This is in fact an interval Java implementation of the Chain of Responsibility, in which the request is the keyPressed event. So in constructing the event listener in this program's user interface, we need only to define a subclass of KeyAdapter that traps the F1 key

```
//    inner class for key strokes
    class k_adapter extends KeyAdapter {
        public void keyPressed(KeyEvent e) {
            if(e.getKeyCode () == KeyEvent.VK_F1) {
                sendToChain((JComponent)getFocusOwner());
            }
        }
    }
```

and add a key event listener to the Frame

```
    helpKey = new key_adapter();
    addKeyListener(helpKey);
```

Note that we obtain the component that has the current focus by using *getFocusOwner* and then send that component along the chain to obtain the most specific help message that the system provides. Each help object has a test to check whether the object is the one described by that help message. Either the message is displayed or the object is forwarded to the next chain element. For the File button, the class looks like the following:

```
public class FileHelp extends HelpWindow {
    String message, title;
    int icon;
    JFrame frame;

    public FileHelp(JFrame f) {
        mesg = "Select to open a file";
        title ="File button help";
        icon = JOptionPane.DEFAULT_OPTION;
        frame = f;
    }
    public void sendToChain(JComponent c) {
        if (c instanceof JButton) {
            JButton b = (JButton)c;
            if( b.getText().equals("File"))
                JOptionPane.showMessageDialog(frame, mesg,
                                              title, icon);
            else
                sendChain(c);
        }
    }
}
```