```
/****
 *
 * Implementation of found-dialog.h.
 *
 */

#include "card-list.h"
#include "found-cards-dialog.h"
#include "label.h"
#include "read-only-str-editor.h"
#include <InterViews/box.h>
#include <InterViews/frame.h>
#include <InterViews/glue.h>
#include <math.h>
#include <stdio.h>


FoundCardsDialog::FoundCardsDialog(Rolodex* r, RolodexMenuUI* rmui) :
        View(NULL, r) {
    /*
     * Construct the found cards buttons object.  It contains the Next,
     * Previous, and Done buttons.
     */
    fcb = new FoundCardsButtons(r, this, rmui);
}

void FoundCardsDialog::Compose() {
    /*
     * Make the window of this a VBox, which is an InterViews composite
     * interactor box with vertical layout.  Set the vbox alignment to center.
     */
    w = new VBox();
    ((VBox*) w)->Align(Center);

    /*
     * Stick some stretchable glue spacing above the prompting message.
     */
    ((VBox*) w)->Insert(new VGlue(round(0.20 * inch), 0, round(0.50 * inch)));

    /*
     * Allocate the boxes and string editor for the two-line message at the top
     * of the dialog.
     */
    hb1 = new HBox();
    hb2 = new HBox();
    sen = new StringEditor(bs, "   ");
    sei = new StringEditor(bs, "   ");

    /*
     * Compose and insert the two-line message.
     */
    ComposeTopMessages();
    ((VBox*) w)->Insert(hb1);
    ((VBox*) w)->Insert(hb2);

    /*
     * Stick some stretchable glue spacing between the message and the field
     * editors below.
     */
    ((VBox*) w)->Insert(new VGlue(round(0.20 * inch), 0, round(0.50 * inch)));

    /*
     * Allocate the vboxes for the labels and string editors plus the hbox that
     * holds them both.  The outer box forces proper alignment.
     */
    vblabels = new VBox();
    vbseds = new VBox();
    hbouter = new HBox();

    /*
     * Construct a new read-only string editor for each card field.
     */
    ConstructEditors();

    /*
     * Compose the message boxes and card field boxes and stick them in a
     * stretchable vbox.
     */
    ComposeLabels();
    ComposeEditors();
    ComposeOuter();

    /*
     * Insert the outer hbox into this' window.
     */
    ((VBox*)w)->Insert(hbouter);

    /*
     * Compose the dialog buttons and insert into the window.
     */
    fcb->Compose();
    ((VBox*)w)->Insert(new VGlue(round(0.2 * inch), 0, vfil));
    ((VBox*)w)->Insert(fcb->GetWindow());
    ((VBox*)w)->Insert(new VGlue(round(0.2 * inch), 0, vfil));
}

void FoundCardsDialog::ComposeTopMessages() {
    hb1->Insert(sen);
    hb1->Insert(new Label("cards of the given name found.",
        "times", "bold", "r", 14));
    hb2->Insert(new Label("Here is card ", "times", "bold", "r", 14));
    hb2->Insert(sei);
    hb2->Insert(new Label(":", "times", "bold", "r", 14));
}

void FoundCardsDialog::ConstructEditors() {
    sename = new ReadOnlyStringEditor("                         ");
    seid = new ReadOnlyStringEditor("                        ");
    seage = new ReadOnlyStringEditor("                         ");
    sesex = new ReadOnlyStringEditor("                         ");
    seaddr = new ReadOnlyStringEditor("                          ");
}
```

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113
114 void FoundCardsDialog::ComposeLabels() {
115     vblabels->Align(Right);
116     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
117     vblabels->Insert(new Label("Name:  ", "times", "bold", "r", 14));
118     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
119     vblabels->Insert(new Label("Id:  ", "times", "bold", "r", 14));
120     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
121     vblabels->Insert(new Label("Age:  ", "times", "bold", "r", 14));
122     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
123     vblabels->Insert(new Label("Sex:  ", "times", "bold", "r", 14));
124     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
125     vblabels->Insert(new Label("Address:  ", "times", "bold", "r", 14));
126     vblabels->Insert(new VGlue(round(0.10*inch), 0, vfil));
127 }
128
129 void FoundCardsDialog::ComposeEditors() {
130     /*
131      * The shawdow frames provide the string editor border.  By default a
132      * string editor has no visible border.
133      */
134     vbseds->Align(Right);
135     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
136     vbseds->Insert(new ShadowFrame(sename));
137     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
138     vbseds->Insert(new ShadowFrame(seid));
139     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
140     vbseds->Insert(new ShadowFrame(seage));
141     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
142     vbseds->Insert(new ShadowFrame(sesex));
143     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
144     vbseds->Insert(new ShadowFrame(seaddr));
145     vbseds->Insert(new VGlue(round(0.10*inch), 0, vfil));
146 }
147
148 void FoundCardsDialog::ComposeOuter() {
149     hbouter->Insert(new HGlue, round(0.25 * inch), hfil, hfil);
150     hbouter->Insert(vblabels);
151     hbouter->Insert(vbseds);
152     hbouter->Insert(new HGlue, round(0.25 * inch), hfil, hfil);
153 }
154
155 void FoundCardsDialog::ShowResults(CardList* cl) {
156     /*
157      * Clear transient model data in case it has been previously set.  This is
158      * possible given non-model behavior of the UI, wherein the user is not
159      * required to press the Done button in the found cards dialog.
160      */
161     if (this->cl)
162         delete this->cl;
163
164     /*
165      * Temporarily store the transient model data for display purposes.
166      */
167     this->cl = cl;
168
169     /*
170      * Initialize the current card index to 0.
171      */
172     curindex = 0;
173
174
175     /*
176      * Set the value of N in the "N cards found ..." message.
177      */
178     ShowNumberOfCards(this->cl->Len());
179
180     /*
181      * Call Next (with a 0 current index) to display the first card.
182      */
183     Next();
184 }
185
186 void FoundCardsDialog::ShowNumberOfCards(int n) {
187     String* s = new String(n);
188
189     sen->Message(s->ConstConvert());
190     delete s;
191 }
192
193 void FoundCardsDialog::ShowWhichCard(int i) {
194     String* s = new String(i);
195
196     sei->Message(s->ConstConvert());
197     delete s;
198 }
199
200 void FoundCardsDialog::Next() {
201     String* s;
202
203     if (curindex < cl->Len()) {
204         s = new String(++curindex);
205         sei->Message(s->ConstConvert());
206         delete s;
207
208         ShowWhichCard(curindex);
209         ShowCardData(cl->GetNth(curindex));
210     }
211 }
212
213 void FoundCardsDialog::Previous() {
214     String* s;
215
216     if (curindex > 1) {
217         s = new String(--curindex);
218         sei->Message(s->ConstConvert());
219         delete s;
220
221         ShowWhichCard(curindex);
222         ShowCardData(cl->GetNth(curindex));
223     }
224 }
```

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225
226 void FoundCardsDialog::ShowCardData(Card* c) {
227     String* idstr = new String(c->GetId());
228     String* agestr = new String(c->GetAge());
229     String* sexstr = r->SexToString(c->GetSex());
230
231     sename->Message(c->GetName()->ConstConvert());
232     seid->Message(idstr->ConstConvert());
233     seage->Message(agestr->ConstConvert());
234     sesex->Message(sexstr->ConstConvert());
235     seaddr->Message(c->GetName()->ConstConvert());
236
237     delete idstr;
238     delete agestr;
239     delete sexstr;
240 }
241
242 void FoundCardsDialog::Done() {
243     delete cl;
244     cl = NULL;
245 }
```