

Change request log

1. Concept Location:

Step #	Description	Rationale
1	We ran the project jEdit	
2	At first we looked into jEdit UI.	To get familiar with some of the features of the system, and to identify the different functionalities present in jEdit.
3	At first, We tried to replicate the issue	To get a better idea about the bug. We replicated the issue by creating a few files having similar names.
4	After getting a thorough understanding about the issue, we looked for the term recent files, Menu, search bar.	of all the responses, we didn't get any useful responses. so we decided to search for another term.
5	We looked for the term "no recent files"	from the responses we received, We looked for the jedit_en.props file where all the variables were defined. From that we concluded the variable declared for No Recent Files label is "no-recent-files"
6	Then based on the previous result, We searched for the term "no-recent-files"	To get better understanding about its usage over the entire project
7	of all the responses we received, RecentFilesProvider.java is the place where the action is performed.	All the other responses were just referring to the label but the actual implementation is done in a recent files provider and that's how we discarded all other responses.
8	We inspected the class RecentFilesProvider.java	To know about the class responsibilities.
9	We marked the class RecentFilesProvider as "located".	We confirmed this class had to be modified.

Time spent (in minutes): 65

Classes and methods inspected:

- org/jedit/localization/jedit_en.props
- org/gjt/sp/jedit/menu/RecentFilesProvider.java
 - o void update(JMenu menu)

2. Impact Analysis :

Step #	Description	Rationale
1	We made a list of usages of the method public void update(JMenu menu)	To track the classes that could be impacted by the change.
2.	We only received 1 result.	On modifying the class(RecentFilesProvider.java) will not be impacted.
3.	We inspected the class (RecentFilesProvider.java)	We looked into different methods present in the class.
4.	We looked into the update() method.	As there were multiple functionalities implemented inside an update().
5.	We looked into the class pattern and its methods.	When inspecting the class we found the method is making calls to the class pattern.

6.	We discarded all the classes and decided only to modify recentfilesprovider.java class	As the primary changes only belong to this class rest all classes will not help in resolving the bug. And concluded only the method (update()) needs to be modified and this change will not impact other classes.
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Time spent (in minutes): 25

Classes and methods inspected.

- org/gjt/sp/jedit/menu/RecentFilesProvider.java
 - void update(JMenu menu)
- Pattern.java
 - public static Pattern compile(regex)
 - public Matcher matcher(CharSequence input)

3. Actualization :

Step #	Description	Rationale
1	From the last 2 steps, we were clear about the classes that needed to be modified.	We looked into different methods present in RecentFilesProvider.java
2	We inspected the method update()	It is responsible for performing multiple functionalities. We looked for the implementation where the search is performed.
3	Here we figured out, search depends on another method “compile” which is present in the class Pattern.	We inspected the class pattern and the method compile() . And concluded this is not going to make any impact as it depends on the parameter “regex” which we are sending it from RecentFilesProvider.java class
4	So from the above step, we looked for what regex expression is being sent to the method call.	As the search is working based on the regex.
5	We found, regex is not updating properly.	So we made the required changes by updating the regex.

Time spent (in minutes): 10

Classes and methods that you inspected.

- org/gjt/sp/jedit/menu/RecentFilesProvider.java
 - void update(JMenu menu)
- Pattern.java
 - public static Pattern compile(regex)
 - public Matcher matcher(CharSequence input)

Classes and methods modified:

- org/gjt/sp/jedit/menu/RecentFilesProvider.java
 - void update(JMenu menu)

4. Validation

Step #	Description	Rationale
1.	Replicated the issue by creating multiple files with similar names and opened them such that they appear under recent files.	Performed search activity, observed the results. Test result: Passed

Time spent (in minutes): 10

5. Summary of the change request:

Phase	Time (minutes)	No. of classes inspected	No. of classes changed	No. of methods inspected	No. of methods changes
Concept location	65	2	0	1	0
Impact Analysis	25	2	0	3	0
Actualization	10	2	1	3	1
Verification	10	1	0	1	0
Total	110	2	1	3	1

6. Conclusion

For this change, Concept location took more time as the code base is large. Impact analysis and actualization didn't take much time. For performing the search activities we used ctrl+shift+F in IntelliJ which made it easier for us in searching for the keywords over the entire project.