The Library

IBM Personal Computer Software

Volume III

Welcome to The Library

The Library is your guide to IBM software. Within these pages, you'll find more than 175 programs—including 102 new and upgraded programs—now available from IBM to meet many of your computing needs. Some help you run your business or professional office. Others offer self-paced tutorials and lessons. Still others turn your personal computer into a family entertainment center.

To make it easy to find the software that best suits your needs, programs in *The Library* are organized into nine families:

Productivity—to help make you more efficient in planning, budgeting, analyzing, organizing and corresponding.

Office Systems—to enable you to use advanced word processing, telephone and speech operations.

Business—to perform your routine accounting tasks automatically and more efficiently.

Programming—to support applications software and enhance your programming skills.

Engineering/Scientific—to provide graphics applications and control many production operations from your personal computer.

Communications—to exchange data with other computers and subscription information services.

Education—to encourage self-study in math, science, language arts and computer programming.

Lifestyle—to help you organize your finances, plan your household budget, prepare tax forms, and more.

Entertainment—to provide challenging, interactive games your family and friends can enjoy.

Selecting your software

Descriptions of the programs in these software families cover key features and explain what the programs can do for you.

If a program is new to this edition of *The Library,* an upgraded version of a current program, or part of a series, this will be noted at the top of the article, as in this example:

NEW
IBM Drawing Assistant—
an Assistant Series program

At the bottom of each program article, symbols show you which IBM PC systems support that program. The symbols used are:

- PC IBM Personal Computer
- XT IBM Personal Computer XT™ system
- PC*jr* IBM PC*jr* ™ system
- PPC IBM *Portable* Personal Computer
- AT IBM Personal Computer AT® system

Checking the requirements

Hardware and software configurations needed to run each program are specified in the "System Requirements Chart," which begins on page 91. The chart indicates the required IBM Disk Operating System (DOS) version, memory, diskette drives, displays and printers.

Once you've read about the programs, ask for a demonstration wherever IBM Personal Computers are sold. Then you can see for yourself how IBM software can meet your computing needs on the job, at home and in the classroom.

NOTE: Products listed in this publication are subject to withdrawal by IBM at any time.

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Table of Contents

Productivity Family

Integrated Tools

Assistant Series 6
IBM Filing Assistant 7
IBM Reporting Assistant 7
IBM Writing Assistant Version 1.01 8
IBM Graphing Assistant Version 1.01 8
IBM Planning Assistant 9
IBM Drawing Assistant 9
IBM Document Retrieval Assistant 10
IBM Mainframe Communication Assistant 10
IBM Voice/Phone Assistant 11
IBM Assistant Solutions and IBM Planning Assistant Solutions . . .11

IBM Personal Decision Series 12
Data Edition 13
Reports+ Edition 13
Plans+ Edition 14
Graphs Edition 14
Words Edition 15

IBM Personal Telephone Manager Program 15
IBM Augmented Phone Services 15
IBM Voice-Activated Keyboard Utility . .16

Organization

TopView 17
IBM PC Storyboard 18
Personal Communications Manager . .18
FileCommand 18
Fixed Disk Organizer 19

Word Processing

HomeWord 19
PCWriter Version 1.10 19
Word Proof 20
Personal Editor 20
Professional Editor 20

Office Systems Family

IBM Personal Services/PC 21

Word Processing

IBM DisplayWrite Series 22
DisplayWrite 3 Version 1.10 22
DisplayWrite 1 23
DisplayWrite Legal and Medical Support 23
DisplayComm BSC Version 1.10 23

Voice Communications

IBM Personal Computer Voice Communications software 24
IBM Voice/Phone Assistant 24
IBM Personal Telephone Manager Program 24
IBM Augmented Phone Services 25
IBM Voice-Activated Keyboard Utility . .25
IBM Voice Communications Application Program Interface Reference 25
IBM PC Voice Communications Operating Subsystem 25

Business Family

Accounting

IBM Business Management Series 26
IBM General Ledger Edition 27
IBM Payroll Edition 27
IBM Accounts Receivable Edition 28
IBM Accounts Payable Edition. 28
IBM Inventory Accounting Edition 29
IBM Order Entry and Invoicing Edition. .29
IBM Local Area Network Access Edition 30

IBM BPI Accounting System 30
General Accounting 30
Accounts Receivable 31
Inventory Control 31
Payroll 31
Job Cost 31

Specialized Business

Doctor's Office Manager 32
Insurance Agency System 32
Data Encoder 33

Programming Family

Operating Systems

IBM Personal Computer Operating Systems 34
IBM Disk Operating System 35
IBM Disk Operating System (DOS) Version 3.10 36
IBM PC XENIX 37
IBM Personal Computer XENIX Operating System 37
IBM Personal Computer XENIX Software Development System 38
IBM Personal Computer XENIX Text Formatting System 38
PC/IX Version 1.10 39
CP/M-86 40

Programming Languages

IBM PC programming languages . .41
IBM Personal Computer BASIC 42
C Compiler 43
BASIC Compiler Version 2.00 44
Pascal Compiler Version 2.00 44
IBM PC Professional FORTRAN 45
FORTRAN Compiler Version 2.00 45
Macro Assembler Version 2.00 46
COBOL Compiler 46
APL Interpreter 46

Programming Tools

IBM PC programming tools 47
TopView Programmer's ToolKit 48
EZ-VU Runtime Facility and EZ-VU Development Facility 48
Professional Debug Facility 48
IBM Personal Computer SORT 49
IBM Personal Computer Print Screen Utility Program 49
Personal Editor and Professional Editor 49

IBM graphics . . . based on industry standards 50
Graphics Development Toolkit. 51
Graphical Kernel System 51
Graphical File System 51
Graphics Terminal Emulator 52
Plotting System 52

IBM Voice Communications Application Program Interface Reference 52
IBM PC Voice Communications Operating Subsystem 52
IBM Voice-Activated Keyboard Utility . . 53

Engineering/Scientific Family

Introduction to Engineering/ Scientific graphics. 54
Graphical Kernel System 54
Graphical File System 55
Graphics Terminal Emulator 55
Plotting System 56
Instrument observation and control adapter support 56
General Purpose Interface Bus (GPIB) Adapter Support 57
Data Acquisition and Control Adapter Support 57
IBM PC Professional FORTRAN 57

Communications Family

Communications 58
Personal Communications Manager . . 59
PC/Videotex 59
IBM PC Network Program 60
IBM PC Network SNA 3270 Emulation Program 61
IBM PC Network Analysis Program . . . 62
IBM Mainframe Communication Assistant 62
IBM Personal Computer Cluster Program 62
Asynchronous Communications Support 2.00 63
Binary Synchronous 3270 Emulation . . 63
SNA 3270 Emulation and RJE Support 63
3101 Emulation 63

Education Family

Language Arts

Language Arts software 64
Reading Comprehension Skills 64
Listen to Learn. 64
Dictionary Dog. 65
Missing Letters 65
Comma Cat. 65
Crypto Cube 65
Spelling Skills 66
Bouncy Bee Learns Letters 66
Vocabulary Building Skills 66
Word Knowledge Skills 66
Bouncy Bee Learns Words. 67
Punctuation Skills 67
Capitalization Skills 67
Language Skills 67

Math

Juggles' Butterfly. 68
Bumble Games 68
Gertrude's Secrets 68
Adventures in Math. 68
Monster Math 69
Bumble Plot 69
Gertrude's Puzzles 69
Rocky's Boots 69
Basic Number Skills 70
Math Computation Skills 70
Solving Word Problems 70
Preparing for Geometry and Algebra . . 70

Science

Biology Series 71
The Environment I: Habitats and Ecosystems 71
Leaf: Structure and Physiology 71
Light, Plants, and Photosynthesis: Energy in Conversion 72
Plants: Growth and Specialization . . . 72
Cell Functions: Growth and Mitosis . . . 72
Cytology and Histology: Cells and Tissues 72
Passive Transport: Diffusion and Osmosis 73
Regulation and Homeostasis: Systems in Balance 73
Human Life Processes I: Cellular Physiology 73
Human Life Processes II: Systems Level 73
Pathology: Diseases and Defenses . . . 74
Modern Genetics: Chromosomes and Coding 74
Mendelian Genetics: The Science of Inheritance 74
Chemicals of Life I: The Structure of Matter 74
Chemicals of Life II: Water, Carbohydrates and Lipids 75
Chemicals of Life III: Proteins and Nucleic Acids 75

Physics Discovery Series 75
Investigating Acceleration 76
Investigating Gravitational Force 76
Investigating Conservation of Energy . .76
Investigating Thermal Energy 76

Earth Science Series 77
Hydrologic Cycle 77
Ground Water 77
Surface Water 78
Moisture in the Atmosphere 78
Earthquakes 78
Volcanoes. 78

Computer Literacy

Turtle Power, Turtle Power Thinker's Guide, and Turtle Power Activity Book 79
Logo Learner 79
Logo 79
Karel the Robot and Karel the Robot Textbook 79
Learning to Program in BASIC. 80
Learning DOS 80
BASIC Made Easy (book) 80
Computers and Communications 80
BASIC Primer Version 2.00. 81
Learning to Use DOS 2.00 (book). 81

Keyboarding

Primary Editor 81
Typing Tutor 81

Career Education

I Can Be Anything. 82

Instructional Aids

Private Tutor Version 2.00 82
Writing Private Tutor Courses for the IBM Personal Computer 83
Electric Poet 83
Teacher's Quiz Designer 83

Lifestyle Family

IBM PC*jr* ColorPaint 84
Home Budget, *jr* 84
Andrew Tobias Managing Your Money With the IBM PC*jr* 85

Entertainment Family

Trivia 101: The Introductory Course . . .86
TV and Cinema 101: Trivia From Talkies to Trekkies 86
SHAMUS 86
Zyll, A Text Adventure Game 86
Jumpman 87
Touchdown Football 87
PC Pool Challenges 87
King's Quest 87
Animation Creation. 88
ScubaVenture 88
Crossfire 88
Mouser 88
Mine Shaft 89

System Requirements. 91

Index of Programs. 124

Assistant Series
Integrated productivity programs

The Assistant Series is a set of easy-to-use programs that work together to turn your personal computer from IBM into a valuable assistant that helps increase productivity. Members of the Assistant Series are:

- IBM Filing Assistant®—turns your personal computer from IBM into a "computerized file cabinet" for quick, easy access to your records.
- IBM Reporting Assistant—helps you transform IBM Filing Assistant information into professional-looking reports.
- IBM Writing Assistant—enables you to create, revise, spell-check, store and print almost any kind of document you need.
- IBM Graphing Assistant—helps you convert detailed data into easy-to-understand graphs.
- IBM Planning Assistant—divides your display screen into rows and columns for planning and analysis of financial data.
- IBM Drawing Assistant—lets you create drawings and edit graphs for personal and business communications.
- IBM Document Retrieval Assistant—helps you easily locate your IBM PC files by entering simple keywords or descriptions of documents.
- IBM Mainframe Communication Assistant—enables you to access compatible host computers and subscription information services.
- IBM Voice/Phone Assistant—turns your personal computer into an advanced telephone answering service.
- IBM Assistant Solutions and IBM Planning Assistant Solutions—provide predefined forms and reports for use with IBM Filing Assistant and predefined spreadsheet models for use with IBM Planning Assistant.

Used individually, each Assistant Series program is a time-saving productivity tool. When used together, the Assistants enable you to share information and transfer data among them. For example, a document you create with IBM Writing Assistant can incorporate a bar chart from IBM Graphing Assistant and a mailing list from IBM Filing Assistant.

The Assistant Series can bring convenience and efficiency to the day-to-day acquisition, storage, recall and use of information at the office and at home.

By using the Assistant Series programs, you can learn to perform simple tasks in just a short time. And once you've become familiar with one Assistant, you'll have a head start on learning the others.

You can begin with all the Assistant Series programs, or build your library one Assistant at a time. IBM Reporting Assistant and the three IBM Assistant Solutions require IBM Filing Assistant to operate; IBM Planning Assistant Solutions require IBM Planning Assistant to operate.

® Filing Assistant is a registered trademark of International Business Machines Corporation.

IBM Filing Assistant—
an Assistant Series program

An electronic file cabinet

IBM Filing Assistant enables you to design and store your own forms and, as a result, easily create a neat, automated record system.

The program is ideal for home or small business users who want to spend more time working with files and less time searching for them. IBM Filing Assistant simply provides a more convenient, more efficient way to maintain records than on index cards or in file folders.

Highlights

- Design and fill out your own forms; then store blank or completed forms on a diskette or fixed disk.
- Create forms up to 32 pages long, with up to 100 fields (areas for data entry) per page.
- Store large files on a small disk; store thousands of forms on a double-sided diskette—and thousands more on a fixed disk.
- Retrieve specific data stored in your files; also update, merge, copy or delete data.
- Change a form design whenever you want, even if you have added data to the file after the form was designed.
- Print any form you have created by using a supported IBM PC printer; even print invoices and mailing labels.
- Merge IBM Filing Assistant data with other Assistant Series programs; the programs are designed to interact with one another.

Order No. 6024145

PC | XT | PC*jr* | PPC | AT

IBM Reporting Assistant—
an Assistant Series program

Finished reports from your files

IBM Reporting Assistant works in conjunction with IBM Filing Assistant to organize and format information into reports for office or home use.

IBM Reporting Assistant is a fast, easy way to convert your stored IBM Filing Assistant data files into clear, descriptive, presentation-quality reports that are more workable and more valuable than raw data.

Highlights

- Design a report format; set and align up to 20 columns, center data automatically, underline, set headings and titles, number pages and justify text.
- Align columns of numeric data by decimal point.
- Sort information alphabetically or numerically in ascending or descending order.
- Retrieve the specific information you need; select the items you want to print and in what order they should appear.
- Insert your reports into IBM Writing Assistant documents.
- Print out professional-looking hard copy with a supported IBM PC printer.
- Save your reports on a diskette or fixed disk; even save report formats for standard use.

Order No. 6024146

PC | XT | PC*jr* | PPC | AT

IBM Writing Assistant Version 1.01—
an Assistant Series program

Word processing with a plus

IBM Writing Assistant lets you create letters, memos and other documents quickly and easily. The program includes a convenient plus: It can work together with other Assistants. For example, you can insert an IBM Reporting Assistant report or IBM Drawing Assistant illustration into your document.

In addition, IBM Writing Assistant supports the TopView multitasking program (see page 17). Using TopView's windowing function, you can edit an IBM Writing Assistant document, for example, while viewing information from another program.

Highlights

- Accent your text with advanced features like underlining, boldface, titles and centering; adjust text and number pages automatically.
- Format the document to your needs... change margins, headings, footings and tabs... even line up decimal points in a column of numbers automatically.
- Find multiple references automatically; search for words that appear repeatedly throughout a document and automatically replace them.
- Color-code your information by adding as many as three colors to text; seven different color palettes are available with the IBM Color Display.
- Check your work for accurate spelling with the built-in Word Proof program (see page 20), which flags misspellings and helps you correct them.

Order No. 6024144

PC | XT | PC*jr* | PPC | AT

IBM Graphing Assistant Version 1.01—
an Assistant Series program

For data with visual impact

IBM Graphing Assistant is a program that enables you to present information more dramatically. The program puts a wide array of visuals at your disposal, including bar charts, pie charts and line charts.

Highlights

- Receive data from IBM Filing Assistant and IBM Planning Assistant, edit it, then convert it into visually compelling charts.
- Select the data you need and specify how you want it depicted on the screen by using keyboard commands from easy-to-follow menus.
- Label your information by inserting legends and titles in your document.
- Compare sets of data—such as actual vs. projected sales—on the same chart; show as many as four sets of related data on a single chart.
- Deliver a colorful presentation with as many as four colors per chart by using an IBM Color Display.
- Print out charts by using an optional plotter[1] or compatible IBM PC printer.

Order No. 6024147

PC | XT | PC*jr* | PPC | AT

[1] For further details about supported plotters, consult your Authorized Dealer or IBM marketing representative.

IBM Planning Assistant—
an Assistant Series program

A simplified method of analyzing figures

IBM Planning Assistant is an electronic spreadsheet program that allows you to do numeric planning on your personal computer from IBM. It can help you with budgeting, planning and forecasting.

In addition, you can help simplify home or business financial planning with IBM Planning Assistant Solutions' predefined spreadsheet models, which are available separately (see page 11).

Highlights

- Use powerful, customized formulas with enhanced arithmetic functions; define up to 20 constants in formulas.
- Select the task you want to perform by using the program's simple menus.
- Make advanced calculations to obtain Net Present Value, Future Value, Previous Value, and more.
- Analyze hypothetical scenarios; insert a new figure, and IBM Planning Assistant shows you the effect on other spreadsheet values.
- Read and write numeric data with DIF or SYLK files from IBM Filing Assistant or from other IBM PC spreadsheet programs.
- Pool your data by consolidating several IBM Planning Assistant spreadsheets.
- Transfer spreadsheet information to IBM Graphing Assistant and IBM Writing Assistant.

Order No. 6024148

PC | XT | PCjr | PPC | AT

NEW

IBM Drawing Assistant—
an Assistant Series program

Highlight your presentations

IBM Drawing Assistant enables you to create sharp, color graphics for professional-looking presentations. Text can be combined with drawings to add an extra dimension to artwork.

A member of the Assistant Series, IBM Drawing Assistant can interact with other programs in the series. For example, a drawing can be included in an IBM Writing Assistant document.

Highlights

- Create drawings and edit graphs for personal and business communications.
- Move, copy and selectively erase graphics.
- Magnify, retouch and then restore to original size any part of your drawing by using the "zoom" feature.
- Color your sketch by using the automatic "pattern fill" feature, which includes many user-definable fill patterns.
- Move your picture around on the screen, turn it into a negative, even "airbrush" it to achieve a soft, sprayed-on look.
- Use the keyboard or IBM-compatible mouse pointing device[1] (recommended) to create your drawings.
- Select from four type styles as well as from multiple colors, text sizes and brush sizes.

Order No. 6024089

PC | XT | PCjr | PPC | AT

[1] Mouse pointing devices are not part of the IBM Personal Computer offering and must be purchased separately.

NEW

IBM Document Retrieval Assistant—
an Assistant Series program

Easy access to important information

IBM Document Retrieval Assistant helps you find data reliably and quickly, even among large amounts of document files, reports, letters or other records.

The program is designed to locate any data file stored in your computer. You can also use it to help you find hard-copy documents in file cabinets or storage areas.

Highlights

- Find letters, memos, reports, research articles or slide listings.
- Locate documents created by other programs in the Assistant Series or by such popular word processing programs as IBM DisplayWrite Series, PCWriter, and others.
- Retrieve documents through descriptive "keywords" that eliminate the need to know exact filenames.
- Request data by typing simple English words or sentences.
- Receive a ranked list of filenames that most closely match your request.
- Add your own notes to file summaries to identify documents in greater detail.

Order No. 6024306

PC | XT | PC*jr* | PPC | AT

NEW

IBM Mainframe Communication Assistant—
an Assistant Series program

Exchange files with other computers

IBM Mainframe Communication Assistant converts your personal computer to a terminal[1] that can be used to exchange information with mainframes or other IBM PCs.

The information you access can be integrated with other Assistants. For example, you can retrieve a file from your company's host computer, integrate the data into IBM Filing Assistant forms, and from there use other Assistant programs.

Highlights

- Use simple "plain-English" menus—not complex computer commands—to operate the program.
- Transfer documents to several PCs or host systems without rekeying them.
- Update a file, then return the whole file—or just the revisions—to the host computer.
- Access up-to-date information from such subscription services as Dow Jones News/Retrieval,[2] THE SOURCE[2] and CompuServe.[2]

Order No. 6024140

PC | XT | PC*jr* | PPC | AT

[1] IBM 3101/3277 terminal in asynchronous connection or IBM 3278/3279 terminal in direct connection.

[2] Dow Jones is a trademark and Dow Jones News/Retrieval is a registered trademark of Dow Jones & Company, Inc. THE SOURCE is a service mark of Source Telecomputing Corporation, a subsidiary of The Reader's Digest Association. CompuServe is a trademark of CompuServe, Inc.

NEW
IBM Voice/Phone Assistant— an Assistant Series program

Turn your PC into a phone message center

IBM Voice/Phone Assistant lets you use your personal computer as a telephone answering service to record messages when you're not in.

You can listen to your messages when you return to your desk or by "calling" your PC from any touch-tone telephone.

Highlights

- Prepare messages that several colleagues can receive by using a common password.
- Create and store "private" messages for specific callers who enter confidential passwords.
- Control functions from anywhere, provided you have access to a touch-tone telephone.
- Update your outgoing messages as often as needed—either at the computer or over the telephone.
- Phone in personal notes and reminders to yourself and review them when you return to your PC.
- Use the optional synthetic-speech Help function if you need assistance in operating the program by phone.

Order No. 6280741

PC XT AT

IBM Assistant Solutions and IBM Planning Assistant Solutions

Time-saving predesigned forms

IBM Assistant Solutions, a series of three programs, and IBM Planning Assistant Solutions are separately available packages that eliminate the need for you to create your own Assistant Series forms. IBM Assistant Solutions contains predesigned forms for converting IBM Filing Assistant data into IBM Reporting Assistant reports. IBM Planning Assistant Solutions has predesigned spreadsheet models that let you enter your own figures for planning and analysis.

Highlights

- IBM Assistant Executive Solutions helps you keep track of appointments, expenses, meetings, correspondence and investments.
- IBM Assistant Accounting Solutions helps you establish an accounting system to manage personnel files, payroll, inventory, sales and receivables.
- IBM Assistant Home Solutions helps you manage household finances, balance your checkbook, and keep a record of valuables.
- IBM Planning Assistant Solutions helps you plan a monthly household budget, manage real estate and stock investments, calculate and amortize loans, manage business trip expenses, compute a balance sheet and income statement, and track job costs.

Order Numbers:
6024151 (Executive)
6024152 (Accounting)
6024150 (Home)
6024135 (Planning)

PC XT PCjr PPC AT

NEW

IBM Personal Decision Series

Comprehensive productivity software

The IBM Personal Decision Series is a comprehensive set of productivity software you can use to help put your ideas to work. It offers new approaches to information management, business planning and financial analysis.

The five productivity programs in the series can help you perform such routine tasks as answering correspondence, maintaining mailing lists, and producing daily reports. At the same time, they can be used for organizing data and doing "what-if" comparisons to give you the information you need to develop effective business strategies.

The IBM Personal Decision Series includes:

- Data Edition
- Reports+ Edition
- Plans+ Edition
- Graphs Edition
- Words Edition

The series enables you to integrate information from these programs. For example, customer information entered through Data Edition—the powerful data base program that is the foundation of the series—can be used by Words Edition for personalized customer mailings.

The integration capabilities of the IBM Personal Decision Series Editions can extend into other IBM software products. For instance, Data Edition allows you to access many IBM Personal Computer DOS files created by other programs. It also lets you access the comprehensive accounting files of IBM Business Management Series programs (see page 26).

The IBM Personal Decision Series programs are accompanied by IBM Training Editions geared to both the experienced user and the seasoned professional. Available separately for each series program, IBM Training Editions offer step-by-step, hands-on instruction in all aspects of program operation.

The Training Editions avoid data processing terminology and cryptic abbreviations. They make program operations easy to understand, so even a newcomer to computing can get results quickly. They enable you to start simply and progress as your needs become more sophisticated.

The IBM Personal Decision Series can be used to increase your productivity and, as your business grows, to provide the flexibility to meet future needs effectively.

Order Numbers:
6410947 (Data Training Edition)
6410937 (Reports + Training Edition)
6410972 (Plans + Training Edition)
6410938 (Graphs Training Edition)
6410940 (Words Training Edition)

NEW

Data Edition—
an IBM Personal Decision Series program

Powerful data base management

Data Edition is a powerful data base manager and report writer that helps you organize, maintain and use your business information effectively. Data Edition is the foundation of the IBM Personal Decision Series and is a prerequisite for the other programs in the series.

A fast and easy way to learn the capabilities of Data Edition is with the Data Training Edition, a separately available, hands-on tutorial that includes examples and practice exercises.

Highlights

- Build a filing system by entering your own information and by accessing data from other IBM Personal Decision Series Editions or from public or company data bases.
- Combine and save frequently used operations to speed and streamline routine tasks.
- Update indexes automatically as you update a file.
- Add, subtract, multiply and divide as well as compute variances and percentages.
- Produce tailored reports by selecting the records or fields you want printed or displayed.
- Exchange Data Edition information with other computers and access subscription information services by using an asynchronous communications link.

Order No. 6410936

PC | XT | PPC | AT

NEW

Reports+ Edition—
an IBM Personal Decision Series program

An advanced report writer

Reports+ Edition is an advanced report writer that enables you to produce customized reports and displays from files managed by Data Edition and other programs.

A flexible "scratchpad" display allows you to design on-screen reports as simple or sophisticated as you want them to appear in final printed form.

Highlights

- Define titles and column headings. Also specify fields to print and their location on a page.
- Combine bold, condensed, expanded and normal print sizes for professional-looking printed reports; add colors if you have an IBM Personal Computer Color Display or other color display from either IBM or another manufacturer.
- Create screens for data entry or inquiry. Use up to 10 screens per program, 50 fields per screen.
- Save print format instructions so you have to design a form only once; also, adapt your reports for continuous-form checks or invoices.
- Create your own programs that automatically read files, print report lines, and update files; customize applications by adding your own BASIC statements.

Order No. 6410937

PC | XT | PPC | AT

NEW

Plans+ Edition—
an IBM Personal Decision Series program

An advanced financial modeling tool

Plans+ Edition allows you to create and analyze simple or sophisticated designs for spreadsheets, budgets and forecasts. It offers an advanced set of built-in functions to help you perform calculations, sort data, and more.

Plans+ Edition—an upgraded version of Plans Edition—features powerful file operations; enhanced modeling and programming capabilities; arithmetic, logic and control functions; and specialized functions for financial, statistical and engineering analyses.

Highlights

- Arrange and store financial information to generate up-to-the-minute reports that assist in planning and analysis.
- Use information entered from the keyboard or retrieve files from Data Edition or other spreadsheet software.
- View several sections of a spreadsheet at the same time, consolidate or separate spreadsheet data, or use the spreadsheet to create hypothetical projections.
- Enter and save calculations independently of spreadsheet data to produce a variety of reports.
- Produce professional-looking graphs—such as pie, line, bar and scatter—and, for maximum impact, add color to them with a color display.

Order No. 6410972

PC | XT | PPC | AT

NEW

Graphs Edition—
an IBM Personal Decision Series program

A graph and chart generator

Graphs Edition converts Data Edition information into bar and line graphs, pie charts, scattergrams, text charts and other visual aids for impressive business presentations.

The work screen lets you preview all tailoring features as you are designing a graph, which can be created in different colors and accented with fill patterns.

Highlights

- Draw multiple plots on the same graph; change colors (with a color display) and patterns for added emphasis and clarity.
- Choose from a variety of bar graphs, including stacked, line, floating and overlapped.
- Position, revise and make calculations on your graph before committing it to hard copy.
- Display up to four graphs per page and size each to your own specifications.
- Preview all graphics features before designing your graph.
- Obtain hard copies of your graphs with an IBM XY/749 plotter, XY/750 plotter, 7372 plotter or other compatible printer.

Order No. 6410938

PC | XT | PPC | AT

NEW
Words Edition—
an IBM Personal Decision Series program

A versatile word processor

Words Edition is a word processor for the professional. It's designed to make writing and preparing documents faster and easier.

The program is designed to be integrated with the other IBM Personal Decision Series Editions. For example, queries and reports that are created with Data Edition and Reports+ Edition can be accessed with Words Edition for convenient editing and printing.

Highlights

- Find and replace words and numbers; also, obtain a document word count at any time.
- Underline, boldface or accent text for emphasis.
- Store frequently used documents—such as standard memos and form letters—and retrieve them at any time.
- Use standard composition formats or create your own specifications for margins and tabs, headings, footings, pagination, spacing, and more.
- Merge information from Data Edition files into Words Edition documents.

Order No. 6410940

PC XT PPC AT

NEW
IBM Personal Telephone Manager Program
Find numbers and place calls quickly

IBM Personal Telephone Manager Program, available in two versions,[1] is an electronic telephone directory that lets you easily organize and locate hundreds of names, addresses and telephone numbers.

You can use the program to place calls automatically—by pressing a single key. Also use the program as an appointment book: Just enter reminders weeks or months in advance and receive audible, on-screen alerts as the dates and times arrive.

Order Numbers:
6429190 (Program)
1642004 (Program/Voice Communications Option)

PC XT AT

NEW
IBM Augmented Phone Services
Special telephone services for the hearing and speech impaired

IBM Augmented Phone Services enables people with hearing or speech impairments to converse with family, friends and business associates over telephone lines.

The disabled caller types words on the keyboard, and the program translates the text into synthetic speech. The other party then responds verbally or by pressing keys on a touch-tone telephone.

Order No. 6280740

PC XT AT

[1] Refer to the System Requirements Chart for details.

NEW

IBM Voice-Activated Keyboard Utility

Control software with spoken commands

IBM Voice-Activated Keyboard Utility allows you to respond to applications with verbal—rather than typed—commands.

The program includes a variety of features, such as on-screen command menus and a voice-recognition capability.

Order No. 6280742

PC XT AT

For more productive office communications...

...link your PCs to share messages, files, printers and disks. See the **IBM PC Network** brochure for details.

Contact your Authorized Dealer or IBM marketing representative for details.

TopView™
Several programs on a single screen

TopView™ frees you to do more than one thing at a time by enabling you to manage several application programs concurrently on your personal computer from IBM. The program lets you divide your screen into several overlapping "windows" to display portions of various programs at the same time. You then can switch back and forth between programs quickly and efficiently, increasing your productivity.

Learning how to use TopView is easy. The package includes a simple tutorial that guides you through program functions and capabilities.

Highlights

- Conduct a data base search with one program while keying a memo with another; TopView's multitasking allows more than one program to run concurrently.
- Compare data; view parts of several programs at once as TopView moves and overlaps windows at your command.
- Use many DOS functions—such as PRINT, RENAME, ERASE, COPY—without having to exit TopView or the programs you are currently running.
- Print a report from IBM Reporting Assistant while editing a document on IBM Writing Assistant.
- Pick up where you left off; temporarily leave a program to work on another, then return to it at the point where it was interrupted.
- Change window size... reduce each window's size to fit more windows on your screen... use the "zoom" function to restore a window for clarity.
- Scroll to any location on the screen, as well as from window to window, by using your keyboard or any optional mouse pointing device.
- Access the main menu with just one keystroke; after you select a function, the menu disappears, freeing the screen for more or larger windows.
- Mark blocks of text easily by using TopView's convenient pop-up menus ... copy and store text in memory for later use... move text from one window to another or from one program to another.
- Enhance your overall productivity; TopView is supported by many existing DOS-based IBM Personal Computer programs.

Order No. 6024131

PC XT PPC AT

™ TopView is a trademark of International Business Machines Corporation.

NEW
IBM PC Storyboard
For dynamic presentations

IBM PC Storyboard gives you the tools to produce colorful presentations—complete with text, pictures, special effects and graphics—on your personal computer from IBM. A dynamic alternative to overhead projectors and flip charts, the program can be used to make training programs, sales meetings and other presentations come to life.

The four modules that constitute the program—Picture Taker, Picture Maker, Story Editor and Story Teller—guide you through each phase of development:

- Compiling screen images from several sources, such as PC DOS programs.
- Creating original artwork with a variety of colors.
- Copying, cutting and pasting pictures.
- Adding text in various styles and sizes.
- Sequencing and editing pictures for your presentations.

You can show your finished presentation directly on a color display or print it out in black and white or in color.

Order No. 6316998

PC | XT | PCjr | PPC | AT

Personal Communications Manager
Send and receive electronic mail

Personal Communications Manager enables any supported personal computer from IBM to exchange information with compatible computers over standard telephone lines.

With Personal Communications Manager, you can send and receive "electronic mail" at any time of the day or night. In addition, you can expand your communications capabilities by accessing the data files of larger computers and various subscription services.

Order No. 6024100

PC | XT | PCjr | PPC

FileCommand
Efficient data storage and retrieval

FileCommand is a versatile program that helps you organize the files you've stored on fixed disks or diskettes. It lets you create and display a convenient, on-screen directory of your data files and sort through it alphabetically, by file size, by file date, or by drive.

FileCommand also lets you assign DOS commands to function keys, enabling you to issue multiple commands by pressing a single key.

Order No. 6024062

PC | XT | PCjr | PPC

Fixed Disk Organizer
A powerful software management tool

Fixed Disk Organizer helps you organize information stored on your fixed disk, so you can gain access to and control over your programs and data.

Fixed Disk Organizer enables you to create simple menus for selecting application programs; issue complex DOS commands easily; create your own Help texts, passwords, batch files; and more.

The program's master menu divides programs and files into categories by application—word processing, spreadsheet, communications, and so on. Data can be accessed simply by pressing a few keys.

Order No. 6024111

PC XT PPC AT

HomeWord®
Just follow the pictures

HomeWord, a word processing program for the IBM PC*jr*, is so easy to use that almost anyone can learn to benefit from its many features. The key is on-screen pictures and symbols that represent HomeWord's functions.

But don't let the program's simplicity fool you. HomeWord contains many advanced word processing features. You can add or delete words, phrases and paragraphs; search for and replace a word, name or phrase automatically; merge text from another file with the text on your screen; change the total appearance of a document; and much more.

Order No. 6024090

PC*jr*

UPGRADE

PCWriter Version 1.10
Word processing for business users

PCWriter is a business-oriented word processing program designed for executives, professionals and administrative personnel. This program contains many of the advanced capabilities of word processing software used with IBM 5520 Administrative System and Datamaster (System/23) computers.

In addition, PCWriter Version 1.10 includes several enhancements over its predecessor, Version 1.00:

- Revisable Form Text Document Content Architecture (RFTDCA) support.
- Enhanced document interchange with the IBM 5520 Administrative System.
- IBM Personal Computer AT-supported documentation and keyboard template.
- *Getting Started* booklet and a new *Exploring PCWriter* diskette that support the IBM Personal Computer AT.

Order No. 6362006

PC XT PPC AT

® HomeWord is a registered trademark of Sierra On-Line, Inc.

Word Proof
A valuable aid for writers

Word Proof is a proofreading program that can check for misspelled words in an entire document or verify the spelling of a single word. It can also help you expand your vocabulary—and add flair to your writing style—by providing a list of synonyms[1] for many words in your document.

Word Proof can be used in conjunction with such IBM PC word processing programs as DisplayWrite 1, DisplayWrite 3 and IBM Writing Assistant.

Order No. 6024071

PC | XT | PC*jr* | PPC

Personal Editor
A full-screen, command-driven editor

Personal Editor enables you to create and edit programs and documents easily. It has extensive editing and word processing features and is suitable for programmers and text developers.

With Personal Editor, you can enjoy the benefits of word processing with such features as tab and margin settings, word wrapping and text reformatting.

You can also revise text easily and quickly as well as move copy, erase and overlay text with paragraph, line and sentence markers.

Order No. 6024051

PC | XT | PC*jr* | PPC | AT

[1] Synonym information is based on the American Heritage Dictionary Data Base, *Roget's II, The New Thesaurus,* owned by Houghton Mifflin Company and used with permission. Copyright © 1982 by Houghton Mifflin Company.

Professional Editor
A full-function, menu-driven editor

Professional Editor was designed for programmers or text developers who need to create and edit programs or documents.

Professional Editor offers numerous time-saving editing features. It makes maximum use of the keyboard and display capabilities of IBM Personal Computers.

With Professional Editor, you can scroll in four directions, find and change recurring words or phrases, insert frequently used phrases and data structures with a single keystroke, and much more.

Order No. 6024048

PC | XT | PC*jr* | PPC | AT

Take the first step toward advanced text processing.

Pick up a copy of the **IBM DisplayWrite Series** brochure today.

Contact your Authorized Dealer or IBM marketing representative for details.

NEW

IBM Personal Services/PC

An advanced system for interoffice correspondence

IBM Personal Services/PC, a sophisticated mail management system for businesses, contains a comprehensive set of office mail functions. The program makes automated mail available to any workstation with a compatible PC or 3270 PC.

Highlights

- Transmit many types of mail, including RFTDCA or FFTDCA documents, IBM PC DOS files, the program's own messages, and appended notes.
- Send mail in two ways: directly between PCs with Personal Services/PC via asynchronous communications, or through an IBM host running DISOSS/370 via asynchronous communications 3278/79 attachment methods.
- Use electronic "file cabinet" functions, which allow you to selectively work with the contents of the "file cabinet."
- Organize your "file cabinet" by labeling individual files with brief tags such as "NEWMAIL" and "OLDMAIL."
- For example, transmit a document to a colleague and "attach" a note describing the contents.
- Establish as many as 50 distribution lists—with as many as 50 names each.
- Record up to 100 nicknames to simplify the process of addressing mail; a nickname functions like a full user I.D. during operation.
- Optionally run the program under TopView, when using asynchronous communications.
- Receive on-line help by pressing a single key.
- Track down faulty transmissions and avoid potential problems by using the program's trace facility.

System Requirements

A minimum of 256KB of user memory;[1] two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive); DOS 2.00, 2.10 or 3.00; the 3270 Control Program Version 2.00; an 80-column display; and an IBM Graphics Printer.

Asynchronous communication requires an IBM Asynchronous Communications Adapter, or equivalent, and a supported modem. 3278/79 emulation communication requires the appropriate IBM PC 3278/79 emulation hardware. Connection to an IBM host requires DISOSS/370 Version 3 Release 3 (or DISOSS/370 Version 3 Release 2 with the appropriate Program Temporary Fix).

Order No. 6317013

PC | XT | PPC

[1] Additional memory is required for the IBM 3270 PC Models 4 and 6, 3278/79 emulation, TopView compatibility and other functions.

IBM DisplayWrite Series

IBM Displaywriter-like productivity programs

The IBM DisplayWrite Series of programs combines many benefits of the business community's popular text-processing system with its popular personal computer: the IBM Displaywriter System and the IBM PC.

The IBM DisplayWrite Series consists of five related applications that can assist members of the business community:

- DisplayWrite 3 Version 1.10, which features advanced word processing capabilities.
- DisplayWrite 1, which provides a single-diskette-drive IBM PC with many of the word processing capabilities of the DisplayWrite 3 program.
- DisplayWrite Legal Support, which adds a dictionary of approximately 16,000 legal words to DisplayWrite 3.
- DisplayWrite Medical Support, which adds a dictionary of about 79,000 medical words to DisplayWrite 3.
- DisplayComm BSC Version 1.10, which enables DisplayWrite-created documents to be transmitted to other IBM Personal Computers or many other IBM systems, such as the IBM 5520, S/370 or Displaywriter.

These programs are designed to help IBM Personal Computer users perform a wide variety of word processing tasks.

UPGRADE

DisplayWrite 3 Version 1.10— an IBM DisplayWrite Series program

Advanced word processing

DisplayWrite 3 Version 1.10 is an advanced word processing program that supports general correspondence, multipage documents, technical documents and statistical tables.

You can exchange a document you create at your PC workstation with many other IBM systems, such as an IBM System/36, where it can be edited or printed.

Highlights

- Use versatile word processing functions such as edit, insert, delete, move, copy and merge.
- Check spelling and hyphenate automatically with a built-in dictionary.
- Take advantage of such features as an extensive Help facility, automatic footnote processing, and automatic outline/section numbering.
- Create simple bar charts and line drawings using the Cursor Draw features.
- Convert DisplayWrite 3 text into revisable form text (RFTDCA) and final form text (FFTDCA) automatically.
- Enter text in a foreign language with the program's International Keyboard Character Set.

Order No. 6280845

PC | XT | PPC | AT

DisplayWrite 1—
an IBM DisplayWrite Series program

Multifunction word processing

DisplayWrite 1 enables you to perform word processing tasks on IBM Personal Computers with one diskette drive, such as an IBM Personal Computer, IBM *Portable* Personal Computer, or IBM PC*jr*.

This text-processing package works in conjunction with DisplayWrite 3. You can begin creating a document on your single-diskette-drive IBM PC at home with DisplayWrite 1, then take the diskette to your office IBM PC and finish the document with DisplayWrite 3.

Highlights

- Write, edit and print text and simple line graphics for business correspondence or for home computing purposes.
- Use the versatile word processing functions, such as finding and replacing words and copying, deleting, saving or moving blocks of text.
- Format multipage documents to your requirements: indent paragraphs, adjust or center text, insert headings and footings, and more.
- Merge information from DOS ASCII files into a document you create.[1]
- Check your work electronically for accurate spelling with the separately available Word Proof program.

Order No. 6024188

PC | XT | PC*jr* | PPC

[1] The level of compatibility for editing and printing depends on each program's functional capabilities and implementation.

DisplayWrite Legal and Medical Support—
IBM DisplayWrite Series programs

Spelling aids for professionals

DisplayWrite Legal Support and DisplayWrite Medical Support are two dictionaries that can help make professional documents letter-perfect. These two programs are tailored specifically to meet the needs of the legal and medical communities.

Both DisplayWrite Legal Support and DisplayWrite Medical Support replace the DisplayWrite 3 dictionary diskette. Each contains a dictionary of specialized words, the DisplayWrite 3 dictionary of approximately 100,000 general-usage words, and space for adding your own words.

Order Numbers:
6024190 (Legal)
6024197 (Medical)

PC | XT | PPC | AT

DisplayComm BSC Version 1.10—
an IBM DisplayWrite Series program

An IBM PC communications package

DisplayComm BSC Version 1.10 allows you to transfer DisplayWrite 3 documents to and from an IBM Displaywriter, another IBM PC, the IBM 5520 Administrative System, Office System 6, and other IBM host systems[1] with similar programming and features.

In addition, the program can be used for sending DOS ASCII files to other IBM Personal Computers using DisplayComm BSC 1.10,[1] including those attached to the IBM Personal Computer Cluster.

Order No. 6024210

PC | XT | PPC | AT

NEW

IBM Personal Computer Voice Communications software

Advanced voice and telephone functions

IBM Personal Computer Voice Communications software lets you use the personal computer in your office to perform a variety of voice and communications functions.

With voice communications, your IBM Personal Computer can communicate the same way you do—using speech. It can recognize spoken words, synthesize speech, record and play back messages, and help you use the telephone to transmit data.

The IBM PC Voice Communications programs are:

- IBM Voice/Phone Assistant—turns a personal computer into a sophisticated telephone answering service.
- IBM Personal Telephone Manager Program—helps you locate telephone numbers quickly and dial them automatically.
- IBM Augmented Phone Services—enables the hearing and speech impaired to have telephone conversations.
- IBM Voice-Activated Keyboard Utility—lets you control application programs using verbal commands.
- IBM Voice Communications Application Program Interface Reference—helps you develop voice applications.

All five programs require the IBM PC Voice Communications Option to operate. The option includes an adapter card that gives your personal computer versatile speech capabilities, plus two diskettes—one containing an operating subsystem, the other provides a hands-on demonstration on voice communications functions.

NEW

IBM Voice/Phone Assistant

Turn your PC into a phone message center

IBM Voice/Phone Assistant lets you use your personal computer as a telephone answering service to record messages when you're not in.

You can review your messages when you return to your workstation or when you "call" your PC from a touch-tone telephone. In addition, you can create either personal or general messages that can be played for callers who access your computer by entering the proper passwords.

Order No. 6280741

PC XT AT

NEW

IBM Personal Telephone Manager Program

Find numbers and place calls quickly

IBM Personal Telephone Manager Program, available in two versions,[1] is an electronic telephone directory that lets you easily organize and locate hundreds of names, addresses and telephone numbers.

You can use the program to place calls automatically—at the press of a single key. Also use the program as an appointment book: Just enter reminders weeks or months in advance and receive audible, on-screen alerts as the dates and times arrive.

Order Numbers:
6429190 (Program)
1642004 (Program/Voice Communications Option)

PC XT AT

[1] Refer to the System Requirements Chart for details.

NEW
IBM Augmented Phone Services
Special telephone services for the hearing and speech impaired

IBM Augmented Phone Services enables people with hearing or speech impairments to converse with family, friends and business associates over telephone lines.

The disabled caller types words on the keyboard, and the program translates the text into synthetic speech. The other party then responds verbally or by pressing keys on a touch-tone telephone.

Order No. 6280740

PC XT AT

NEW
IBM Voice-Activated Keyboard Utility
Control software with spoken commands

IBM Voice-Activated Keyboard Utility allows you to respond to applications with verbal—rather than typed—commands.

The program includes a variety of features, such as on-screen command menus and a voice-recognition capability.

Order No. 6280742

PC XT AT

NEW
IBM Voice Communications Application Program Interface Reference
Develop programs that use advanced speech functions

IBM Voice Communications Application Program Interface (API) Reference lets you create and run application programs that recognize voices, synthesize speech and manage telephone communications.

API consists of two instruction manuals and a toolkit diskette. The manuals show you how to write application programs; the diskette—with a vocabulary compiler for "shorthand" commands—provides hands-on programming experience.

Order No. 6280743

PC XT AT

NEW
IBM PC Voice Communications Operating Subsystem
The key to voice and telephone applications

The IBM PC Voice Communications Operating Subsystem enables the personal computers in your office to synthesize speech, recognize and respond to voices, and manage telephone communications.

This subsystem—available separately or as part of IBM PC Voice Communications Option—controls the speech and communications functions of the IBM PC Voice Communications Adapter.

Order No. 6280708

PC XT AT

NEW

IBM Business Management Series

Take control of your business

The IBM Business Management Series is a flexible, comprehensive offering of accounting and management software that can help put you in firmer control of your business. It provides an innovative and effective approach to accounting that can give you a better grasp of the information used to make business decisions.

Series programs include:

- IBM General Ledger Edition
- IBM Payroll Edition
- IBM Accounts Receivable Edition
- IBM Accounts Payable Edition
- IBM Inventory Accounting Edition
- IBM Order Entry and Invoicing Edition
- IBM Local Area Network Access Edition

You can use any one or any combination of these programs, depending on your needs and work load. Each program performs a comprehensive function on its own, yet each can also share and update data from the other Business Management Series Editions, eliminating time-consuming and repetitive manual tasks.

Data entry, processing and printing procedures are standardized among the programs. Screen formats are similar, and all programs are menu-driven to help you change tasks quickly.

A fast and easy way to learn to use the IBM Business Management Editions is with the custom-designed IBM Training Editions, available separately for each series edition. The IBM Training Editions provide hands-on instruction in hypothetical situations, so you can practice using the program—and even make mistakes—without affecting your company's records.

To make the most of the information contained in the IBM Business Management Series, you can combine its accounting data with information contained in the IBM Personal Decision Series of productivity programs (see page 12). One way you can do this is by using the IBM Financial Extension Edition and IBM Accounting Extension Edition, two separately available programs.

Each IBM Extension Edition provides nine ready-to-run examples of graphs, queries or special reports showing how you can use Personal Decision Series programs to access and present information from the Business Management Series.

The Business Management Series gives you the flexibility to use simple functions and procedures today and to take advantage of more features and reports as you need them.

To enhance your investment in the IBM Business Management Series, you can subscribe to IBM Extended Support. This service offers:

- Program maintenance
- IBM Extended Support Journal
- Telephone assistance
- Program updates

Order Numbers:
6410959 (General Ledger Training)
6410962 (Payroll Training)
6410961 (Accounts Receivable Training)
6410960 (Accounts Payable Training)
6410964 (Inventory Accounting Training)
6410963 (Order Entry and Invoicing Training)
6410957 (Financial Extension Edition)
6410958 (Accounting Extension Edition)

NEW

IBM General Ledger Edition— an IBM Business Management Series program

Flexible, interactive journal entry

The IBM General Ledger Edition helps you improve accounting controls and provides accurate, up-to-date financial statements on demand. The program offers a direct approach to the fundamental accounting transactions and financial reports required by many businesses today.

General Ledger Edition gives you the flexibility to create your own chart of accounts or to use predefined numbers. You can define up to 13 accounting periods and tailor reports and special journals to meet your needs.

Highlights

- Receive such standardized formats as six built-in, predefined quarterly statements for your balance sheet and income statement.
- Design your own financial statements, complete with flexible formatting functions.
- Make journal entries yourself or transfer them directly from other IBM Business Management Series Editions.
- Close the year in balance by using the program's automatic year-end closing procedures.
- Combine totals for multiple companies into one financial statement.
- Get a complete record of financial activities processed by Order Entry and Invoicing, Accounts Receivable, Accounts Payable and Payroll Editions.

Order Numbers:
6410950 (Program)
6410959 (Training Edition)

PC | XT | PPC | AT

NEW

IBM Payroll Edition— an IBM Business Management Series program

Timely payroll and tax reports

The IBM Payroll Edition is designed to ease the clerical burdens of producing an accurate, timely payroll and preparing tax reports. It completely automates check-writing and gives you an efficient means to track your payroll liability.

Using the Payroll Edition, you can always have a clear perspective of the cost of benefit plans, departmental payroll expenses, overtime and other selected outlays.

Highlights

- Enter information only once to calculate an employee's gross-to-net earnings; create paychecks and W-2 reports.
- Compute hourly and salaried payrolls and various pay frequencies; identify and recap overtime hours and costs.
- Total and withhold any number of deductions per check per employee.
- Make inquiries into employee files for general information about deductions, benefits and taxes withheld.
- Save time and prevent errors by transferring payroll information directly to the IBM General Ledger Edition.

Order Numbers:
6410953 (Program)
6410962 (Training Edition)

PC | XT | PPC | AT

NEW
IBM Accounts Receivable Edition—
an IBM Business Management Series program

Cash flow control

The IBM Accounts Receivable Edition is designed to help shorten your collection period and reduce bad debts. By placing better controls on the money owed to you, Accounts Receivable can help you improve cash availability and reduce collection delays.

You can process payments quickly, so your customers receive accurate, professional-looking statements. And you can request reports about cash availability at any time.

Highlights

- Track receivables by using open-item and/or balance-forward customer categories.
- Choose flexible statement options such as zero balance due and current-month sales activity; zero balance due and no sales activity; customers with balances due only; certain customers only.
- Enter charge payments by using interactive invoice entry; handle cash and COD transactions, partial payments and overpayments, and more.
- Make inquiries into customer information.
- Share customer credit limit information with the IBM Order Entry and Invoicing Edition; save time by transferring journal summaries to the IBM General Ledger Edition.

Order Numbers:
6410952 (Program)
6410961 (Training Edition)

PC XT PPC AT

NEW
IBM Accounts Payable Edition—
an IBM Business Management Series program

Know what you owe

The IBM Accounts Payable Edition supplies timely information for tracking and managing your outstanding debts. It provides a complete, up-to-date picture of the amount of cash needed to cover disbursements on any given day.

The program flags discounts on Cash Requirement Reports so you have the opportunity to take full advantage of allowable discounts.

Highlights

- Print checks automatically and keep an audit trail of check amounts.
- Track vendor information for current and previous years to help improve creditor negotiations.
- Prevent lost discounts by using the program's flexible discount capabilities.
- Improve cash flow management with the program's interactive data entry and editing capabilities.
- Pay invoices two ways: by due date and by vendor invoice; put invoices on "hold" to delay payment until you're ready.
- Transfer detail or summary journal entries to the IBM General Ledger Edition.

Order Numbers:
6410951 (Program)
6410960 (Training Edition)

PC XT PPC AT

NEW

IBM Inventory Accounting Edition—

an IBM Business Management Series program

Improved inventory investment

The IBM Inventory Accounting Edition supplies valuable information to maintain a high level of customer service while keeping your cash investment in inventory to a minimum. It can help you pinpoint obsolete or slow-moving merchandise and find hot sellers and high-profit items.

Inventory Accounting can assist in developing optimum buying strategies, so you'll have more free cash for other uses.

Highlights

- Keep your inventory records up to date with Stock Status reports that list out-of-stock, understocked/overstocked and discontinued items, and cost deviations.
- Get reordering assistance based on your criteria for minimum/maximum balance, pack size and vendor minimum order.
- Maintain quantity-on-hand information for merchandise in up to 99 warehouses.
- Calculate average sales per period and track date of last sale for each item; access sales information from the IBM Order Entry and Invoicing Edition.
- Make price changes easily by maintaining up to four prices or percentages.

Order Numbers:
6410955 (Program)
6410964 (Training Edition)

PC | XT | PPC | AT

NEW

IBM Order Entry and Invoicing Edition—

an IBM Business Management Series program

Interactive invoice entry

The IBM Order Entry and Invoicing Edition helps you process customer orders quickly and accurately by editing, pricing and extending an order in one step. The program enables you, at time of entry, to print a professional-looking invoice or, alternatively, to generate a picking list to help your warehouse personnel improve turnaround time.

With other appropriate IBM Business Management Series Editions, Order Entry and Invoicing will allocate inventory when the order is placed and verify a customer's credit status on request. These and other features can help you provide better customer service.

Highlights

- Select from two billing methods: post-billing or pre-billing.
- Use automatic pricing with provisions for a base price and four alternative prices or percentages, discounts, taxes, special charges, and more.
- Revise orders, change quantities and prices, insert a new line, delete a line or an entire order.
- Accept cash, charge or COD orders; print invoices for cash customers.
- Improve transactions by incorporating data from the Accounts Receivable and Inventory Accounting Editions.

Order Numbers:
6410954 (Program)
6410963 (Training Edition)

PC | XT | PPC | AT

NEW
IBM Local Area Network Access Edition—
an IBM Business Management Series program

Share Business Management Series resources

The IBM Local Area Network Access Edition makes IBM Business Management Series programs and data files available to IBM PCs on the IBM PC Network. The programs supported are:

- IBM General Ledger Edition
- IBM Payroll Edition
- IBM Accounts Receivable Edition
- IBM Accounts Payable Edition
- IBM Inventory Accounting Edition
- IBM Order Entry and Invoicing Edition

Highlights

- Share an existing IBM Business Management Series program or data file among as many as five users at the same time.
- Execute tasks in the applications concurrently, except those that share data files.
- Monitor network activity and the use of a common set of IBM Business Management Series programs and data files.
- Intercept concurrent job requests from applications to check for possible conflicts.
- Follow convenient on-screen instructions for integrating IBM Business Management Series programs into the network; print instructions for later use.

Order No. 6410965

PC XT AT

IBM BPI Accounting System
Accounting for small businesses

The IBM BPI Accounting System offers the functions, features and versatility needed to meet small business and departmental accounting needs. The BPI Accounting System applications are General Accounting, Accounts Receivable, Inventory Control, Payroll and Job Cost.

The BPI system features automatic data processing and file updating, which reduce much of the paperwork and calculating required by manual accounting methods. For example, BPI requires that you enter daily transactions only once. Journalize a transaction, and it is posted automatically to the appropriate ledger.

General Accounting by BPI Systems, Incorporated
A small-business accounting package

General Accounting brings computerized accounting within easy reach of the small business.

Even without prior computer experience, you can quickly learn to use this versatile program to perform day-to-day accounting tasks—journalizing, posting and maintaining records. In addition, as a by-product of your daily transactions, you can prepare timely reports to monitor your business.

General Accounting enables you to maintain as many as 1,000 accounts, post entries automatically, standardize monthly entries, set up subsidiary ledgers and journals, monitor profit-and-loss status, produce vital documents, print reports and checks, and much more.

Order No. 6024026

PC

Accounts Receivable by BPI Systems, Incorporated

Simplified cash flow management

Accounts Receivable is an automated cash management tool that can help you control current and past-due receivables more closely. It also can help you improve your cash flow, budget more effectively, reduce bad-debt losses, detect poor credit risks, and maintain customer goodwill. The program offers efficient ways to post invoices and payments, prepare statements and set up comprehensive customer files.

You can pick four charge account types, establish billing periods, and select your own fiscal year. You can also perform quick analyses and produce management reports.

Order No. 6024027

PC

Inventory Control by BPI Systems, Incorporated

Efficient inventory management

Inventory Control is an automated record-keeping system that enables you to bypass much of the tedious paperwork and often imprecise filing inherent in manual inventory accounting methods.

With Inventory Control, small businesses and departments can enjoy the benefits and increased productivity that once were available only from larger, more expensive computer systems. You can keep track of customers and vendors, classify and update inventory data, generate purchase orders, produce management reports, and more.

Order No. 6024030

PC

Payroll by BPI Systems, Incorporated

A dynamic payroll program

Payroll automates your company's payroll process, helping reduce the costly errors associated with manual entry. The program can turn your payroll operation into a valuable source of timely data that can be analyzed, controlled and printed in report form.

Payroll allows you to choose your pay schedule; select a payroll format; keep up-to-date employee data; calculate federal withholding, state and local tax rates automatically; print paychecks complete with check stubs; and produce payroll reports.

Order No. 6024028

PC

Job Cost by BPI Systems, Incorporated

An economical job-costing system

Job Cost was designed for businesses that do a large volume of individual job costing—such as contracting, subcontracting and real estate. This versatile program helps speed and simplify bid preparations and, by providing useful management reports, helps control costs and maintain planned profit margins.

With Job Cost, you can choose from two income-reporting options; track both labor and non-labor costs; and produce management reports, job status reports, and profit-and-loss statements. You can update reports and statements automatically by transferring journalized transaction information to them.

Order No. 6024029

PC

Doctor's Office Manager
Improved medical practice management

Doctor's Office Manager can help you run your practice more efficiently. It replaces tedious manual record-keeping procedures with a simplified, automated system for billing, corresponding, filing insurance claims, scheduling appointments and controlling accounts receivable.

Doctor's Office Manager is designed to expand with the practice, enabling you to keep pace with growing business needs.

Highlights

- Schedule appointments quickly by having the program locate available time slots; print schedules and summaries.
- Produce timely bills and statements that include patient insurance data; bill all patients simultaneously or cycle bill.
- Simplify insurance claims processing by printing claims from previously entered charge data.
- Improve cash flow; produce a report that totals charges, receipts and adjustments; also flag overdue balances and send collection letters.
- Send personalized correspondence, including recall reminders and letters.
- Analyze your practice by tracking medications, test results and other conditions you specify.

Order No. 6024157

PC | XT | PPC | AT

Insurance Agency System
Improve agents' efficiency

Insurance Agency System is a software package designed exclusively for independent insurance agents. This versatile program enables insurance agency personnel to improve their efficiency by expediting many tasks previously performed manually.

The program concentrates on developing a total office management system: It helps agents increase sales, improve cash flow, control expenses and increase administrative and marketing productivity.

Highlights

- Automate key agency functions: marketing, invoicing, accounts receivable, accounts payable and general ledger.
- Keep accurate, up-to-date records on clients and prospects; get files based on client coverage, status and prospect type.
- Automate your invoicing. Calculate commissions and company net profit.
- Update the books and production statistics; reduce bad debt losses by finding delinquent accounts quickly.
- Write and edit letters with the program's letter-writing facility; automatically personalize mass mailings to all or a select group of clients or prospects.
- Print invoices, statements, expiration lists, marketing documents and letters to clients with overdue bills.

Order No. 6024065

PC

Data Encoder

A data security program

Data Encoder is a data-protection program that encodes sensitive data files to make them illegible, then decodes them to their original form. Data Encoder uses the Data Encryption Algorithm, a security technique developed by IBM and adopted as a national standard by the U.S. government.[1]

Data Encoder provides a quick command version for encoding and decoding files and a full-screen interface version with enhanced functions available through menu selection.

Highlights

With 128KB of memory or more:

- Protect any DOS file; encode or decode a file, or several files at once, by using short, simple commands.
- Designate your own special "keys" for quick encoding/decoding—a 60KB file takes less than a minute.
- Erase source files after encoding by writing over data with null characters.

With 192KB of memory or more, all of the above, plus:

- Locate files on any system drive or directory by using the search facility.
- "Hide" a filename so it is not displayed in the DOS directory.

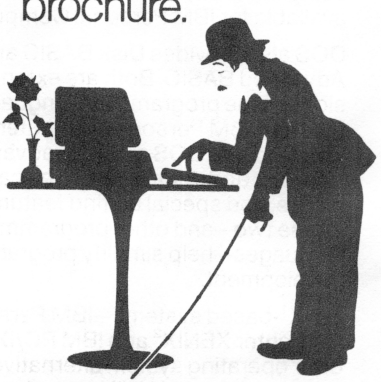
Order No. 6024149

PC | XT | PC*jr* | PPC | AT

[1] Data Encoder and its associated documentation are under the U.S. Department of State Munitions list, Category XIII(b) and, as such, must be licensed by the U.S. Department of State prior to export from the United States.

Discover how to use your PC to bank at home, check airline information, keep up with stock prices, and more.

Learn about these convenient services in the **PC/Videotex** brochure.



Contact your Authorized Dealer or IBM marketing representative for details.

IBM Personal Computer Operating Systems

A choice of systems to optimize operations

Personal computer operating systems are program products that enable the performance of specific tasks. For example, the operating system loads and readies programs for operation. It is also responsible for file system maintenance: allocating file space, providing access (data reading and writing), and building directories to organize files.

The operating system is also used to designate input/output sources such as drives and printers, and controls traffic to and from these and other devices.

IBM offers a choice of operating systems, so you can select the one that fits your needs best. You may, for example, need to support a number of users at one time. Or you may require enhanced program editing support. Compare the following systems with *your* operations in mind:

- PC DOS—DOS provides the base for using the thousands of applications available for IBM Personal Computers.

  DOS also provides Disk BASIC and Advanced BASIC. Both are extensions of the programming language built into IBM Personal Computers. They provide DOS support, advanced graphics and communications capabilities, and special editing features. These two—and other programming languages—help simplify program development.

- UNIX[1]-based systems—IBM Personal Computer XENIX[2] and IBM PC/IX offer operating system alternatives for users who run UNIX-based applications. Such applications would include multiuser and multitasking operations for commercial, scientific and engineering uses.

  IBM PC XENIX is a multiuser, multitasking system that helps you harness the power of the IBM Personal Computer AT and its high-speed 80286 processor. XENIX also offers utilities such as assemblers, an interactive debugging tool, language translators and source code management tools to help you develop applications software.

  IBM Personal Computer Interactive Executive—PC/IX—is a single-user, multitasking system supporting the IBM PC and IBM PC XT.

  PC/IX incorporates many of the same features and commands as IBM PC XENIX and can co-reside with PC DOS on a fixed disk. This allows almost immediate operating system changes to suit your applications.

- CP/M-86—Control Program for Microcomputers is a single-user operating system that includes an English-like command language. CP/M-86 also offers capabilities such as a general-purpose editor and an interactive debugging facility to aid in program development. CP/M-86 is compatible with a wide range of systems and programs.

These operating systems have been designed to help you make the best use of IBM Personal Computers. Applications-oriented functions allow you to use available software or help you develop your own programs.

[1] UNIX is a trademark of AT&T Bell Laboratories.
[2] XENIX is a trademark of Microsoft Corporation. It is an adaptation of UNIX III, licensed by Bell Laboratories, with enhancements from the University of California at Berkeley and Microsoft.

IBM Disk Operating System

The standard IBM Personal Computer operating system

The IBM Disk Operating System (DOS) is a master program that provides the required support between IBM Personal Computer hardware and a wide range of application programs.

The DOS package contains two additional programs—Disk BASIC and Advanced BASIC—that are extensions of the BASIC language built in to every personal computer from IBM. Disk BASIC adds DOS file support, a date/time clock, and communications capabilities. Advanced BASIC adds advanced graphics, music and other capabilities.

DOS 3.10 is the newest and most advanced version of the IBM Disk Operating System. Other DOS versions include DOS 1.00, 1.10, 2.00, 2.10 and 3.00.

The chart below indicates the DOS versions that are supported on IBM's personal computer systems.

DOS Version	PC	XT	PC*jr*	PPC	AT
1.00	•				
1.10	•				
2.00	•	•			
2.10	•	•	•	•	
3.00[1]	•	•	•	•	•
3.10	•	•	•	•	•

DOS 3.10 also provides support for the IBM PC Network (see page 60).

DOS 1.10 and higher support one or more 5¼-inch, 320KB-capacity, double-sided diskettes. DOS 2.00 and higher increase the formatted capacity of 320KB diskettes to 360KB, thus allowing more information to be stored on each diskette. DOS 3.00 and higher support 1.2MB diskettes on the IBM Personal Computer AT.

DOS offers versatile input/output capabilities. The DISKCOPY and DISKCOMP commands, for example, allow diskettes to be copied and compared with minimal diskette handling. The MODE command provides easy asynchronous communications setup and serial printer support, so you can redirect parallel printer output to a serial or remote printer through the IBM Asynchronous Communications Adapter.

DOS provides an input/output interface for programs written for the BASIC Interpreter. It also gives you the support you need to develop and run programs by using the IBM Personal Computer Macro Assembler or the FORTRAN, COBOL, BASIC, C or Pascal Compilers.

DOS offers a wide range of sophisticated capabilities that can help simplify program design: A line editor lets you create, display or change source (text) files. A debug utility helps you display, change or trace a program in memory. And a linker allows you to combine the object output of compilers and Macro Assembler Version 2.00 into relocatable modules, which can then be run on IBM Personal Computers.

A separately available product, *DOS Technical Reference Manual* (Order No. 6024213), contains helpful technical details about DOS. The manual is intended for such experienced DOS users as systems programmers and applications developers. It includes information about DOS structure, facilities and program interfaces.

[1] DOS 3.00 does not support the 30MB IBM Personal Computer AT.

UPGRADE

IBM Disk Operating System (DOS) Version 3.10

Essential hardware/software support

IBM Disk Operating System (DOS) Version 3.10 is an enhanced version of the IBM Disk Operating System, which provides the necessary support between IBM Personal Computer hardware and software. DOS 3.10 supports all IBM Personal Computers: the IBM Personal Computer, IBM Personal Computer XT, IBM PC*jr*, IBM *Portable* Personal Computer, and IBM Personal Computer AT.

DOS 3.10 supports hardware and software for the IBM PC Network, an efficient local area network (see page 60). The IBM PC Network enables IBM Personal Computer users to exchange file data electronically and to access common printers or fixed disks.

Highlights

- Communicate efficiently in a network while maintaining the security of individual files by using DOS 3.10's full range of file-sharing and block-locking features.
- Write your own programs by using Disk BASIC and Advanced BASIC interpreters contained on the DOS 3.10 diskette.
- Use IBM Personal Computer Macro Assembler or FORTRAN, COBOL, BASIC, C or Pascal Compilers to develop and run programs.
- Manage files on a fixed disk or diskette; display directories, rename or copy files, and more.
- Copy and compare diskettes quickly, with a minimum of handling.
- "Chain" a series of commands to produce a predetermined sequence or to start programs automatically.
- Store data efficiently; use portions of IBM Personal Computer memory as a RAM (Random Access Memory) disk.
- Gain access to DOS commands and device drivers from a BASIC program by using the BASIC Interpreter.
- Provide screen dump support for your personal computer with DOS 3.10's "screen dump" utility.
- Display, change or trace a program in memory by using the DOS debug facility.
- Create, display or change text files with a line editor.
- Copy DOS to a formatted backup diskette or to a fixed disk.

Order No. 6024211

PC | XT | PC*jr* | PPC | AT

IBM PC XENIX

IBM's UNIX-based programs for IBM PC versatility

Take advantage of the power built into the IBM Personal Computer AT with IBM PC XENIX... a multitasking, multiuser system.

IBM PC XENIX Operating System is a Microsoft adaptation of UNIX System III, licensed by Bell Laboratories, with enhancements from both the University of California at Berkeley and Microsoft.

The IBM PC XENIX System bridges the DOS environment. Since PC XENIX and PC DOS can co-reside on a fixed disk, users can choose the appropriate operating system for the task at hand. The PC XENIX C Compiler can develop applications for both PC DOS and PC XENIX Operating System environments.

IBM PC XENIX includes:

- IBM PC XENIX Operating System, which provides the operating environment.
- IBM PC XENIX Software Development System, for program development.
- IBM PC XENIX Text Formatting System, for technical writing and document preparation.

IBM's PC XENIX offers powerful functions for a variety of users who require a multiuser or UNIX-based system. These users include:

- Application developers
- Professionals/engineers
- University students

IBM Personal Computer XENIX Operating System

A multiuser operating system

IBM Personal Computer XENIX Operating System is a multiuser, multitasking operating system for the IBM Personal Computer AT. Designed to help you make the most of the computer's capabilities, XENIX has the power and flexibility you need for commercial, engineering and scientific programming.

IBM PC XENIX Operating System is a Microsoft adaptation of UNIX System III, licensed by Bell Laboratories, with enhancements from both the University of California at Berkeley and Microsoft.

Highlights

- Support both multi- and single-user configurations; as many as three people, all with program and data protection, can use an IBM Personal Computer AT at the same time.
- Run several programs at once; even edit one file while compiling another.
- Use up to 3MB of user memory to take advantage of the IBM Personal Computer AT's 80286 microprocessor and optional 80287 Math Co-processor.
- Store XENIX and DOS on the same fixed disk; use supplied utility programs to transfer files between XENIX and DOS.

Order No. 6024207

AT

IBM Personal Computer XENIX Software Development System

Specialized program design tools

IBM Personal Computer XENIX Software Development System is a sophisticated application development program that allows several programmers to work on a common software project.

This software package includes an optimized C language compiler, the C shell, 80286 and 8088 assemblers (including support for 80287 and 8087 Math Co-processors), an interactive debugging tool, language translators and source code management tools.

Highlights

- Support programs and data that require more than 64KB of memory with the use of the C compiler's three memory models.
- Compile programs for XENIX and/or DOS with the C language's high-level programming features.
- Use the source code management facility to develop major programs on a single IBM Personal Computer AT.
- Support aliases and history mechanisms with the "csh" user interface.
- Document relationships between files by using source code maintenance and application tools.

Order No. 6024209

AT

IBM Personal Computer XENIX Text Formatting System

A sophisticated text processor

IBM Personal Computer XENIX Text Formatting System—a highly advanced software package—has text-processing functions that far exceed the capabilities of standard word processing software. These functions enable you to produce a variety of technical and professional documents.

Because it can format text to so many different specifications, this software package is particularly beneficial to authors who submit articles to technical journals with varying page requirements.

Highlights

- Create customized documents by specifying font type, point size, spacing, line length, and more.
- Use simplified formatting commands of built-in Macro processors for printing or for typesetting.
- Generate math symbols and equations and build tables by using Macro preprocessors.
- Check spelling in your document against the program's built-in word list.
- Improve writing style by using the program to check documents for readability, word length and sentence complexity.

Order No. 6024208

AT

UPGRADE

PC/IX Version 1.10

A UNIX-like multitasking system

PC/IX 1.10[1] is a single-user multitasking system that enables you to handle several tasks at the same time. The system provides a flexible working environment and a uniform set of tools for developing programs, preparing documents and processing text on a personal computer from IBM.

PC/IX 1.10 offers powerful functions for a variety of users, including:

- Application developers
- Professionals/engineers
- University students

Highlights

- Take advantage of advanced features, such as communication facilities, a hierarchical file system, a programmer's "workbench," and a flexible document-formatting system.
- Perform complex tasks by connecting a number of program modules to the system.
- Allow several individuals to store and share files on a personal computer from IBM at different times.
- Perform more than one task at the same time—print one file while editing another, for example.
- Work in an efficient, flexible environment using the same tools available on larger multiuser UNIX systems.
- Keep files confidential by preventing access by unauthorized individuals.
- Track and control changes in programs and documents with the PC/IX SCCS System.
- Exchange DOS files by using built-in utilities to transfer files to and from IBM PC DOS 2.00, 2.10, 3.00 and 3.10; also, store PC/IX files and DOS files on the same disk.
- Program more effectively with the full-screen editor; take advantage of advanced features, such as windowing, function-key editing and automatic file backup.
- Use a high-level programming language for structural programming.
- Benefit from enhancements over PC/IX 1.00; PC/IX 1.10 provides a generalized fixed disk driver.

Order No. 6317009

PC XT

[1] PC/IX 1.10 is an enhanced version of the UNIX Time Sharing System developed by Bell Laboratories and based on INTERACTIVE IS/3, a variation of UNIX System III licensed by AT&T Technologies, Inc.

CP/M-86

A faster version of CP/M

CP/M-86[1] is a faster, 16-bit version of the widely used 8-bit CP/M, one of the popular operating systems in the microcomputing field.

An efficient, powerful system, CP/M-86 allows you to: run CP/M application programs; create, erase, rename and copy files; develop, test and run assembler-language programs; format diskettes; print data from files; display diskette directories; and perform additional functions.

Highlights

- Manage more than a million bytes of main memory...allow several programs to reside in memory at once... assign specific memory areas to application programs.
- Use single-letter commands to perform a variety of writing and editing functions.
- Control hardware devices such as physical or logical drives, printers and adapters; check hardware operation with CP/M-86's detection system.
- Benefit from CP/M-86's compatibility with 8080, 8085 and Z-80[1] based systems; also convert 8-bit CP/M programs to 16-bit CP/M-86.
- Translate 8088 assembly-language statements into machine code with the ASM86 utility.

Order No. 6024035

PC XT PPC

[1] CP/M is a registered trademark and CP/M-86 is a trademark of Digital Research, Incorporated. Z-80 is a registered trademark of Zilog.

When you want to know more about an IBM software program, refer to the **System Requirements Chart** on page 92.

It lists the hardware and software you'll need to run programs featured in **The Library.**

IBM PC programming languages
Choose the programming language that's best for your needs

Design a payroll system. Build a statistical modeling program or a game. Create your own applications for business, professional or personal use with programming languages and the IBM Disk Operating System (DOS).

Each programming language has its own "personality" that includes distinct advantages that help make different languages suitable for different tasks.

To help determine your appropriate programming language, review the following descriptions. If you need more detailed information, please turn to fuller descriptions of the IBM versions in the following section.

IBM Personal Computer programming languages include:

- BASIC—*B*eginner's *A*ll-purpose *S*ymbolic *I*nstruction *C*ode is an easy-to-learn, widely used language, offering powerful graphic, musical, numeric and alphabetic capabilities. This makes BASIC ideal for a wide variety of engineering, mathematical, statistical and business applications.
- Pascal—Named for the French mathematician, Blaise Pascal, this features natural, English-like terminology that makes it fairly easy to learn. Pascal's strong graphics capabilities are most useful for scientific and instructional applications.
- C—This relatively new language is the foundation of UNIX and UNIX-type operating systems. It has high-level economy—which means a few phrases command powerful computing tasks—and low-level efficiency, for faster operation. It is a portable language that enables programs written in C to be used on different machines with little, if any, rewriting. Programs can be written in C for UNIX or PC DOS environments.
- FORTRAN—*FOR*mula *TRAN*slation is especially suited for problems with large sets of formulas and many variables. Fast, efficient "number-crunching" capabilities make FORTRAN ideal for research applications, engineering and scientific problems.
- COBOL—*CO*mmon *B*usiness *O*riented *L*anguage was the first programming language developed specifically for business. COBOL's high-level, English-like language and data base compatibility make it ideal for a wide range of business applications.
- APL—*A P*rogramming *L*anguage is powerful, concise and highly structured. It is used primarily for mathematical and scientific computation.

Programming languages are tools for productivity. In the following section you will see how the IBM versions of these languages can help you build applications.

IBM Personal Computer BASIC

BASIC... for programming the way people talk

Programs are *sets of instructions* that can be understood and acted upon by computers. Programming languages are *sets of characters and symbols* for writing programs.

Low-level languages instruct a computer to perform a specific operation upon reading a specific symbol. High-level languages are closer to everyday English and are more easily understandable. A single, high-level statement may contain several low-level instructions.

BASIC—*B*eginner's *A*ll-purpose *S*ymbolic *I*nstruction *C*ode—is an almost conversational high-level language. IBM PC BASIC contains more than 150 commands, statements and functions and brings programming within reach of beginners.

IBM PC BASIC consists of two components. The BASIC Interpreter enables writing and testing BASIC programs. The BASIC Compiler (optional) helps speed execution of these programs.

BASIC Interpreter is available in three versions:

- Cassette BASIC is stored in your IBM PC's read-only memory (ROM). It supports the 256-character set, all-points-addressable graphics, and special input/output devices such as light pens, joysticks and a built-in speaker. Cassette BASIC is used only with cassettes.
- Disk BASIC is a program on the IBM PC DOS diskette and must be loaded into memory before it can be used. In addition to Cassette BASIC features, Disk BASIC supports input/output to diskette and cassette. It also features a date/time "clock" and support for two additional printers and asynchronous communications (RS-232) with an Asynchronous Communications Adapter.
- Advanced BASIC includes all Cassette and Disk BASIC features, plus event trapping—automatic branching to a specific program line when a special event occurs. Events include communications activity and keyboard, joystick or light pen activation. Advanced graphics offers additional statements, making it easy to create complex graphics. Advanced music support simplifies creating musical tones.

IBM PC*jr* BASIC is a separate, optional software cartridge providing BASIC support for the IBM PC*jr*.

IBM Personal Computer BASIC Compiler, Version 2.00 offers significant enhancements over the previous version, including:

- Improved control structures and expanded graphics capabilities. It also allows compiling larger programs using separate space for instructions and data.
- This enhanced version also supports large numeric dynamic arrays, file sharing and record locking for network support, and more.

For a more detailed description of the IBM Personal Computer BASIC Compiler, see page 44.

NEW

C Compiler

Create applications in the C language

C Compiler is a valuable programmer's tool that enables you to use the powerful C language to develop high-function, general-purpose programs for a personal computer.

This DOS-based language compiler assists you in creating modules with small storage requirements and fast execution speeds, whether your computer is a stand-alone unit or is attached to a network.

Designed to handle a wide range of tasks, the C Compiler can create program modules—large or small, simple or complex, scientific or business-oriented—for systems or applications.

Highlights

- Develop programs that run on the IBM Disk Operating System (DOS).
- Support linked programs and individual data objects up to the amount of installed memory.
- Build optimized code that requires little storage space and provides fast execution speeds.
- Compile or link batch files by using the DOS or MAKE (program maintenance) facility.
- Gain floating-point library support from hardware emulation or alternate math.
- Receive warnings for syntax errors, data conversions and type mismatches.
- Simplify program development with four alternate memory models, mixed memory model programming, and optional IBM Macro Assembler Version 2.00 support.
- Program with symbolic debug functions.
- Gain flexible program execution with an overlay structure controlled by link option—not source code.
- Use library maintenance functions, DOS-executable file compression, and DOS file header modification.

Order No. 6280072

PC XT PPC AT

UPGRADE

BASIC Compiler Version 2.00

A BASIC productivity tool

BASIC Compiler Version 2.00 is a high-function language compiler designed to make it easy to use BASIC for personal or business programming needs.

BASIC Compiler lets you write and run programs easily and efficiently. You can even use it to detect and correct problems while an application is being developed.

Based on BASIC Compiler Version 1.00, this version contains features for greater programming control, including the ability to link separately compiled BASIC modules with a BASIC main program.

Highlights

- Compile large programs with separate space for instructions and data.
- Gain direct access to DOS commands.
- Benefit from the expanded graphics features of the BASIC Interpreter 3.10.
- Support dynamic numeric arrays restricted only by available memory.
- Use the program in the IBM PC Network and in the TopView multitasking environment.

Order No. 6024216

PC | XT | PCjr | PPC | AT

Pascal Compiler Version 2.00

Develop applications in Pascal

Pascal Compiler Version 2.00 is a program that provides a system development environment for creating and executing Pascal programs. Because of its structured programming facilities and extensive data structure, Pascal can be especially useful for running and maintaining large application programs.

Pascal Compiler 2.00, an enhanced version of the Pascal Compiler 1.00 program, has upgraded capabilities that support advanced computing functions.

Highlights

- Produce efficient object code for executing large programs.
- Easily install Pascal Compiler Version 2.00 with a setup batch program; create applications designed to run with IBM 8087 or 80287 Math Co-processors.
- Use sophisticated mathematics functions, such as double-precision arithmetic and four-byte integer type.
- Use single-level overlays in developing Pascal programs.
- Take advantage of a large amount of available memory—up to 640KB—at runtime.
- Use the program in the IBM PC Network and in the TopView multitasking environment.

Order No. 6024010

PC | XT | PPC | AT

NEW

IBM PC Professional FORTRAN

IBM's high-performance FORTRAN

Increase programming productivity with IBM Professional FORTRAN, written for IBM by Ryan-McFarland. The software offers ease of use, program development and high-performance computational capabilities. It is certified at the full level by the federal government.

Highlights

- Use a full-function ANSI-77 compiler and library that provides for easy migration to mainframe-level programs.
- Perform floating-point operation using the IEEE standard implemented by IBM 8087 or 80287 Math Co-processors.
- Enhance speed and efficiency while making excellent use of storage space, as a result of object code optimization that is automatically performed at compile time.
- Support programs and data segments larger than 64KB. Any single array can be larger than 64KB.
- Select an interactive symbolic debug facility at compile time for a broad spectrum of functions.

Order No. 6024200

PC XT PPC AT

FORTRAN Compiler Version 2.00

Programs for scientists and engineers

FORTRAN Compiler Version 2.00 enables you to develop and run programs in a version of FORTRAN-77, a popular computer language for scientific and engineering applications.

Programs can be compiled down to native object code and run on your personal computer from IBM.

Highlights

- Build applications that run independently or with the IBM 8087 or 80287 Math Co-processors.
- Start runtime with up to 640KB of available memory.
- Use double-precision arithmetic and additional metacommands.
- Add list-directed input/output; format output flexibly with the "G" edit descriptor.
- Create object code libraries by using the program's library manager.
- Link object modules with subroutines written in IBM Personal Computer Pascal Version 2.00 or Macro Assembler.

Order No. 6024127

PC XT PPC AT

Macro Assembler Version 2.00

Prepare assembler-language programs

Macro Assembler Version 2.00 enables you to develop programs in assembler language, which may run several times faster than equivalent programs written in higher-level languages. Assembler-language programs allow you to control the personal computer with a level of detail not available with other languages.

Assembler-produced programs may be called from programs compiled in BASIC, FORTRAN, Pascal and COBOL. An assembler-language source program may be created by using DOS to edit text and Macro Assembler 2.00 to assemble the program.

Highlights

- Use more than 75 internal DOS functions that can help you run complex programs.
- Create object code libraries by using the program's structured assembler-language preprocessor and library manager.
- Work with 80286-based IBM Personal Computers (Real Address Mode) and with IBM 8087 and 80287 Math Co-processors.
- Benefit from pathname support when Macro Assembler Version 2.00 is used with DOS 2.00 or higher.
- Use the program's cross-reference facility to assist in debug and pseudo operations to simplify coding.

Order No. 6024193

PC | XT | PCjr | PPC | AT

COBOL Compiler

Programs for businesses

COBOL Compiler permits you to develop programs in COBOL, a language designed specifically for business applications. COBOL is a version of the popular ANSI 1974-level standard, with extensions that support color and screen formatting capabilities.

Order No. 6024011

PC | XT | PPC | AT

APL Interpreter

A versatile, general-purpose language

APL Interpreter is a general-purpose language that can be used for a variety of applications, including commercial data processing, instruction in math and other subjects, system design, and mathematical and scientific computing.

The program supports such functions as full-screen input/output, disk and diskette file management, asynchronous communications and printing.

APL Interpreter requires the IBM 8087 Math Co-processor (80287 for the IBM Personal Computer AT), a hardware option that increases the speed of math calculations.

Order No. 6024077

PC | XT | PPC | AT

IBM PC programming tools
Add speed, power and simplicity to your programming

IBM offers many DOS-supported tools for programmers from beginners to data processing professionals.

These software packages include program aids, utility programs, organization programs, and other powerful tools to help you create or edit programs on IBM Personal Computers. For example:

- TopView Programmer's ToolKit—Allows you to take advantage of TopView's powerful multitasking and windowing capabilities. The Window Design Aid, language interface and other key utilities help you design TopView applications. Program examples are provided to help you learn.
- EZ-VU Runtime Facility and EZ-VU Development Facility—Use minimal coding to develop sophisticated, interactive application programs and manage your information more effectively. EZ-VU Runtime Facility and EZ-VU Development Facility must be used together.
- Professional Debug Facility—Trace and correct errors in assembler-language programs, or disassemble code with the Resident Debug Tool. Use the Disk Repair Utility for full-screen data access at the file or section level. The Non-Maskable Interrupt Card allows you to exit the user program and invoke the Resident Debug Tool for a faster debugging process.
- IBM Personal Computer SORT—Increase programming productivity in applications that require powerful data-sorting capabilities with this high-performance utility. Sort data file records, merge multiple input files, and enhance accounting, data base management, and other professional applications.
- IBM Personal Computer Print Screen Utility Program—Transfer color graphics and text from your screen to your printer with two keystrokes. Save time with a fixed-mapping capability that automatically determines the eight printer colors that best represent your display's palette of 16.
- Personal Editor and Professional Editor—Edit more productively with these efficient, four-file programs to help organize your work. Powerful editing functions include insert and delete, scrolling, search-and-replace, and others. You can even customize keys to your own editing style.

Find out more on the following pages about how these and other powerful tools can help enhance, speed and simplify your programming.

TopView Programmer's ToolKit
Design your own TopView applications

TopView Programmer's ToolKit is a powerful set of aids to help programmers design applications that are compatible with the TopView multitasking program (see page 17). It provides guidelines, utilities and system interfaces for creating various applications that take advantage of TopView's diverse capabilities.

A ToolKit Reference Book and Quick Reference Card—provided with the program—give pointers, examples and guidelines to help you get the most from TopView.

Highlights

- Create and store your own TopView windows, which can include Help screens, error messages, forms and menus.
- Save time by electronically copying previously designed windows into subsequent application designs.
- Revise your work quickly and easily; change the size or content of any window that you've created and stored.
- Custom-design your application to support a mouse or other pointing device for selecting on-screen information.
- Speak the same language as TopView by using the Macro Assembler interface defined in the ToolKit.

Order No. 6024133

PC XT PPC AT

NEW

EZ-VU Runtime Facility and EZ-VU Development Facility
Versatile, interactive programming tools

EZ-VU Runtime Facility and EZ-VU Development Facility are two tools that can help manage and transfer information and write programs.

EZ-VU Runtime Facility provides a simple, conversational interface between the programmer and an application. EZ-VU Development Facility lets the programmer use minimal coding to develop sophisticated, interactive personal computer applications. EZ-VU Runtime Facility is a prerequisite for EZ-VU Development Facility.

Order Numbers:
6316969 (Runtime)
6410980 (Development)

PC XT PCjr PPC AT

Professional Debug Facility
High-quality, high-performance code

Professional Debug Facility is a sophisticated tool for debugging assembler-language programs. Designed for the professional assembler-language developer, this program can be used to help meet demanding performance needs.

The Professional Debug Facility consists of a single diskette with two utilities: Resident Debug Tool and Disk Repair. In addition, a Non-Maskable Interrupt card—which can be easily installed in an expansion slot on your system unit—is included with the program.

Order No. 6024143

PC XT PPC AT

IBM Personal Computer SORT
High-performance data sorting

IBM Personal Computer SORT helps programmers sort records from data files and perform other sophisticated sorting operations that can increase productivity. It offers multiple sort fields, logical (IF-THEN-ELSE) operations, fixed- or variable-length records, and alternate collating sequences.

The SORT program is a valuable tool for accounting, professional data base management, and other applications that require powerful data-sorting capabilities. It can be used as a stand-alone utility, integrated into a DOS batch job stream, or invoked directly from a COBOL program.

Order No. 6024138

PC | XT | PCjr | PPC | AT

IBM Personal Computer Print Screen Utility Program
Color printouts direct from your screen

The IBM Personal Computer Print Screen Utility Program lets you quickly and easily transfer color graphics and text from a color display screen to an IBM Personal Computer Color Printer.

This easy-to-use, stand-alone utility program—designed to supplement IBM Disk Operating Systems 2.00 and 2.10—can also be used with the IBM Proprinter; colors appear as shades of gray, similar to the way they look on a black-and-white TV set.

Order No. 6024186

PC | XT | PPC

Personal Editor and Professional Editor
Comprehensive editors

Personal Editor and Professional Editor can help you streamline program and text development. Both programs have extensive editing and word processing features and are suitable for programmers and text developers.

Personal Editor is a full-screen, command-driven editor that lets you define up to 99 key combinations for executing your own commands; Professional Editor is a full-function, menu-driven editor that lets you select files and program options from multiple-choice menus.

Order Numbers:
6024051 (Personal Editor)
6024048 (Professional Editor)

PC | XT | PCjr | PPC | AT

Take the first step toward a more productive business:

Read the **IBM Personal Decision Series** brochure.

Contact your Authorized Dealer or IBM marketing representative for details.

IBM graphics...based on industry standards

Improve IBM PC graphics productivity

Computer graphics can be used to design a new car...or turn pages of data into a simple, easily understandable chart...or simulate a flight into space.

IBM's approach to graphics makes it possible to use graphics on their personal computers without writing or rewriting a program every time you have a change in design, application or equipment.

To make the concept work, IBM graphics programs and programming tools are built around emerging industry standards proposed by the International Standards Organization and the American National Standards Institute (ISO/ANSI).

Under these standards, graphics application programs written in a generic syntax have the same meanings wherever they are used. This applies regardless of the system used to write the program or run it.

This characteristic is known as program portability, because a program can travel—and be used—from system to system. Portability also reduces machine obsolescence, helping protect your investment in equipment.

Standards benefit everyone involved in computer graphics:

- Device manufacturers have less need to update or redesign equipment to keep up with new applications or requirements.
- Application developers can design programs for different equipment without worrying about the characteristics of the equipment on which those programs will be used.
- IBM PC users have a wider range of machine-independent solutions to their graphics problems.

The key to this new world of graphics is the Graphics Development Toolkit. This product includes the Virtual Device Interface (VDI)—also known as the Computer Graphics Interface (CGI).

The Toolkit—a powerful programming tool—helps create graphics. The VDI/CGI provides a standard interface between device-independent software and graphics input/output devices with device drivers for:

- IBM Color/Graphics Monitor Adapter
- IBM Proprinter
- IBM Personal Computer Color Printer
- IBM PC Compact Printer
- IBM Game Control Adapter
- IBM PC*jr* Video Subsystem
- IBM Enhanced Graphics Adapter
- IBM Color Plotter
- Metafile Device Driver

IBM graphics software described in *The Library* includes:

- Graphical Kernel System
- Graphical File System
- Graphics Terminal Emulator
- Plotting System

IBM's graphics software—and the standards to which it is designed—make it easier to improve productivity at programmer, device and user levels. See how these programs can be applied to your needs for the results you want.

NEW
Graphics Development Toolkit
The tool for building graphics applications

Write graphics software independent of the system on which it was written, the system in which it will be used, and the application it will be used for.

Highlights

- Use the standard interface between device-independent software and graphics I/O devices provided by the Virtual Device Interface, featured in the Graphics Development Toolkit.
- Achieve portability with Toolkit graphics software, allowing use of a wide range of graphics hardware.
- Shorten program development time with high-performance subroutines featuring graphics primitives and advanced functions.
- Simplify text and graphics integration with cursor-addressable alpha and graphics text capabilities.
- Use the language bindings available to support IBM PC DOS: IBM PC BASIC Compiler 1.00 or higher, FORTRAN Compiler 2.00, Pascal Compiler, Macro Assembler, IBM PC Professional FORTRAN, and Lattice C.[1]

Order No. 6024196

PC | XT | PC*jr* | PPC | AT

NEW
Graphical Kernel System (GKS)
A high-function application development tool

Improve productivity at the programmer level. The GKS achieves source code compatibility to provide a consistent interface in high-level languages. This results in program portability.

Streamline the development of sophisticated new programs by combining programs conforming to GKS standards. Any program written to GKS standards will work on any system supporting this standard.

Order No. 6024203

PC | XT | PPC | AT

NEW
Graphical File System
Get more productivity from your graphics programs

Store and retrieve graphic images in a standard, device-independent format. The Graphical File System allows transferring 2D graphics between systems and applications, making them more available for wide use.

Add program versatility with cut-and-paste capabilities and the ability to combine images from different applications. High-level language bindings include IBM PC BASIC Compiler 1.00 or higher, FORTRAN Compiler 2.00, IBM PC Professional FORTRAN, and Lattice C.

Order No. 6024205

PC | XT | PPC | AT

[1] Developed by Lattice, Inc.
Lattice is a trademark of Lattice, Inc.

NEW

Graphics Terminal Emulator

Use host computer graphics information

Enhance your productivity with IBM PCs by linking them to host mainframe graphics applications.

The Graphics Terminal Emulator gives IBM PCs attributes of terminals that can make host graphics applications available. And you can still use your IBM PC for other applications.

Use the Graphics Terminal Emulator and your IBM PC with IBM System/370 and with non-IBM systems as well. This program adds application and communications versatility to IBM PCs.

Order No. 6024206

PC XT PPC

NEW

Plotting System

Computer-generated charting made easy

Add productivity to computer-generated charting. This software provides routines and subroutines that simplify creating charts and charting programs. The programs may be used on a variety of I/O devices and retain their utility even when devices or systems are changed.

Order No. 6024204

PC XT PPC AT

NEW

IBM Voice Communications Application Program Interface Reference

Develop programs that use advanced speech functions

IBM Voice Communications Application Program Interface (API) Reference lets software developers create and run application programs that recognize voices, synthesize speech and manage telephone communications.

API consists of two instruction manuals and a toolkit diskette. The manuals show how to write application programs; the diskette—with a vocabulary compiler for "shorthand" commands—provides hands-on programming experience.

Order No. 6280743

PC XT AT

NEW

IBM PC Voice Communications Operating Subsystem

The key to voice and telephone applications

The IBM PC Voice Communications Operating Subsystem enables the personal computers in your office to synthesize speech, recognize and respond to voices, and manage telephone communications.

This subsystem—available separately or as part of IBM PC Voice Communications Option—controls the speech and communications functions of the IBM PC Voice Communications Adapter.

Order No. 6280708

PC XT AT

NEW

IBM Voice-Activated Keyboard Utility

Control software with spoken commands

IBM Voice-Activated Keyboard Utility allows you to respond to applications with verbal—rather than typed—commands.

The program includes a variety of features, such as on-screen command menus and a voice-recognition capability.

Order No. 6280742

PC XT AT

For more productive office communications...

...link your PCs to share messages, files, printers and disks. See the **IBM PC Network** brochure for details.

Contact your Authorized Dealer or IBM marketing representative for details.

Introduction to Engineering/ Scientific graphics

High-powered graphics application development

IBM Personal Computer Engineering/ Scientific (E/S) Series software includes graphics productivity tools for data processing professionals and application developers in a variety of disciplines.

The key to Engineering/Scientific graphics productivity is the Graphics Development Toolkit with the Virtual Device Interface (VDI). The toolkit can create graphics programs in a generic syntax. The VDI can provide a standard interface for these programs. See also Programming Tools, page 47.

This software support for professionals in engineering and science provides productive, cost-effective graphics capabilities for IBM Personal Computers. Versatility makes this support effective for programmers, program users and a wide range of graphics devices.

The emphasis in IBM E/S personal computer graphics is on sophisticated, specialized applications. The objective is providing for the development and use of programs that are both portable and compatible. E/S Series graphics software includes:

- Graphical Kernel System
- Graphical File System
- Graphics Terminal Emulator
- Plotting System
- Graphics Development Toolkit (See page 51.)

NEW

Graphical Kernel System

GKS graphics programming power

Improve programmer productivity with the Graphical Kernel System (GKS). This high-function programming tool is based on ISO/ANSI industry standards.

Highlights

- Make your programs portable for use on many systems with the Graphical Kernel System. Using source code compatibility, it provides a standard, high-level language interface.
- The GKS is implemented through a library of more than 100 graphics subroutines.
- Streamline programming by combining programs conforming to GKS specifications to form new and more sophisticated programs.
- Emulate functions and provide high-level support to less sophisticated devices with device attributes built into the software.
- Determine which capabilities your devices can provide with inquiry routines incorporated within the GKS.

Order No. 6024203

PC | XT | PPC | AT

NEW

Graphical File System

For device-independent graphics storage and retrieval

Make your valuable graphics programs available independently of the systems on which they were written or on which they will be used.

Highlights

- Work with graphic images in a standard format between programs and systems. Graphics storage and retrieval, based on industry standards, makes it fast and simple.
- Use icon- and menu-selected commands for interactive interfacing with ease.
- Make images with versatility features that allow cut-and-paste with individual frames, or combine the graphic output from different applications.
- Store graphics information efficiently by use of an ANSI binary format.

Order No. 6024205

PC XT PPC AT

NEW

Graphics Terminal Emulator

Use host computer graphics information at IBM PC workstations

Link IBM PCs to graphics applications in mainframes. The Graphics Terminal Emulator gives IBM PCs attributes of specific terminal families, while the Virtual Device Interface (VDI) makes application output available on many I/O devices.

Highlights

- Use your personal computer from IBM for other applications at the same time.
- Make your IBM PC a distributed graphics and alphanumeric workstation, easily switched from emulation to native mode.
- Use DOS commands while in emulation mode. Icon and menu features are included to establish asynchronous connection with a host protocol.
- Work with IBM System/370 as well as with non-IBM systems.

Order No. 6024206

PC XT PPC

NEW

Plotting System

Simplify and enhance charts and charting applications

The Plotting System, designed to create charts and charting applications quickly and easily, makes meaningful, visual communication from vast amounts of data without the need for complex manipulation.

Highlights

- Achieve functional economies with program routines and subroutines to generate many chart types.
- Use completed charts for other applications simply by changing the data.
- Work with a variety of I/O devices. Chart application programs achieve portability as a function of the Virtual Device Interface (VDI).
- Interactive charting capabilities help simplify chart application development, even for inexperienced users.
- Use the high-level language bindings included: IBM PC BASIC Compiler 1.00 or higher, FORTRAN 2.00, IBM PC Professional FORTRAN, and Lattice C.

Order No. 6024204

PC XT PPC AT

Instrument observation and control adapter support

Connect your workstation to the world of instrumentation and control

These programs—and their specific adapters—can support activities ranging from laboratory process control to pilot plant and production line support. Bridge the digital world of computers to the real-time world of instruments and devices, observation and control.

Highlights

- Use your PCs for other activities without taking down test setups or losing capabilities for data analysis and data base management. Data acquisition and control programs provide the necessary versatility.
- Expand data acquisition and instrument control activities as your needs grow by using Program Interface software.
- Take advantage of the following engineering/scientific laboratory automation software:

  General Purpose Interface Bus (GPIB) Adapter Support to configure, check and verify test setups for any of more than 2,000 instruments and devices.

  Data Acquisition and Control Adapter Support to interface and access the analog and digital capabilities of the adapter.

NEW

General Purpose Interface Bus (GPIB) Adapter Support

GPIB extends your professional reach

With the GPIB Adapter and its programming support, your IBM PC can access and control any of the more than 2,000 instruments or devices designed to IEEE-488 standards.

Programming support includes an interactive configuration program for easy configuration and verification of test setups. Real-time access to devices or instruments on the GPIB allows interactive control and data transfer to and from GPIB devices. Programming techniques and sample programs for supported languages are included.

Order No. 6024201

PC XT PPC AT

NEW

Data Acquisition and Control Adapter Support

Simplify process and instrument control

Use this software with your IBM PC for data acquisition, control, analysis and quality control activities in the laboratory, pilot plant or on the production line.

While your personal computer from IBM is used for data collection and lab automation, it can also be used for data base analysis and management. Complete programs are provided to illustrate data acquisition and control programming techniques in BASICA, FORTRAN and Lattice C.

Order No. 6024202

PC XT PPC AT

NEW

IBM PC Professional FORTRAN

High-performance for productivity

Combine high-performance computational and program development capabilities, with ease of use in software written for IBM by Ryan-McFarland.

Enjoy easy migration of mainframe-level programs with full ANSI-77 FORTRAN language, plus extensions. An efficient compiler improves execution time while making excellent use of storage space. Code optimization is performed automatically at compile time.

Perform floating-point operations using the IEEE standard implemented by the IBM 8087 or 80287 Math Co-processor.

Order No. 6024200

PC XT PPC AT

What can the Assistants do for you?

Read the **Assistant Series** brochure for details of each program.

Contact your Authorized Dealer or IBM marketing representative for details.

Communications—a strategy you can build upon

How your PC can open the door to the office of the future

New communications capabilities are made possible by IBM Personal Computers. Now you can use your PC to store, transmit and share information with other computers—and other users—across the hall or across the country.

IBM offers an extensive range of easy-to-use communications tools to help you speed business transactions, simplify information gathering, and exchange ideas. These tools can open the door to increased productivity now and for the future.

Review some of these powerful tools now, and read about them in more detail in the following pages.

- Personal Communications Manager—Use "electronic mail" any time of day or night—automatically—to send and receive messages, reports, even worksheets over standard telephone lines.
- PC/Videotex—Take advantage of videotex services with your IBM PC. Activities include shopping and banking at home and getting stock reports, financial updates, even late news and weather information.
- IBM PC Network Program—Link up to 72 IBM Personal Computers in a local area network. Users can share and store information quickly and easily. They can communicate electronically and reduce hardware costs by sharing printers and fixed disk drives.
- IBM PC Network SNA 3270 Emulation Program—Expand your communications capabilities by linking your PC Network to your company's 30XX or 43XX mainframe computer with this communications tool.
- IBM PC Network Analysis Program—Monitor and log the activities in an IBM PC Network to better manage network resources. The program assists you in analyzing traffic flow for the entire network or specific PCs.
- IBM Mainframe Communication Assistant—Exchange files with host computers or PCs and access subscription information services for travel information, stock quotations, and more.
- IBM Personal Computer Cluster Program—Link IBM Personal Computers cost-effectively. This gives small groups of IBM PC users an efficient way to transfer files, send messages and store data at a single location.
- Asynchronous Communications Support 2.00—Use your IBM PC to exchange data and program files with other ASCII-format computers. You can also access information networks and use large time-sharing services.
- Binary Synchronous 3270 Emulation—Perform interactive communications with a binary synchronous host system.
- SNA 3270 Emulation and RJE Support—Turn your IBM PC into an intelligent workstation with this application for high-speed synchronous data communications.
- 3101 Emulation—Simplify the exchange of ASCII-formatted files with host computers or other IBM PCs by providing your IBM PC with the operating features of a 3101 display terminal.

Find out more about high-powered communications with your IBM PC—for added productivity today and tomorrow.

Personal Communications Manager

Send and receive electronic mail

Personal Communications Manager enables any personal computer from IBM to exchange information with compatible computers over standard telephone lines.

With Personal Communications Manager, you can send and receive "electronic mail" at any time of the day or night. In addition, you can expand your communications capabilities by accessing the data files of compatible computers and various information networks.

Highlights

- Transmit worksheets, files, graphics and almost anything else you can display or store on a personal computer from IBM.
- Create a telecommunications network and exchange electronic mail with customers, branches, offices or departments.
- Create mailing lists with up to 40 addresses.
- Tag outgoing mail with your name and the time of transmission for improved record keeping.
- Increase your resources by contacting mainframes, other IBM Personal Computers, or outside services such as Dow Jones News/Retrieval,[1] THE SOURCE[1] and CompuServe.[1]
- "Chain" a series of commands so that one keystroke performs a series of functions.

Order No. 6024100

PC | XT | PC*jr* | PPC

NEW

PC/Videotex

An exciting communications medium

PC/Videotex enables you to use your personal computer from IBM as a terminal to access videotex services via telephone lines.

Videotex services can provide you with a wealth of options, from home shopping to the commodity market outlook. The casual user as well as the business professional will find an abundance of useful, often fascinating information readily available.

Highlights

- Organize data into screens of information called "frames"; use menus and key words to choose the data you want to see or the activity you want to perform.
- Select and save frames on diskettes for future use; replay frames in sequence in a timed, "billboard" fashion.
- Track and plan your personal finances; look at airline schedules and fares; take customers on a "tour" through your own electronic showcase.
- Access host data bases by using an IBM PC as a videotex terminal to receive and transmit information.
- Control data and customize key definitions through the use of command and function keys.
- Display colorful graphics and text for a variety of videotex service offerings.

Order No. 6316984

PC | XT | PC*jr* | AT

[1] Dow Jones is a trademark and Dow Jones News/Retrieval is a registered trademark of Dow Jones & Company, Incorporated. THE SOURCE is a service mark of Source Telecomputing Corporation, Incorporated. CompuServe is a trademark of CompuServe, Inc.

NEW

IBM PC Network Program

Share PC hardware and data

The IBM PC Network Program is a hardware/software offering that interconnects up to 72 IBM Personal Computers and their associated hardware. It enables information that is stored on one personal computer from IBM to be transmitted quickly to and from other IBM Personal Computers on the local area network.

The IBM PC Network Program facilitates not only the sharing of information but the sharing of fixed disks and printers as well.

Highlights

- Send electronic messages as quickly and easily as you can access data files.
- Reduce hardware expenses and enhance teamwork by sharing printers and fixed disk storage; set up smaller, quieter workstations.
- Use versatile broadband (multichannel) cabling to support a network of up to 1,000 PCs.
- Find and retrieve data from another PC in seconds, without leaving your desk.
- Ensure high-performance access to data by installing the "intelligent" IBM PC Network Adapter, which contains its own microprocessor and memory.
- Control any number of IBM-compatible printers or disks in the network at the same time with multiple file/print servers.
- Maintain data integrity while allowing concurrent updates by using file locking, record locking and other access control features.
- Work "transparently" on the network by using many popular programs—the same way you would if you weren't on the network.
- Use the program's electronic messaging capability to communicate simultaneously with everyone on the network.
- Expand your network without disrupting existing workstations.
- Learn to use the IBM PC Network Program through a familiarization tool, "Exploring the IBM PC Network," included with the program.

System Requirements

A minimum of 128KB of memory for the Redirector (192KB for full-screen interface, 256KB for the Messenger and the file/print server), one double-sided diskette drive, an 80-column display, an IBM PC Network Adapter, and the IBM Disk Operating System (DOS) 3.10. The file/print server also requires a fixed disk drive.

Order No. 6024195

PC XT PPC AT

NEW

IBM PC Network SNA 3270 Emulation Program

The gateway to greater productivity

The IBM PC Network SNA 3270 Emulation Program offers high-function communications with a variety of personal computer workstations. When installed on a personal computer from IBM attached to the IBM PC Network,[1] the program enables up to 32 network users to exchange data with IBM 43XX and 30XX computer systems via a single SDLC communications line.

The IBM PC Network SNA 3270 Emulation Program provides three distinct capabilities in IBM SNA communications environments:

- Communications Gateway—emulates a subset of an IBM 3274-51C Control Unit function; each gateway in the network handles up to 32 concurrent sessions with one or more IBM host computers.
- IBM PC Network Station—emulates a subset of an IBM 3278-2 or 3279-SA2 display station or a 3287-1 printer function.
- Stand-alone Remote User Station—emulates a subset of IBM 3274-51C Control Unit function, 3278-2 display station function, or 3287-1 printer function.

Highlights

- Transfer host files, save screens and append files to existing files.
- Store files on a fixed disk or diskette.
- Redefine keyboard keys with the program's "mapping" capability.
- Switch back and forth from a PC DOS application to 3270 emulation without interrupting the 3270 session.
- Send and receive data files between any two systems in the network; also, send messages to other systems.

System Requirements

Communications Gateway: A minimum of 256KB of user memory, one double-sided diskette drive, DOS 3.10, an IBM 3270 SDLC Adapter, and an IBM PC Network Adapter. A minimum of 320KB of user memory is required when an IBM PC is used as a 3270 display station and SDLC gateway simultaneously.[2]

IBM PC Network Station: A minimum of 256KB of user memory, one double-sided diskette drive, DOS 3.10 and an IBM PC Network Adapter.

Stand-alone Remote User Station: A minimum of 256KB of user memory, one double-sided diskette drive, DOS 2.10 or higher (DOS 3.00 or higher for the IBM Personal Computer AT), and an IBM SDLC Adapter. The program does not support local (channel) attachment or some features and capabilities of the 3274/3278/3287 cluster.

Order No. 6322526

PC XT PPC AT

[1] When a personal computer from IBM that is running the IBM PC Network SNA 3270 Emulation Program is used simultaneously with IBM PC Network Programs that provide print- or file-server functions, some restrictions may apply. For full details, contact your Authorized Dealer or IBM marketing representative.

[2] The IBM *Portable* Personal Computer cannot be used in the Gateway configuration.

NEW

IBM PC Network Analysis Program

Monitor and log network activity

IBM PC Network Analysis Program lets you monitor and log the activity on the IBM PC Network from a single PC, which *must* be dedicated. For example, you can examine the traffic between specific PCs on the network, then use that data to help balance work loads and find the best system configuration for your needs.

Highlights

- Maintain a directory of networked IBM PCs that may include users' names and telephone numbers.
- Review the activity of specific workstations; determine which workstations have the greatest traffic flow.
- Monitor the network for error conditions; receive notification when values you have selected are exceeded.
- Run the program continuously or periodically; log data for review.

System Requirements

A minimum of 256KB of memory, DOS 3.10, the EZ-VU Runtime Facility, and the IBM PC Network Adapter. For a network of 2-60 PCs, two double-sided diskette drives (or a double-sided diskette drive and either a fixed disk drive or a high-capacity diskette drive) are required. For 61-200 PCs, a double-sided diskette drive and either a fixed disk drive or a high-capacity diskette drive are required. For more than 200 PCs, a double-sided diskette drive and a fixed disk drive are required. An additional 2KB of memory is required for every 24 adapters over 200 in the network.

Order No. 6489762

PC | XT | PPC | AT

NEW

IBM Mainframe Communication Assistant— an Assistant Series program

Share information with other computers

IBM Mainframe Communication Assistant lets you exchange files with host computers or PCs—without leaving your desk. The program also connects you with subscription information services that deliver electronic news reports, shopping catalogs, travel information, stock quotations, and much more.

The information you retrieve can be incorporated into documents created with other Assistant Series programs (see page 6).

Order No. 6024140

PC | XT | PCjr | PPC | AT

NEW

IBM Personal Computer Cluster Program

A multiuser information-sharing program

The IBM Personal Computer Cluster Program and its associated hardware enable you to connect up to 64 IBM Personal Computers to send and receive messages and transfer files. It is an especially useful program for small businesses and schools.

The Cluster Program enables several users to share a common fixed disk. For example, a personal computer from IBM equipped with a fixed disk drive can be designated a "disk-server station," allowing other IBM Personal Computers on the cluster to share fixed-disk-stored files.

Order No. 6024107

PC | XT | PCjr | PPC | AT

Asynchronous Communications Support 2.00

Communicate with many computers

IBM Asynchronous Communications Support 2.00 offers you the speed, power and cost-effectiveness of computer communications. It links your personal computer to subscription information services, compatible IBM mainframes, and input/output devices.

The program provides your PC with the operating characteristics of an asynchronous (start/stop) Teletype[1] ARS 33/35, a teletypewriter with automatic send/receive features.

Order No. 6024032

PC | XT | PCjr | PPC | AT

Binary Synchronous 3270 Emulation

Communicate with a BSC host

The BSC 3270 Emulation program enables you to use your personal computer as a 3270-type terminal for interactive communications with a binary synchronous host system. Data can be exchanged over switched and leased lines at speeds of up to 9,600 bits per second.

Binary Synchronous 3270 Emulation can communicate with the following IBM 3270-type terminals:

- 3271-2/3277-2 (over leased lines)
- 3274-51C/3278-2 (over leased lines)
- 3275-2 (over switched and leased lines)
- 3276-2 (over leased lines)

Order No. 6024037

PC | XT | PPC | AT

[1] Teletype is a trademark of Teletype Corporation.

SNA 3270 Emulation and RJE Support

High-speed communications

Systems Network Architecture (SNA) 3270 Emulation and Remote Job Entry (RJE) Support transforms a personal computer into an intelligent terminal for high-speed synchronous data communications in two modes: SNA 3270 or SNA 3770 RJE.

You can use this program for applications ranging from data entry to inquiry and update to transaction processing. For example, you can emulate 3278 display station features, including printer local copy support, 24 program function keys, and EBCDIC line transmission support.

Order No. 6024036

PC | XT | PPC | AT

3101 Emulation

3101 Display Terminal functions

The 3101 Emulation program includes several specification files that support popular uses of a 3101 terminal. Among the uses: exchanging ASCII-formatted files with other IBM PCs, host computers, subscription information networks, and more. 3101 Emulation's specification files are compatible with the following systems and services:

- VM/370, MVS/TSO
- IBM 7426 Terminal Interface Unit (TIU) for IBM 8100 series computers
- Yale IUP for Series/1
- ASCII Pass-through (PVM)
- Extended information services
- IBM Information Network

Order No. 6024042

PC | XT | PCjr | PPC | AT

NEW
Language Arts software
Sharpen verbal and writing skills

Language Arts programs help students develop reading, spelling, writing and language skills through interactive games and lessons.

Covering such typical subjects as phonetics and grammar, the programs are designed to help preschool through junior high school students learn at their own pace.

Programs designed for young children begin with the basics: letters. They introduce simple words and help children learn to read stories through entertaining animations and playful exercises.

Lessons for older students concentrate on enhancing use of the language. The Electric Literature Series, for example, gives students practice in using the dictionary and in punctuating prose and poetry. Other programs include activities that help students increase word knowledge, write clearly and improve spelling skills.

Teachers can also benefit from Language Arts software by using the programs to design courses that reinforce classroom lessons, help individual students in specific areas of study, and maintain records of each student's progress.

NEW
Reading Comprehension Skills by Test Master, Inc.—
a Private Tutor course

Remembering what is read

Reading Comprehension Skills uses drills and practice to help students better understand what they read. Its lessons review reading comprehension techniques that students can learn to master.

In five lessons, this Private Tutor course (see page 82) covers such topics as literal, interpretive and critical comprehension and figurative language (similes, metaphors, hyperbole and personification).

Suggested for grade 6 and up.

Order No. 6024325

PC | XT | PCjr | PPC | AT

NEW
Listen to Learn
Text that talks

Listen to Learn is a program that talks to children to help them develop reading, writing and spelling skills. The program's voice synthesizer lets students listen to a story or passage as they read it on the screen.

Listen to Learn encourages children to experiment with words and sounds. It is a useful learning tool for beginning readers, students with learning disabilities, or those learning English as a second language.

Suggested for kindergarten.

Order No. 6024165

PC | XT | PCjr | PPC | AT

NEW
Dictionary Dog® by Control Color Corporation—
an Electric Literature Series program

Find the right words

Dictionary Dog helps beginning writers build their vocabularies by using the dictionary to find the right word—and the right spelling.

Animated keyboard games challenge children to decipher and spell "scrambled" words and to use a dictionary to complete the program's vocabulary exercises. Correct answers are rewarded with special "electric poems" and a wag of Dictionary Dog's tail. This program is used in conjunction with Electric Poet (see page 83).

Suggested for grades 3-4.

Order No. 6024067

PC | XT | PCjr | PPC | AT

NEW
Comma Cat® by Control Color Corporation—
an Electric Literature Series program

Punctuate poetry and prose

Comma Cat is an easy way for youngsters to learn punctuation. The program displays a series of "electric poems" that offer examples of when and how to use standard punctuation marks. It also indicates where to find punctuation keys on the keyboard.

Lessons are reinforced by games that challenge children to insert appropriate punctuation marks into sentences and verses. This program is used in conjunction with Electric Poet (see page 83).

Suggested for grades 3-4.

Order No. 6024292

PC | XT | PCjr | PPC | AT

NEW
Missing Letters
Fill in the blanks

Missing Letters challenges students to improve their language and reading skills. Students can fill in missing letters and words in more than 50 passages included with the program, or they can write their own stories and turn them into missing-letter puzzles.

The program permits teachers to concentrate on such specifics as suffixes, verbs or vowels. It has nine formats and more than 700 exercises.

Suggested for grades 5-6.

Order No. 6024104

PC | XT | PCjr | PPC | AT

NEW
Crypto Cube
A cubical crossword game

Crypto Cube is a learn-to-spell program that combines the fun of solving word puzzles with the excitement of playing computer games. It challenges players to find spelling words by uncovering letters in any one of 50 cubical word puzzles.

Students can choose puzzles on such subjects as Animals, Chemistry or Weather. Or they can create new subjects and puzzles as their spelling skills increase.

Suggested for grades 5-6.

Order No. 6024158

PC | XT | PCjr | PPC

NEW
Spelling Skills by Test Master, Inc.—
a Private Tutor course

"i before e" and other spelling rules

Spelling Skills helps students improve their spelling. Its eight lessons cover such spelling rules as converting nouns from singular to plural and adding suffixes.

This Private Tutor course (see page 82) allows students to work at their own pace and to use tests and quizzes to check their progress. To help students prepare for major educational tests, the program's test formats closely resemble those of standardized tests.

Suggested for grade 6 and up.

Order No. 6024086

PC | XT | PC*jr* | PPC | AT

NEW
Bouncy Bee Learns Letters
Fun with the A-Bee-Cs

Bouncy Bee Learns Letters uses a playful bee to help young children become familiar with the alphabet.

Youngsters watch and listen as Bouncy Bee takes them through games and lessons that help improve reading readiness. To respond or make selections, they simply press the spacebar or cursor control keys.

Suggested for preschool to grade 3.

Order No. 6447953

PC | XT | PC*jr* | PPC | AT

NEW
Vocabulary Building Skills by Test Master, Inc.—
a Private Tutor course

Understanding word structure

Vocabulary Building Skills is designed to help students improve communication skills by showing how words are built. The program includes six lessons that cover prefixes, suffixes, Greek derivations, compound words and word roots.

Quizzes and tests help students monitor their own progress. To reinforce comprehension, vocabulary rules are displayed along with quiz answers.

Suggested for grade 6 and up.

Order No. 6024326

PC | XT | PC*jr* | PPC | AT

NEW
Word Knowledge Skills by Test Master, Inc.—
a Private Tutor course

How to use words effectively

Word Knowledge Skills can help students increase their understanding of the meaning and use of words. The program covers synonyms, antonyms, homonyms, idioms and other topics that prepare students to make appropriate word choices.

Lessons review word types and applications, give examples of exceptions to rules of usage, and are followed by quizzes geared to practicing newly learned skills.

Suggested for grade 6 and up.

Order No. 6024327

PC | XT | PC*jr* | PPC | AT

NEW
Bouncy Bee Learns Words
Improve reading skills

Bouncy Bee Learns Words captures young imaginations by using an animated bee to help children recognize words. Children follow Bouncy Bee as he buzzes around on the screen, identifying words and speaking them aloud.

Parents and teachers can use this program to help children learn to read. They can adjust the games and lessons to match a student's skill level, select the content of lessons, and keep progress records.

Suggested for grades K-5.

Order No. 6447944

PC | XT | PCjr | PPC | AT

NEW
Punctuation Skills by Test Master, Inc.—
a Private Tutor course

Sentences that make sense

Punctuation Skills helps students write clearer, better constructed sentences by reviewing the proper use of punctuation marks—commas, semicolons, apostrophes, quotation marks, colons, question marks and exclamation points.

This Private Tutor course (see page 82) introduces punctuation rules, gives examples of usage, and asks sample test questions. Its test formats are similar to those of national standardized tests, so students also receive practice in taking major education exams.

Suggested for grade 6 and up.

Order No. 6024083

PC | XT | PCjr | PPC | AT

NEW
Capitalization Skills by Test Master, Inc.—
a Private Tutor course

Help with capitalization rules

Capitalization Skills takes students through seven lessons that answer the question, "To capitalize or not to capitalize?" Capitalization rules on proper names, first words of sentences, quotations and salutations are thoroughly reviewed. Even not-so-common rules are covered.

Through examples and sample questions, this Private Tutor course (see page 82) helps students learn the proper rules to follow.

Suggested for grade 6 and up.

Order No. 6024085

PC | XT | PCjr | PPC | AT

NEW
Language Skills by Test Master, Inc.—
a Private Tutor course

Say what you mean

Language Skills helps students learn to express themselves more clearly. The course's six lessons cover common problems of expression, including incomplete and run-on sentences, frequently confused nouns and verbs, and improper use of possessive pronouns.

This Private Tutor course (see page 82) provides practice in taking major educational tests and encourages students to test themselves through lessons, quizzes and tests.

Suggested for grade 6 and up.

Order No. 6024084

PC | XT | PCjr | PPC | AT

Juggles' Butterfly™
Develop spatial concepts

Juggles' Butterfly™ is a set of three educational programs with a dual purpose: to introduce children to computing and to help develop spatial concepts.

The program can give children a head start on school by teaching directions—such as "above," "below," "left" and "right"—as well as letters and geometric shapes. Music, sound effects and vivid color graphics are built in to the program to maintain children's interest.

Suggested for preschool-grade 1.

Order No. 6024095

PC | XT | PC*jr* | PPC | AT

Bumble Games™
Make math fun

Bumble Games™ is a fun-filled educational software package designed to help children improve their math skills. The package includes six programs that use a game format—complete with sound effects and music—to help students learn how to plot a graph and understand simple math concepts.

The games range from relatively easy to difficult, so children can proceed at their own pace as their skills and comprehension develop.

Suggested for preschool-grade 5.

Order No. 6024094

PC | XT | PC*jr* | PPC | AT

Gertrude's Secrets™
Practice logical thinking

Gertrude's Secrets™ is a series of entertaining games designed to help children learn logical thinking by joining in the adventures of Gertrude the Go-Getter Goose.

Gertrude uses game pieces of assorted colors and shapes to help teach youngsters about order, organization and planning.

By arranging the game pieces according to given rules of simple logic, or by guessing Gertrude's secret rules, students solve various puzzles to win the games.

Suggested for preschool-grade 5.

Order No. 6024097

PC | XT | PC*jr* | PPC | AT

Adventures in Math
Solve problems to find treasures

Adventures in Math challenges children to use math skills to explore a castle and uncover its hidden treasure. The program lets students select the math operation to use—addition, subtraction, multiplication, division or a combination of all four.

It also lets students adjust the game's level of difficulty to keep pace with their math improvement.

Suggested for grades 3-5.

Order No. 6024074

PC | XT | PC*jr* | PPC | AT

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Monster Math
Math drills as challenging games

Monster Math is a colorful, arcade-style game designed to help develop and sharpen arithmetic skills. The program offers six different levels and drills in addition, subtraction, multiplication and division.

The game begins when a monster appears on the screen. By solving math problems, students gradually erase the monster and score points in the process.

Suggested for grades 3-5.

Order No. 6024072

PC | XT | PCjr | PPC | AT

Bumble Plot™
A grade-school geometry game

Bumble Plot™ is a set of five entertaining programs that builds on the mathematical concepts introduced in Bumble Games (see page 68).

Picking up where Bumble Games leaves off, Bumble Plot shows players how to use positive and negative numbers to name grid points, plot numbers to build computer charts and graphs, locate places on a map, and design computer graphics.

Suggested for grades 3-8.

Order No. 6024096

PC | XT | PCjr | PPC | AT

Gertrude's Puzzles™
Help develop reasoning abilities

Gertrude's Puzzles™ is a series of progressively challenging games that helps children analyze what they see to find solutions to problems. It teaches youngsters to use logic and deductive reasoning to solve a variety of puzzles.

In six different on-screen rooms, players build puzzles of certain color and shape patterns. To assemble these puzzles and win the games, players must follow given rules—or discover Gertrude's secret rules.

Suggested for grades 3-8.

Order No. 6024098

PC | XT | PCjr | PPC | AT

Rocky's Boots™
Learn how computers work

Rocky's Boots™ is an animated educational program that helps players learn the fundamentals of computer logic and circuitry, then use those concepts to create simulated circuits—the basic building blocks of computers.

Featuring Rocky the Raccoon as a helpful instructor, the program is designed to develop young players' logic and reasoning skills.

Suggested for grade 4 and up.

Order No. 6024099

PC | XT | PCjr | PPC | AT

™ Bumble Plot, Gertrude's Puzzles and Rocky's Boots are trademarks of The Learning Company. The Learning Company reserves all rights in the Rocky character under copyright law and its name as a trademark.

NEW
Basic Number Skills by Test Master, Inc.—
a Private Tutor course

A review of basic mathematics

Basic Number Skills can help make reviewing basic mathematics a positive experience. It lets students work with the computer—at their own pace—to review and improve their computation skills.

This Private Tutor course (see page 82) consists of four lessons, each of which reviews a single concept and offers examples. Its self-administered tests and quizzes are accompanied by on-screen answers and explanations.

Suggested for grade 6 and up.

Order No. 6024297

PC | XT | PCjr | PPC | AT

NEW
Solving Word Problems by Test Master, Inc.—
a Private Tutor course

Self-paced problem solving

Solving Word Problems can help students overcome the "mental block" often associated with mathematics. The program presents math-related word problems—on figuring sales tax, discounts or averages, for example—and gives step-by-step instructions for their solutions.

This Private Tutor course (see page 82) not only allows students to progress at their own pace but also helps reinforce learning through a series of quizzes.

Suggested for grade 6 and up.

Order No. 6024308

PC | XT | PCjr | PPC | AT

NEW
Math Computation Skills by Test Master, Inc.—
a Private Tutor course

Fractions, decimals, and more

Math Computation Skills' five lessons review how to add, subtract, multiply and divide whole numbers, fractions, decimal numbers and exponents.

This Private Tutor course (see page 82) is designed for students who need to polish their mathematics skills. After each lesson, it gives quizzes that reinforce math principles and, at the end of the course, presents three "final exams" covering all five lessons.

Suggested for grade 6 and up.

Order No. 6024305

PC | XT | PCjr | PPC | AT

NEW
Preparing for Geometry and Algebra by Test Master, Inc.—
a Private Tutor course

A head start on geometry and algebra

Preparing for Geometry and Algebra helps review the techniques involved in solving basic algebra and geometry problems. The program presents math rules, then lets students solve problems at their own pace.

This Private Tutor course's (see page 82) five lessons are followed by quizzes that let students practice the skills they've just learned. Three tests similar to standardized exams also are included.

Suggested for grade 6 and up.

Order No. 6024307

PC | XT | PCjr | PPC | AT

NEW

Biology Series

Learning nature's secrets

The Biology Series is a set of programs designed to enrich the study of the major concepts and processes of modern biology. The programs—on subjects ranging from the structure of a single cell to the complex functions of the human body—let students work at their own pace.

Students use an investigative approach to examine cellular activity, including mitosis, osmosis and diffusion; trace the intricacies of the leaf; decipher genetic code; and explore the cause and control of diseases by evaluating case histories.

To help keep student interest levels high, color graphics, experiments and simulations are used in each program. And to challenge students to use their reasoning skills, quizzes and tests follow each lesson.

The Biology Series programs are curriculum-based and complement a variety of biology texts. Each comes with an instructional guide that provides teaching objectives, techniques to help reinforce learning, and course completion schedules.

Special school package editions, which contain 12 copies of the program diskette and one User's Guide, are available for each course in the series.

Suggested for high-school level and up.

NEW

The Environment I: Habitats and Ecosystems—

a Biology Series course

Understand ecosystems and what affects them

The Environment I is an instructional course that shows students how light, water, temperature and soil affect plant life and animal life.

The program also explores the relationships—both beneficial and harmful—that exist among organisms in such major ecological communities as the tundra, tropical forest and desert.

Suggested for high-school level and up.

Order No. 6024412
School Package No. 6024442

PC | XT | PC*jr* | PPC | AT

NEW

Leaf: Structure and Physiology—

a Biology Series course

The leaf as "chemical factory"

This program helps students discover the intricate structure and physiology of the plant by studying the leaf, the plant's "chemical factory."

Students use on-screen graphics to identify and label each part of the leaf and to study the structure and function of the stem, petiole, veins, midrib and blade. They then explore vital biological processes such as photosynthesis, water and food transport, and the action of stomates in gas exchange.

Suggested for high-school level and up.

Order No. 6024318
School Package No. 6024388

PC | XT | PC*jr* | PPC | AT

NEW
Light, Plants, and Photosynthesis: Energy in Conversion— a Biology Series course

How plants create energy

This program explains the process of photosynthesis, the transformation of sunlight into plant energy.

Students discover why light is necessary for photosynthesis, how light energy is converted into food energy, and what role chloroplasts play in light conversion. Through on-screen experimentation, students learn to control light wavelengths and to make predictions about absorption and reflection.

Suggested for high-school level and up.

Order No. 6024319
School Package No. 6024393

PC | XT | PCjr | PPC | AT

NEW
Plants: Growth and Specialization— a Biology Series course

How plants grow

This program's simulated experiments take students on a tour of a plant's anatomy, from root tip to terminal bud, to discover how plants grow and differentiate.

As the program's animation and graphics make on-screen plants spring to life, students learn how plant growth is controlled through hormones, auxin distribution, transport, differentiation and feedback mechanisms.

Suggested for high-school level and up.

Order No. 6024321
School Package No. 6024392

PC | XT | PCjr | PPC | AT

NEW
Cell Functions: Growth and Mitosis— a Biology Series course

How cells replicate

Students explore the mystery of mitosis—cellular reproduction—in this introductory course on cell structure, function and reproduction.

The program's demonstrations help students learn to identify parts of a typical cell, explain surface area compared to cell volume, and experiment with the size of a cell. Other lessons illustrate the intricacy of chromosomes, DNA replication and the stages of mitosis.

Suggested for high-school level and up.

Order No. 6024316
School Package No. 6024391

PC | XT | PCjr | PPC | AT

NEW
Cytology and Histology: Cells and Tissues— a Biology Series course

Explore the inner workings of the cell

Cytology and Histology investigates the structure of cells and explores how cells form tissues. Through lessons and animations, the program shows how vital cells are to an organism's survival.

Students learn to distinguish between plant and animal cells and to describe the functions of cell organelles, unicellular organisms and various tissue types.

Suggested for high-school level and up.

Order No. 6024407
School Package No. 6024487

PC | XT | PCjr | PPC | AT

NEW
Passive Transport: Diffusion and Osmosis—
a Biology Series course

How cells transport materials

This program focuses on the membrane as the "gateway" for the transportation of water, food and other products in and out of a cell.

Students explore diffusion, transportation through selectively permeable membranes, and cellular equilibrium. Interactive experiments help students follow the movement of molecules, predict cell membrane activities, and learn how osmosis changes cell size.

Suggested for high-school level and up.

Order No. 6024320
School Package No. 6024389

PC | XT | PC*jr* | PPC | AT

NEW
Regulation and Homeostasis: Systems in Balance—
a Biology Series course

Maintaining the body's equilibrium

Regulation and Homeostasis examines how such internal body processes as breathing and circulation are affected by changes in the external environment...and how organisms react to these changes.

The program focuses on hormones as chemical messengers that trigger appropriate responses from internal organs and help keep body temperature, respiration and blood sugar constant.

Suggested for high-school level and up.

Order No. 6024410
School Package No. 6024440

PC | XT | PC*jr* | PPC | AT

NEW
Human Life Processes I: Cellular Physiology—
a Biology Series course

How human cells live

Human Life Processes I explains some of the most vital processes of life: respiration, growth, regulation, synthesis, excretion, transport, nutrition and reproduction. It describes how even the tiniest organism goes through these everyday processes.

Lessons cover the function and structure of plasma membrane; cellular respiration, oxidation and reduction; the role of ATP; and other physiological concepts.

Suggested for high-school level and up.

Order No. 6024346
School Package No. 6024396

PC | XT | PC*jr* | PPC | AT

NEW
Human Life Processes II: Systems Level—
a Biology Series course

Discover how the human body works

Human Life Processes II explores the functions of the respiratory, digestive and excretory systems.

Students participate in simulations and experiments that make learning fun—and discover how specialized cells, tissues and organs work together to sustain life.

Suggested for high-school level and up.

Order No. 6024411
School Package No. 6024441

PC | XT | PC*jr* | PPC | AT

NEW
Pathology: Diseases and Defenses—
a Biology Series course

The battle against disease

Pathology: Diseases and Defenses explores common diseases and what scientists are doing to control them.

Students learn to distinguish among infectious, noninfectious and genetic diseases. They also discover how disease-producing organisms enter the body and how antibodies develop to combat them.

Suggested for high-school level and up.

Order No. 6024343
School Package No. 6024390

PC | XT | PC*jr* | PPC | AT

NEW
Modern Genetics: Chromosomes and Coding—
a Biology Series course

The key to heredity

Focusing on the secrets of heredity, this program explores DNA, the "heredity control center" of a cell, and the genetic code that determines the characteristics of every cell in the body.

Other concepts covered include chemical composition of chromosomes, DNA replication, protein synthesis, hereditary diseases and mutation—the exception to all the rules.

Suggested for high-school level and up.

Order No. 6024345
School Package No. 6024395

PC | XT | PC*jr* | PPC | AT

NEW
Mendelian Genetics: The Science of Inheritance—
a Biology Series course

Discover how traits are acquired

Mendelian Genetics helps students understand how genes determine hereditary traits.

The experiments of geneticist Gregor Mendel are simulated on the screen to demonstrate basic laws of heredity, such as dominance, recession and independent assortment.

Suggested for high-school level and up.

Order No. 6024408
School Package No. 6024438

PC | XT | PC*jr* | PPC | AT

NEW
Chemicals of Life I: The Structure of Matter—
a Biology Series course

The building blocks of matter

The makeup of the atom receives special attention in this introductory course in basic biochemistry.

The program helps students learn how to identify parts of an atom and how to draw them as well. In addition, it examines the nature of matter and molecules, introduces the Bohr model of atoms, and clarifies ionic and covalent bonding.

Suggested for high-school level and up.

Order No. 6024317
School Package No. 6024397

PC | XT | PC*jr* | PPC | AT

NEW

Chemicals of Life II: Water, Carbohydrates and Lipids— a Biology Series course

The basic energy needs of life

This program focuses on food and water, the most essential elements to all living things. It explains how organisms break down and use these elements to maintain health.

As students progress through the course, they discover the differences between organic and inorganic compounds and saturated and unsaturated fats. They learn the role of water in biosynthesis and the significance of carbohydrates, lipids and cholesterol.

Suggested for high-school level and up.

Order No. 6024344
School Package No. 6024394

PC | XT | PC*jr* | PPC | AT

NEW

Chemicals of Life III: Proteins and Nucleic Acids— a Biology Series course

Explore biochemical reactions

Chemicals of Life III shows how amino acids form proteins and examines the role of nucleic acids in the creation of DNA, the fundamental building block of heredity.

Through colorful, animated graphics, students observe how enzymes—the chemical regulators of life—are affected by changes in the body's pH level and temperature.

Suggested for high-school level and up.

Order No. 6024409
School Package No. 6024439

PC | XT | PC*jr* | PPC | AT

NEW

Physics Discovery Series

Explore the forces of nature

The Physics Discovery Series helps beginning physics students understand their physical environment and the nature of investigation through colorful simulations and thought-provoking activities.

Model cars, carnival rides, solar homes and spacecraft help introduce students to different topics, including Newton's Second Law of Motion, gravitational force, potential and kinetic energy, and the laws of heat transfer.

After exploring and developing major physics concepts, students can begin to use this newly learned knowledge to analyze phenomena, develop mathematical relationships, and record and graph data. Finally, students apply the laws and concepts by conducting laboratory investigations and solving challenging problems.

Each program features interactive instruction and interesting activities to help students develop their thinking skills and better understand scientific processes.

Suggested for beginning physics students.

NEW
Investigating Acceleration—
a Physics Discovery Series course

The laws of motion in action

Investigating Acceleration introduces students to the basics of Newtonian physics—distance, velocity, force and mass—then shows the effects of these variables on acceleration.

Students learn to calculate force, mass and acceleration—and to apply Newton's Second Law of Motion to the world around them.

Suggested for beginning physics students.

Order No. 6024403

PC | XT | PCjr | PPC | AT

NEW
Investigating Gravitational Force—
a Physics Discovery Series course

Explore the effect of the earth's magnetic force

Investigating Gravitational Force helps students explore and apply the laws of gravity through interactive lessons and colorful simulations.

By designing their own experiments, students discover the effects of force, mass, density and distance on gravity. They then graph data and draw conclusions from the results.

Suggested for beginning physics students.

Order No. 6024404

PC | XT | PCjr | PPC | AT

NEW
Investigating Conservation of Energy—
a Physics Discovery Series course

Principles of mechanical energy

Investigating Conservation of Energy helps students learn about the basic laws of physics that govern force and matter.

Through a simulated ride on "The Hurricane," students discover how the roller coaster's potential or kinetic energy is affected by changes in velocity, gravitational force or height of inclines. Results of each ride are graphed, and conclusions and hypotheses are drawn from the information.

Suggested for beginning physics students.

Order No. 6024406

PC | XT | PCjr | PPC | AT

NEW
Investigating Thermal Energy—
a Physics Discovery Series course

Learn and apply concepts of heat transfer

Investigating Thermal Energy encourages students to learn the principles of thermal energy by investigating practical situations.

For example, to see the effects of mass, specific heat and changes in temperature, students explore how a house is heated. Then, using the scientific method, they develop hypotheses based on relationships the program identifies.

Suggested for beginning physics students.

Order No. 6024405

PC | XT | PCjr | PPC | AT

NEW
Earth Science Series
Exploring the earth's environment

The Earth Science Series consists of six colorful and descriptive programs about the environment. Through on-screen text, animation, charts and diagrams, the courses demonstrate how natural forces on earth—from rainstorms to volcanoes—affect people's daily lives.

The programs provide full-color graphic tutorials, detailed descriptions of each lesson—plus a Print Screen option to let students print information for take-home study. In addition, they have true/false and matching quizzes to help reinforce learning. Quiz questions are accompanied by explanations throughout the tutorials.

The Earth Science Series helps students explore ever-changing weather patterns, the role of water, the phenomena of earthquakes and volcanoes, and the effects of human activity on the environment.

Each of the six programs in the series can be used either as a supplement to classroom instruction or as a stand-alone program for independent study. To help teachers understand the series' learning objectives, a booklet is included with each program.

Suggested for high-school level and up.

NEW
Hydrologic Cycle—
an Earth Science Series course

How water is recycled

Hydrologic Cycle demonstrates the constant recycling of the earth's water supply—and how people affect this cycle. The course describes the natural forces that move water from land to sea to air and back again.

Students learn about the roles that the sun and wind play in the recycling process—and how the earth's water supply is stored and distributed.

Suggested for high-school level and up.

Order No. 6024121

PC | XT | PC*jr* | PPC | AT

NEW
Ground Water—
an Earth Science Series course

Secrets of underground streams

Ground Water shows the relationship between ground water and geology, earth science and physical geography. The course explores ground water as the source of fresh water and describes both human and environmental factors that affect water supply and quality.

Students learn why only a small amount of rain finds its way into the ground water zone and why some rock types make good aquifers and others do not.

Suggested for high-school level and up.

Order No. 6024122

PC | XT | PC*jr* | PPC | AT

NEW
Surface Water—
an Earth Science Series course

Where water flows

Surface Water graphically depicts the flow of water over the surface of the land.

By observing on-screen graphics, students learn about water flow—in lakes, streams, ponds and oceans—building up sediment deposits and causing land erosion in the process. Students also learn how humans influence and change these natural processes.

Suggested for high-school level and up.

Order No. 6024123

PC | XT | PCjr | PPC | AT

NEW
Earthquakes—
an Earth Science Series course

Why the earth moves

Earthquakes explains how natural forces are at constant work in the earth. Moving graphics show the causes and effects of earthquakes and how seismic waves can be used to locate and measure earthquake activity.

The program also teaches students how modern construction techniques limit earthquake damage, as well as methods used to predict earthquakes.

Suggested for high-school level and up.

Order No. 6024322

PC | XT | PCjr | PPC | AT

NEW
Moisture in the Atmosphere—
an Earth Science Series course

Observing weather phenomena

Moisture in the Atmosphere describes how the presence of moisture in the lower atmosphere affects the earth's weather. The course traces the development of such weather phenomena as clouds, fog, rain, snow, hail, sleet, frost and dew.

In addition, it examines several aspects of humidity, including the difference between specific and relative humidity and the effects of a change in humidity.

Suggested for high-school level and up.

Order No. 6024124

PC | XT | PCjr | PPC | AT

NEW
Volcanoes—
an Earth Science Series course

Dynamic volcanic processes

Volcanoes shows students how and where volcanoes are formed. The program describes different types of volcanoes, their worldwide distribution, formation of lava plateaus and magma, and both the hazards and benefits of volcanic eruptions.

Students learn how volcanic activity is predicted and examine the potential for increased activity in the western United States.

Suggested for high-school level and up.

Order No. 6024323

PC | XT | PCjr | PPC | AT

UPGRADE

Turtle Power, Turtle Power Thinker's Guide, and Turtle Power Activity Book

A computer literacy program

Turtle Power is a learning program designed to help children use computers. It features a "computer drawing board" that lets children experiment with a variety of commands to create video art by using line lengths, angles and other shapes.

Two books are available to complement the Turtle Power program. *Turtle Power Thinker's Guide* helps parents and teachers assist children with Turtle Power and other turtle graphics programs. *Turtle Power Activity Book* is a full-color manual that offers challenging exercises in computer graphics programming.

Suggested for grades K-3.

Order Numbers:
6024109 (Program)
6024167 (Thinker's Guide)
6024079 (Activity Book)

PC | XT | PC*jr* | PPC | AT

NEW

Logo Learner

A friendly introduction to Logo

Logo Learner introduces students to Logo, a flexible computer language. Through simple examples and hands-on exercises, the program helps students develop problem-solving skills, learn programming concepts, and understand geometric principles.

Logo Learner includes a text formatter and both music and 16-color graphics enhancements for the IBM PC*jr*.

Suggested for grades 3-8.

Order No. 6024136

PC | XT | PC*jr* | PPC | AT

Logo by Logo Computer Systems, Inc.

Learn while you program

Logo is a flexible, interactive language that helps students of almost any age or skill level to program computers while studying computer concepts and logical, mathematical and geometric relationships.

The program has many applications—from creating basic tutorials and demonstrations to managing advanced graphics, mathematics, text handling, file manipulation and assembly-language subroutines.

Suggested for grades 7-12.

Order No. 6024076

PC | XT | PC*jr* | PPC | AT

Karel the Robot and Karel the Robot Textbook

An introduction to programming

Karel the Robot is an interactive program that teaches students the fundamentals of computer programming by letting them write instructions to control the movements of a friendly, on-screen robot. The program contains five basic segments, each of which emphasizes a different programming concept.

Packaged with the program is the Karel the Robot Textbook. Also available separately, this manual contains definitions, concepts and sample problems that can help speed learning.

Suggested for grades 9-12.

Order Numbers:
6024066 (Program)
1502200 (Textbook)

PC | XT | PC*jr* | PPC | AT

Learning to Program in BASIC—
a Private Tutor course

Learn BASIC programming skills

Learning to Program in BASIC teaches BASIC programming skills and explains how to use IBM Personal Computer BASIC features to simplify programming. The program's systematic format and clear explanations are geared to computer novices.

This Private Tutor course (see page 82) can teach students to write programs that compute using BASIC's arithmetic functions; write business programs, including advanced print statements; and use storage space effectively by arranging data files.

Suggested for grade 6 and up.

Order No. 6024081

PC | XT | PC*jr* | PPC | AT

Learning DOS—
a Private Tutor course

An introduction to DOS

Learning DOS features tutorial aids to help you learn how to use the IBM Disk Operating System (DOS). The program can be used in computer education courses.

This Private Tutor course (see page 82) explains how to set up and manage files on diskettes and fixed disks, enter DOS commands effectively, and use directories and batch files for advanced file operations.

Suggested for grade 6 and up.

Order No. 6024068

PC | XT | PC*jr* | PPC | AT

BASIC Made Easy (book)
BASIC on the IBM PC*jr*

BASIC Made Easy is an instructional manual that introduces IBM PC*jr* users to commonly used commands, statements and functions of the BASIC computer programming language.

This comprehensive manual provides immediate feedback on progress; short, easy-to-follow lessons; and friendly, conversational text to help increase understanding and speed learning.

Suggested for grades 10-12.

Order No. 6024116

PC*jr*

Computers and Communications—
a Private Tutor course

A course in IBM PC communications

Computers and Communications helps students learn how IBM Personal Computers can be used as part of a dynamic communications system. On-screen instructions and graphics show different types of networks, their capabilities and their required software and hardware.

This Private Tutor course's (see page 82) lessons are easy to follow yet sophisticated enough for upper-level computer curricula. They can help expand students' computer vocabularies by explaining more than 100 data communications terms.

Suggested for grade 6 and up.

Order No. 6024069

PC | XT | PC*jr* | PPC | AT

BASIC Primer Version 2.00
Designed for the beginner

BASIC Primer Version 2.00 teaches beginners how to write and edit BASIC programs on IBM Personal Computers. The program provides an "electronic workbook" that combines keyboard practice with BASIC programming exercises.

A typical exercise shows how to write sample programs to keep checkbook records and to alphabetize files. All writing is done by using BASIC statements and commands derived from English words.

Suggested for grades 10-12.

Order No. 6024129

PC | XT | PCjr

Learning to Use DOS 2.00 (book)
A DOS learning manual

Learning to Use DOS 2.00, an instructional manual for the IBM Disk Operating System (DOS) 2.00, takes you step by step through the most commonly used DOS 2.00 commands. The manual starts with the fundamentals of DOS, then moves on to more sophisticated subjects, such as how to use DOS 2.00 with a fixed disk and how to tell the difference between DOS 2.00 and DOS 1.10.

Rather than teaching complex, seldom-used concepts, the book provides hands-on instruction in practical, everyday computing tasks. New terms are defined and explained as they occur in the text.

Suggested for grades 10-12.

Order No. 6024080

PC | XT | PPC

NEW
Primary Editor
A text editor for children

Primary Editor encourages young children to explore the world of words—and the world of computers. This elementary text editor helps motivate children in the classroom or at home to write stories on the computer with minimal supervision.

Primary Editor introduces children to simple menu options (Write, Read, Change, Print, Start Over) for writing their stories. A separate "Learning the Keys" diskette explains keys to use to perform simple text-processing tasks.

Suggested for grades 1-4.

Order No. 6024294

PC | XT | PCjr | PPC | AT

Typing Tutor
Improve typing speed and accuracy

Typing Tutor is a fast and easy way to learn typing skills. The program automatically monitors progress 100 times a second, then creates exercises and typing drills tailored to individual skill levels.

With its hands-on interactive instructional format, Typing Tutor can help improve the speed and accuracy of beginners and out-of-practice "pros" alike. It even can generate an on-screen "report card" to rate speed and accuracy.

Suggested for grades 9-12.

Order No. 6024013

PC | XT | PCjr | PPC | AT

NEW

I Can Be Anything

Put young imaginations to work

I Can Be Anything encourages children to explore the kinds of things people do for a living by using more than 250 predesigned shapes related to different professions.

Children create on-screen graphics with the shapes, pretending to be an Artist, Architect, Astronaut, Civil Engineer or City Planner. Shapes include basic lines; windows, doors and roofs; parts of spaceships and launch pads; bridges and streets.

Suggested for grades 2-4.

Order No. 6024304

PC | XT | PCjr | PPC | AT

Add colorful artwork, graphs and text to your presentations.

Find out more in the **IBM PC Storyboard** brochure.

Contact your Authorized Dealer or IBM marketing representative for details.

Private Tutor Version 2.00

Self-instruction for home, office or classroom

Private Tutor Version 2.00 turns your personal computer from IBM into an instructor that gives on-screen lessons, drills and quizzes.

It is the foundation program for the Private Tutor Series, a computer-based system group of educational programs or "courses" for use in schools, homes and businesses.

You can use Private Tutor 2.00 to run all the separately available courses in the Private Tutor Series. Or you can use the program's on-screen Help menus and four easy screen formats to create your own course material.

Highlights

- Develop grammar and spelling skills, review lessons and study advanced material.
- Administer tests, keep records on grade and registration information, and design courses for gifted and special education students.
- Explore new subjects at home and make computer learning available to all family members.
- Enhance business operations—in such areas as finance, manufacturing and personnel—by creating lessons to introduce new procedures and computer programming concepts.
- Use sound effects, full-color graphics and an interactive videodisc to add variety to lessons and help make learning fun.

Suggested for teachers and students.

Order No. 6024052

PC | XT | PCjr | PPC | AT

NEW

Writing Private Tutor Courses for the IBM Personal Computer

Create customized courses

Writing Private Tutor Courses for the IBM Personal Computer is a teacher's manual on how to create computer lessons. Beginning with a sample lesson outline, the book moves on to such techniques as drawing boxes around screen text; using sound, highlighting and an interactive videodisc; and encouraging students to correctly answer questions. This manual requires Private Tutor Version 2.00 (manual and diskette).

Order No. 6024078

PC | XT | PC*jr* | PPC | AT

NEW

Electric Poet® by Control Color Corporation—

an Electric Literature Series program

Produce a poem

Electric Poet is a writing tool for composing "video poems" complete with animated color graphics and music. This electronic classroom aid can be used by teachers to encourage students to create poetry, songs and plays.

Electric Poet is the "foundation program" of the Electric Literature Series, which includes the Comma Cat and Dictionary Dog programs (see page 65).

Suggested for teachers and students.

Order No. 6024172

PC | XT | PC*jr* | PPC | AT

NEW

Teacher's Quiz Designer

An electronic aid for teachers

Teacher's Quiz Designer makes an IBM Personal Computer for the classroom even more productive. It allows teachers to use a PC not only for classroom instruction but to help create, edit and administer quizzes.

Teacher's Quiz Designer offers such record-keeping features as automatic computation of individual and class grade point averages and question-by-question analysis of quiz results. Included with the program is a step-by-step instructional manual.

Order No. 6024075

PC | XT | PC*jr* | PPC | AT

Which IBM PC system is right for you?

Get answers by reading **The Guide,** your primary source for IBM PC product information.

Contact your Authorized Dealer or IBM marketing representative for details.

IBM PC*jr* ColorPaint

An "electronic canvas"

IBM PC*jr* ColorPaint[1] is a graphic design program that enables you to create video art with your IBM PC*jr*.

This cartridge program provides a large number of colors, patterns and brush styles to work with, opening up a world of visual possibilities for both aspiring and professional artists.

Highlights

- Select from 16 colors and various brush styles to "paint" any of 30 patterns.
- Use a mouse pointing device to create drawings; use the keyboard only to write text.
- "Zoom in" and enlarge parts of your picture to add details.
- Move or copy your sketch to another part of the screen or merge it with another picture.
- Create lines, circles and rectangles, then alter their shapes by using the program's "rubber band" feature.
- Selectively erase any part of a freshly painted picture, restoring your original art.
- Produce a "negative" by reversing colors; flip parts of your picture horizontally or vertically.
- "Airbrush" your artwork to give it a soft, sprayed-on look.
- Save your work on diskette for later improvement (if your IBM PC*jr* has a diskette drive).

Order No. 6024299

PC*jr*

Home Budget, *jr*

An IBM PC*jr* home finance program

Home Budget, *jr* is a monthly budgeting program developed specifically for the IBM PC*jr*. It can help you devise a record-keeping system and, ultimately, a comprehensive budget plan.

You can use Home Budget, *jr* to help manage the money you earn and the money you spend. Use it to keep track of how much you're spending in each account, for example, then estimate how much you'll need to pay certain expenses each month.

Highlights

- Begin immediately; you don't need bookkeeping or accounting experience to learn how to use and benefit from Home Budget, *jr*.
- Start with the easy-to-follow menus that offer you the option to enter expenses or income, change or review an account, display account names, list account entries, create and change your budget, or examine your budget status.
- Create and enter up to 47 accounts, including those for food, utilities, travel expenses, and so on.
- Check the status of your budget and make month-to-date and year-to-date comparisons.
- Print your budget with an optional printer.

Order No. 6024130

PC XT PC*jr* PPC

[1] ColorPaint by Marek and Rafal Krepec Inc.

Andrew Tobias Managing Your Money™ With the IBM PC*jr*

Expert help in financial planning

Andrew Tobias Managing Your Money™ With the IBM PC*jr* is an integrated financial planning package that lets you enlist the aid of Andrew Tobias, financial columnist and best-selling author, to help plan your financial future.

This software package is really seven integrated programs in one: Reminder Pad, Budget and Checkbook, Income Tax Estimator, Insurance Planning, Financial Calculator, Portfolio Manager and Net Worth.

Highlights

- Enter your data only once; data can be shared among the seven programs and printed as charts and graphs.
- Start with the Reminder Pad, which shows you a list of "things to do" and their deadline dates; revise or print the lists.
- Create and follow a monthly budget with the Budget and Checkbook program.
- Simplify tax preparation by using the Income Tax Estimator to gather tax data from the other programs and to estimate IRS Form 1040 and other returns.
- Calculate your insurance needs with the Insurance Planning program, which also lists and organizes your policies.
- Plan your financial future with the Financial Calculator; evaluate investment options, plan retirement income, and more.
- Track investments by using the Portfolio Manager to enter securities in taxable, IRA/Keogh or hypothetical portfolios.
- Find out how much you're worth from the Net Worth program, which cautions you if you owe more than you own.
- Get help from an on-line index that gives brief definitions of key terms; call up any of 35 screens for additional information on those terms.

Order No. 6024301

PC*jr*

™ Managing Your Money is a trademark of MECA.™

NEW

Trivia 101: The Introductory Course

Tough test for trivia buffs

If you fancy yourself a trivia expert, Trivia 101: The Introductory Course is the challenge you've been waiting for. With more than 5,000 questions in nearly 200 categories, it's sure to surprise the most confident trivia buff.

The program features music, sound effects and three modes of play—including "sudden death," in which one wrong answer eliminates you from the game. A built-in timer and scorekeeper add to the fun for as many as 14 players or teams.

Order No. 6024290

PC | XT | PCjr | PPC | AT

NEW

TV and Cinema 101: Trivia From Talkies to Trekkies

Trivia goes to Hollywood

Who was Mr. Ed's owner? Who played Charlie Chaplin's young sidekick in "The Kid"? These and 5,000 other challenging questions about the world of trivia are found in TV and Cinema 101: Trivia From Talkies to Trekkies.

TV and Cinema 101 is an ideal game for players aged 12 to adult. The game's large screen text makes viewing easy and fun for everyone.

Order No. 6024291

PC | XT | PCjr | PPC | AT

NEW

SHAMUS™

A challenging detective game

SHAMUS is an intriguing arcade-style game in which you assume the identity of Shamus, a 21st-century detective in search of the evil Shadow. Using quick reflexes, sharp wit and your Ionic Vaporizer—the most lethal weapon of the future—you must make your way through a seemingly endless labyrinth that leads to the Shadow.

You have to use every trick in the book to fend off deadly androids, whirling drones and other fiendish creatures before you come face-to-face with the elusive Shadow.

Order No. 6024303

PC | XT | PCjr | PPC | AT

NEW

Zyll A Text Adventure Game

Medieval tricks and treasures

The wicked sorcerer Zyll has used his magic to steal your village's Great Treasures. Playing the part of warrior, wizard or thief, you try to recover the treasures and capture the mystical Black Orb—the source of Zyll's evil powers.

You must succeed while battling wild beasts, dangerous trolls and a fire-breathing dragon who likes his meals well-done.

Order No. 6024173

PC | XT | PCjr | PPC

™ SHAMUS is a trademark of Synsoft.™

NEW

Jumpman™

Save your space station

Hostile intergalactic aliens have sabotaged the Jupiter Command Center by planting bombs throughout this super space station. Because of your incredible jumping ability and your seven lives, you've been chosen to save the Center.

Not only must you defuse the bombs on time, but you also must dodge robot attackers, metallic dragons and the invaders' laser blasts. The survival of the Center depends on your jumping skills and quick reflexes.

Order No. 6024163

PC | XT | PCjr | PPC

NEW

Touchdown Football

Become a PC quarterback

The game is tied, the clock is running, and you've got to make up yardage. The defense rushes through on an all-out blitz, so you toss a pass to your safety valve... and now there's nothing but open field all the way to the end zone!

Touchdown Football puts you on the gridiron where you call the plays for animated on-screen players. Authenticity heightens the excitement: The game includes penalties, the roar of the crowd—even the referee's whistle-blowing.

Order No. 6924295

PCjr

NEW

PC Pool Challenges

Take your best shot

Rack 'em up! This animated billiards game turns your screen into a pool table where you can test your pool-playing talents. To win, you must use the right combination of variables, such as table friction, bumper carooms, speed, angle and direction of your shots. For the tough shots, you can even apply "English" to the cue ball.

PC Pool Challenges includes two popular pool games: eight ball and straight pool. You can compete against as many as three other players or take on four "robot" players with different skills.

Order No. 6024296

PC | XT | PCjr | PPC | AT

King's Quest

A daring medieval mission

King's Quest is a unique, three-dimensional game in which you, as the valiant Sir Grahame, must prevent the impending collapse of the kingdom of Daventry.

The kingdom's only hope of survival is for you to find three magical items by embarking on an adventure-filled journey through the countryside. Beware of the dangerous characters and treacherous terrain along the way.

Order No. 6024093

PCjr

™ Jumpman is a trademark of EPYX, Incorporated.

Animation Creation
Draw like a "computer cartoonist"

Animation Creation is a stimulating software package that enables you to draw pictures on the screen... and then put them in motion.

To create animation, you use keyboard commands to draw a picture and reposition it several times. The computer then displays these pictures in rapid sequence, like frames through a projector, for a cartoon-like animation effect. You can play back your "cartoons" at varying speeds to accelerate or slow down the action—and even save your creations on diskette for playback later.

Order No. 6024082

PC XT PCjr PPC AT

ScubaVenture
A deep-sea treasure hunt

ScubaVenture is a fast-paced cartridge game that puts you in the role of a deep-sea diver in search of treasure chests on the ocean floor. To open the chests, you must first find hidden keys.

During the search, you'll encounter many perils: strong currents that can sweep away less skillful divers; jagged coral reefs that can easily trap an unwary diver; and dangerous creatures that lurk in the deep, awaiting their next meal.

Order No. 6024088

PCjr

Crossfire
A daring mission to save the city

Crossfire is an exciting cartridge game in which you must save your city from hostile alien insects. Everyone else has fled in terror, so it's up to you—the city's insect exterminator—to pilot cruiser ships and drive the bugs out of the city.

Your ships are loaded with insecticide missiles—the only weapons that can exterminate the pests. But don't get too close: Any contact with the airborne invaders could be fatal.

Order No. 6024091

PCjr

Mouser
De-mouse the house

Mouser is a cartridge game that puts you in the role of a farmer whose farmhouse is being overrun by mice. Your objective: to see how many mice you can catch by building traps with the house's movable walls.

The more mice you catch, the more points you accumulate. But be careful. The mice can multiply, hide in dark places, and even bite if you get careless.

Order No. 6024087

PCjr

Mine Shaft

Amass a fortune in diamonds

Mine Shaft is a fast-paced cartridge game that challenges you to pursue a fortune in diamonds lining the walls of a mine.

Your quest is not without obstacles. Mining robots that were once your dependable assistants have been short-circuited by floodwaters and are now running amok throughout the mine shaft.

Disabling the robots with your diamond-cutting laser is the key to claiming the diamonds. But beware of the Gatherer, the invincible robot that is unaffected by laser blasts.

Order No. 6024092

PC*jr*

The System Requirements Chart on the following pages indicates the hardware and software you need to run each program described in *The Library.*

The chart lists programs in alphabetical order and notes the pages on which they are described. Find the program you want and read all the way across the chart to check its requirements.

NOTES

*The chart below indicates the DOS versions that are supported on IBM's personal computer systems.

DOS Version	PC	XT	PC*jr*	PPC	AT
1.00	•				
1.10	•				
2.00	•	•			
2.10	•	•	•	•	
3.00	•	•	•	•	•
3.10	•	•	•	•	•

DOS 3.00 does not support the 30MB IBM Personal Computer AT. DOS 2.00 or higher is required for fixed disk storage. DOS 3.10 or higher is required for operation on the IBM PC Network.

**The following symbols appear in the System Requirements Chart to indicate the displays—and corresponding adapters—that can be used with each program listed in the chart.

M — IBM Monochrome Display—requires the IBM Monochrome Display and Printer Adapter or IBM Enhanced Graphics Adapter; not compatible with the IBM *Portable* Personal Computer or IBM PC*jr*.

C — IBM Color Display—requires the IBM Color/Graphics Monitor Adapter or IBM Enhanced Graphics Adapter.

EC — IBM Enhanced Color Display—requires the IBM Enhanced Graphics Adapter.

jr C — IBM PC*jr* Color Display—requires no additional hardware; compatible only with the IBM PC*jr*.

PG — IBM Professional Graphics Display—requires the IBM Professional Graphics Controller.

TV — Television set—requires an RF modulator or IBM PC*jr* Connector for TV.

***For specific application printer support, contact your Authorized Dealer or IBM marketing representative.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Accounts Payable Edition, BMS	28	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
Accounts Receivable, BPI	31	PC	64KB	1.10*	Two diskette drives; fixed disk storage is not supported.
Accounts Receivable Edition, BMS	28	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
Adventures in Math	68	PC XT PC*jr* PPC AT	64KB	2.10 (included on program diskette)*	One diskette drive; fixed disk storage is supported.
Andrew Tobias Managing Your Money With the IBM PC*jr*	85	PC*jr*	128KB	2.10*	One double-sided diskette drive.
Animation Creation	88	PC XT PC*jr* PPC AT	64KB	Not required	One diskette drive; fixed disk storage is supported.
APL Interpreter	46	PC XT PPC AT	128KB	1.10*	One diskette drive.
Asynchronous Communications Support 2.00	63	PC XT PC*jr* PPC AT	64KB	1.00*	One diskette drive; fixed disk storage is supported.
BASIC Compiler Version 2.00	44	PC XT PC*jr* PPC AT	128KB	2.10*	One double-sided diskette drive.
BASIC Made Easy (book)	80	PC*jr*	64KB	Not applicable	Not applicable.
Basic Number Skills	70	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PC*jr* —IBM PC*jr*
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
M C EC	Required	A compatible 40- or 80-column monitor is supported.
M C EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
C EC *jr*C TV	Optional	A minimum of 128KB of memory and the IBM PC*jr* BASIC cartridge are required for the IBM PC*jr*. A minimum of 128KB of memory is required for fixed disk storage. A compatible color monitor is required.
C *jr*C	Optional	A compatible 80-column monitor is supported.
C EC *jr*C TV	Optional	A compatible color monitor is supported. A minimum of 128KB of memory is required for fixed disk storage.
M C EC TV	Optional	An IBM 8087 Math Co-processor is required (80287 for the IBM Personal Computer AT). A compatible 80-column monitor is supported.
M C EC *jr*C TV	Optional	Additional requirements are an IBM Asynchronous Communications Adapter, necessary cabling or a full-duplex modem for connection to a host computer, and subscriptions and passwords for host access. A compatible 40- or 80-column monitor is supported.
M C EC *jr*C TV	Optional	Additional memory and two double-sided diskette drives are recommended.
C *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for some of the manual's more advanced lessons.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jr C —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
BASIC Primer Version 2.00	81	PC XT PCjr	128KB	1.00*	One double-sided diskette drive.
Binary Synchronous 3270 Emulation	63	PC XT PPC AT	128KB	1.00*	One diskette drive.
Bouncy Bee Learns Letters	66	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Bouncy Bee Learns Words	67	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Bumble Games	68	PC XT PCjr PPC AT	128KB	2.00 (included on program diskette)*	One diskette drive; fixed disk storage is not supported.
Bumble Plot	69	PC XT PCjr PPC AT	64KB	2.00 (included on program diskette)*	One diskette drive; fixed disk storage is not supported.
C Compiler	43				
For stand-alone		PC XT PPC AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
For PC Network		PC XT PPC AT	512KB	3.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Capitalization Skills	67	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Cell Functions: Growth and Mitosis	72	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Chemicals of Life I: The Structure of Matter	74	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Chemicals of Life II: Water, Carbohydrates and Lipids	75	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC jrC TV	Optional	A compatible 40- or 80-column monitor is supported.
M C EC	Required	Additional requirements are an IBM BSC Adapter, IBM Communications Adapter Cable or equivalent, a synchronous modem with modem clocking, necessary cables and support from a host system with compatible IBM 3270 Display System support. A compatible 80-column monitor is supported.
C EC jrC TV	Optional	A minimum of 256KB of user memory is required for use with DOS 3.00 or higher. The IBM PC*jr* Speech Attachment, a speaker and headphones are optional.
C EC jrC TV	Optional	A minimum of 256KB of user memory is required for use with DOS 3.00 or higher. The IBM PC*jr* Speech Attachment, a speaker and headphones are optional.
C jrC TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A television must be color. A compatible color monitor is supported.
C jrC TV	Optional	A minimum of 128KB of memory and the IBM PC*jr* BASIC cartridge are required for the IBM PC*jr*. A compatible color monitor is supported.
M C EC PG	Optional	A minimum of 320KB of user memory is required when using either symbolic debug or MAKE library options. Performance can be enhanced with at least 384KB of memory.
M C EC PG	Optional	Performance can be enhanced with at least 640KB of memory.
M C jrC TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is supported.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Chemicals of Life III: Proteins and Nucleic Acids	75	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
COBOL Compiler	46	PC XT PPC AT	64KB	2.00*	Two diskette drives.
Comma Cat	65	PC XT PCjr PPC AT	128KB	1.00*	One diskette drive.
Computers and Communications	80	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
CP/M-86	40	PC XT PPC	32KB	Not applicable	One diskette drive; fixed disk storage is not supported.
Crossfire	88	PCjr	64KB	Not applicable	One IBM PCjr cartridge slot; fixed disk storage is not supported.
Crypto Cube	65	PC XT PCjr PPC	64KB	1.00*	One diskette drive.
Cytology and Histology: Cells and Tissues	72	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Data Acquisition and Control Adapter Support	57	PC XT PPC AT	128KB	2.00*	—
Data Edition, PDS	13	PC XT PPC AT	256KB	2.00*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Data Encoder	33	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PCjr —IBM PCjr
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
C EC *jr*C TV	Optional	A compatible color monitor is supported. A minimum of 192KB is required for use with DOS 3.00.
M C EC	Optional	A minimum of 128KB of memory is required for fixed disk storage.
C *jr*C TV	Optional	The Electric Poet diskette is required. A compatible color monitor is supported.
M C *jr*C TV	Optional	The Private Tutor program is required. The IBM PC*jr* and IBM PC XT require special setup instructions when used with Private Tutor Version 1.00.
M C EC TV	Optional	A compatible 40- or 80-column monitor is supported.
C *jr*C TV	Optional	A compatible color monitor is supported.
C EC *jr*C TV	Optional	A minimum of 128KB of memory is required for the IBM PC*jr*. A compatible color monitor is required.
C EC *jr*C	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher. A compatible color monitor is supported.
M C EC PG TV	Optional	The IBM Data Acquisition and Control Adapter is required.
M C EC	Optional	A compatible 80-column monitor is supported.
M C EC *jr*C	Optional	A minimum of 192KB memory is required for the "full-screen interface" portion of the program. A compatible 80-column monitor is supported.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
*jr*C —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Dictionary Dog	65	PC XT PCjr PPC AT	128KB	1.00*	One diskette drive.
DisplayComm BSC Version 1.10	23	PC XT PPC AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
DisplayWrite Legal Support	23	PC XT PPC AT	192KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
DisplayWrite Medical Support	23	PC XT PPC AT	192KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
DisplayWrite 1	23	PC XT PCjr PPC	128KB	2.10*	One double-sided diskette drive; fixed disk storage is supported.
DisplayWrite 3 Version 1.10	22	PC XT PPC AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Doctor's Office Manager	32	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one fixed disk drive.
Earthquakes	78	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Electric Poet	83	PC XT PCjr PPC AT	128KB	2.00 (included on program diskette)*	One diskette drive.
Environment I, The: Habitats and Ecosystems	71	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
EZ-VU Runtime Facility and EZ-VU Development Facility	48	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
C *jr*C	Optional	The Electric Poet diskette is required. A compatible color monitor is supported.
M C EC	Optional	An IBM Binary Synchronous Communications (BSC) Adapter, modem and corresponding cabling are required. A minimum of 320KB of memory is required for use with DOS 3.00 or higher.
M C EC	Recommended	The DisplayWrite 2 Version 1.10 or DisplayWrite 3 Version 1.10 program is required. A compatible 80-column monitor is supported.
M C EC	Recommended	The DisplayWrite 2 Version 1.10 or DisplayWrite 3 Version 1.10 program is required. A minimum of 256KB of memory is required for use with DOS 3.00 or higher. An IBM 3270 Personal Computer is supported. A compatible 80-column monitor is supported.
M C EC *jr*C TV	Recommended	A compatible 40- or 80-column monitor (color recommended) is supported.
M C EC	Recommended	A minimum of 320KB of user memory is required for use with DOS 3.00 or higher. An IBM 3270 Personal Computer is supported.
M C	Required	The IBM Personal Computer and the IBM *Portable* Personal Computer require an IBM Expansion Unit. The printer used must be capable of printing multipart forms. A compatible 80-column monitor is supported.
C EC *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.
C *jr*C TV	Optional	A compatible color monitor is supported. DOS 3.00 is required for an IBM PC*jr* with more than 128KB of memory.
C EC *jr*C TV	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher. A compatible color monitor is supported.
M C EC	Supported	A compatible 80-column monitor is supported.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
FileCommand	18	PC XT PCjr PPC	64KB	1.00*	One diskette drive.
Fixed Disk Organizer	19	PC XT PPC AT	128KB	2.00*	One diskette drive and one fixed disk drive.
FORTRAN Compiler Version 2.00	45	PC XT PPC AT	160KB	2.00*	Two diskette drives (or one diskette drive and one fixed disk drive).
General Accounting, BPI	30	PC	64KB	1.10*	Two diskette drives; fixed disk storage is not supported.
General Ledger Edition, BMS	27	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
General Purpose Interface Bus (GPIB) Adapter Support	57	PC XT PPC AT	128KB	2.00*	—
Gertrude's Puzzles	69	PC XT PCjr PPC AT	128KB	2.10 (included on program diskette)*	One diskette drive.
Gertrude's Secrets	68	PC XT PCjr PPC AT	128KB	2.10 (included on program diskette)*	One diskette drive.
Graphical File System	55	PC XT PPC AT	256KB	2.10*	Two 360KB diskette drives (or one 1.2MB diskette drive).
Graphical Kernel System (GKS)	54	PC XT PPC AT	256KB	2.10*	Two 360KB diskette drives (or one 1.2MB diskette drive).
Graphics Development Toolkit	51	PC XT PCjr PPC AT	128KB	2.10*	One double-sided diskette drive (360KB or 1.2MB).

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PCjr —IBM PC*jr*
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC *jr*C	Optional	A compatible 80-column monitor is supported.
M C EC	Optional	A compatible 80-column monitor is supported.
M C EC TV	Recommended	A compatible 80-column monitor is recommended.
M C EC	Required	A compatible 40- or 80-column monitor is supported.
M C EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
M C EC PG TV	Optional	The IBM General Purpose Interface Bus Adapter is required.
C *jr*C TV	Optional	A television must be color. A compatible color monitor is supported.
C *jr*C TV	Optional	A compatible color monitor is supported.
M C EC PG TV	Supported	The program requires one of the following: — IBM PC BASIC Compiler 1.00 or higher — IBM PC FORTRAN Compiler 2.00 or higher — IBM PC Professional FORTRAN Compiler 1.00 — Lattice C Compiler
M C EC PG TV	Supported	The program requires one of the following: — IBM PC BASIC Compiler 1.00 or higher — IBM PC FORTRAN Compiler 2.00 or higher — IBM PC Professional FORTRAN Compiler 1.00 — Lattice C Compiler
M C EC PG TV	Supported	The program requires one of the following: — IBM PC BASIC Compiler 1.00 or higher — IBM PC FORTRAN Compiler 2.00 or higher — IBM PC Professional FORTRAN Compiler 1.00 — Lattice C Compiler

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jr C —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television Set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Graphics Terminal Emulator	55	PC XT PPC	256KB	2.10*	One double-sided diskette drive (360KB or 1.2MB).
Graphs Edition, PDS	14	PC XT PPC AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Ground Water	77	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Home Budget, *jr*	84	PC XT PC*jr* PPC	128KB	2.10*	One diskette drive; fixed disk storage is supported.
HomeWord	19	PC*jr*	128KB	2.10*	One diskette drive; fixed disk storage is not supported.
Human Life Processes I: Cellular Physiology	73	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Human Life Processes II: Systems Level	73	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Hydrologic Cycle	77	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
I Can Be Anything	82	PC XT PC*jr* PPC AT	128KB	—	One double-sided diskette drive.
IBM Assistant Solutions	11	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
IBM Augmented Phone Services	25	PC XT AT	448KB	2.10*	One double-sided diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC PG TV	Supported	A modem is required. An RS-232C serial port is required.
C EC	Optional	The Data Edition program is required. A compatible color monitor is supported.
C *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.
M C EC *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible 40- or 80-column monitor is supported.
C *jr*C TV	Required	A compatible RGB monitor (color recommended) is supported.
C EC *jr*C TV	Optional	A compatible color monitor is supported.
C EC *jr*C TV	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher. A compatible color monitor is supported.
C *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.
C EC *jr*C TV	Optional	A compatible 40- or 80-column monitor is required.
M C EC *jr*C	Optional	The IBM Filing Assistant program is required. A compatible 40- or 80-column monitor is supported. Additional memory is required for the IBM PC*jr*.
M C EC	Optional	The IBM PC Voice Communications Option and an attached telephone line are required. A telephone is optional.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
IBM Disk Operating System (DOS) Version 3.10	36	PC XT PCjr PPC AT	96KB	Not applicable	One double-sided diskette drive; fixed disk storage is supported.
IBM Document Retrieval Assistant	10	PC XT PCjr PPC AT	192KB	2.00*	One double-sided diskette drive.
IBM Drawing Assistant	9	PC XT PCjr PPC AT	256KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.
IBM Filing Assistant	7	PC XT PCjr PPC AT	128KB	1.10*	One double-sided diskette drive; fixed disk storage is supported.
IBM Graphing Assistant Version 1.01	8	PC XT PCjr PPC AT	128KB	1.10*	One double-sided diskette drive; fixed disk storage is supported.
IBM Mainframe Communication Assistant	10	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
IBM PC Network Analysis Program	62	Please refer to page 62 for system requirements.			
IBM PC Network Program	60	Please refer to page 60 for system requirements.			
IBM PC Network SNA 3270 Emulation Program	61	Please refer to page 61 for system requirements.			
IBM PC Professional FORTRAN	45	PC XT PPC AT	192KB	2.10*	One fixed disk drive and one 360KB or 1.2MB diskette drive (or two 360KB or 1.2MB diskette drives).
IBM PC Storyboard	18	PC XT PCjr PPC AT	256KB	2.00*	One double-sided diskette drive.
IBM PC Voice Communications Operating Subsystem	25	PC XT AT	See "Other Requirements and Comments."	2.10*	One double-sided diskette drive.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PCjr —IBM PC*jr*
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC jrC PG TV	Optional	Some DOS-based application programs may require more than 96KB of memory. A minimum of 128KB of memory is recommended for use with a fixed disk drive-equipped PC. A compatible 40- or 80- column monitor is supported.
M C EC	Optional	A compatible 80-column monitor is supported. A fixed disk is required for the program's dictionary function.
M C EC jrC	Optional	An IBM-compatible mouse is recommended. The IBM Enhanced Graphics Adapter is required with the IBM Monochrome Display.
M C jrC	Optional	A compatible 40- or 80-column monitor is supported. This program is compatible with TopView.
M C jrC	Optional	A compatible 40- or 80-column monitor is supported. Graphs cannot be displayed or printed with the IBM Monochrome Display or other monitor that cannot display graphics. This program is compatible with TopView.
M C jrC	Optional	A compatible 80-column color monitor is supported. With additional memory, IBM Mainframe Communication Assistant and another application may run concurrently in the TopView environment.
M C EC PG	Optional	IBM 8087 or IBM 80287 Math Co-processor, as appropriate, is required. A compatible 80-column monitor is supported.
M C EC PG	Optional	A minimum of 320KB of memory is required for use with DOS 3.00 or higher, 384KB for use with the IBM PC*jr*.
M C EC	Optional	The IBM PC Voice Communications Adapter is required. Memory needs vary from 22KB to 256KB. Each application indicates its own memory requirements. The "Exploring Voice Communications" demonstration program requires 320KB. Applications must be written on the IBM Voice Communications Application Program Interface or used with the IBM Voice-Activated Keyboard Utility.

M	—IBM Monochrome Display	jrC	—IBM PC*jr* Color Display
C	—IBM Color Display	PG	—IBM Professional Graphics Display
EC	—IBM Enhanced Color Display	TV	—Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
IBM PC XENIX Operating System	37	AT	512KB	Not applicable	One high-capacity diskette drive and one fixed disk drive.
IBM PC XENIX Software Development System	38	AT	512KB	Not applicable	One high-capacity diskette drive and one fixed disk drive.
IBM PC XENIX Text Formatting System	38	AT	512KB	Not applicable	One double-sided diskette drive and one fixed disk drive.
IBM PC*jr* ColorPaint	84	PC*jr*	128KB	Not applicable	One IBM PC*jr* cartridge slot.
IBM Personal Computer Cluster Program	62	PC XT PC*jr* PPC AT	128KB	2.10*	One diskette drive.
For the disk server PC		PC XT PPC AT	256KB	2.10*	One double-sided diskette drive and one fixed disk drive.
IBM Personal Computer Print Screen Utility Program	49	PC XT PPC	256KB	2.00*	One diskette drive.
IBM Personal Computer SORT	49	PC XT PC*jr* PPC AT	128KB	1.10*	One double-sided diskette drive; fixed disk storage is supported.
IBM Personal Services/PC	21	Please refer to page 21 for system requirements.			
IBM Personal Telephone Manager Program	24	PC XT AT	108KB	2.00*	One double-sided diskette drive.
IBM Personal Telephone Manager Program/Voice Communications Option	24	PC XT AT	108KB	2.10*	One double-sided diskette drive.
IBM Planning Assistant	9	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC	Optional	A compatible 80-column monitor is supported. For use in a multiuser configuration, the program requires the serial RS-232C port of a serial/parallel adapter card for each user.
M C EC	Recommended	The IBM PC XENIX Operating System is required. A compatible 80-column monitor is supported.
M C EC	Optional	The IBM PC XENIX Operating System is required. A compatible 80-column monitor is supported.
C *jr*C TV	Optional	Additional requirements are an IBM PC*jr* Adapter Cable for Serial Devices and a compatible serial mouse pointing device. DOS 2.10 or higher is required for an IBM PC*jr* with a diskette drive.
M C EC	Supported	Additional requirements are an IBM Personal Computer Cluster Adapter or, for the IBM PC*jr*, an IBM PC*jr* Cluster Attachment. (This attachment cannot be used with an IBM PC*jr* equipped with a diskette drive, parallel printer or IBM PC*jr* Internal Modem.) Early-model IBM PCs may require a new ROM BIOS module. Coaxial cable and connectors required to link IBM PCs in the cluster can be purchased separately. A diskette drive is not required for the IBM PC*jr*.
M C EC	Supported	An IBM Personal Computer Adapter is required. (A disk server is required for a cluster that includes an IBM PC*jr*.)
M C EC TV	Required	This program is not necessary for IBM PCs that use DOS 3.00, since the print screen capability already exists in DOS 3.00. A compatible 40- or 80-column monitor is supported.
M C EC *jr*C	Recommended	An 80-column monitor is recommended.
M C EC	Optional	A minimum of 128KB of memory is required with switching. The IBM Personal Telephone Manager Adapter or the IBM PC Voice Communications Option and an analog telephone and cable with modular connector are required. This program also runs on the IBM 3270 Personal Computer and the IBM 3270 Personal Computer AT.
M C EC	Optional	A minimum of 128KB of memory is required with switching. The IBM PC Voice Communications Option and an analog telephone and cable with modular connector are required. This program also runs on the IBM 3270 Personal Computer and the IBM 3270 Personal Computer AT.
M C *jr*C	Optional	A compatible 40- or 80-column monitor is supported. This program is compatible with TopView.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
IBM Reporting Assistant	7	PC XT PCjr PPC AT	128KB	1.10*	One double-sided diskette drive; fixed disk storage is supported.
IBM Voice Communications Application Program Interface Reference	25	PC XT AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
IBM Voice-Activated Keyboard Utility	25	PC XT AT	215KB (plus DOS and application)	2.10*	One double-sided diskette drive and one fixed disk drive.
IBM Voice/Phone Assistant	24	PC XT AT	256KB	2.10*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
IBM Writing Assistant Version 1.01	8	PC XT PCjr PPC AT	128KB	1.10*	One double-sided diskette drive; fixed disk storage is supported.
Insurance Agency System	32	PC	128KB	1.10*	Two double-sided diskette drives.
Inventory Accounting Edition, BMS	29	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
Inventory Control, BPI	31	PC	64KB	1.10*	Two diskette drives; fixed disk storage is not supported.
Investigating Acceleration	76	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Investigating Conservation of Energy	76	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Investigating Gravitational Force	76	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Investigating Thermal Energy	76	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

PC —IBM Personal Computer

XT —IBM Personal Computer XT

PCjr —IBM PCjr

PPC —IBM *Portable* Personal Computer

AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C jr C	Optional	A compatible 40- or 80-column monitor is supported. This program is compatible with TopView.
M C	Optional	The IBM PC Voice Communications Option is required. A telephone, microphone and speaker are optional.
M C EC	Optional	The IBM PC Voice Communications Option is required. A telephone and microphone are optional.
M C EC	Optional	A minimum of 320KB of memory is required to operate with synthetic-voice Help function under DOS 2.10 or 3.00, 384KB of memory under DOS 3.10. The IBM PC Voice Communications Option and an attached telephone line are required. A microphone and speaker are optional.
M C jr C	Optional	A compatible 40- or 80-column monitor is supported. This program is compatible with TopView.
M	Required	A minimum of seven blank diskettes is required to maintain data files. A compatible 80-column monochrome monitor is supported.
M C EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
M C EC	Required	A compatible 40- or 80-column monitor is supported.
C EC jr C	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher. The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*.
C EC jr C	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher.
C EC jr C	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher. The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*.
C EC jr C	Optional	A minimum of 192KB of user memory is required for use with DOS 3.00 or higher.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jr C —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Job Cost, BPI	31	PC	64KB	1.10*	Two diskette drives; fixed disk storage is not supported.
Juggles' Butterfly	68	PC XT PCjr PPC AT	128KB	2.00 (included on program diskette)*	One diskette drive; fixed disk storage is not supported.
Jumpman	87	PC XT PCjr PPC	64KB	1.00*	One double-sided diskette drive.
Karel the Robot	79	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive (two are recommended).
King's Quest	87	PCjr	128KB	2.10*	One double-sided diskette drive; fixed disk storage is not supported.
Language Skills	67	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Leaf: Structure and Physiology	71	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Learning DOS	80	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.
Learning to Program in BASIC	80	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.
Learning to Use DOS 2.00 (book)	81	PC XT PPC	64KB	2.00*	One diskette drive.
Light, Plants, and Photosynthesis: Energy in Conversion	72	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Listen to Learn	64	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC	Required	A compatible 40- or 80-column monitor is supported.
C EC *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. The IBM *Portable* Personal Computer requires a color monitor. A compatible color monitor is supported.
C EC *jr*C TV	Optional	A minimum of 128KB of memory is required for the IBM PC*jr*. A joystick is optional.
M C EC *jr*C TV	Recommended	A compatible 40- or 80-column monitor is supported.
C EC *jr*C	Optional	A compatible color monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC *jr*C TV	Optional	A compatible color monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
M C EC *jr*C	Optional	A minimum of 128KB of memory is required for the IBM PC XT. A fixed disk drive is required for the lessons in the fixed-disk-drive chapter. A compatible 80-column monitor is supported.
C EC *jr*C TV	Optional	A compatible color monitor is supported.
C EC *jr*C TV	Optional	Additional requirements are: at least two blank, formatted diskettes; an IBM Asynchronous Communications Adapter (for the IBM PC, IBM PC XT, and IBM *Portable* Personal Computer); an IBM PC*jr* Serial Adapter Cable (for the IBM PC*jr*); an IBM Serial/Parallel Adapter (for the IBM Personal Computer AT); and an ECHO PC speech synthesizer or equivalent. If a speech synthesizer other than the ECHO PC, manufactured by Street Electronic Corporation, is used, the user must supply appropriate device driver to ensure compatibility with Listen to Learn. A compatible color monitor is required.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Local Area Network Access Edition, BMS	30	PC XT AT	640KB	3.10*	One double-sided diskette drive and one 10MB fixed disk drive.
Logo	79	PC XT PC*jr* PPC AT	128KB	2.00*	One diskette drive; fixed disk storage is supported.
Logo Learner	79	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Macro Assembler Version 2.00	46	PC XT PC*jr* PPC AT	96KB	1.10*	One double-sided diskette drive.
Math Computation Skills	70	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Mendelian Genetics: The Science of Inheritance	74	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Mine Shaft	89	PC*jr*	64KB	—	One IBM PC*jr* cartridge slot; fixed disk storage is not supported.
Missing Letters	65	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Modern Genetics: Chromosomes and Coding	74	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PC*jr* —IBM PC*jr*
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC	Recommended	An IBM PC XT or IBM Personal Computer AT is required to function as the file server. Only remote stations can use the IBM PC. A minimum of 512KB of memory is required for IBM PCs other than the file server. The printer used must be capable of printing an 80-character line or a 132-character compressed line.
M C EC jrC TV	Optional	A color display from IBM is recommended for the turtle graphics portion of the program. The IBM Monochrome Display cannot produce turtle graphics. A TV or monitor may not produce true color images. When using DOS 3.00 on the IBM PC*jr*, additional memory is required.
M C EC jrC TV	Optional	Optional equipment includes an IBM PC*jr* 128KB Memory Expansion Attachment, IBM PC*jr* Attachable Joystick, IBM Game Control Adapter, and an external speaker (if the IBM PC*jr* Color Display is not used). A compatible 40- or 80-column monitor is supported. A color display from IBM is recommended for the turtle graphics portion of the program. The IBM Monochrome Display cannot produce turtle graphics. A TV or monitor may not produce true color images. When using DOS 3.00 on the IBM PC*jr*, additional memory is required.
M C EC jrC TV	Optional	A minimum of 128KB of memory is required for use with DOS 2.00 or higher. A compatible 80-column monitor is recommended.
M C jrC TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is supported. A minimum of 192KB is required for use with DOS 3.00 or higher.
C jrC TV	Optional	A compatible color monitor is supported.
M C EC jrC TV	Optional	A compatible 40- or 80-column monitor is supported. The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*.
C EC jrC TV	Optional	A compatible color monitor is supported.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jrC —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Moisture in the Atmosphere	78	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Monster Math	69	PC XT PC*jr* PPC AT	64KB	2.10 (included on program diskette)*	One diskette drive; fixed disk storage is supported.
Mouser	88	PC*jr*	64KB	Not applicable	One IBM PC*jr* cartridge slot; fixed disk storage is not supported.
Order Entry and Invoicing Edition, BMS	29	PC XT PPC AT	320KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
Pascal Compiler Version 2.00	44	PC XT PPC AT	160KB	2.00*	Two diskette drives (or one diskette drive and one fixed disk drive).
Passive Transport: Diffusion and Osmosis	73	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Pathology: Diseases and Defenses	74	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Payroll, BPI	31	PC	64KB	1.10*	Two diskette drives; fixed disk storage is not supported.
Payroll Edition, BMS	27	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one 10MB fixed disk drive.
PC Pool Challenges	87	PC XT PC*jr* PPC AT	64KB	2.10 (included on program diskette)*	One diskette drive.
PC/IX Version 1.10	39	PC XT	256KB	Not applicable	One double-sided diskette drive and one 10MB fixed disk drive.
PC/Videotex	59	PC XT PC*jr* AT	128KB	2.00*	One diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
C, *jr*C, TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.
C, EC, *jr*C, TV	Optional	A minimum of 128KB of memory and the IBM PC*jr* BASIC cartridge are required for the IBM PC*jr*. A minimum of 128KB of memory is required for fixed disk storage. A compatible color monitor is required.
C, *jr*C, TV	Optional	A compatible color monitor is supported.
M, C, EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
M, C, EC, PG	Recommended	An IBM 8087 Math Co-processor is supported but not required. An 80-column monitor is recommended.
C, EC, *jr*C, TV	Optional	A compatible color monitor is supported.
C, EC, *jr*C, TV	Optional	A compatible color monitor is supported.
M, C, EC	Required	A compatible 40- or 80-column monitor is supported.
M, C, EC	Required	The printer used must be capable of printing an 80-character line or a 132-character compressed line. A compatible 80-column monitor is supported. A fixed disk is required for the IBM Personal Computer and the IBM *Portable* Personal Computer.
C, EC, *jr*C, TV	Optional	A minimum of 128KB of memory is required for the IBM PC*jr*. A compatible color monitor is supported.
M, C, EC, PG	Supported	A minimum of 512KB of memory is recommended. A compatible 80-column monitor is supported.
C, EC, *jr*C, TV	Optional	An asynchronous communications adapter and 1200-baud modem are required. A minimum of 256KB of memory is required for use on the IBM Personal Computer AT. A compatible 40- or 80-column monitor is supported.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
PCWriter Version 1.10	19	PC XT PPC AT	128KB	2.00*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive); fixed disk storage is supported.
Personal Communications Manager	59	PC XT PCjr PPC	128KB	2.10*	One double-sided diskette drive; fixed disk storage is supported.
Personal Editor	20	PC XT PCjr PPC AT	64KB	1.00*	One diskette drive; fixed disk storage is supported.
Plans + Edition, PDS	14	PC XT PPC AT	320KB	2.00*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Plants: Growth and Specialization	72	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Plotting System	56	PC XT PPC AT	128KB	2.00*	Two 360KB diskette drives (or one 1.2MB diskette drive).
Preparing for Geometry and Algebra	70	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Primary Editor	81	PC XT PCjr PPC AT	128KB	1.10*	One diskette drive.
Private Tutor Version 2.00	82	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.
Professional Debug Facility	48	PC XT PPC AT	128KB	—	One diskette drive; fixed disk storage is supported.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PCjr —IBM PC*jr*
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC	Required	A compatible 80-column monitor is supported.
M C jr C	Recommended	Either the IBM PC*jr* Internal Modem or an IBM Asynchronous Communications Adapter with supported auto-dial modem and cable is required. A compatible 80-column monitor is supported. The IBM Personal Computer AT does not support fixed disk storage.
M C EC jr C	Optional	A minimum of 128KB is required for use on the IBM PC*jr* or for fixed disk storage. A compatible 40- or 80-column monitor is supported.
M C EC	Optional	The Data Edition program is required. A graphics printer is required for graphics output. A compatible 80-column monitor is supported.
C EC jr C TV	Optional	A compatible color monitor is supported.
M C EC PG TV	Optional	One of the following is required: —IBM PC BASIC Compiler 1.00 or higher —IBM PC FORTRAN Compiler 2.00 or higher —IBM PC Professional FORTRAN Compiler 2.00 —Lattice C Compiler
M C jr C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC jr C TV	Optional	An IBM PC*jr* Power Expansion Attachment is required when using an IBM Graphics Printer in combination with the IBM PC*jr* Speech Attachment and/or Memory Expansion Attachment. The IBM PC*jr* Speech Attachment and headphones are optional for use on the IBM PC*jr* (with IBM PC*jr* Color Display only).
M C jr C TV	Optional	A compatible 40- or 80-column monitor is supported.
M C EC	Optional	The IBM 8087 or 80287 Math Co-processor is supported but not required. A compatible 80-column monitor is supported.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jr C —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Professional Editor	20	PC XT PCjr PPC AT	64KB	1.00*	One diskette drive; fixed disk storage is supported.
Punctuation Skills	67	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Reading Comprehension Skills	64	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Regulation and Homeostasis: Systems in Balance	73	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Reports + Edition, PDS	13	PC XT PPC AT	256KB	2.00*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Rocky's Boots	69	PC XT PCjr PPC AT	128KB	2.10 (included on program diskette)*	One diskette drive; fixed disk storage is not supported.
ScubaVenture	88	PCjr	64KB	Not applicable	One IBM PCjr cartridge slot; fixed disk storage is not supported.
SHAMUS	86	PC XT PCjr PPC AT	64KB	1.00*	One diskette drive.
SNA 3270 Emulation and RJE Support	63	PC XT PPC AT	128KB	1.00*	One diskette drive; fixed disk storage is supported.
Solving Word Problems	70	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Spelling Skills	66	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Surface Water	78	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC *jr*C	Optional	A minimum of 128KB is required for use with the IBM PC*jr* or for fixed disk storage. A compatible 80-column monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC *jr*C TV	Optional	A compatible color monitor is supported. A minimum of 192KB is required for use with DOS 3.00 or higher.
M C EC	Optional	The Data Edition program is required. A compatible 80-column monitor is supported.
C *jr*C TV	Optional	If a television is to be used, color is recommended. A compatible color monitor is supported.
C *jr*C TV	Optional	A compatible color monitor is supported.
C EC *jr*C TV	Optional	A minimum of 128KB of memory is required for the IBM PC*jr*. A compatible color monitor is supported.
M C EC	Supported	The user is responsible for providing a synchronous modem with modem clocking, necessary cables and support from a host system with compatible 3270 Display or 3770 RJE System support. A compatible 80-column monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
M C *jr*C TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C *jr*C TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Teacher's Quiz Designer	83	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
3101 Emulation	63	PC XT PCjr PPC AT	64KB	1.00*	One diskette drive.
TopView	17	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one fixed disk drive (or two double-sided diskette drives).
TopView Programmer's ToolKit	48	PC XT PPC AT	256KB	2.00*	One double-sided diskette drive and one fixed disk drive (or two double-sided diskette drives).
Touchdown Football	87	PCjr	128KB	2.10*	One diskette drive.
Trivia 101: The Introductory Course	86	PC XT PCjr PPC AT	128KB	1.00*	One double-sided diskette drive.
Turtle Power	79	PC XT PCjr PPC AT	128KB	—	One double-sided diskette drive; fixed disk storage is not supported.
TV and Cinema 101: Trivia from Talkies to Trekkies	86	PC XT PCjr PPC AT	128KB	1.00*	One double-sided diskette drive.
Typing Tutor	81	PC XT PCjr PPC AT	48KB	1.00*	One diskette drive; fixed disk storage is not supported.
Vocabulary Building Skills	66	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.
Volcanoes	78	PC XT PCjr PPC AT	128KB	2.00*	One double-sided diskette drive.

PC —IBM Personal Computer
XT —IBM Personal Computer XT
PCjr —IBM PCjr
PPC —IBM *Portable* Personal Computer
AT —IBM Personal Computer AT

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C EC jrC TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible 40- or 80-column monitor is supported.
M C EC jrC	Optional	Additional requirements are: an IBM Asynchronous Communications Adapter; a full-duplex modem or direct cable for connection to a host computer; and subscription(s), password (s) and communications protocol information for host access.
M C EC	Optional	A minimum of 512KB of memory is recommended. IBM 3270 PC Models 4 and 6 require a minimum of 448KB of user memory (640KB recommended), DOS 2.10 and Control Program 1.20. A mouse pointing device is recommended but not required. A compatible 80-column monitor is supported.
M C EC	Optional	A minimum of 512KB of memory is recommended. IBM 3270 PC Models 4 and 6 require a minimum of 448KB of user memory (640KB recommended), DOS 2.10 and Control Program 1.20. A mouse pointing device is recommended but not required. A compatible 80-column monitor is supported.
C jrC TV	Optional	A compatible color monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is supported.
C EC jrC TV	Optional	A compatible color monitor is required.
C EC jrC TV	Optional	A compatible color monitor is supported.
M C EC jrC TV	Optional	A minimum of 64KB of memory is required for use with DOS 2.00 or higher. A compatible 40- or 80-column monitor is supported.
M C jrC TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
C EC jrC TV	Optional	The IBM PC*jr* BASIC cartridge is required for the IBM PC*jr*. A compatible color monitor is required.

M —IBM Monochrome Display
C —IBM Color Display
EC —IBM Enhanced Color Display
jrC —IBM PC*jr* Color Display
PG —IBM Professional Graphics Display
TV —Television set

System Requirements Chart

Program Name	Page No.	Supported Systems	Minimum Memory Required	Lowest DOS Version Required	Required Drives
Word Knowledge Skills	66	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive.
Word Proof	20	PC XT PC*jr* PPC	96KB	2.00*	One diskette drive; fixed disk storage is supported.
Words Edition, PDS	15	PC XT PPC AT	256KB	2.00*	Two double-sided diskette drives (or one double-sided diskette drive and one fixed disk drive).
Writing Private Tutor Courses for the IBM Personal Computer	83	PC XT PC*jr* PPC AT	128KB	2.00*	One double-sided diskette drive; fixed disk storage is supported.
Zyll, A Text Adventure Game	86	PC XT PC*jr* PPC	64KB	1.00*	One double-sided diskette drive.

PC —IBM Personal Computer

XT —IBM Personal Computer XT

PC*jr* —IBM PC*jr*

PPC —IBM *Portable* Personal Computer

AT —IBM Personal Computer AT

*The chart below indicates the DOS versions that are supported on IBM's personal computer systems.

DOS Version	PC	XT	PC*jr*	PPC	AT
1.00	•				
1.10	•				
2.00	•	•			
2.10	•	•	•	•	
3.00	•	•	•	•	•
3.10	•	•	•	•	•

DOS 3.00 does not support the 30MB IBM Personal Computer AT. DOS 2.00 or higher is required for fixed disk storage. DOS 3.10 or higher is required for operation on the IBM PC Network.

Supported Displays**	IBM Printer***	Other Requirements and Comments
M C jrC TV	Optional	The Private Tutor Version 2.00 program is required. A compatible 40- or 80-column monitor is supported.
M C jrC	Optional	A second diskette drive or a 360KB diskette drive is required for the synonym-finder function. A minimum of 128KB of memory is required for use on the IBM PC*jr*. A compatible 40- or 80-column monitor is supported.
M C EC	Required	The Data Edition program is required. A compatible 80-column monitor is supported.
M C TV	Optional	The Private Tutor Version 2.00 program is required.
M C EC jrC TV	Optional	A minimum of 128KB of memory is required for the IBM PC*jr*. A compatible 40- or 80-column monitor is supported.

**The following symbols indicate the displays—and corresponding adapters—that can be used with each program listed in the chart.

- M — IBM Monochrome Display—requires the IBM Monochrome Display and Printer Adapter or IBM Enhanced Graphics Adapter; not compatible with the IBM *Portable* Personal Computer or IBM PC*jr*.
- C — IBM Color Display—requires the IBM Color Graphics Monitor Adapter or IBM Enhanced Graphics Adapter.
- EC — IBM Enhanced Color Display—requires the IBM Enhanced Graphics Adapter.
- jrC — IBM PC*jr* Color Display—requires no additional hardware; compatible only with the IBM PC*jr*.
- PG — IBM Professional Graphics Display—requires the IBM Professional Graphics Controller.
- TV — Television set—requires an RF modulator or IBM PC*jr* Connector for TV.

***For specific application printer support, contact your Authorized Dealer or IBM marketing representative.

A
Accounting, 26-31
Accounts Payable Edition, BMS, 28
Accounts Receivable, BPI, 31
Accounts Receivable Edition, BMS, 28
Adventures in Math, 68
Andrew Tobias Managing Your Money With the IBM PC*jr*, 85
Animation Creation, 88
APL Interpreter, 46
Assistant Series, 6
Assistant Solutions, IBM, 11
Asynchronous Communications Support 2.00, 63
Augmented Phone Services, IBM, 25

B
BASIC Compiler Version 2.00, 44
BASIC, IBM Personal Computer, 42
BASIC Made Easy (book), 80
Basic Number Skills, 70
BASIC Primer Version 2.00, 81
Binary Synchronous (BSC) 3270 Emulation, 63
Biology Series, 71
Bouncy Bee Learns Letters, 66
Bouncy Bee Learns Words, 67
BPI Accounting System, IBM, 30
Bumble Games, 68
Bumble Plot, 69
Business Family, 26-33
Accounting, 26-31
Accounts Payable Edition, BMS, 28
Accounts Receivable, BPI, 31
Accounts Receivable Edition, BMS, 28
BPI Accounting System, IBM, 30
Business Management Series, IBM, 26
Data Encoder, 33
Doctor's Office Manager, 32
General Accounting, BPI, 30
General Ledger Edition, BMS, 27
Insurance Agency System, 32
Inventory Accounting Edition, BMS, 29
Inventory Control, BPI, 31
Job Cost, BPI, 31
Local Area Network Access Edition, BMS, 30
Order Entry and Invoicing Edition, BMS, 29
Payroll, BPI, 31
Payroll Edition, BMS, 27
Specialized Business, 32-33
Business Management Series, IBM, 26

C
C Compiler, 43
Capitalization Skills, 67
Career Education, 82
Cell Functions: Growth and Mitosis, 72
Chemicals of Life I: The Structure of Matter, 74
Chemicals of Life II: Water, Carbohydrates and Lipids, 75
Chemicals of Life III: Proteins and Nucleic Acids, 75
COBOL Compiler, 46
Comma Cat, 65
Communications, 58
Communications Family, 58-63
Asynchronous Communications Support 2.00, 63
Binary Synchronous (BSC) 3270 Emulation, 63
Communications, 58
Mainframe Communication Assistant, IBM, 62
PC Network Analysis Program, IBM, 62
PC Network Program, IBM, 60
PC Network SNA 3270 Emulation Program, IBM, 61
PC/Videotex, 59
Personal Communications Manager, 59
Personal Computer Cluster Program, IBM, 62
SNA 3270 Emulation and RJE Support, 63
3101 Emulation, 63
Computer Literacy, 79-81
Computers and Communications, 80
CP/M-86, 40
Crossfire, 88
Crypto Cube, 65
Cytology and Histology: Cells and Tissues, 72

D
Data Acquisition and Control Adapter Support, 57
Data Edition, PDS, 13
Data Encoder, 33
Dictionary Dog, 65
Disk Operating System, IBM, 35
Disk Operating System (DOS) Version 3.10, IBM, 36
DisplayComm BSC Version 1.10, 23
DisplayWrite Legal Support, 23
DisplayWrite Medical Support, 23
DisplayWrite 1, 23
DisplayWrite Series, IBM, 22
DisplayWrite 3 Version 1.10, 22
Doctor's Office Manager, 32
Document Retrieval Assistant, IBM, 10
DOS, IBM, 35
DOS Version 3.10, IBM, 36
Drawing Assistant, IBM, 9

E
Earth Science Series, 77
Earthquakes, 78
Education Family, 64-83
Adventures in Math, 68
BASIC Made Easy, 80
Basic Number Skills, 70
BASIC Primer Version 2.00, 81
Biology Series, 71
Bouncy Bee Learns Letters, 66
Bouncy Bee Learns Words, 67
Bumble Games, 68
Bumble Plot, 69
Capitalization Skills, 67
Career Education, 82
Cell Functions: Growth and Mitosis, 72
Chemicals of Life I: The Structure of Matter, 74
Chemicals of Life II: Water, Carbohydrates and Lipids, 75

Chemicals of Life III:
Proteins and Nucleic Acids, 75
Comma Cat, 65
Computer Literacy, 79-81
Computers and Communications, 80
Crypto Cube, 65
Cytology and Histology:
Cells and Tissues, 72
Dictionary Dog, 65
Earth Science Series, 77
Earthquakes, 78
Electric Poet, 83
Environment I, The:
Habitats and Ecosystems, 71
Gertrude's Puzzles, 69
Gertrude's Secrets, 68
Ground Water, 77
Human Life Processes I:
Cellular Physiology, 73
Human Life Processes II:
Systems Level, 73
Hydrologic Cycle, 77
I Can Be Anything, 82
Instructional Aids, 82-83
Investigating Acceleration, 76
Investigating Conservation of Energy, 76
Investigating Gravitational Force, 76
Investigating Thermal Energy, 76
Juggles' Butterfly, 68
Karel the Robot, 79
Karel the Robot Textbook, 79
Keyboarding, 81
Language Arts, 64-67
Language Arts software, 64
Language Skills, 67
Leaf: Structure and Physiology, 71
Learning DOS, 80
Learning to Program in BASIC, 80
Learning to Use DOS 2.00, 81
Light, Plants, and Photosynthesis:
Energy in Conversion, 72
Listen to Learn, 64
Logo, 79
Logo Learner, 79
Math, 68-70
Math Computation Skills, 70
Mendelian Genetics:
The Science of Inheritance, 74
Missing Letters, 65
Modern Genetics:
Chromosomes and Coding, 74
Moisture in the Atmosphere, 78
Monster Math, 69
Passive Transport:
Diffusion and Osmosis, 73
Pathology: Diseases and Defenses, 74
Physics Discovery Series, 75
Plants: Growth and Specialization, 72
Preparing for Geometry and Algebra, 70
Primary Editor, 81
Private Tutor Version 2.00, 82
Punctuation Skills, 67
Reading Comprehension Skills, 64
Regulation and Homeostasis:
Systems in Balance, 73
Rocky's Boots, 69
Science, 71-78
Solving Word Problems, 70
Spelling Skills, 66
Surface Water, 78
Teacher's Quiz Designer, 83
Turtle Power, 79
Turtle Power Activity Book, 79
Turtle Power Thinker's Guide, 79
Typing Tutor, 81
Vocabulary Building Skills, 66
Volcanoes, 78
Word Knowledge Skills, 66
Writing Private Tutor Courses
for the IBM Personal Computer, 83
Electric Poet, 83
Engineering/Scientific Family, 54-57
Data Acquisition and
Control Adapter Support, 57
General Purpose Interface
Bus (GPIB) Adapter Support, 57
Graphical File System, 55
Graphical Kernel System, 54
Graphics Terminal Emulator, 55
Instruction observation and
control adapter support, 56
Introduction to Engineering/
Scientific graphics, 54
PC Professional FORTRAN, IBM, 57
Plotting System, 56
Entertainment Family, 86-89
Animation Creation, 88
Crossfire, 88
Jumpman, 87
King's Quest, 87
Mine Shaft, 89
Mouser, 88
PC Pool Challenges, 87
ScubaVenture, 88
SHAMUS, 86
Touchdown Football, 87
Trivia 101: The Introductory Course, 86
TV and Cinema 101:
Trivia From Talkies to Trekkies, 86
Zyll, A Text Adventure Game, 86
Environment I, The:
Habitats and Ecosystems, 71
EZ-VU Development Facility, 48
EZ-VU Runtime Facility, 48

F

FileCommand, 18
Filing Assistant, IBM, 7
Fixed Disk Organizer, 19
FORTRAN Compiler Version 2.00, 45

G

General Accounting, BPI, 30
General Ledger Edition, BMS, 27
General Purpose Interface
Bus (GPIB) Adapter Support, 57
Gertrude's Puzzles, 69
Gertrude's Secrets, 68
Graphical File System, 55
Graphical Kernel System, 54
Graphics Development Toolkit, 51
Graphics Terminal Emulator, 55

Graphing Assistant Version 1.01, IBM, 8
Graphs Edition, PDS, 14
Ground Water, 77

H
Home Budget, *jr*, 84
HomeWord, 19
Human Life Processes I:
Cellular Physiology, 73
Human Life Processes II:
Systems Level, 73
Hydrologic Cycle, 77

I
I Can Be Anything, 82
IBM Assistant Solutions, 11
IBM Augmented Phone Services, 25
IBM BPI Accounting System, 30
IBM Business Management Series, 26
IBM Disk Operating System, 35
IBM Disk Operating System
(DOS) Version 3.10, 36
IBM DisplayWrite Series, 22
IBM Document Retrieval Assistant, 10
IBM Drawing Assistant, 9
IBM Filing Assistant, 7
IBM graphics...based on industry
standards, 50
IBM Graphing Assistant Version 1.01, 8
IBM Mainframe Communication Assistant, 10
IBM PC Network Analysis Program, 62
IBM PC Network Program, 60
IBM PC Network SNA 3270
Emulation Program, 61
IBM PC Professional FORTRAN, 45
IBM PC programming languages, 41
IBM PC programming tools, 47
IBM PC Storyboard, 18
IBM PC Voice Communications
Operating Subsystem, 25
IBM PC XENIX, 37
IBM PC XENIX Operating System, 37
IBM PC XENIX Software Development
System, 38
IBM PC XENIX Text Formatting System, 38
IBM PC*jr* ColorPaint, 84
IBM Personal Computer BASIC, 42
IBM Personal Computer Cluster Program, 62
IBM Personal Computer
Operating Systems, 34
IBM Personal Computer
Print Screen Utility Program, 49
IBM Personal Computer SORT, 49
IBM Personal Computer
Voice Communications software, 24
IBM Personal Decision Series, 12
IBM Personal Services/PC, 21
IBM Personal Telephone Manager Program, 24
IBM Planning Assistant, 9
IBM Planning Assistant Solutions, 11
IBM Reporting Assistant, 7
IBM Voice Communications Application
Program Interface Reference, 25
IBM Voice-Activated Keyboard Utility, 25
IBM Voice/Phone Assistant, 11
IBM Writing Assistant Version 1.01, 8
Instructional Aids, 82-83
Instrument observation and
control adapter support, 56
Insurance Agency System, 32
Integrated Tools, 6-16
Introduction to Engineering/
Scientific graphics, 54
Inventory Accounting Edition, BMS, 29
Inventory Control, BPI, 31
Investigating Acceleration, 76
Investigating Conservation of Energy, 76
Investigating Gravitational Force, 76
Investigating Thermal Energy, 76

J
Job Cost, BPI, 31
Juggles' Butterfly, 68
Jumpman, 87

K
Karel the Robot, 79
Karel the Robot Textbook, 79
Keyboarding, 81
King's Quest, 87

L
Language Arts, 64-67
Language Arts software, 64
Language Skills, 67
Leaf: Structure and Physiology, 71
Learning DOS, 80
Learning to Program in BASIC, 80
Learning to Use DOS 2.00 (book), 81
Lifestyle Family, 84-85
Andrew Tobias Managing
Your Money With the IBM PC*jr*, 85
Home Budget, *jr*, 84
IBM PC*jr* ColorPaint, 84
Light, Plants, and Photosynthesis:
Energy in Conversion, 72
Listen to Learn, 64
Local Area Network Access Edition, BMS, 30
Logo, 79
Logo Learner, 79

M
Macro Assembler Version 2.00, 46
Mainframe Communication
Assistant, IBM, 10
Math, 68-70
Math Computation Skills, 70
Mendelian Genetics:
The Science of Inheritance, 74
Mine Shaft, 89
Missing Letters, 65
Modern Genetics:
Chromosomes and Coding, 74
Moisture in the Atmosphere, 78
Monster Math, 69
Mouser, 88

O

Office Systems Family, 21-25
- Augmented Phone Services, IBM, 25
- DisplayComm BSC Version 1.10, 23
- DisplayWrite Legal Support, 23
- DisplayWrite Medical Support, 23
- DisplayWrite 1, 23
- DisplayWrite Series, IBM, 22
- DisplayWrite 3 Version 1.10, 22
- PC Voice Communications Operating Subsystem, IBM, 25
- Personal Computer Voice Communications software, IBM, 24
- Personal Services/PC, IBM, 21
- Personal Telephone Manager Program, IBM, 24
- *Voice Communications*, 24-25
- Voice Communications Application Program Interface Reference, IBM, 25
- Voice-Activated Keyboard Utility, IBM, 25
- Voice/Phone Assistant, IBM, 24
- *Word Processing*, 22-23

Operating Systems, 34-40
Order Entry and Invoicing Edition, BMS, 29
Organization, 17-19

P

Pascal Compiler Version 2.00, 44
Passive Transport: Diffusion and Osmosis, 73
Pathology: Diseases and Defenses, 74
Payroll, BPI, 31
Payroll Edition, BMS, 27
PC Network Analysis Program, IBM, 62
PC Network Program, IBM, 60
PC Network SNA 3270 Emulation Program, IBM, 61
PC Pool Challenges, 87
PC Professional FORTRAN, IBM, 45
PC programming languages, IBM, 41
PC programming tools, IBM, 47
PC Storyboard, IBM, 18
PC Voice Communications Operating Subsystem, IBM, 25
PC XENIX, IBM, 37
PC XENIX Operating System, IBM, 37
PC XENIX Software Development System, IBM, 38
PC XENIX Text Formatting System, IBM, 38
PC/IX Version 1.10, 39
PC*jr* ColorPaint, IBM, 84
PC/Videotex, 59
PCWriter Version 1.10, 19
Personal Communications Manager, 59
Personal Computer BASIC, IBM, 42
Personal Computer Cluster Program, IBM, 62
Personal Computer Operating Systems, IBM, 34
Personal Computer Print Screen Utility Program, IBM, 49
Personal Computer SORT, IBM, 49
Personal Computer Voice Communications software, IBM, 24
Personal Decision Series, IBM, 12
Personal Editor, 20
Personal Services/PC, IBM, 21
Personal Telephone Manager Program, IBM, 24
Physics Discovery Series, 75
Planning Assistant, IBM, 9
Planning Assistant Solutions, IBM, 11
Plans+ Edition, PDS, 14
Plants: Growth and Specialization, 72
Plotting System, 56
Preparing for Geometry and Algebra, 70
Primary Editor, 81
Private Tutor Version 2.00, 82
Professional Debug Facility, 48
Professional Editor, 20

Productivity Family, 6-20
- Assistant Series, 6
- Assistant Solutions, IBM, 11
- Augmented Phone Services, IBM, 15
- Data Edition, PDS, 13
- Document Retrieval Assistant, IBM, 10
- Drawing Assistant, IBM, 9
- FileCommand, 18
- Filing Assistant, IBM, 7
- Fixed Disk Organizer, 19
- Graphing Assistant Version 1.01, IBM, 8
- Graphs Edition, PDS, 14
- HomeWord, 19
- *Integrated Tools*, 6-16
- Mainframe Communication Assistant, IBM, 10
- *Organization*, 17-19
- PC Storyboard, IBM, 18
- PCWriter Version 1.10, 19
- Personal Communications Manager, 18
- Personal Decision Series, IBM, 12
- Personal Editor, 20
- Personal Telephone Manager Program, IBM, 15
- Planning Assistant, IBM, 9
- Planning Assistant Solutions, IBM, 11
- Plans + Edition, PDS, 14
- Professional Editor, 20
- Reporting Assistant, IBM, 7
- Reports + Edition, PDS, 13
- TopView, 17
- Voice-Activated Keyboard Utility, IBM, 16
- Voice/Phone Assistant, IBM, 11
- *Word Processing*, 19-20
- Word Proof, 20
- Words Edition, PDS, 15
- Writing Assistant Version 1.01, IBM, 8

Programming Family, 34-53
- APL Interpreter, 46
- BASIC Compiler Version 2.00, 44
- C Compiler, 43
- COBOL Compiler, 46
- CP/M-86, 40
- Disk Operating System, IBM, 35
- Disk Operating System (DOS) Version 3.10, IBM, 36
- EZ-VU Development Facility, 48
- EZ-VU Runtime Facility, 48
- FORTRAN Compiler Version 2.00, 45
- Graphical File System, 51
- Graphical Kernel System, 51
- Graphics Development Toolkit, 51
- Graphics Terminal Emulator, 52

IBM graphics...based on industry standards, 50
Macro Assembler Version 2.00, 46
Operating Systems, 34-40
Pascal Compiler Version 2.00, 44
PC Professional FORTRAN, IBM, 45
PC programming languages, IBM, 41
PC programming tools, IBM, 47
PC Voice Communications Operating Subsystem, IBM, 52
PC XENIX, IBM, 37
PC XENIX Operating System, IBM, 37
PC XENIX Software Development System, IBM, 38
PC XENIX Text Formatting System, IBM, 38
PC/IX Version 1.10, 39
Personal Computer BASIC, IBM, 42
Personal Computer Operating Systems, IBM, 34
Personal Computer Print Screen Utility Program, IBM, 49
Personal Computer SORT, IBM, 49
Personal Editor, 49
Plotting System, 52
Professional Debug Facility, 48
Professional Editor, 49
Programming Languages, 41-46
Programming Tools, 47-53
TopView Programmer's ToolKit, 48
Voice Communications Application Program Interface Reference, IBM, 52
Voice-Activated Keyboard Utility, IBM, 53
Programming Languages, 41-46
Programming Tools, 47-53
Punctuation Skills, 67

R

Reading Comprehension Skills, 64
Regulation and Homeostasis: Systems in Balance, 73
Reporting Assistant, IBM, 7
Reports + Edition, PDS, 13
Rocky's Boots, 69

S

Science, 71-78
ScubaVenture, 88
SHAMUS, 86
SNA 3270 Emulation and RJE Support, 63
Solving Word Problems, 70
Specialized Business, 32-33
Spelling Skills, 66
Surface Water, 78
System Requirements, 91-123

T

Teacher's Quiz Designer, 83
3101 Emulation, 63
TopView, 17
TopView Programmer's ToolKit, 48
Touchdown Football, 87
Trivia 101: The Introductory Course, 86
Turtle Power, 79
Turtle Power Activity Book, 79
Turtle Power Thinker's Guide, 79
TV and Cinema 101: Trivia From Talkies to Trekkies, 86
Typing Tutor, 81

V

Vocabulary Building Skills, 66
Voice Communications, 24-25
Voice Communications Application Program Interface Reference, IBM, 25
Voice-Activated Keyboard Utility, IBM, 25
Voice/Phone Assistant, IBM, 11
Volcanoes, 78

W

Word Knowledge Skills, 66
Word Processing
Office Systems Family, 22-23
Productivity Family, 19-20
Word Proof, 20
Words Edition, PDS, 15
Writing Assistant Version 1.01, IBM, 8
Writing Private Tutor Courses for the IBM Personal Computer, 83

Z

Zyll, A Text Adventure Game, 86

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