3. Travel Advisor Tutorial

Creating the Travel Advisor Interface

You should be familiar with many of the objects on the Travel Advisor interface because you've encountered them in the Currency Converter tutorial. The following illustration points out the objects that are new to you in this tutorial.

1   Create the application project.

Start Project Builder.

Choose New from the Project menu.

Name the application ªTravelAdvisor.º

2   Open the application's nib file.

Click Interfaces in the project browser, select TravelAdvisor.nib, and double-click its icon.

3   Customize the application's window.

Resize the window, using the example below as a guide.

In the Attributes display of the Inspector panel, entitle the window ªTravel Advisor.º

Turn off the resize bar.

_TA_ObjByArea.eps ¬

The following pages describe the purpose of each new object found on Interface Builder's palettes and explain how to set these objects up for Travel Advisor. Before getting to these new objects, start with the familiar ones: buttons and text fields.

4   **Put the text fields, labels, and buttons on the window.**

Position, resize, and initialize the objects as shown.

   _TA_FieldsAndButtons.eps ¬

You might think the ªEnglish widely spokenº object is a new kind of object. It's actually a button, a special style of button called a switch.

Set up the switch.

   _TA_Switch.eps ¬

Related Concepts: ;TravelAdvisorConcepts.rtfd;linkMarkername VarietiesofButtons;,   Varieties of Buttons

Construct the ªLogisticsº section of the interface using a form object.

5   **Place a form on the interface and prepare it.**

Drag the form object from the Views palette.

   _TA_Forms1.eps ¬

Increase the size of the form's fields by dragging a middle resize handle sideways.
Create two more form fields by Alternate-dragging the lower middle resize handle downward.
Rename the field labels.

_TA_Forms2.eps ¬

Related Concepts: ;TravelAdvisorConcepts.rtfd;linkMarkername MoreAboutForms;,   More About Forms

To make titled sections of the fields, forms, and buttons on the Travel Advisor interface, group selected objects. By grouping them, you put them in a box.

6   Group the objects on the interface.

Select the two Convert buttons and the Dollars, Local, Celsius, Fahrenheit labels and text fields.

Choose Format arrow.eps ¬ Group 920616_arrow.eps ¬ Group in Box.

Double-click ªTitleº to select it.

Choose Format 16691_arrow.eps ¬ Font 124492_arrow.eps ¬ Bold to make the title bold face.

Rename ªTitleº to ªConversions.º

Repeat for the next two groups: ªLogisticsº and ªOther.º

_TA_GroupObjects.eps ¬

Boxes are a useful way to organize and name sections of an interface. In Interface Builder you can move, copy, paste, and do other operations with the box as a unit. For Travel Advisor, you don't need to change the default box attributes.

661130_TableRule.eps ¬**Before You Go On**

Programmatically, the box is the *superview* of all of its grouped objects. (A *view*, simply put, is any object visible on a window.) A superview encloses its *subviews* and is the next in line to respond to user actions if none of its subviews cannot handle them.

385468_TableRule.eps ¬

The scroll view on the DataViews palette encloses a text object (an instance of NSText). This object allows users to enter, edit, and format text with minimal programmatic involvement on your part.

7   Put the scroll view on the window and resize it.

Drag the scroll view from the DataViews palette and drop it on the lower-left corner of the window.

Resize the scroll view .

  _TA_ScrollView1.eps ¬

You don't need to change any of the default attributes of the scroll view (but you might want to look at the attributes you can set, if you're curious).

Next, add a table view for displaying the list of countries.

8   Place and configure the table view.

Drag the table view object from the TabulationViews palette.

Resize the table view.

_TA_TableViewPlace.eps ¬

  Set the title of the first column to ªCountries.º

  _TA_TableView2.eps ¬

Make the table header only one column.

  _TA_TableView3.eps ¬

The other object on the TabulationViews palette is a *browser*. It is just as suitable for the Travel Advisor application as a table view. Browsers are ideal for displaying hierarchically structured information (such as is found in the UNIX file system) as well as single-level views of data such as the list of countries in Travel Advisor. A table view can also handle single-column rows of data easily; it is used instead because it is designed for displaying and editing records from relational databases, something that Enterprise Objects Framework (EOF) programmers find very useful .

To configure the table view, you must set attributes of two component objects: the NSTableView object and the NSTableColumn object:

Select the NSTableView by double-clicking the interior of the table view.
Set the attributes as shown below.

  _IB_TableViewInspector.eps ¬

The Attributes display for NSTableView is the same as that for NSScrollView.

Select the column by double-clicking once (if this inserts the cursor,
click outside the column, then click the column once).
Set the NSTableColumn attributes as shown below.

  _IBTableColumnInspector.eps ¬

Related Concepts: ;TravelAdvisorConcepts.rtfd;linkMarkername MoreAboutTableViews;,   More About Table Views

The Travel Advisor window is nearly complete. For a decorative touch, you're next going to add an image to the interface.

9   Add an image to the interface.

Drag the image view onto the window, as shown below.

In Project Builder:

Double-click Images in the project browser.

In the Open panel, select the file Airline.eps from the **/AppKit/TravelAdvisor** subdirectory of **/NextDeveloper/Examples**.

_TA_PlacingImageView.eps ¬

718733_TableRule.eps ¬ ***Before You Go On***

Sometimes buttons are the preferred objects for holding imagesÐfor instance when you want a different image for either state of a button. But when buttons are disabled, any image they display is dimmed. So for decorative images, use image views (NSImageView) instead of buttons.

When you drop a sound or image over a button or image view, it is added to the nib file. When you add an image or a sound to a nib file, Interface Builder asks if you also want to add the resource to the project. Nib files are localized and their resources are only accessible when the nib file has been loaded. Resources that are associated with a project *can* be localized and are always accessible.

615251_TableRule.eps ¬

In the Attributes inspector for the image view, type the name of the image and set the NSImageView attributes.

Make the image view (and the enclosed image) small enough to fit between the title bar and the Logistics group.

Add a ªvelocityº line behind the airplane.

_IB_ImageViewInspector.eps ¬

Tip: To make the ªvelocityº line behind the airplane, make a title-less black box with a vertical offset of zero, and run the top and bottom lines together.

Travel Advisor's main menu has a submenu and a command that do not come ready-made on the Menus palette. You use the Submenu and the Item cells to create customized submenus and menu commands, respectively.

10 Add commands to the main menu.

Select the Menus palette.

Drag the Item command and drop it between Edit and Services.

Change ªItemº to ªPrint Notes...º.

Drag the Submenu item and drop it between Info and Edit.

Double-click Submenu to select the item text; change the name to ªRecordsº.

Add three Items to the Records submenu (making four altogether).

Change the command names to those shown below

Add key equivalents to the right of the last two commands.

_TA_Menu.eps ¬

Three dots after a menu command indicates that the command opens a panel: ªPrint Notes...º means that clicking this command displays the Print panel.

You can now connect many of the objects on the Travel Advisor interface through outlets and actions defined by the Application Kit. As you might recall, text fields have a **nextKeyView** outlet that you connect so that users can tab from field to field. Forms also have a **nextKeyView** outlet for tabbing. (The fields within a form are already interconnected, so you don't need to connect them.)

11 Connect Application Kit outlets for inter-field tabbing and printing.

In top-to-bottom sequence, connect the fields and the form through their **nextKeyView** outlets.

When you reach the Languages field, connect it with the Country field, making a loop.

   _TA_nextKeyViewForm.eps ¬

The Application Kit also has ªpre-setº actions that you can connect your application to. The NSText object in the scroll view can print its contents as can all objects that inherit from NSView. To take advantage of this capability, ªhook upº the menu command with the NSText action method for printing.

Connect the Print Notes menu command to the text object in the scroll view.

Select the **print:** action method in the Connections display of the Inspector panel.

Click the Connect button in the Inspector's Connection display.

   _TA_printAction.eps ¬

The final step in crafting the Travel Advisor interface has nothing to do with the main window, but with what users see of your application when they encounter it in the File Manager: the application's icon.

12 Add the application icon.

In Project Builder:

Open the Project Inspector.

Go to the Project Attributes display of the inspector.

Select the first row of the table (AppIcon).

In File Manager

Locate TravelAdvisor.tiff in the **/AppKit/TravelAdvisor** subdirectory of

/NextDeveloper/Examples.

Drag **TravelAdvisor.tiff** into the icon well in the Project Attributes display.

_TA_AddAppIcon.eps ¬

13 Test the interface.

You're finished with the Travel Advisor interface. Test it by choosing Test Interface from Interface Builder's Document menu.Try the following:

SquareBullet.eps ¬   Press the Tab key repeatedly. Notice how the cursor jumps between the fields of the form, and how it loops from the Languages field to the Country field. Press Shift-Tab to make the cursor go in the reverse direction.

456129_SquareBullet.eps ¬   Enter some text in the scroll view, then click the Print Notes menu item. The print panel is displayed. Print the text object's contents.

564175_SquareBullet.eps ¬   Also in the scroll view, press the Return key repeatedly until a slider appears in the scroller.