

Change request log

1. Team

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2. Change Request

jEdit Change Request #3

In the list of favorites in jEdit (Utilities » Favorites » Edit Favorites), there are two columns (i.e., Name and Type) that allow for sorting by clicking on the corresponding column headers. The Name column, however, displays the full path of the files, instead of their name. You are requested to modify this view to display three columns: Path, Name, and Type. As an example, for the first file shown in Figure 3, the Path column would display ~/Desktop/books-txt/, the Name column would display Pride and Prejudice by Jane Austen.txt, and the Type column would display File. The three columns are required to allow for sorting when clicking on the corresponding column header.

3. Concept Location

Step #	Description	Rationale
1	<i>Found FavoritesVFS with search for "Favorites"</i>	
2	<i>Found FavoritesMenuButton from FavoritesVFS.getFavorites()</i>	
3	<i>Found the Edit Favorites JMenuitem in createPopupMenu</i>	
4	<i>Examined action command "dir@favorites:"</i>	<i>This is what was called when the Edit Favorites button is pressed, so understanding it is important</i>
5	<i>Found VFSBrowser.setDirectory()</i>	

6	Found <i>BrowserView</i> from <i>VFSBrowser.loadDirectory()</i>	
7	Found <i>intance</i> variable <i>VFSDirectoryEntryTable</i> table	
8	Found <i>VFSDirectoryEntryTableModel</i>	<i>This is the model for the table itself that is viewed</i>
9	Discovered the concept of <i>ExtendedAttributes</i>	<i>These appeared to be the columns in the table to be displayed other than "Name"</i>
10	Discovered <i>FavoritesVFS</i> had to be modified to add a new <i>ExtendedAttributes</i> and <i>Favorite</i> had to be modified to provide for the new attributes	
11	Also discovered helpful methods <i>MiscUtilities.canonPath(path)</i> and <i>MiscUtilities.getFileName(path)</i>	

Time spent (in minutes): 40

4. Impact Analysis

Step #	Description	Rationale
1	<i>Any uses of FavoritesVFS were examined, but none were determined to be effected by the changes.</i>	

2	<i>Favorite also had to be modified, but it was determined to only be used in FavoritesVFS.</i>	
3	<i>It was determined we would add the capability for the extra attribute to VFSFile, as it made for sense for the Path property to be handled there.</i>	

Time spent (in minutes): 20

5. Prefactoring

Step #	Description	Rationale
1	<i>No classes were modified or methods changed in the prefactoring step.</i>	<i>It was determined that the changes would be minimal and that no other areas were needed to be modified.</i>

Time spent (in minutes): 0

6. Actualization

Step #	Description	Rationale
1	<i>A new constant VFS.EA_PATH = "path" was added</i>	<i>This was to match how the other extended attributes are handled</i>

2	<i>FavoritesVFS was modified to have the added EA_PATH extended attribute in the constructor</i>	
3	<i>Favorite was modified so getLabel() returned the file name as determined by MiscUtilities.GetFileName(path)</i>	
4	<i>VFSFile was modified to handle the new extended attribute in getExtendedAttribute(attribute) using the path determined by MiscUtilities.canonPath(path)</i>	<i>It made more logical sense to add the capability to VFSFile, as that's where most of the other extended attributes are handled</i>

Time spent (in minutes): 30

7. Postfactoring

Step #	Description	Rationale
1	<i>No classes were modified or methods changed in the postfactoring step.</i>	

Time spent (in minutes): 0

8. Validation

Step #	Description	Rationale
1	<i>All tests provided with jEdit were run as a regression test.</i>	<i>This is the regular expected behavior. The test passed.</i>

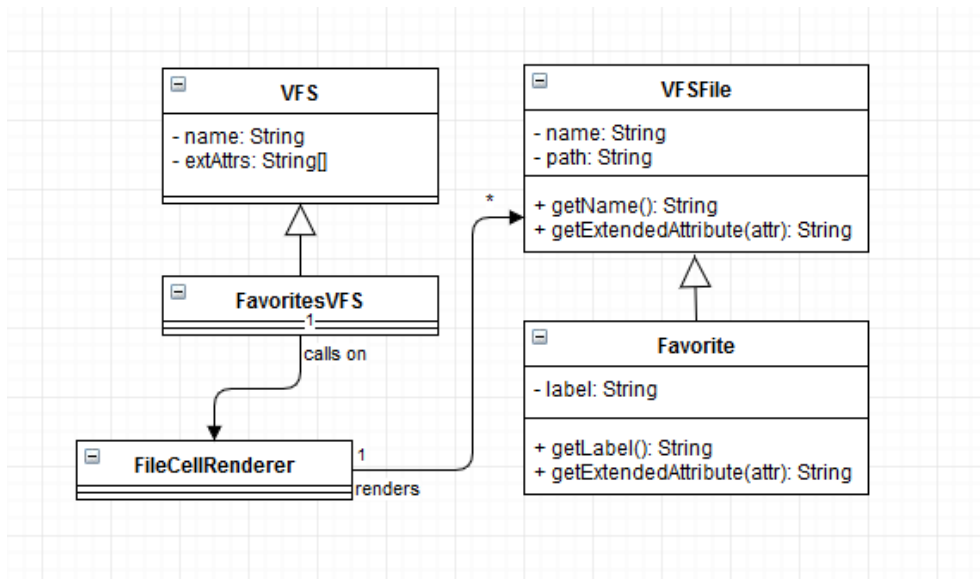
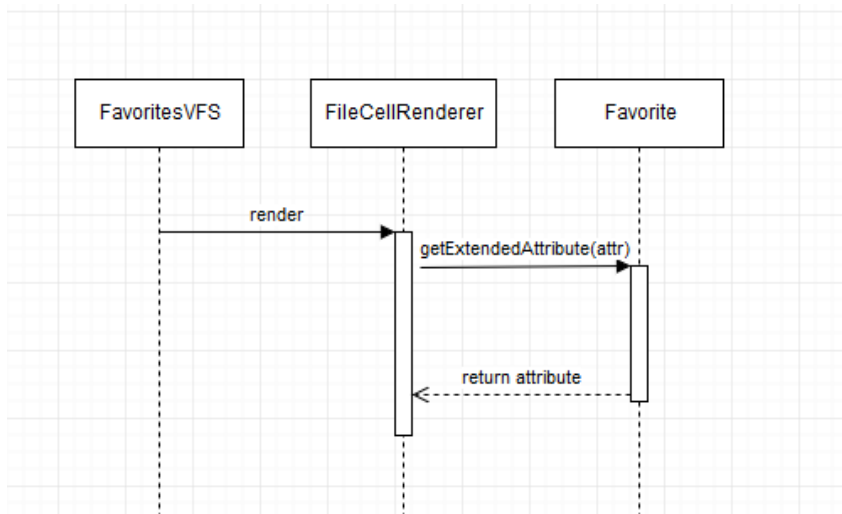
2	<i>Manual tests were done by adding many favorites files and verifying the path and name were displayed correctly. Other menus were also examined to make sure the changes did not affect them.</i>	<i>This was to verify the changes made had the expected result, which was the case in all manual tests.</i>
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Time spent (in minutes): 40

9. Timing

Phase Name	Time (in minutes)
Concept location	40
Impact Analysis	20
Prefactoring	0
Actualization	30
Postfactoring	0
Verification	40
Total	130

10. Reverse engineering



11. Conclusions

The change request ended up being the most involved and required changing the most class files. It was enjoyable figuring out where the changes had to be made and discovering how to add the new column. The Impact Analysis was also rather involved since the number of classes changed was larger than all the other change requests. The impact set ended up being small, however. Implementing the actual changes was enjoyable, especially merging them with the rest of the code and attempting to match the same coding style and format the project already has.

Classes and methods changed:

- org/gjt/sp/jedit/io/FavoritesVFS
 - Modified FavoritesVFS()
 - Favorite
 - Modified Favorite()

- Modified label
 - Modified getExtendedAttribute()
- VFSFile
 - Modified getExtendedAttribute()
- VFS
 - Added new constance EA_PATH

Final Notes

Nick Lawrence implemented the changes in the code and Satya Kalyan handled the documentation.

In the jEdit repository all the changes are implemented in the master branch.