symphony spreadsheet. The information may then be utilized by Symphony in many fashions. See Fig 1-5.

The telecommunications package in Lotus Symphony requires a Hayes, Hayes-compatible or Popcom X-100 modem. Unfortunately, the tele-

communications package cannot be used without a modem; if your system lacks a modem, the remainder of the Symphony package will be unaffected.

One use of the Symphony telecommunications package is to allow you to link up with different central databases. For instance, you may link up to the Dow Jones News/Retrieval service and get the latest stock prices, send a mailgram through MCI's electronic mail service, get the latest airline schedules from THE SOURCE, link up and use distant mainframe computers, send an article to be typeset in Virginia, or even perform your banking at home.

Modems are not needed by everyone. Such services as THE SOURCE and Dow Jones News/Retrieval are expensive to use. Not only does THE SOURCE currently cost \$15 an hour (\$7 between 12 A.M. and 7 A.M.), depending on your location, you may have to pay long-distance phone charges. These services may be necessary and are fun to use, but they may be highly expensive.

Using a modem is not easy. Plugging in a modem requires you to learn to use additional equipment. In addition, some systems may be difficult to connect to because of the different communications parameters being used. You can only send information to other computer users who have compatible equipment and who know how to use their modems well.

Chapter 2

Symphony System Requirements

Software is machine specific. Lotus Symphony will not run on just any computer. Lotus Symphony requires a powerful computer that is compatible with the software package. You should, therefore, verify that your system contains the proper components to run Symphony. If your system lacks some of these essential components you can obtain them from your local computer dealer.

Even if your computer meets Symphony's minimum requirements, you may wish to purchase additional equipment which may increase your productivity. For instance, obtaining a hard disk drive would allow Symphony to load and save files faster and with more ease than is possible with a floppy disk.

COMPATIBLE COMPUTERS

Symphony was originally written for the IBM PC family. Symphony will run on an IBM Personal Computer (PC), an IBM PC/XT, an IBM PC-AT, an IBM portable, or an enhanced IBM PCjr (Fig. 2-1).

In addition, many IBM-compatible computers will run Symphony. The COMPAQ® and COMPAQ PLUS™ both run Symphony. You should, however, check with your dealer to see whether Symphony is compatible with your non-IBM computer before

purchasing the Symphony package. Most computer dealers will not give refunds on software purchases.

Lotus 1-2-3, the predecessor to Lotus Symphony, was also originally developed for the IBM PC. As the package became popular, however, Lotus adapted the 1-2-3 so that it would run on many other non-IBM computers as well.

At this time, Lotus 1-2-3 runs on the following computers: the IBM PC family, including the IBM 3270-PC; the COMPAQ® and COMPAQ PLUS™; the Bytec Hyperion; the DEC Rainbow 100 and 100+; the DunsPlus®; the Grid Compass; the Hewlett Packard 110 and 150; the Texas Instruments Professional Computer™; the Victor 9000™; the Wang Professional; the Zenith Data Systems Z-100™; the Convergent NGEN; and the Tandy TRS-80® Model 2000. Considering the present popularity of Symphony, it is reasonable to assume that Lotus may also modify it to run on many other non-IBM machines as well.

RANDOM ACCESS MEMORY

Symphony requires a minimum of 320K of Random Access Memory (RAM). Contrary to what you may expect, additional RAM will not increase the speed of Symphony; however, additional RAM does

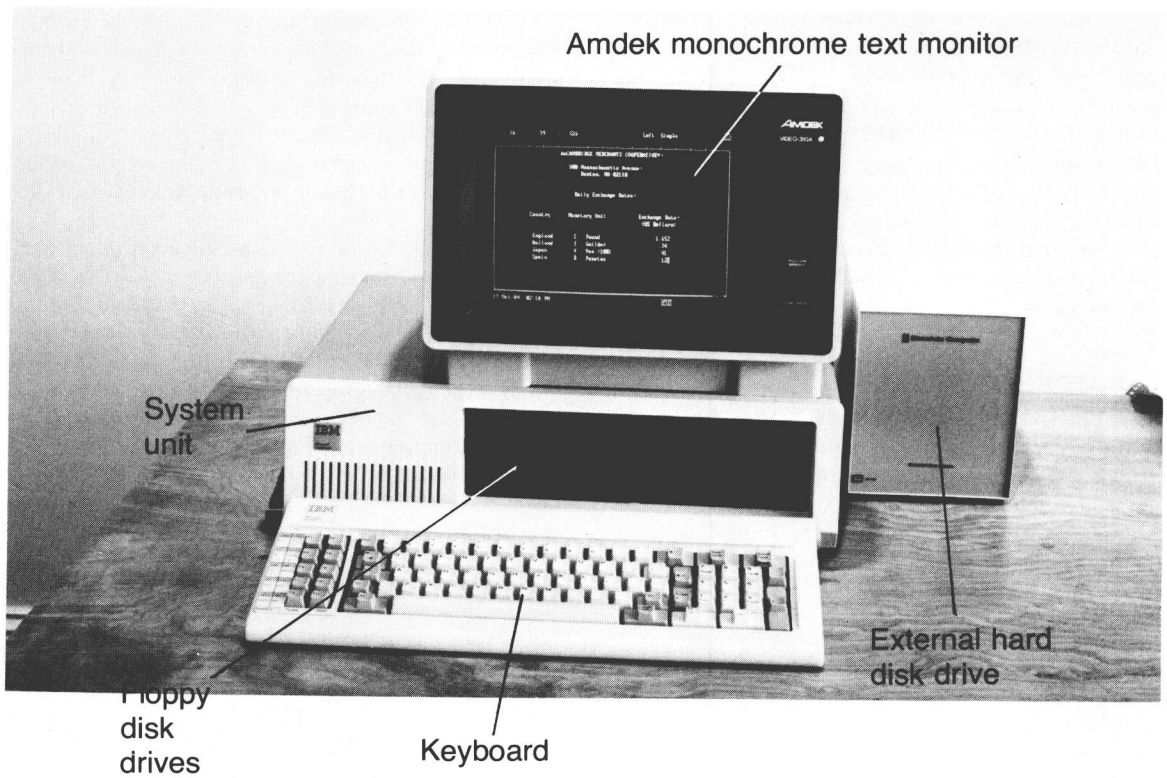


Fig. 2-1. The author's computer system. The system includes an IBM PC with 512K RAM and a Mountain Computer external 10-megabyte hard disk drive.

increase the amount of data that may be manipulated at any one time. If your spreadsheets are very large, you may need to purchase more than 320K of RAM.

The first-version IBM PCs fit 64K RAM on the motherboard. The second-version IBM PCs and all IBM PC-XTs can fit a maximum of 256K RAM on the motherboard. An expansion card must be purchased to raise the amount of RAM in the computer to 320K. The maximum amount of RAM accessible in the IBM PC computers is 640K. There is no need for more RAM, since Symphony cannot benefit from having more than 640K.

The second-version IBM PCs and all IBM PC/XTs contain sockets for up to 256K of RAM. You must fill any empty sockets with RAM chips. RAM chips may be currently purchased for about \$30 per 64K. If the RAM chips are purchased separately, you must install them yourself. It is easy to install the chips, but you must be careful to place the notches at

the end of the chip in the correct direction. Consult an expert before performing the installation.

After the sockets are filled, you will need to purchase a RAM expansion card or a multi-function card to increase the amount of RAM in the computer to 320K. A RAM expansion card will provide extra sockets to insert RAM chips. These sockets are usually filled by the manufacturer of the expansion card. A typical RAM expansion card comes with 256K RAM. Thus, if your system has 64K RAM installed on the motherboard, a RAM expansion card will raise your system to 320K of RAM. If your system has 256K RAM, a RAM expansion card will raise your system to 512K RAM (Fig. 2-2).

A multi-function card, like a RAM expansion card, enables you to increase the amount of RAM in your computer. In addition, a multi-function card can add other capabilities to your computer. For a nominal fee, you can add a battery clock/calendar to your

multi-function card. The battery clock/calendar will automatically enter the date and time in your computer when you turn it on. You can also add a printer port and a serial port to your computer with a multi-function card for about \$40 each. You will probably find a multi-function card a wise investment.

There are many companies that produce reliable expansion cards. The main difference between expansion cards by different companies is the software which comes with the cards. Both Tecmar and AST include good software free of charge with their expansion cards.

MONITOR REQUIREMENTS

The IBM PC and IBM PC/XT are almost always connected to an 80-column monitor. In rare cases, the PC or PC/XT may be connected, via an RF modulator, to a television set. The PCjr, however, has been connected to television sets in national advertisements. Thus, a significant number of PCjrs may be connected to television sets.

Lotus Symphony functions optimally with an 80-column monitor, but a television set will also serve. Unfortunately, the resolution of a television set is quite poor; a monitor will cause you substantially less eyestrain. If you are using a television and plan to use the computer several hours a day, you should purchase a monitor and monitor adapter card for your computer system (Fig. 2-3).

Symphony functions with either a monochrome (text only) monitor or a graphics monitor. Both types of monitors have advantages and disadvantages. A monochrome text monitor costs about twice as much as a monochrome graphics monitor and about half as much as a color graphics monitor. In addition, a monochrome text monitor has greater resolution than a graphics monitor. The IBM monochrome text monitor uses a 9×14 -pixel (dot) arrangement to form characters, while a graphics monitor uses an 8×8 -pixel arrangement to form characters (Fig. 2-4).

The monochrome text monitor cannot draw graphs unless it is used with a Hercules graphics card.

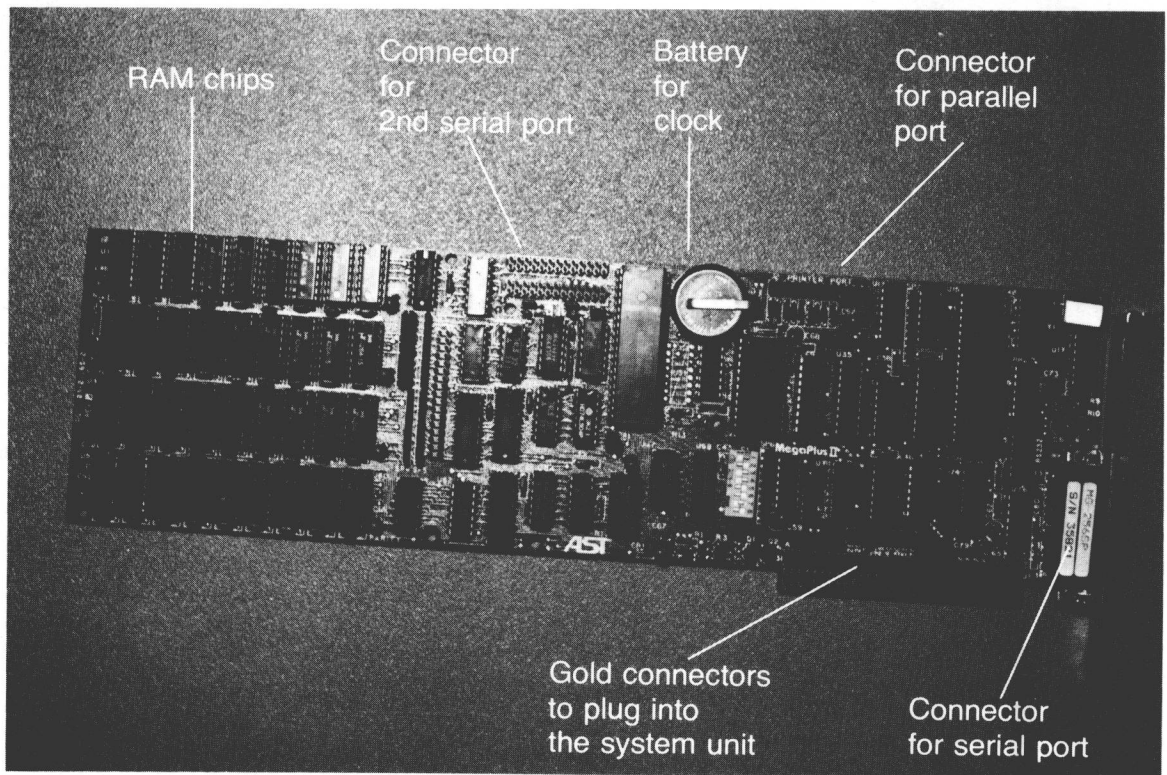


Fig. 2-2. An AST Megaplus multi-function card. The card contains 256K RAM, two RS-232 serial ports, a parallel port, and a clock/calendar.

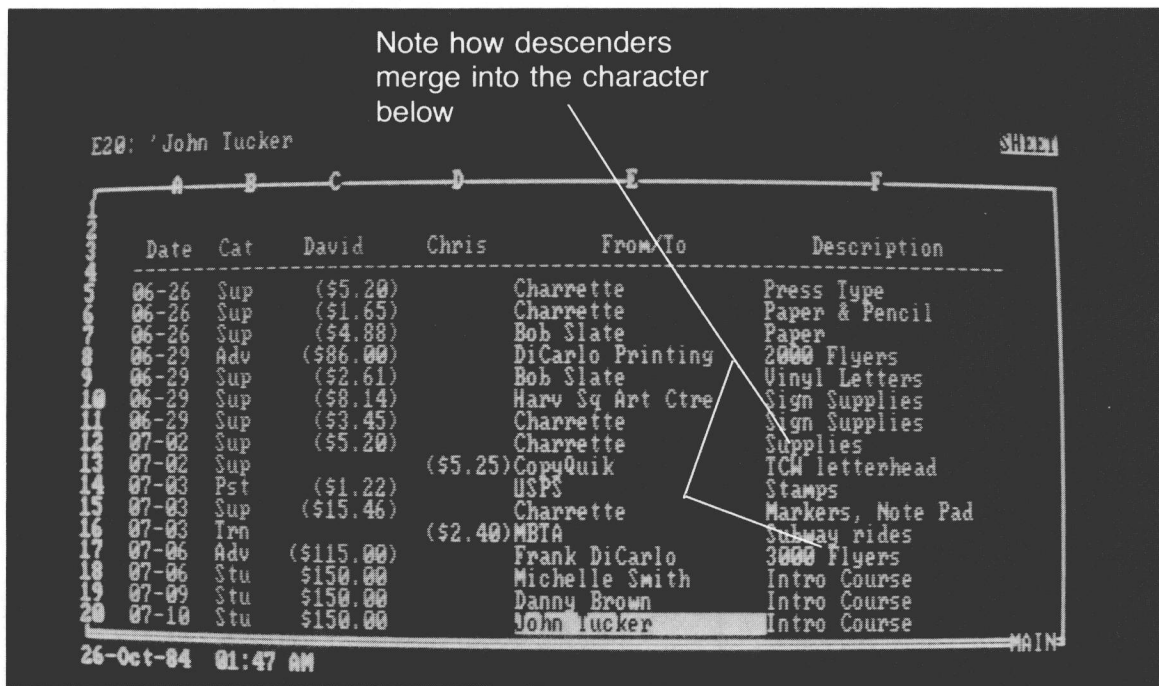


Fig. 2-3. The Amdek 300A graphics monitor. Compare the character resolution of this monitor with the one in Fig. 2-4.

With a monochrome text monitor without the Hercules graphics card, you will not be able to employ Symphony's on-screen graphics capabilities. Thus, the monochrome text monitor offers a trade-off between greater clarity and reduced capabilities.

ADDITIONAL REQUIREMENTS

In addition to Lotus Symphony, you will need the IBM PC Disk Operating System (also called PC DOS, Microsoft DOS, or MS DOS). The DOS is normally sold with the computer system. There are a number of different versions of DOS; Symphony can be run on versions 2.0 and 2.1. Later versions of DOS should also run Symphony. You are recommended to have at least seven blank disks available for storing your documents and making backup copies of the Symphony disks.

According to the Lotus Development Corporation, Symphony requires two disk drives. Symphony runs well either with a hard disk drive and one (or more) double-sided disk drives, or with two double-sided disk drives. Symphony can be run on a system with a single double-sided disk drive; however, users of a single disk drive will have to spend an inordinate amount of time changing disks.

If your system has a single double-sided disk drive, or if you do not own any double-sided disk drives, you must upgrade your system by purchasing one. Double-sided disk drives cost about \$220 each. Several manufacturers make disk drives. They are relatively easy to install; however, if you have never opened your computer before, you may wish to hire someone to install the disk drive for you. It takes about 20 minutes to install one.

PRINTER REQUIREMENTS

A computer system does not need a printer to run Symphony; however, a printer is needed to produce a printed copy of your work, called *hardcopy*. Symphony supports a number of printers, including the most popular printers on the market today. Moreover, Lotus is adding printer drivers to Symphony for a banyard of new printers.

Dot Matrix Printers, Letter-Quality Printers, and Pen Plotters

There are three types of printers available: letter-quality printers, dot matrix printers, and pen plotters. A dot matrix printer uses an array of dots to create