

## **Test Driven Development: MontaVista Developer Tools Team experience**

MontaVista Developer Tools Team works in Agile methodology adopted to fit the team needs. As for any agile-driven team, our goal is to have fully automated tests that run on a frequent basis. Desired test coverage is unit, GUI and integration tests.

The team selected Eclipse's build and test automation framework as a base for its own build and test system. CruiseControl is used for continuous integration. Our main achievement is that we have fully automated JUnit test build that runs once a day. Results are in human-readable format and can be easily accessed by any team member. When the build is completed, an email with notification is sent to our mail list.

However, JUnit didn't appear to be useful for GUI testing. After doing this manually at the end of two consequent sprints the decision was made to automate it. TPTP was selected for this purpose. But it appeared to have a lot of limitations, most important of them (reasons we had to turn it down) are:

- User actions on native dialogs cannot be recorded because SWT events based on the actions are not reported. An example of a native dialog is the common dialog that is displayed when clicking on a 'browse' button. A workaround depends on the component being tested. For example, a user can type in the path of a file name as opposed to clicking the browse button if that option is available. Unfortunately, not every component can be tested like this.
- Tests recorded are architecture dependent, i.e. test case recorded on Linux fails to run on Windows, and our product should be tested on all MontaVista supported hosts(Linux, Windows, Solaris).

So all GUI tests are still performed by QA engineer according to test plans being developed. The integration tests are also performed manually mainly because of different hardware needed that cannot be permanently used by the team.

### ***About the authors:***

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