Enhanced unit testing for VisualAge Smalltalk

PELRINE, Joseph

Daedalos Consulting, Postfach 9513, CH-8036 Zürich Switzerland

Key words: eXtreme Programming, testing, Smalltalk, VisualAge, ENVY

One of the aspects of eXtreme Programming which has significantly contributed to its success is the concern with quality, succinctly expressed in the maxim „Relentless Testing“”. When one starts working with XP, the idea of „writing the test first“ becomes one of the most intriguing practices to implement. At first, it is difficult to write code (albeit a test) and let it run, all the while knowing that it wouldn’t work. It takes a while to get used to, but slowly the developer gets to the point that she can’t write code without writing the tests first.

Unfortunately, most of the effort is concentrated on testing model-level code. Working in a XP development environment in IBM’s VisualAge Smalltalk, though, one runs into other problems, such as GUI testing, performance testing, and packaging/delivery testing, for example, and starts to realize that the extreme programming techniques one had learned does not adequately address important aspects of testing. This paper addresses a few aspects of testing relevant to the software developer, stating issues at hand, and offering possible solutions, which can be implemented as part of the development process.

Quality control doesn't stop at development, but should include the whole delivery and deployment process. It doesn't help to have a running application if you can't package and deliver it to your customers reliably. For this reason, companies who have built their reputation on delivering quality software to customers on time tend to develop strategies for testing the deliverability of their code.

Many documented XP practices are based on the significant experience gathered at Chrysler’s C3 project. The flip side of the coin is that there are a number of practices and problems which, since the C3 team was not confronted with them, that still need to be solved in order to „cover all bases“, and in order to lead to wider acceptance of extreme programming as a valid and viable development methodology.