

Macintosh Sample Code Notes



Developer Technical Support

#14: CPlusTESample

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Versions:	1.00	April 1989
Components:	CPlusTESample.make	April 1, 1989
	TApplicationCommon.h	April 1, 1989
	TApplication.h	April 1, 1989
	TDocument.h	April 1, 1989
	TECommon.h	April 1, 1989
	TESample.h	April 1, 1989
	TEDocument.h	April 1, 1989
	TApplication.cp	April 1, 1989
	TDocument.cp	April 1, 1989
	TESample.cp	April 1, 1989
	TEDocument.cp	April 1, 1989
	TESampleGlue.a	April 1, 1989
	TApplication.r	April 1, 1989
	TESample.r	April 1, 1989

CPlusTESample is an example application that demonstrates how to initialize the commonly used Toolbox managers, operate successfully under MultiFinder, handle desk accessories, and create, grow, and zoom windows. It demonstrates fundamental TextEdit toolbox calls and TextEdit automatic scrolling, and it shows how to create and maintain scroll bar controls.

This version of TESample has been substantially reworked in C++ to show how a “typical” object-oriented program could be written. To this end, what was once a single source code file has been restructured into a set of classes which demonstrate the advantages of object-oriented programming.

There are four main classes in this program. Each one of these has a definition (.h) file and an implementation (.cp) file.

The TApplication class does all of the basic event handling and initialization necessary for Macintosh Toolbox applications. It maintains a list of TDocument objects and passes events to the correct TDocument class when appropriate.

The TDocument class does all of the basic document handling work. TDocuments are objects that are associated with a window. Methods are provided to deal with update, activate, mouse-click, key-down, and other events. Some additional classes which implement a linked list of TDocument objects are provided.

The TApplication and TDocument classes together define a basic framework for Macintosh applications, without having any specific knowledge about the type of data being displayed by the application’s documents. They are a (very) crude implementation of the MacApp application model, without the sophisticated view hierarchies or any real error handling.

The TESample class is a subclass of TApplication. It overrides several TApplication methods, including those for handling menu commands and cursor adjustment, and it does some necessary initialization. Note that we only need to override nine methods to create a useful application class.

The TEdocument class is a subclass of TDocument. This class contains most of the special-purpose code for text editing. In addition to overriding most of the TDocument methods, it defines a number of additional methods which are used by the TESample class to get information on the document state.