;B_TravelAdvisor_Design.rtfd;;¬ Previous Section ;D_TravelAdvisor_ImplCountry.rtfd;;¬ Next Section

3. Travel Advisor Tutorial

Defining the Classes of Travel Advisor

Travel Advisor has three classes: Country, Converter, and TAController. Only TAController has outlets and actions. And, rather than defining the Converter class, you are simply going to add it to the project from the CurrencyConverter project and reuse it.

1 Specify the Country and TAController classes.

In Interface Builder, bring up the Classes display of the nib file window.

For each class, select NSObject as the superclass.

Choose Subclass from the Operations menu.

Type the class name.

_TA_DefineClasses.eps ¬

2 Specify TAController's outlets.

Add the outlets shown in the nib file window below.

_TA_ControllerOutlets.eps ¬

3 Specify TAController's actions.

Define the action methods shown in the nib file window below.

_TA_ControllerActions.eps ¬

In OpenStep there are many ways to reuse objects through their classes. For example, subclassing an existing class to obtain slightly different behavior is one way to reuse the functionality of the superclass. Another way is to integrate an existing classÐlike the Converter classÐinto your project.

4 Reuse the Converter class.

In Interface Builder:

Open **CurrencyConverter.nib** in the **English.lproj** subdirectory of the **CurrencyConverter** project directory.
In the Classes display of the nib file window, select the Converter class.
Choose Edit arrow.eps ¬ Copy.
Select the nib file window for **TravelAdvisor.nib**.
In the Classes display, select the superclass (NSObject).
Choose Edit 388781_arrow.eps ¬ Paste.

_IB_ReuseClass.eps ¬

In Project Builder:

Launch Project Builder.
Select Classes in the project browser.
Choose Project 516421_arrow.eps ¬ Add Files.
In the Add Classes panel, navigate to the **CurrencyConverter** project directory and select **Converter.m**.
When asked if you want to include the header file, click OK.

_PB_ReuseClass.eps ¬

5 Generate instances of the TAController and Converter classes.

_TA_GenerateInstances.eps ¬

You don't need to instantiate the Country class in the nib file because it is not involved in any outlet or action connections. TAController interacts behind the scenes with users as they manipulate the application's interface. It therefore needs access to interface objects and to be made the target of action messages.

6 Connect the TAController instance to its outlets.

Outlet	Make Connection To
215614_TableHeadRule.eps ¬celsius	Text field labelled ªCelsiusº
TableRule.eps ¬commentsLabel	Label that reads ªNotes and Itinerary forº
49711_TableRule.eps ¬commentsField	Text object within scroll view
157945_TableRule.eps ¬ converter	Instance of Converter class (cube in Instances display)
253921_TableRule.eps ¬ countryField	Text field labelled ªCountryº
348305_TableRule.eps ¬ currencyDollarsField	Text field labelled ªDollarsº
443552_TableRule.eps ¬ currencyLocalField	Text field labelled ªLocalº
538617_TableRule.eps ¬ currencyNameField	Text field labelled ªCurrencyº
633818_TableRule.eps ¬ currencyRateField	Text field labelled ªRateº
728875_TableRule.eps ¬ englishSpokenSwitch	Switch (button) labelled ªEnglish widely spokenº
824119_TableRule.eps ¬ fahrenheit	Text field labelled ªFahrenheitº
919386_TableRule.eps ¬ languagesField	Text field labelled ªLanguagesº
27991_TableRule.eps ¬ logisticsForm	Form in group (box) labelled ªLogisticsº.; the form is selected when a gray line borders it.
136798_TableRule.eps ¬ tableView	The area underneath the ªCountriesº column
245385_TableRule.eps ¬	

Related Concept: ;TravelAdvisorConcepts.rtfd;linkMarkername CheckingConnectionsinOutlineMode;,

Checking Connections in Outline Mode

7 Connect the TAController instance to the interface via its actions.

Action	Make Connection From
350020_TableHeadRule.eps ¬	
addRecord:	ªAddº button
453791_TableRule.eps ¬	
blankFields:	ªClearº button
558238_TableRule.eps ¬	
convertCelsius:	ªConvertº button to the right of the ªFahrenheitº field
666765_TableRule.eps ¬	
convertCurrency:	ªConvertº button to the right of the ªLocalº field
775529_TableRule.eps ¬	
deleteRecord:	ªDeleteº button
870620_TableRule.eps ¬	
handleTVClick:	The table view(the area beneath the ªCountriesº column header)
966052_TableRule.eps ¬	
nextRecord:	The ªNext Recordº menu command on the Records submenu
61239_TableRule.eps ¬	
prevRecord:	The ªPrevious Recordº menu command on the Records submenu
156455_TableRule.eps ¬	
switchChecked:	The ªEnglish widely spokenº switch
251403_TableRule.eps ¬	

938726_TableRule.eps ¬***Before You Go On***

You're next going to connect objects through an outlet defined by several OpenStep classes. The value of this outlet, named **delegate**, is the **id** of a custom object. As the delegate of NSApp (the NSApplication object), TAController will receive messages from it as certain events happen.
55588_TableRule.eps ¬

You can assign delegates programmatically or in Interface Builder. For more information, see ``Getting in on the Action: Delegation and Notification.'' ;TravelAdvisorConcepts.rtfd;GettinginontheAction:DelegationandNotification;¬

Every application has a global NSApplication object (called NSApp) that coordinates events specific to the application. Among many other messages, NSApp sends a message to its delegate notifying it that the application is about to terminate. Later, you will implement TAController so that, when it receives this message, it archives (saves) the dictionary containing the Country objects.

8 Connect the delegate outlet.

Drag a connection line from File's Owner to the TAController object.

In the Connections display of the Inspector panel select delegate and click OK.

_TA_NSAppDelegateConnect.eps ¬

Related Concept: ;TravelAdvisorConcepts.rtfd;linkMarkername File'sOwner;, File's Owner

9 Generate source code files for the TAController and Country classes.

Save TravelAdvisor.nib.

Select the class in the Classes display of the nib file window.

Choose Create Files from the Operations pull-down menu.

When you generate the header and implementation files for all classes of Currency Converter, you are finished with the Interface Builder portion of development. Be sure you save the nib file before you switch over to Project Builder.