

;A\_ToDo\_Design.rtf;linkMarkername ;→ Next Section

## 4. To Do Tutorial

# Introduction

Many kinds of applications—word processors and spreadsheets, to name a couple—are designed with the notion of a *document* in mind. A document is a body of information, usually contained by a window, that is self-contained and repeatable. Users can create, modify, store, and access a document as a discrete unit. Multi-document applications (as these programs are called) can generate an almost unlimited number of documents.

The To Do application presented in this chapter is a multi-document application. It is a fairly simple personal information manager (PIM). Each To Do document captures the daily “must-do” items for a particular purpose. For instance, one could have a To Do list for work and another one for home. To Do allows users to:

- SquareBullet.eps → Enter appointments or actions that they must complete on particular days.
- 906738\_SquareBullet.eps → Specify the times those items are due.
- 31946\_SquareBullet.eps → Receive notifications at a specified interval before the due time.
- 141966\_SquareBullet.eps → Associate notes with to-do items.
- 249901\_SquareBullet.eps → Mark items as complete or deferred.

TD\_FinalApp.eps →

As with Travel Advisor, you're going to cover a lot of OpenStep territory by completing this tutorial. It explores two major areas:

- 775664\_SquareBullet.eps → Multi-document architecture: The design of applications that can create multiple documents, save and restore those documents, and do the right thing on certain events, such as application termination.
- 897818\_SquareBullet.eps → Strategies for subclassing: Reuse of existing classes by adding behavior

and data, by overriding existing behavior, or by doing both things.

You will also learn about other aspects of OpenStep programming:

- 7609\_SquareBullet.eps ↪ Opening and saving files
- 142144\_SquareBullet.eps ↪ Loading nib files (and other bundles) programmatically
- 265296\_SquareBullet.eps ↪ Creating and managing inspectors
- 373657\_SquareBullet.eps ↪ Programmatic creation and manipulation of user-interface objects
- 497247\_SquareBullet.eps ↪ Time and date manipulation
- 604781\_SquareBullet.eps ↪ Declaring informal protocols
- 732934\_SquareBullet.eps ↪ Using timers

And you'll be introduced to these important OpenStep concepts:

- 866386\_SquareBullet.eps ↪ Event handling
- 985904\_SquareBullet.eps ↪ The core program framework
- 108971\_SquareBullet.eps ↪ Drawing and image composition

When you complete this tutorial, you should be ready to tackle OpenStep programming on your own.

**Related Concept:** [;ToDoConcepts.rtf](#);linkMarkername  
StartingUpÑWhatHappensinNSApplicationMain();, Starting Up ð What Happens in **NSApplicationMain()**