UNIVERSITY OF MALTA
L-Università ta' Malta
Faculty of Information and Communication Technology

Request for Collaborating ICT Industry Partner

"Integrating Runtime Testing into an Agile Process"

The *Process Engineering, Security and Testing Research Lab* (PEST) focuses on innovative research both in the academic and industrial arenas. One of our main aims is the investigation of ways in which cutting edge academic techniques can be applied to industry settings. To this end, we are constantly on the lookout for industrial partners who are willing to participate in collaborations on software process engineering, systems security and software testing.

Scope of study

The activity of software testing can provide a reasonable amount of confidence in a product but can never provide any guarantees that bugs do not exist. Runtime Testing involves pushing the testing activity out into production such that the system is continuously monitored for correct functionality. This provides one with the peace of mind that if a problem does occur in production, developers will be made aware and the problem can also potentially be fixed automatically. Whilst substantial work has been done on runtime testing (also known as runtime verification) in academia, industry uptake is limited. We are currently exploring ways of integration principles and activities of runtime testing into the Agile development process and would like to work with an industry partner who sees value in the concept.

Industry Partner Profile

The ideal industry partner would be a company that (1) has adapted Agile development practices or is in the process of doing so, (2) deploys systems in which a malfunction can have expensive repercussions (3) is willing to try out new concepts on an actual product within the company.

Benefits to the Industry Partner

The industry partner involved in this particular project will benefit in a number of ways. The partner will gain an increased visibility through the specification of general properties/behaviour which their system is expected to exhibit. Secondly, the partner and any developers involved would be exposed to runtime testing concepts and tools for which training can be provided. Finally, if the case study is successful, the partner would also benefit from increased confidence and peace of mind that any deviation from expected functionality in a production system will be caught automatically and handled accordingly.

Interested?

Further information can be obtained by contacting the PEST team via e-mail at pest@um.edu.mt.

Process Engineering
Software Testing
Research Lab