
About the System 7.0 Environment

Introduction to System 7.0 describes the operating environment for applications that run in system 7.0 or later. It also provides general information about the features available to you when you design an application to run in the system 7.0 or later environment.

Read the **Introduction to System 7.0** topics for an overview of how your application can use the Macintosh User Interface Toolbox and Macintosh Operating System routines in system 7.0 or later to:

- share data with other applications using the **Edition Manager**
- communicate with other applications using the **Event Manager**, **Apple Event Manager**, or the **PPC Toolbox** (Program-to-Program Communications Toolbox)
- access data from other sources, including remote databases, using the **Data Access Manager**
- play sounds using the **Sound Manager**
- keep track of specific files using the **Alias Manager**
- perform quick searches for specific files using the **File Manager**
- provide on-line assistance for users with the **Help Manager**
- draw TrueType fonts using the **Font Manager**
- use direct devices for graphics applications using **Color QuickDraw**
- function in worldwide markets using the **Script Manager**, **International Utilities Package**, and **TextEdit**

Introduction to System 7.0 discusses the features and managers new to system 7.0 or later. See **Compatibility Guidelines** for information on developing applications that can run in both system 6.0 and system 7.0.

System 7.0 extends the environment of the Macintosh computer by providing even greater support for cooperation between applications. The user interface continues to build on solid design principles and provides additional benefits; for example, in system 7.0 users can more directly manipulate icons on the desktop and users can customize the Apple menu. The Finder, the Macintosh Operating System, and the User Interface Toolbox provide and maintain this environment.

The Finder is the system application that lets users organize and manage applications, documents, folders, and disks on the desktop. Users can choose commands from the Finder menu bar or use the mouse to perform various tasks. Because the Finder presents the standard interface that the user becomes familiar with, you need to make sure that your application performs in an expected manner in the Finder environment.

Macintosh users also expect certain standard behavior from Macintosh applications; for example, all applications should provide File and Edit menus.

Macintosh applications that follow the user interface guidelines provide consistency and let users determine what action to take to perform a particular task.

In earlier Macintosh computers a user ran one application at a time. Today's Macintosh model recognizes that a user often wants to run many applications at once. System 7.0 provides this cooperative environment.

In systems 5.0 and 6.0, the MultiFinder option provided a cooperative multitasking environment. In system 7.0, the features of MultiFinder are integrated into the Macintosh Operating System.

The Macintosh Operating System lets the user have several applications open at the same time and lets the user switch between them. The Operating System also gives the user constant access to the Finder. This lets a user move among open documents and applications without having to save or quit the previous document or application. This environment also allows applications to run in the background. For example, the Finder can copy files while the user is working on another task in the foreground.

The cooperative environment of the Macintosh allows multiple applications to share the CPU and other resources. You need to understand how this environment can affect your application. An additional section, entitled, **The Cooperative Multitasking Environment**, explains this in more detail.

An important aspect of system 7.0 is interapplication communication (IAC), a new collection of features that help applications work together.

Copy and paste is a simple way in which Macintosh applications work together by sharing data. In system 7.0, applications can provide automated copy and paste features (that is, your application can automatically update the data that the user pastes into a document when the original source of information changes). Applications can extend this concept by using high-level events to request that other applications perform a particular task or return requested information. Applications and drivers that require close integration with each other can also extend this concept by reading and writing low-level message blocks.

Apple has defined a protocol for high-level events called the Apple Event Interprocess Messaging Protocol. High-level events that adhere to this protocol are called Apple events. You can help ensure effective communication with other applications by using this protocol.

Macintosh applications in system 7.0 can respond to incoming high-level events from other applications as well as events generated by the user, and they can also send high-level events to other applications. Better cooperation and communication between applications help users to get the most out of any one application or to use the best features from many applications-in effect, combining the features of many applications to achieve the desired result.

By including the features provided by IAC in your application, you give the users of your application even greater power, ease of use, and flexibility in accomplishing their tasks.