



## Overview

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MacApp<sup>®</sup> Version 2.0—Apple's object-oriented application development framework—is ideal for programmers who wish to develop robust, user-friendly professional applications for the Macintosh<sup>®</sup>.

Using object programming with the MacApp object class library, tools, and sample code, you work more productively. Your application “inherits” the behavior of a standard Macintosh application directly from MacApp code. With MacApp and less than a page of your own Object Pascal or C++ code, you can have a complete Macintosh application that creates windows, interprets mouse clicks,

handles desk accessories, prints files, and supports every other standard feature a Macintosh application is likely to have.

MacApp applications are compatible with the full range of Macintosh hardware and system software. The applications you create with MacApp can run on any Macintosh Plus, Macintosh SE, Macintosh Portable, or Macintosh II computer. Your applications will run under the Macintosh operating system (with or without MultiFinder<sup>®</sup>) and under AUX<sup>®</sup>.

Join a large active community of MacApp developers. MacApp has been used by companies such as

Activision, Adobe Systems, Farallon, and Odestat to develop commercial applications for a wide variety of purposes including networking and communications, accounting, image processing, report generation, geographical data display, CAD, optical character recognition, knowledge engineering, and geology. The productivity and maintainability of MacApp application development have proven valuable to corporations creating software for in-house use, such as Hambrecht & Quist, and systems integrators such as Exis, KPMG Peat Marwick,

# Features

# Benefits

- RichClassLibrary

- 75 classes complete with full source code.
- Implements all of the standard Macintosh application behavior including: menus, “undo” commands, extensive support for exception handling, multipage printing, desk accessory support, window scrolling, zooming.

- Multilingual

- Works with either C++ or Object Pascal.

- Custom Support Tools

- Mouser, the new code browser, speeds editing of your code.
- ViewEdit, the new WYSIWYG graphical window and dialog-box design tool, speeds design of your views.
- An integrated object-oriented debugger speeds debugging.
- A new Object Inspector lets you examine objects at runtime.
- An improved build tool makes building your program easier and faster.

- Extensive Documentation

- The Introduction to MacApp 2.0 and Object-Oriented Programming explains how to get started writing MacApp programs.
- The MacApp 2.0 Tutorial leads you through the step-by-step creation of a simple MacApp program.
- MacApp 2.0 Cookbook provides how-to recipes for features common to many applications.
- The MacApp 2.0 General Reference explains the MacApp architecture and theory of operations.
- An online MacApp 2.0 Class and Method Reference documents every field, method and global in MacApp 2.0.

# Product Details

MacApp 2.0 includes an object-oriented class library, support tools, sample MacApp applications, and manuals for beginners as well as experts.

The MacApp application framework provides a general structure that implements the standard Macintosh interface, including scrollable, resizable windows and multipage printing. MacApp fosters development of robust, professional-quality applications by providing you with extensive memory management support, exception-handling mechanisms, error-checking, support for "undo" commands, and a large body of ready-to-use, high-quality code that can be inherited by your application.

MacApp code works with all current Apple Macintosh hardware and system software, including MultiFinder and A/UX. The MacApp code adheres strictly to Apple's compatibility guidelines, so it greatly simplifies the task of ensuring that an application will be compatible with future hardware and system software products from Apple.

MacApp is multilingual. Applications using MacApp can be written in object programming languages such as Object Pascal or C++. From this object-oriented code, you can call routines written in any other MPW<sup>®</sup> (Macintosh Programmer's Workshop) language including C and assembly language.

Note that MacApp is a framework for applications only. MacApp is not the appropriate tool for building other sorts of programs, such as device drivers, desk accessories, or HyperCard<sup>®</sup> XCMDs.

## The Class Library

MacApp 2.0 has 75 classes that together handle standard user-interface features of Macintosh applications in a manner that adheres strictly to Apple's user-interface guidelines. Features handled by MacApp include multiple documents, pull-down menus, desk accessory support, printing, and window manipulations such as scrolling, moving, resizing, and zooming. A framework is provided to make it easier for the programmer to support other standard user-interface features, such as undo, cut, copy, and paste. MacApp also contains an extensive error-handling system that presents detailed error messages to an application's user.

## Support Tools

- **ViewEdit.** This MacApp utility program allows you to use a WYSIWYG editing environment to create windows and dialog boxes. ViewEdit allows you to draw, resize, and move your views using the standard Macintosh interface. It even creates and rearranges your view hierarchies as you go.

- **Mouser.** This source code browser removes the confusion of editing multiple source code files and enables editing by components, that is, by classes, methods, and fields. Mouser tracks these structures, finding them quickly, regardless of which file contains them.

- **MABuild.** MABuild is an MPW tool that controls the building of an application from its source files. This latest version is faster, smarter, and more flexible than previous releases. For example, it has many more defaults, so relatively simple applications no longer require an MPW "make" file.

- **MacApp debugger.** The MacApp debugger provides all the usual debugging features, such as breakpoints, stack crawl, trace, and single step. The MacApp Version 2.0 debugger provides faster tracing, built-in commands for controlling MPW performance-monitoring tools, and new context-sensitive on-line help. Under MultiFinder you can switch into Mouser to examine source code while your application is stopped in the debugger.

- **Object Inspector.** Debug versions of MacApp 2.0 applications allow you to open one or more Object Inspector windows. An Inspector window can display the current values of the fields of any object. Since you can have multiple Inspector windows open, you can inspect several objects at one time. The Object Inspector can display the contents of Macintosh Toolbox data structures as well as MacApp objects.

## Example Programs

Six sample programs are included with MacApp. These are complete Macintosh applications that demonstrate many features, including windows that users can move, resize, scroll, and zoom; multiple documents; the Clipboard; cut, copy, and paste; disk-based documents; font changes; multiple views; undo commands; modal and modeless dialog boxes; and printing. Many developers have used these samples as starting points for applications, modifying and expanding a sample until it evolves into a new application.

These six sample programs are as follows:

- **Nothing** has only 70 lines of code, yet it can open multiple windows, show the Clipboard, do manual and automatic scrolling, print, and support desk accessories.

- **Calc** demonstrates the use of the TGridView class in a simple spreadsheet application.

- **DemoText** demonstrates the use of styled text.

- **DemoDialogs** shows a variety of dialog boxes.

- **DrawShapes** is a simple drawing application.

- **Cards** is a note-card application that demonstrates the use of disk-based data.

## Extensive Documentation

MacApp 2.0 includes a complete documentation suite, covering how to get started with MacApp in the Introduction to MacApp 2.0 and Object-Oriented Programming, step-by-step creation of a simple MacApp program in the MacApp 2.0 Tutorial, how-to recipes for features common to many applications in the MacApp 2.0 Cookbook, the MacApp architecture in the MacApp 2.0 General Reference, and an on-line overall class library reference in the MacApp 2.0 Class and Method Reference HyperCard stacks.

## Training and Support

Apple offers a one-week course titled "MacApp and Object-Oriented Programming." For details, please contact:

Apple Developer University Registrar  
20525 Mariani Avenue, MS 75-2B  
Cupertino, CA 95014  
(408) 974-6215  
AppleLink<sup>®</sup>: DEVUNIV

The independent MacApp Developer's Association (MADA) offers a number of useful products and FrameWorks, a bimonthly technical journal. You can contact MADA at:

MacApp Developer's Association  
P.O. Box 23  
Everett, WA 98206  
(206) 252-6946  
AppleLink: MADA

## Licensing

To ship applications built using MacApp, you must obtain a license from Apple; an application form is included with the product. After paying a nominal annual license fee, you may ship any quantity of any number of MacApp applications for use on the Macintosh.

For further information, please contact:

Apple Computer Software Licensing  
20525 Mariani Avenue, MS 38-I  
Cupertino, CA 95014  
(408) 974-4667  
AppleLink: SWLICENSE



# MacApp2.0

## System Requirements

To develop MacApp applications, you will need the following:

- An Apple® Macintosh Plus, Macintosh SE, Macintosh Portable, or Macintosh II computer with at least 2 megabytes of RAM. A Macintosh SE/30 or a member of the Macintosh II family is strongly recommended.
- A hard disk.
- Macintosh Programmer's Workshop, MPW Object Pascal, and MPW Assembler, Version 3.1 (and optionally MPWC++, or p1 Modula-2 v.4.1 from MADA), or THINK Pascal® 3.0 from Symantec Corporation.

## Ordering Information

MacApp Version 2.0  
APDA® Order No. M7022/D

With your order, you'll receive:

- Ten disks containing complete MacApp library source code, support tools including ViewEdit and Mouser, Object Pascal interfaces and sample programs, C++ headers and samples, the reference stack, and two complete built versions (debug and non-debug) of the MacApp libraries.
- A CD-ROM containing everything that is on the above ten disks, plus 20 built versions.
- Four manuals (Introduction, Tutorial, Cookbook, and General Reference).

## Auxiliary Products

Programming With MacApp, by Dave Wilson, Larry Rosenstein, and Dan Shafer

Published by Addison-Wesley and available through APDA and in many bookstores.

Object-Oriented Programming for the Macintosh, by Kurt J. Schmucker.

Published by Hayden Book Company and available through APDA and in many bookstores.

A selection of MacApp related products including complete sample applications, source code fragments, books and references, class libraries, and MPW tools and shell scripts.

Published by the MacApp Developer's Association and available directly from MADA or through APDA.

## Apple Programmers and Developers Association

Apple Computer, Inc.  
20525 Mariani Avenue, MS33-G  
Cupertino, CA 95014  
1-800-282-2732 U.S.A.  
1-800-637-0029 Canada  
1-408-562-3910 International  
TLX: 171-576

AppleLink: APDA  
Fax: (408) 562-3971  
CompuServe: 76666,2045  
MCI: POstrom  
GEnie®: A.Developer3

## Developer Tools Express

Apple Computer, Inc.

20525 Mariani Ave.  
Cupertino, CA 95014  
408-996-1010  
TLX: 171-576

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