

Microsoft® Programmer's Library

The Complete PC Programmer's Reference on a Single CD-ROM Disc

For IBM® Personal Computers and 100% Compatibles and for the IBM Personal System/2® Series

The ultimate on-line productivity tool for programmers — on a single compact disc! Microsoft Programmer's Library is a comprehensive, authoritative database of programming documentation and sample code that can completely revolutionize the way you work — making you more productive, because the resources you need are right at your fingertips!

Product Overview

Microsoft Programmer's Library is a complete on-line reference tool for programmers and others who work with PC systems and software. It lets you access a comprehensive collection of books, technical manuals, and sample programs from inside your text editor or word processor, saving you the time and trouble of searching through stacks of printed manuals. A generation beyond current on-line help products, Programmer's Library offers you a broad range of resources—from quick-reference help to in-depth discussions—all available at the touch of a "hot key."

Get comprehensive coverage.

With Microsoft Programmer's Library, everything you need to know in order to work with most PC operating systems or languages is available at your fingertips. The single compact disc contains 48 books and technical manuals—all thoroughly indexed and cross-referenced so that you can quickly search and find information as you would in a database—plus 7 MB of sample programs!

It also includes documentation for writing to specific hardware devices, including the Microsoft Mouse, CD-ROM drives, and video cards.

Boost your productivity.

Having such comprehensive reference materials available on-line can significantly improve your productivity. You can perform extensive searches in just seconds without ever leaving your workstation or exiting from your editor or word processor. What's more, you can copy and paste sample code into your programs—eliminating the need to rekey it.

Get a competitive edge.

In the competitive world of software development, the productivity benefits that Microsoft Programmer's Library provides add up to more than just convenience. In the applications software market, where product timing is so critical, these benefits can mean the difference between success and failure. By allowing software developers like you to get your products to market faster, Microsoft Programmer's Library gives you an edge over the competition.

An inestimable value.

The amount of information included on the disc is so great that it is difficult to place a value on it. Consider, for example, that:

- The six Microsoft Press books alone total more than \$250 in value.
- The time saved by copying just one of the 1200 sample programs can cover the entire cost of the product.
- Many of the manuals are available only as part of expensive software packages.
- If you oversee your company's purchasing decisions, Microsoft Programmer's Library is a wise investment because you can preview operating system and language software in depth before you buy it.

In addition, purchasing a CD-ROM drive for Programmer's Library gives you a workstation equipped for future CD-ROM products. It is Microsoft's view that CD-ROM will play a critical role in increasing both information accessibility and worker productivity. Software developers who don't invest in it now will soon find themselves several steps behind their competitors.

Microsoft®

Technical Highlights

Get up and running with ease.

You'll appreciate the simplicity and ease-of-use of the Programmer's Library interface. The two menu bars—the Main menu bar and the Browser bar—feature commands and options for looking up, displaying, copying, and using programming information. Each menu bar uses only the top few lines of your screen, so the rest of the screen is available as a work area for your program editor or word processing application. You can also display Programmer's Library reference information in this area.

Search on key words.

The heart of Microsoft Programmer's Library is its ability to perform any type of search you like—from casual browsing of an index or table of contents to complex Boolean (AND/OR) searches of an entire reference. You can also specify the level at which you want Programmer's Library to search—for example, at the section, chapter, or body text level—and you can easily move between levels within a reference. Programmer's Library has the ability to perform comprehensive searches in minimum time, often resulting in innovative, unexpected solutions—answers that you might never have found with a more time-consuming manual search.

Navigate with cross-references.

Many important concepts in Microsoft Programmer's Library are linked and cross-referenced by key words—so the books and references on the disc are *hypertextual*, as opposed to linear. With a simple click of the mouse, you can easily move from one cross-reference to the next and back again. Use cross-references to navigate quickly through related information. Because you never have to leave your workstation to check reference materials, you can stay more focused on your project. The result: You can save development time, increase your productivity, and more easily meet project deadlines.

Use electronic bookmarks, not paper clips.

To help you quickly find important or frequently referred to passages in a particular reference, you can set electronic bookmarks. For instance, you can set a bookmark on a passage in a reference manual and another on a relevant sample program, and then toggle back and forth. Microsoft Programmer's Library allows you to keep up to 80 bookmarks on file. These are stored alphabetically in a master list, according to the names you assign them. You can also move quickly and easily between references and entire reference categories by using electronic bookmarks as "place holders."

Run as a transient program ...

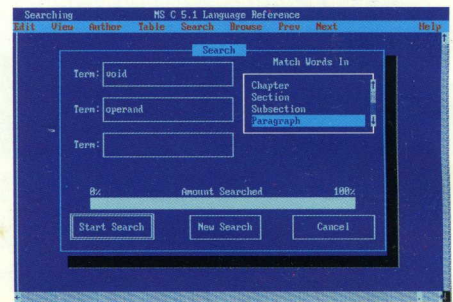
You can execute Microsoft Programmer's Library as a transient or standalone application by typing *msl -s* from within any editor that allows calls to the DOS shell. Information retrieved from a reference work is stored in a Clipboard, which can be saved as an ASCII file. This file then can be read by most editors and word processors. As a transient program, you call Programmer's Library only when you need it, so you never have to give up memory.

... or as a TSR.

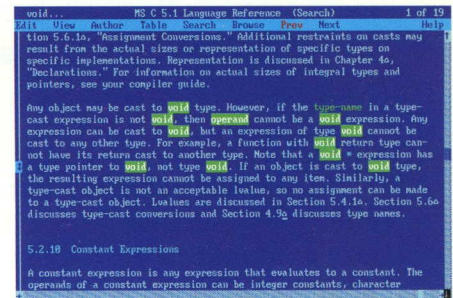
As a terminate-and-stay-resident (TSR) program, Programmer's Library uses roughly the same amount of RAM (about 70K) that is used by the Norton On-Line Programmer's Guides™ and other "quick help" products when the Lotus-Intel-Microsoft (LIM) expanded memory specification (EMS 3.2) is used. Without EMS, Programmer's Library uses about 135K of memory. With the instant Unload feature, you can quickly free up memory for debugging, linking, and compiling. The TSR mode allows you to copy and paste directly to your editor at any time.

Copy and paste sample code right into your program.

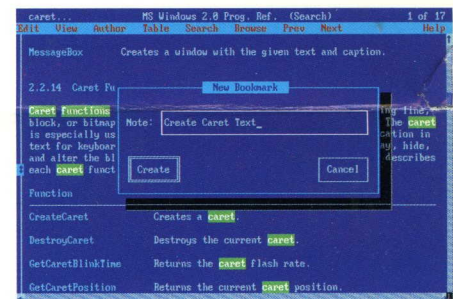
Microsoft Programmer's Library contains approximately 7 MB of sample code—more than 1200 sample programs—all indexed and cross-referenced for easy selection. You can search for and locate the appropriate program, and then copy and paste sections right into your editor



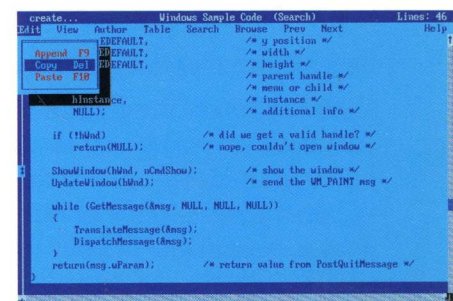
Perform any type of search—from casual browsing of an index or table of contents to complex Boolean searches on key terms—and specify the search level.



Find information by searching on key terms and concepts—all thoroughly linked and cross-referenced.



Electronic bookmarks let you quickly find important text or code and move easily between references.



Copy and paste sections of text or code right into your editor via the Clipboard—no need to rekey.

Technical Highlights (cont.)

via the Clipboard. When you copy or append code to the Clipboard only the pointers are stored on the disk. So, the size of your Clipboard file is limited only by the amount of disk space you have available.

The many sample programs that come with Programmer's Library save you enormous amounts of time. Not only do they eliminate the need to write code for commonly used routines, but they even save you the trouble of having to key in and debug the code! Plus, they provide excellent examples of how to work in new or unfamiliar environments. And all the Microsoft Programmer's Library sample programs are also available on the disc as standard ASCII files, so you can "pull" code off the disc—right from your editor.

Get fast answers; boost your productivity.

With its vast quantities of data and powerful search-and-retrieval tools, Programmer's Library lets you find answers in seconds—instead of spending 15 to 20 minutes wading through stacks of manuals each time you have a question.

And if you just need a quick explanation of a particular term such as a statement, function, or system call, you can save time with the Programmer's Library

quick reference feature. The QuickRef menu contains only definitions-oriented references that are appropriate for quick-reference and great for finding fast answers. If you find that a QuickRef definition isn't detailed enough to answer your question, you can always use the Search menu to look for a more thorough explanation in another reference.

Learn on the job.

Microsoft Programmer's Library is invaluable as a training tool when you're working with a new operating system or language. Rather than memorizing hundreds of system calls, procedure names, and language syntax rules, you can simply search the disc—by subject—for help as the need arises. As you locate sections that you know you'll want to refer back to, you can mark them with electronic bookmarks so that you can go straight to those sections without performing a search. This approach cuts learning time considerably.

Share the wealth on a network.

Many companies may have only limited copies of certain manuals, requiring employees to share resources—a practice that can lead to considerable lost time as workers wait for resources to become available. With third-party optical networking software, several users can easily share a single copy of Microsoft Programmer's Library and a single CD-ROM drive—saving both time and money.

Integrated system and language support.

It's all on one compact disc: a comprehensive collection of programming resources for the major Microsoft languages and operating systems. So, for example, if you're working on a program in Microsoft C Optimizing Compiler but need help with Microsoft Windows, use bookmarks to quickly jump back and forth between references in Programmer's Library. Or, if you come upon a Microsoft C function that refers to an MS-DOS® command, you can quickly move to the appropriate MS-DOS reference, and just as easily, return to your work with Microsoft C Optimizing Compiler.

Power features.

- "Zoom" in and out to quickly search through various levels of information
- The Location command opens a window that tells you where you are within a reference
- Cross-references help you quickly "navigate" through references
- Copy and paste code and information right into your word processor or editor
- Bookmarks let you locate frequently referred to references
- Quick reference feature gets you answers fast
- On-line, integrated, context-sensitive Help is like having the user's manual on screen
- Run in 25-, 43-, or 50-line mode

Program Details

Books, technical references, and sample code categories

Microsoft C Optimizing Compiler

Microsoft C 5.1 Update
Microsoft C 5.1 User's Guide
Microsoft C 5.1 Language Reference
Microsoft C 5.1 Runtime Library Reference
Microsoft QuickC® Programmer's Guide
Proficient C by Augie Hansen
(Microsoft Press®, 1987)
Microsoft C sample code

Microsoft Macro Assembler

Microsoft Macro Assembler 5.1 Update
Microsoft Macro Assembler 5.1 Programming Guide
Microsoft Macro Assembler 5.1 Reference
Microsoft Macro Assembler sample code

Microsoft Windows

Microsoft Windows 2.0 Getting Started
Microsoft Windows 2.0 Application Style Guide
Microsoft Windows 2.0 Programmer's Reference
Microsoft Windows 2.0 Programmer's Learning Guide
Microsoft Windows 2.0 Programming Tools
Microsoft Windows 2.0 Adaptation Guide
Microsoft Windows 2.0 Extensions
Microsoft Windows CodeView® Update
Programming Windows by Charles Petzold (Microsoft Press, 1988)
Microsoft Windows sample code

MS-DOS

MS-DOS 3.3 Programmer's Reference
The MS-DOS Encyclopedia
(Microsoft Press, 1987)
Advanced MS-DOS by Ray Duncan
(Microsoft Press, 1986)
MS-DOS sample code

Hardware

Microsoft Mouse Programmer's Reference
Microsoft MS-DOS CD-ROM Extensions documentation
Programmer's Guide to PC & PS/2 Video Systems by Richard Wilton
(Microsoft Press, 1988)
Hardware sample code

Program Details (cont.)

<i>MS® OS/2</i>	<i>Microsoft BASIC</i>	<i>Microsoft Systems Journal</i>
MS OS/2 Setup Guide	Microsoft BASIC Compiler 6.0 User's Guide	sample code
MS OS/2 Beginning User's Guide	Microsoft QuickBASIC/Programming in BASIC	In addition, the following four manuals apply to all Microsoft languages and are available within each of the language categories:
MS OS/2 User's Reference	Microsoft QuickBASIC/Learning and Using Microsoft QuickBASIC	Microsoft CodeView/Utilities Manual
MS OS/2 Programmer's Learning Guide	Microsoft QuickBASIC/Language Reference	Microsoft CodeView/Utilities Manual Update
MS OS/2 Programming Tools	Microsoft BASIC sample code	Microsoft Mixed-Language Programming Guide
MS OS/2 Programmer's Reference	<i>Microsoft FORTRAN Optimizing Compiler</i>	Microsoft Editor User's Guide
MS OS/2 Device Drivers Guide	Microsoft FORTRAN 4.1 Update	
MS OS/2 Device Drivers Update	Microsoft FORTRAN 4.1 Language Reference	
<i>Inside OS/2</i> by Gordon Letwin (Microsoft Press, 1988)	Microsoft FORTRAN 4.1 User's Guide	
MS OS/2 sample code	Microsoft FORTRAN sample code	
<i>Microsoft Pascal</i>		
Microsoft Pascal 4.0 Update		
Microsoft Pascal User's Guide		
Microsoft Pascal Reference		
Microsoft Pascal sample code		

Sample code highlights.

There are more than 1200 sample programs in Microsoft Programmer's Library—enough to fill about 20 floppy disks. This is just a sampling of the variety of sample code included:

Program Name	No. of Lines	Description
<i>Microsoft C Optimizing Compiler</i>		
10DUMPC	82	A "debug"-style file dump utility
14VIEW.C	135	ViewFile, a file-viewing program
SIEVE.C	42	Finds prime numbers using the Sieve algorithm
GRDEMO.C	924	Illustrates functions of the graphics library
SORTDEMO.C	815	Visually illustrates six different sort algorithms
SNAP.C	457	Saves screen when key is pressed
MHELLO.C	131	Illustrates multiple threads
LIFE.C	588	Game of Life demo program
FATAL.C	22	Issues a diagnostic message and terminates
SETFREQ.C	18	Sets PC tone generator to a continuous frequency
<i>Microsoft Macro Assembler</i>		
PAGER.ASM	304	Displays status and text lines
SHOWR.ASM	325	Displays text files
BA.ASM	45	Basic function for future versions of Microsoft BASIC
POWER2.ASM	62	Functions for C, FORTRAN, and Pascal
<i>Microsoft Windows</i>		
PARTY.C	241	Overlapped, pop-up, and child windows
BLOWUP.C	128	Screen capture program
CREWIN.C	181	Creates a window using CreateWindow function
FREERAM.C	119	Keeps track of free memory
COLORSCR.C	233	Scrolls screen colors using child windows
GRAFDEMO.C	247	Demonstrates bitmap menu items
CLIPBIT.C	379	Demonstrates copying to and from Clipboard
MESSBOX.C	31	Shows the use of the message box function
OPENCOMM.C	87	Opens communications device and sets handle to it
SETRECT.C	154	Creates a rectangle with four given values
<i>MS-DOS</i>		
BINASC.ASM	72	Binary-to-ASCII string conversion routine
ASYNCH.ASM	877	Asynchronous communication port driver
DISKTYPE.ASM	164	Reports disk type; illustrates call to PC ROM BIOS
TALK.ASM	445	Simple terminal emulator for IBM PC and COM1 port

Program Details (cont.)

Program Name	No. of Lines	Description
<i>MS-DOS (cont.)</i>		
SHELL.ASM	329	Program to run an application as an MS-DOS shell
INT16H.ASM	3	Example of reading a character from the keyboard
ENGINE-2.ASM	18	Demonstrates an implementation of a modem engine
POINTER2.ASM	20	Finds size of file in bytes by using file pointer
FIG9-8.ASM	64	Example demonstrating the use of expanded memory
SNAP.ASM	1079	TSR program that dumps the video buffer to a file
<i>Hardware</i>		
COLOR.DEF	1325	Displays color option available for Microsoft Mouse menus
DROP.DEF	95	Example of how to create drop-down menus
KBD.DEF	1024	Mouse keyboard emulation program
1-1.ASM	66	Calls PC BIOS to set video mode
2-4.ASM	117	Establishes Hercules® 720×348 graphics mode
5-1.ASM	51	Sets value for a pixel
7-1.ASM	42	Example of drawing an ellipse
10-1.ASM	76	Direct access to alpha character generator
ASMEXAMP.ASM	89	Microsoft Mouse function calls
CMCMOUSE.C	279	Compact Microsoft Mouse driver interface
<i>MS OS/2</i>		
ALLOC.C	67	Allocates blocks of memory
ARGUMENT.C	97	Technique for passing parameters through threads
ASMEXMPL.C	159	Assembly language routine using thread calls
CWAIT.C	77	Tasking example—waits for a child process to end
IOPL.C	108	Gets and displays current cursor position
SIGNAL.C	89	Sets up a signal handler to catch Control-C
BIGBEN.C	172	Puts the time on screen in large numbers
TREE.C	384	Builds and maintains a directory tree
MANDEL.C	402	Computes and displays Mandelbrot set
TERMINAL.C	590	Emulates an ANSI terminal
<i>Microsoft Pascal</i>		
DEMOEXE.PAS	54	Demo for calling C library functions
PRIMES.PAS	28	Generates all prime numbers from 1 to 10,000
SORT.PAS	57	Bubble sort demo program
<i>Microsoft BASIC</i>		
DEMO1.BAS	56	Sound effects demo program
COLORS.BAS	45	Draws three boxes, each a different color
CUBE.BAS	26	Draws a cube and paints the sides
HIDE.BAS	59	Changes file attribute to hide in the directory
MANDEL.BAS	180	Creates Mandelbrot set
WHEREIS.BAS	158	File locator
TERMINAL.BAS	74	Sample terminal program
BAR.BAS	219	Draws a bar graph from data
INDEX.BAS	310	Creates a sample indexing system
SINEWAVE.BAS	31	Graphs a SIN wave
<i>Microsoft FORTRAN Optimizing Compiler</i>		
DEMO.FOR	46	Bubble sort program demo
DEMORAN.FOR	108	Uniform pseudo-random number generator
DWHET.FOR	374	Measure of FORTRAN and CPU performance
SECNDS.FOR	26	Returns current time
SIEVE.FOR	59	MS version of second-timing routine
STATS.FOR	160	Calculates simple stats

Program Details (cont.)

Program Name	No. of Lines	Description
<i>Microsoft Systems Journal</i>		
WHATSIZE.ALL	505	Guide to building a Windows application
EMS.ALL	818	Expanded memory programs
FINDDEMO.ALL	404	Complete guide to writing an MS OS/2 program
TSRCOMM.ASM	2074	Speedy serial I/O processing
MAZE.ALL	1245	Interprogram communication using Windows
MDM-DRV.ALL	2111	Building and debugging MS-DOS device driver
HEXCALC.ALL	524	An instructive calculator for Windows
LIM4.ALL	757	LIM 4 programs
PMTHEAD.ALL	1108	Using MS OS/2 multithread in Presentation Manager
GPICODE.ALL	563	Graphics programming interface code

Specifications

System requirements

- 640K memory (512K required for systems with a hard disk)
- IBM PC, PC/XT™, PC/AT®, and 100% compatibles, and the PS/2 series
- DOS 3.1, 3.2, or 3.3
- Two double-sided disk drives or one double-sided disk drive and a hard disk (5¼" or 3½" disk drives)
- One CD-ROM disc drive and Microsoft MS-DOS CD-ROM Extensions

Note: 256K memory and two double-sided disk drives are required for standalone use. A hard disk is recommended.

Options

- Microsoft Mouse or compatible
- LIM EMS 3.2 support. (EMS 4.0 support with 3.2-compatible pageframes)

Includes

- First Programmer's Library update to version 1.1 is free

Compatibles

Microsoft Programmer's Library provides interactive support for these programming editors:

- BRIEF® version 2.0
- Epsilon™ Editor version 3.21
- Microsoft Editor
- Microsoft QuickBASIC Editor version 4.0
- Microsoft QuickC Editor version 1.0
- Norton Editor™ version 1.3C
- Turbo Pascal® Editor version 4.0
- Turbo C® Editor version 1.5
- VEDIT® PLUS version 2.03F

Compatible word processing programs include:

- Microsoft Word version 2.0 or higher
- PC Write™ 2.71
- WordPerfect® 4.2 and 5.0
- WordStar® Professional 4.0
- XyWrite™ III and III Plus

Documentation

Microsoft Programmer's Library comes with the *Microsoft Programmer's Library User Guide*, which explains the program features. This guide is available both in on-line and in printed form. Search through the on-line version using key words or strings, or browse through the table of contents and index. You can also get quick help under the Help menu option.

This data sheet is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

Microsoft, the Microsoft logo, Microsoft Press, MS, MS-DOS, CodeView, and QuickC are registered trademarks of Microsoft Corporation. IBM, PC/AT, Personal System/2, and PS/2 are registered trademarks and PC/XT is a trademark of International Business Machines Corporation. Turbo C and Turbo Pascal are registered trademarks of Borland International, Inc. Hercules is a registered trademark of Hercules Computer Technology. Epsilon is a trademark of Lugaru Software, Inc. WordStar is a registered trademark of MicroPro International Corporation. Norton Editor and Norton On-Line Programmer's Guides are trademarks of Peter Norton Computing. PC Write is a trademark of Quicksoft, Inc. BRIEF is a registered trademark of UnderWare, Inc. WordPerfect is a registered trademark of WordPerfect Corporation. XyWrite is a trademark of XYQUEST, Inc. VEDIT is a registered trademark of Compview Products.

© Copyright 1988. Microsoft Corporation. All rights reserved. Printed in USA.