```
/****
 *
 * Class RolodexMenuUI is a companion view to the RolodexTool model class.  The
 * RolodexMenuUI window is a VBox with the menubar on the top and the data
 * entry area below.  A VBox is an InterViews interactor that holds component
 * interactors in a vertical layout.  The contents of the data entry area vary
 * depending on the chosen operation.  To hold the varying contents, the
 * data entry area is represented as a Deck, which is an InterViews interactor
 * that holds components stacked one on top of each other, with only the
 * topmost component visible and active at any given time.
 *
 * For an Add operation, the data entry area contains five StringEditors for
 * entering the values of the five card fields.  A StringEditor is an
 * InterViews interactor for entering single-line text values.  For the Delete,
 * Change, and Find operations, the data entry area contains a single
 * StringEditor for entering the name of a card(s) to be deleted, changed, or
 * found.
 *
 * Above the StringEditors is an operation-specific Label containing a message
 * describing the action of the operation.  A Label is an InterViews
 * interactor that displays a static, borderless string of text in a selectable
 * font.  For the Add operation the message is "Enter Information for a Rolodex
 * Card".  For the other operations, the messages are similar.
 *
 * Below the string editor(s) are operation-specific Buttons.  A Button is an
 * InterViews interactor that performs an action when pressed.  For the Add
 * operation there are OK, Clear, and Cancel buttons.  For the Delete and
 * Change operations there are OK and Cancel buttons.  For Delete, Change, and
 * Find, there are Next and Previous buttons in the case that the name entered
 * in the string editor does not specify a unique card.
 *
 * For illustrative comparison, an alternative button-style GUI is defined in
 * class RolodexButtonGUI in ./rolodex-button-ui.h, q.v.
 *
 */


#ifndef rolodexmenuuiIncluded
#define rolodexmenuuiIncluded

#include "add-card-dialog.h"
#include "change-card-dialog.h"
#include "confirm-change-dialog.h"
#include "confirm-delete-dialog.h"
#include "delete-card-dialog.h"
#include "error-message-dialog.h"
#include "find-card-dialog.h"
#include "found-cards-dialog.h"
#include "iv-support.h"
#include "rolodex-ui.h"
#include "std-macros.h"
#include "strlist.h"
#include "view.h"
#include <InterViews/deck.h>
#include <InterViews/menu.h>

class EditMenu;         // Avoid circular include of file-menu.h
class FileMenu;         // Avoid circular include of edit-menu.h
class RolodexMenu;      // Avoid circular include of rolodex-menu.h
class RolodexTool;      // Ditto for rolodex-tool.h


class RolodexMenuUI : public RolodexUI {
  public:
    RolodexMenuUI(Screen* s, RolodexTool* rt);
    /*
     * Construct this with the given UI screen and RolodexTool.model
     * Construct the FileMenu, EditMenu, and RolodexMenu subviews.
     */

    ~RolodexMenuUI();
    /*
     * Destruct this.  Details pending.
     */

    virtual void Compose();
    /*
     * Compose the window of this as the top-level rolodex menubar.
     */

    void ShowAddCardDialog();
    /*
     * Display the add card dialog in the data entry area.
     */

    void ShowDeleteCardDialog();
    /*
     * Display the delete card dialog in the data entry area.
     */

    void ShowChangeCardDialog();
    /*
     * Display the change card dialog in the data entry area.
     */

    void ShowFindCardDialog();
    /*
     * Display the find card dialog in the data entry area.
     */

    void ShowFoundDialog();
    /*
     * Display the found cards dialog in the data entry area.
     */

    void ShowErrorDialog(String* s);
    void ShowErrorDialog(StrList* sl);
    /*
     * Display the error message dialog in the data area with the given string
     * or list of strings as the error messages.  This can up to five messages
     * long, with each message shown in the order they order they appear in the
     * list.  Before the error dialog is shown, this->prevpos is set to
```

```
     * this->curpos so that the pre-error dialog can be restored after the
     * error dialog is dismissed by the user.
     */

    void RestorePreErrorDialog();
    /*
     * Restore the dialog that was displayed immediately before the error
     * dialog was shown.
     */

    void ShowEmptyDialog();
    /*
     * Display emptiness in the data entry area.
     */

  protected:
    /**
     * Component composition functions.
     */

    MenuBar* ComposeMenuBar();
    /*
     * Compose and return the menubar.
     */

    FileMenu* ComposeFileMenu();
    /*
     * Compose and return the file pulldown menu.
     */

    EditMenu* ComposeEditMenu();
    /*
     * Compose and return the edit pulldown menu.
     */

    RolodexMenu* ComposeRolodexMenu();
    /*
     * Compose and return the rolodex pulldown menu.
     */

    HBox* ComposeDataArea();
    /*
     * Compose the data entry/display area below the menubar.  Per the the
     * specs, it is fixed size, big enough to hold the largest of the operation
     * dialogs.
     */

    void ComposeDialogs();
    /*
     * Compose the UI dialog boxes for adding, deleting, finding, and changing
     * a card in the rolodex.  Also compose the display for found card output
     * that lists the cards found.  Each of these dialogs appears in the data
     * entry/display area.
     */

    void ComposeAndInsert(View* v);
    /*
     * Compose the given view (which will be one of the data are dialogs) and
     * insert its window into the deck.
     */


    /**
     * Data members
     */
    RolodexTool* rt;           // Companion model (downcast version of this->m)
    VBox* vb;                  // Box holding menubar, data area, and buttons
    MenuBar* mb;               // Pulldown menubar
    FileMenu* fm;              // File pulldown menu
    EditMenu* em;              // Edit pulldown menu
    RolodexMenu* rm;           // Rolodex pulldown menu
    Deck* d;                   // Deck holding operation-specific dialogs
    AddCardDialog* acd;        // Add card dialog
    DeleteCardDialog* dcd;     // Delete card dialog
    ConfirmDeleteDialog* cdd;  // Confirm delete dialog
    ChangeCardDialog* ccd;     // Change card dialog
    ConfirmChangeDialog* cncd; // Confirm change dialog
    FindCardDialog* fcd;       // Find card dialog
    FoundCardsDialog* fcsd;    // Found card(s) dialog
    ErrorMessageDialog* emd;   // General error messaging dialog
    int curpos;                // Current position on the top of the deck
    int prevpos;               // Pre-error deck position for restoration after
                               // error message

    /**
     * Constants.
     */
    const int ADDPOSITION = 1;    // Deck position of add card dialog
    const int DELPOSITION = 2;    // Deck position of delete card dialog
    const int CONDELPOSITION = 3; // Deck position of confirm delete dialog
    const int CHANGEPOSITION = 4; // Deck position of change card dialog
    const int CONCHGPOSITION = 5; // Deck position of confirm change dialog
    const int FINDPOSITION = 6;   // Deck position of find card dialog
    const int FOUNDPOSITION = 7;  // Deck position of found cards dialog
    const int ERRORPOSITION = 8;  // Deck position of error dialog
    const int EMPTYPOSITION = 9;  // Deck position of empty card

};

#endif
```