

Change request log

Team

Team name: “ssquare”

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Roles : Concept Location, Impact Analysis and Validation - Satya Sandeep Ravipati, Siddhi Kotian
Actualization and Processing- Siddhi kotian

1 Change Request

#je-2

Currently, jEdit displays the horizontal and vertical scroll bars (see Figure 3) whenever the content of the opened document exceeds the size of the editor. Implement a Toggle Scroll Bars option in the View menu that allows to show/hide the scrollbars.

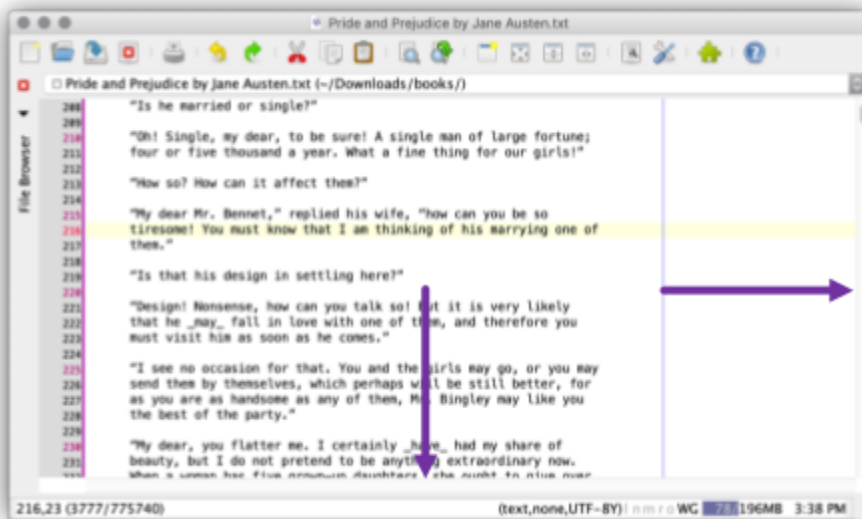


Figure 1. Scroll Bars in the jEdit text editor

2 Concept Location

Step #	Description	Rationale
1	After cloning from the repository we added a few jars as mentioned in the jEdit Readme file and also some from maven repository and ran the system.	When we first cloned the repository we came across a lot of errors, in order to resolve those we tried to add dependencies from maven repository
2	We interacted with the system: after logging in we checked the view menu and the scroll bar's functionality by moving it.	To get familiar with some of the features of the system and we observed the images given with the change request and wanted to get familiar with the working of the requested change

3	<i>We searched for "scrollbar" using the regular expression feature of the eclipse IDE's search tool.</i>	<i>We figured that since we have to modify something displaying the scroll bar, we need to start from that point.</i>
4	<i>We found 0 results</i>	
5	<i>We inspected the class View.java. We went to this class using the package explorer of the eclipse IDE editor.</i>	<i>We had noticed that the class View had the keyword "scroll" present in it. However, it did not show up in the search.</i>
6	<i>We inspected the TextArea class</i>	<i>We found that the class View had instance of class TextArea calling the addScrollListener() method</i>
7	<i>We inspected the class ViewOptionPane class</i>	<i>We figured we had to add the toggle option somewhere in the View Options menu.</i>
8	<i>We marked the TextArea class and "located"</i>	<i>We confirmed that this class had to be modified.</i>

Time spent (in minutes): 180 minutes approximately

3 Impact Analysis

Step #	Description	Rationale
1	<i>We made a list of methods with the keyword "scroll"</i>	<i>To track the classes that could be impacted by the change.</i>
2	<i>We inspected the class ViewOptionPane class again. Such a class was marked as "to change" as well</i>	<i>We thought this class had to be changed so as to implement the toggle button..</i>
3	<i>We inspected the actions.xml file and added it "to change"</i>	<i>We figured that in order to add the toggle button and integrate it well with the system.</i>
4	<i>We inspected the jedit.props and jedit_gui.props file and added it "to change"</i>	<i>We found that we needed to change these files to reflect the changes on the gui.</i>

Time spent (in minutes): 240 minutes approximately

4 Actualization

Step #	Description	Rationale
1	<i>We modified the TextArea class by adding a method hideScrollBar()</i>	<i>As requested we needed to implement this method to hidescrollbar().</i>
2	<i>We edited the actions.xml file, jedit.props and jedit_gui.props file</i>	<i>Inorder to reflect the changes in the GUI.</i>
3	<i>We ran the system and checked for the functionality of the newly added feature manually.</i>	<i>To make sure everything works.</i>

Time spent (in minutes): 120 minutes approximately.

5 Validation

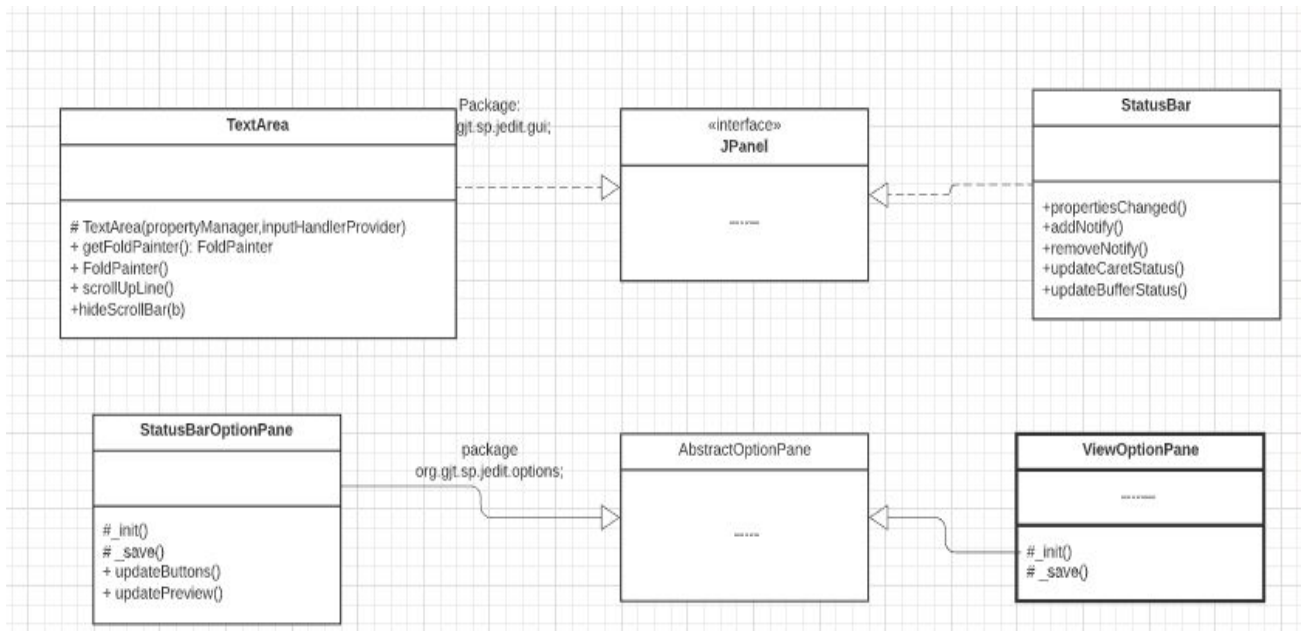
Step #	Description	Rationale
1	Test case 1: Inputs: unchecked the Toggle ScrollBar button in the View menu Expected output: Hide both the scroll bars	This is the regular expected behavior. The test passed.
2	Test case 2: Inputs: checked the Toggle ScrollBar button Expected output: Display both the Scroll bars	This is regular expected behavior The test passed.

Time spent (in minutes): 10 minutes

6 Timing

Phase Name	Time (in minutes)
Concept location	180
Impact Analysis	240
Actualization	120
Verification	10
Total	550

7 Reverse engineering



8 Conclusions

For this change concept location was difficult and we found that had we not done the first change request #je1 before this one we would have had a tough time in the concept location phase. The Impact analysis phase was also tricky as we had estimated that the ViewOptionPane class would have to be changed; however, it did turn out that it didn't have to. The actualization phase was comparatively much easier as the tricky part was not how to implement the change but it was how to know where to implement the change. For it, a deeper knowledge of the structure of the system must be known and an immense amount of effort is required. The testing was performed manually and the results were noted above.

Classes and methods changed:

- org/gjt/sp/jedit/textarea/TextArea.java
 - hideScrollBar(boolean