MDT Feature & Bugs Wish List

Revision: 2014-03-23

Note that this list is in no particular order.

1. Mark occurrences: Shows all occurrences of the word in the file (by changing background color) which is currently marked by the cursor. Some decisions to make here is how configurable this feature should be and what kind of analysis the feature should do, i.e., to decide which words to do this for or if it, without consideration, do it for all.  
   Status: Done by Mikael Åsberg  
   *Comments: This feature can either be turned on or off, no other settings are currently available. It works for words which are not Modelica keywords. Regarding performance, it can feel sluggish at items.*
2. Test suite work: Look at resurrecting and extending the JUnit tests. The test suite has suffered bit-rot and currently does not run. Attempt to resurrect older tests and add JUnit tests to classes undergoing changes for other features. The old test suite also includes some automatic GUI tests using Abbott-SWT, which is a dead project and it is unclear how to even start it, or if it is indeed even possible anymore. More investigation in this area.  
   Status: Done by Mikael Åsberg  
   *Comments: The GUI-tests are working again (using Abbott-SWT). All tests have been updated in accordance with changes in MDT. There are no failing or ignored tests. Some tests have been expanded to do a more thorough testing. A few obsolete tests have been removed or reworked.*
3. Faster loading/query/saving of files (use getComponents instead of getElementInfo)  
   Status: Not started  
   *Comments: Please provide more details*
4. Folding does not work sometimes correctly after saving  
   Status: Not started  
   *Comments: Please provide, if possible, recipe for reproduction or other hints*
5. Better handling of Modelica files/packages/libraries (problems with deep hierarchy of files)  
   Status: Not started  
   *Comments: Please provide more details*
6. Loading duplicate class names from different files should report an error and not load the second file (easy, just check if the file is loaded (use parseFile to just get the file info without loading).)  
   Status: Done by Mikael Åsberg  
   *Comments: Disabled by default, there seem to cases where this causes unexpected behavior*
7. MDT does not cope well if there is more than one project that contains the same filename. It is unsatisfactory that projects coupled are this manner and it should be fixed.  
   Status: Not started  
   *Comments: Cannot reproduce, please provide more details*
8. Speed up save operations in MDT.  
   Status: Not started  
   *Comments: Please provide more details how this can be achieved (seemed to me the author of this task has a particular idea in mind).*
9. The context popup (shows information about the item the mouse is currently hovering above) cannot be toggled, this is desired.  
   Status: Not started
10. Work is needed on auto-completion. For example, auto-completion should be automatic if only a single choice remains.  
    Status: Done by Mikael Åsberg  
    *Comments: If there is only a single choice, it is now auto-selected, no dialog pop-up. However, there is still an initial, noticeable delay for completion operations, but that should be created as a separate task.*
11. Add filtering support to Modelica Projects View.  
    Status: Not started  
    *Comments: Only the standard Navigator Filters are available, what exactly is desired here? More details, please.*
12. Add 'Link with Editor' support to Modelica Projects View.  
    Status: Not started  
    *Comments: There is button available for toggling it, but it does not do anything.*
13. Add support for working sets to Modelica Projects View.  
    Status: Not started  
    *Comments: The UI allows for creation of working sets and adding content to them, but one cannot get the tree-display as one can get in, for example, the Java perspective.*
14. Add standard toolbar (Back, Forward, Up, Collapse All, Link with Editor, Filters/Working set menu) to Modelica Projects View.  
    Status: Not started  
    *Comments: We have this toolbar. However, most buttons lack implementations. And I’m not sure the backwards/forwards buttons should be there, they are not there in the Java perspective, these are already on the main toolbar (as is the case with the Java perspective as well).*
15. Add source code navigation support, you know, being able to click on stuff in the source code while holding down Ctrl (try it in JDT, best feature evah!). To do this more information from OMC is needed.  
    Status: Not started
16. Implement so called quickfixes whenever possible, for this OMC needs to report error types.  
    Status: Not started
17. Right now if multiple Modelica compiler plugins (plugins that define org.modelica.mdt.compiler extension) are available an error message is displayed and nothing works until exactly one compiler is available. This can be changed to allowing user to configure which compiler to use on a per project basis. It's probably good to add a 'default compiler' setting also.  
    Status: Not started  
    *Comments: I am not sure about this one. I am not sure how to reproduce it, I cannot convincingly say if it has been fixed by someone else or not.*
18. In the Projects View, rename doesn't work, cut/paste not implemented.  
    Status: Not started  
    *Comments: Copy/paste works it seems to me (I can copy a file and paste it into another folder). I see no rename or cut selections, however.*
19. Add icon for Modelica perspective.  
    Status: Not started  
    *Comments: There is an icon, either it is a default icon or it has, in fact, been added.*
20. Don't expose CompilerProxy outside of the core plugin (move CompilerProxy.java to the internal.core package)  
    Status: Done by Mikael Åsberg
21. Check if imports, inputParams and outputParams are updated when a file is saved in the Modelica editor.  
    Status: Not started  
    *Comments: Please provide more details.*
22. An indicator that shows that connection with OMC has been established would be good.  
    Status: Done by someone else  
    *Comments: We have such an indicator in the status bar*
23. Add support for overlay images, like 'error' and 'svn'/'cvs' overlays in the Modelica Project view  
    Status: Not started
24. Remove models that are contained in a sourcefile from omc when it is rebuilt.  
    Status: Not started  
    *Comments: Please provide more details.*
25. Make all MDT subprojects build "out of the box", including test project  
    Status: Done by Mikael Åsberg
26. Fix bug: ModelicaSource.hasChildren() always returns true  
    Status: Done by Mikael Åsberg  
    *Comments: However, a test-case showcasing this bug would be nice to have.*
27. Fix bug: Make MDT cope with items said by OMC to start at columns 0 (happens sometimes (always?) for objects declared on the first line in a file.  
    Status: Done by Mikael Åsberg  
    *Comments: I believe I found this while working on the test suite.*
28. Fix bug: The “Hide protected variables” button in the outline view does not work. Fix it. Also remember the setting.  
    Status: Done by Mikael Åsberg
29. Fix bug: Functions and function parameters are not displayed correctly in the outline view. Fix it.  
    Status: Done by Mikael Åsberg  
    *Comments: However, a test-case showcasing this bug would be nice to have.*
30. Fix bug: The caret doesn’t move after a single-line tab-indent. Fix it.  
    Status: Done by Mikael Åsberg  
    *Comments: However, there are still bugs to fix in this area, in particular if one uses non-standard Eclipse tab settings.*
31. Fix bug: Loading of Modelica Standard Library  
    Status: Done by Mikael Åsberg  
    *Comments: In commit #1234, I made a change to the Modelica Standard Library loading code. Before this fix, MDT loaded the Modelica root library and every single library it could find beneath it in the file system. In my commit, I changed this to only send the expression loadModel(Modelica) to OMC. Since then, the loading code has been extended by others to get the set of libraries to load from the PreferenceManger, but it still is simply one item “Modelica”, and I don’t see a way to modify it as an end-user. Note that the library is not loaded just because one starts Eclipse with some Modelica projects open, it happens, for example if the library is expanded in the projects view or when an application is built, I suppose.*
32. Fix bug: MDT was not aware of the new locations of some items after updates to corresponding file.  
    Status: Done by Mikael Åsberg
33. Fix bug: Work-around bug in Eclipse's IPathVariableManager.validateValue(URI) always returning null for some versions of Eclipse.  
    Status: Done by Mikael Åsberg  
    *Comments: I have reported this problem to the Eclipse developers and they have fixed it in later versions.*
34. Fix bug: Files lacking an extension that are part of a project cannot not be viewed in the editor  
    Status: Done by Mikael Åsberg
35. Fix bug: Context-menu items "Generate graph view" and "Simulate" were visible too often, should only be visible in Modelica Projects View or MDT editor.  
    Status: Done by Mikael Åsberg
36. Fix bug: There are problems in hover tooltips  
    Status: Done by Mikael Åsberg  
    *Comments: I know done fixes in this area, but I documented it poorly and the commit messages are not clear. It’s spread out across several commits.*
37. Feature: Add support in GUI for simulation  
    Status: In progress by Mikael Åsberg  
    *Comments: No GUI-work done yet, only some back-end boilerplate code.*
38. Clean-up: Fix warnings, typos, use of deprecated features, missing annotations etcetera.  
    Status: In progress by Mikael Åsberg  
    *Comments: A lot of work has been done in this area.*