

An Overview of Carbon on Mac OS 9

Mac OS X will bring to the Macintosh platform important new features and enhancements requested by Apple's customers and developers. Apple's goal is to ease your transition to Mac OS X by making as few changes as possible to the programming interface for Mac OS 8. To that end, Apple has created Carbon.

Carbon is a set of programming interfaces you can use to build Mac OS X applications that also run on Mac OS 8 and 9 (versions 8.1 and later). Carbon includes about 70 percent of the existing Mac OS APIs, covering about 95 percent of the functions commonly used by applications. Carbon will allow you to take advantage of many advanced Mac OS X features while preserving your investment in Mac OS 8 and 9 source code. Because Carbon supports the Mac OS 8 and 9 and Mac OS X runtime environments, a single CFM executable will run on both Mac OS 8/9 and Mac OS X.

CarbonLib 1.0 and Mac OS 9

Apple continues to make progress implementing Carbon on both Mac OS 8/9 and Mac OS X. The first publicly available version of Carbon is implemented as the CarbonLib shared library, version 1.0, shipping with Mac OS 9. This initial release is not the complete implementation of Carbon. There will be further versions of CarbonLib that will extend its functionality while maintaining both source and binary compatibility with code that uses CarbonLib 1.0.

In addition to supporting the majority of the existing Mac OS APIs, CarbonLib 1.0 supplies whole new groups of APIs previously unavailable in Mac OS, such as Core Foundation and the Carbon Printing Manager. In addition, there are new Carbon calls in such preexisting Mac OS technologies as the Window Manager and

Menu Manager. You can find documentation for both new and old Carbon calls here on the Mac OS 8 and 9 Developer Documentation site. If you want to find out if a given call is supported in Carbon, the quickest way is to check the *Carbon Specification* or to use the Carbon Dater.

Carbon and Mac OS X

By adopting Carbon now, you'll be ready to deliver Mac OS X compatibility to your customers when the new operating system is released.

A Carbon application will gain these benefits when running under Mac OS X:

- Greater stability — Protected address spaces prevent errant applications from crashing the system or other applications.
- Improved responsiveness — Each application is guaranteed processing time through preemptive multitasking, resulting in a more responsive user experience.
- Dynamic resource allocation — More efficient use of system resources, including the elimination of fixed size heaps, means your application can allocate memory and other shared resources based on actual needs rather than predetermined values.

Carbonizing Your Application

Because it includes most of the functions you rely on today, converting to Carbon is a straightforward process. Apple is providing tools and documentation to help you determine the changes you'll need to make in your source code to build a Carbon application. Be sure to return frequently to this web site for the latest technical information about “Carbonizing” your Mac OS 8 and 9 application.