Octopus

Automated Testing Control System

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A Year With "Octopus:" Safe As Never Before

For more than a year our company has been using Octopus while developing a Wizard designed to create configurations for measurement equipment. The equipment is an automated stand for vehicle emission measurement consisting of multiple infrared Fourier-gas analyzers, connecting streams, valves etc. Practically the projects have been implemented in thousands of objects and parameters, which no human will ever be able to remember (something a bit simpler than an atomic submarine). The Wizard tool was aimed at creating such configurations according to the customer requirements.

As a result, Wizard allows creating a huge number of *.ini* files which provide a comprehensive description of equipment configuration.

So how should one test a program which is intended to create complex objects that need testing themselves?

Without exaggeration, the testing robot Octopus has helped us significantly reduce the number of issues in the current projects as compared to similar projects in the past. And what is most important is that the reliability of the products has increased accordingly!

Octopus ensured that every Wizard build was able to create 10–15 specially prepared configurations for measurement equipment (which is actually the main purpose of Wizard). Such a set of configurations contained the maximum possible number of configurations that a customer might need. Checking the created configurations and comparing their parameters to the reference data, Octopus registered every inconsistence reporting it to the bug tracking system. Configuration-defining files were compared using different algorithms, which allowed finding the root cause of the problem and, consequently, facilitated bug fixing. If during the next check Octopus detected no inconsistency, it closed the bug as fixed in the bug tracking system.

Moreover, being aware of the issues to be solved in the project, we had started creating automated tests for Octopus before the product development. Problem areas required special check combinations incorporated in the test. All this allowed testing the created software with amazing promptness and efficiency. I would rather say we created a special Octopus-controlled environment that allowed us to develop the software product in the favorable conditions of exceptional safety and predictability.

The customer noted immediate improvement of the developed product quality, which in its turn contributed a lot to the company's goodwill.

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