PROFESSIONAL TESTER

Essential for software testers

Managing manual testing

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We can remember it for you wholesale

by Marek Kucharski

To stay on track, trace

Many were surprised last autumn when Parasoft embraced manual testing. **Marek Kucharski** explains what has changed

There is a Polish saying that "only a cow does not change her mind". She is happy just to chew grass. Parasoft, a company known for advanced tools, has been like that cow for years: we thought that dedicated testers would eventually be replaced almost completely by tests created by developers and executed automatically overnight. We've changed our mind. We still believe in automation, and we use our products to automate a very high proportion of our internal testing. But we now acknowledge that sometimes manual testing is the best, or even the only, option and have extended our ALM platform, Concerto, to embrace it: making it as traceable, auditable and integrated with development as automated testing.

Visibility makes faster work

Figure 1 shows a requirement in Concerto. The tabs at the top summarize and give access to detailed information about the work done so far. To implement the requirement, 32 development tasks were identified (these include all development work, not just coding); 37,641 lines of code have been created or modified; two automated tests have been run and detected no defects; and nine manual tests (shown under the Scenarios tab) have been run, of which four have failed.

Thus the people executing the manual tests have visibility of what everyone else, including developers, has already done:
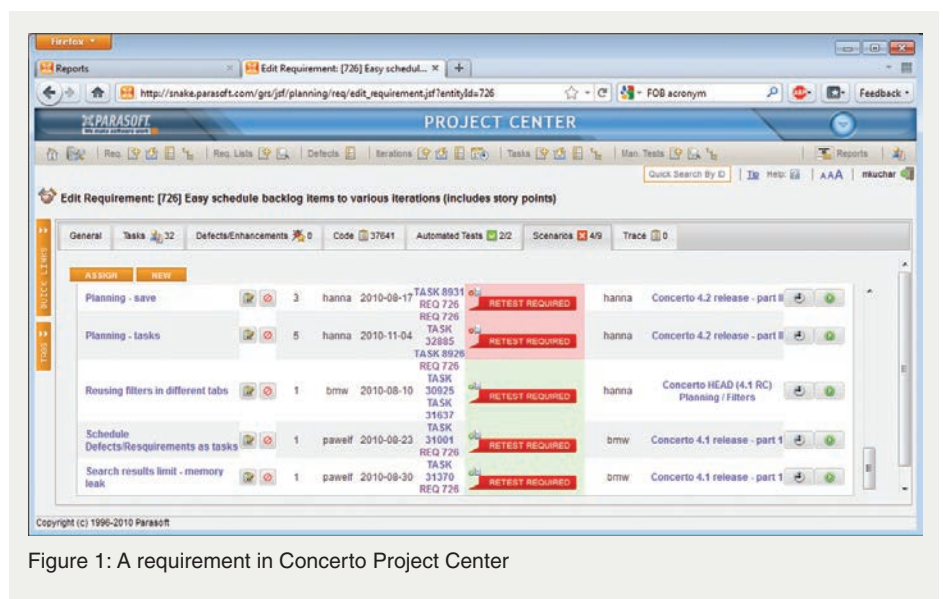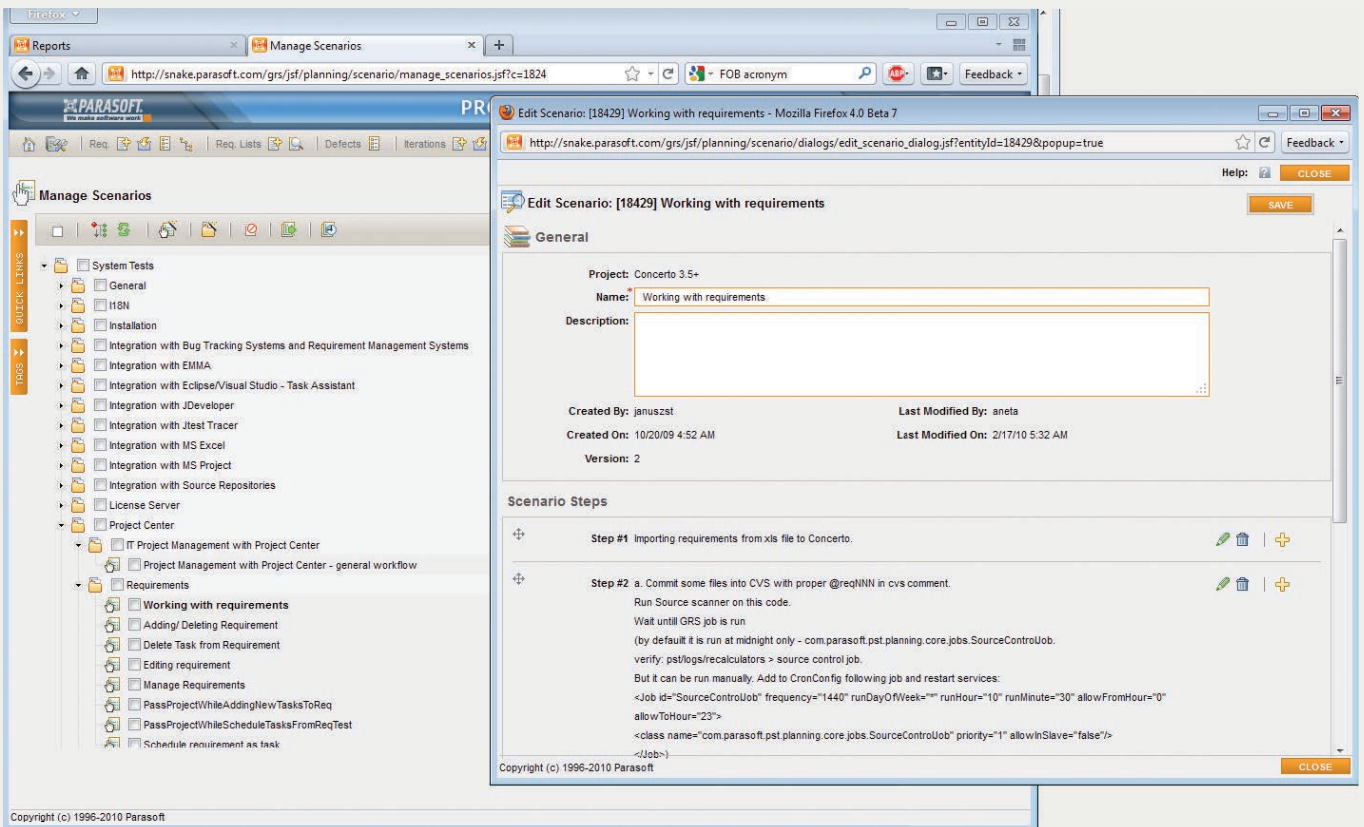

Figure 1: A requirement in Concerto Project Center

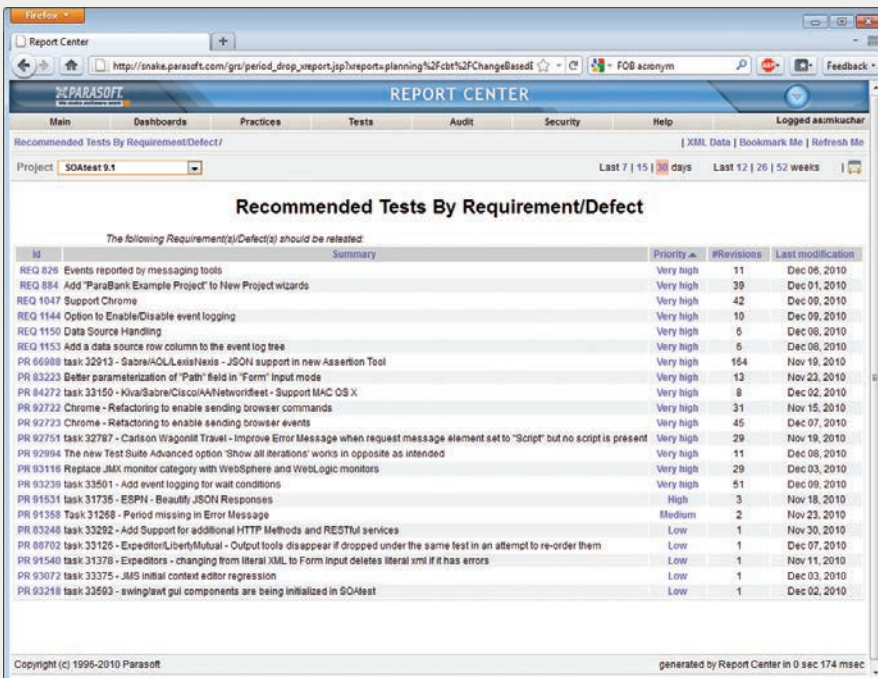Figure 2: manual test scenarios being managed and edited

Figure 3: retests recommended due to code modification

manual or automated. The steps taken and their outcomes are recorded: they demonstrate to the tester what is considered correct behaviour, far more quickly and clearly than a formal description. This avoids misunderstandings and helps the tester know what is and is not an incident. The tester adds additional scenarios, based or not on the ones provided by development.

Traceability makes less work
Then, the loop is closed: when a defect is detected and fixed, Concerto enables traceability of test to requirement, requirement to code, and defect to modification. It therefore knows at all times exactly what tests, both manual and automated, need to be re-executed for retesting and regression testing purposes (figure 3). This information enables enormous savings in what is by nature a time-consuming activity. Finally, a static analysis rule can be created to prevent the construct(s) that caused it being repeated anywhere else. Collaboration at that level between development and QA makes future expensive defects simply not happen.

unit testing, static analysis, regression coverage and everything else. This input to manual testing helps to target it precisely, making it easier and more cost-effective. When a developer completes a task, he or she creates a test for it,

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Tracer makes traceability work

These facilities are available even when code is created by an external development organization which is not using Concerto. *Tracer* identifies the methods and objects used when each test case is executed, mapping test cases to code, completing the traceability information needed to manage and report (figure 4) the entire development and test effort, including manual testing, comprehensively ■
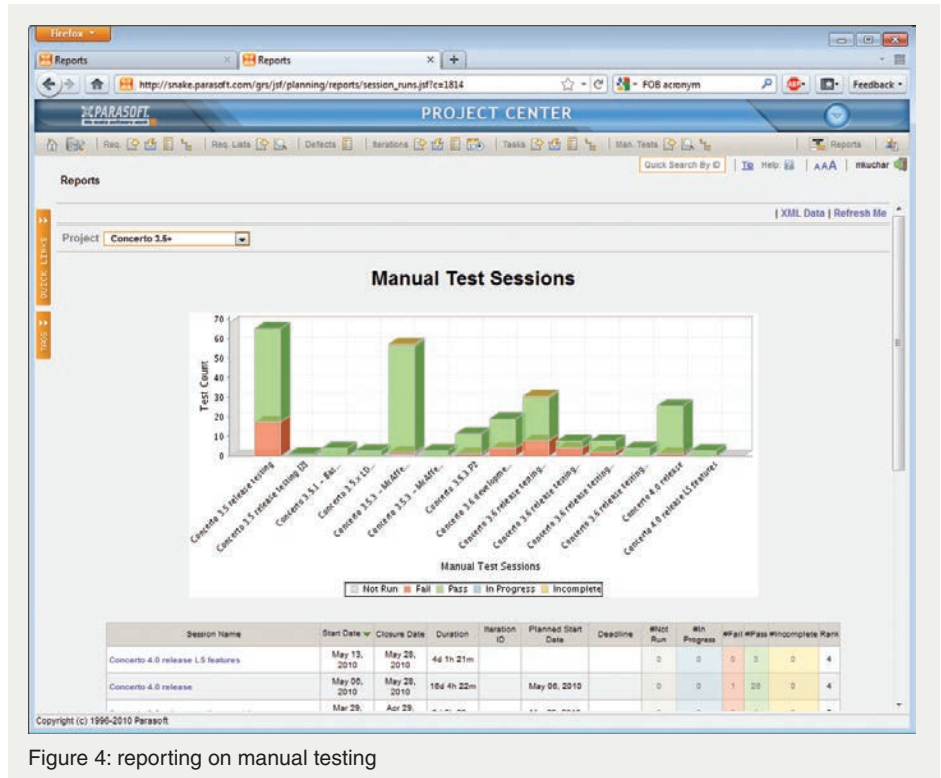

Figure 4: reporting on manual testing

Marek Kucharski is CEO Europe of Parasoft. For more information about Concerto see http://parasoft.com/concerto

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